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Faculty of Agriculture and Horticulture

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**Strategic Options towards Sustainable Development in  
Mountainous Regions**

**A Case Study on Zemo Svaneti, Georgia**

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Titelbild / View of Mestia

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## Foreword

The Centre for Advanced Training in Rural Development (Seminar für Ländliche Entwicklung, SLE) at the Humboldt University in Berlin has trained young professionals in the field of German and international development cooperation for more than forty years.

Consulting projects conducted on behalf of German and international cooperation organisations form part of the one-year postgraduate course. In multidisciplinary teams, young professionals carry out studies on innovative future-oriented topics, and act as consultants. Including diverse local actors in the process is of great importance here. The outputs of this “applied research” are an immediate contribution to the solving of development problems in rural areas.

Throughout the years, SLE has carried out over a hundred consulting projects in more than sixty countries, and regularly published the results in this series.

In 2006, SLE teams completed studies in Georgia, Ghana, Mozambique, and Nicaragua, all of which dealt with topics relevant to the most recent discussions in international cooperation.

The present six-month study was commissioned by and conducted in cooperation with the Centre for Training and Consultancy (CTC), Tbilisi. The research is part of the pilot phase of the CTC intervention in Zemo Svaneti financed by the German Church Development Service (EED) aiming at rural development of Zemo Svaneti.

The consultancy team was composed of one environmental scientist, one geologist, one forestry scientist, one social anthropologist, one political scientist (all participants of the 44th course of SLE), one social anthropologist and geographer (team leader) as well as one cattle breeding specialist and one forestry scientist (both Georgian counterparts).

Prof. Dr. Otto Kauffmann  
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We owe special thanks to CTC, in particular to Merab Khergiani and Nino Ratiani of the Mestia office as well as to Pavle Tvaliashvili, project coordinator for CTC Zemo Svaneti in Tbilisi. Their never-ending patience, assistance in logistical matters, and support during the field phase as well as their great humour and art of reception helped us to find our way into Svan society. Our gratitude also goes to Irina Khantadze, director of CTC, as well as to Matthias Valentin, board member of CTC, for their feedback and guidance. George “Malinki” Eliazov secured the teams’ connection with the (home)world – we would like to express our special appreciation to him.

During the preparation in Germany, we were introduced to peculiarities of Zemo Svaneti by the precious consultancy of Rolf and Brigitta Schrade as well as Jan Koehler. Theo Rauch and Kurt Peters accompanied the mission with their expertise on rural development and animal husbandry.

The list of Georgian and international organisations which supported us is too long to be displayed here in full length. We are particularly indebted to Günther Fichtner of Friedrich Ebert Foundation South Caucasus for his suggestions and feedback, to Knut Gerber of GTZ Tbilisi for his permanent help, as well as to Nina Shatberashvili of REC Caucasus for their practical support to understand the state of community development projects in mountain regions of Georgia. All other agencies and people we met can be assured our gratitude for generously sharing their project designs, strategic visions, and practical experience.

In Mestia district, we owe gratitude to the local administration for their willingness to support our study and their cooperation in the research process. We wish Vakhtang Nakani of Mestia sakrebulo, Muradi Ushkhvani, deputy gamgebeli as well as Tengo Pangani of Tsvirmi, Carl Sagliani of Tskhumari, Zhuzhuna Gurchiani of Chuberi and Zozo Gvarmiani of Nakra all the best for their communities and future work as well as to their families. Shota Chartolani in Mestia, Teimuraz Nijaradze in Ushguli, and

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The research team cooperated closely with the cattle breeding expert Rusudan Barkalaia and the forester Giorgi Gigauri who greatly contributed to the study with their dedication during the preparation phase and their expertise during research. To them as well as to Zoya Goshteliani, our host and entrance door to the joys and hardships of daily life in Zemo Svaneti goes our deepest thanks and friendship.

We would like to express our gratitude to EED in Bonn and Tbilisi for supporting CTC in financing the research. Gerlind Melsbach of EED Tbilisi helped with background information and provided valuable feedback, thus setting the base for the study and its results. Last but not least, we want to thank Gabriele Beckmann of SLE for continuous backstopping and precious comments.

## How to Read this Report

This report gathers the results of a three-month field research on economic development potentials in Zemo Svaneti, Georgia. It is directed to a broad range of readers, such as local population in Zemo Svaneti interested in getting active in development, government actors in Georgia, current development actors in Zemo Svaneti, future development actors in Zemo Svaneti, and CTC as the commissioner of this study. For all those, we want to give at hand a guideline how this report can be used. A Georgian version of this report shall be shortly available with CTC.

If **you are living in Zemo Svaneti** and interested in getting active for development in your region, this report can serve as a pool of ideas, possibly stimulating or complementing own ideas. It may also serve as an instrument for lobbying with possible donors for supporting local ideas and projects. It then makes sense to take a short look at the problems in Chapters 2.3.2 (p. 30), 2.4.3 (p. 35), 2.5.2 (p. 38), 2.7.2 (p. 43), 2.8.2 (p. 47), 2.9.2 (p. 53). They should sound quite familiar to you. So you can quickly move on to the given conclusions in Chapters 2.6 (p. 39), 2.7.4 (p. 45), 2.8.4 (p. 51), 2.9.4 (p. 56) for comprehensive recommendations; you might also have a closer look at detailed sector-related recommendations at Chapter 3 (p. 57). For donors from outside Zemo Svaneti or even Georgia, it might be also important to have a look at the baseline data which is presented in Chapters 1.23), 2.3.1 (p. 23), 2.4.1 (p. 33), 2.4.2 (p. 34), 2.5.1 (p. 37), 2.7.1 (p. 40), 2.8.1 (p. 46), 2.9.1 (p. 51) and more in detail in the Annex and on CD-Rom available with CTC in Tbilisi.

If you are a **government actor in Georgia** and are or want to get involved in development activities in Zemo Svaneti, you may benefit from the recommendations related to your respective sector (see Chapter 3.1, p. 57). For data substantiating these, have a look at Chapter 3.2 (p. 58) for agriculture, Chapter 3.8 (p. 66) for forestry, Chapter 3.9 (p. 70) for tourism, and Chapter 3.10 (p. 74) for disasters. When reckoning if to include donors in your strategy, baseline data (Chapter 1, p. 1, Chapter 2, p. 18 and Annex) is also helpful.

If you are **currently active in Zemo Svaneti**, the baseline data might help you to substantiate project proposals, and recommendations, in the strategic options (Chapter 3.12, p. 81) as well as sector-related, could complement your own ideas and give you a hint where to look for cooperating partners. Further information needed for concrete planning will be found in the Annex and on the CD-Rom available through CTC in Tbilisi or SLE in Berlin.

If you are a **development actor who thinks of getting active** in Zemo Svaneti, it makes sense first to have a look at the introduction to Zemo Svaneti (Chapter 1, p. 1). The Sub-chapters on the current situation and problems in important sectors in



Chapter 2 (p. 18) will further introduce you to Zemo Svaneti. Then, you might have own ideas or continue reading in the recommendations chapter (Chapter 3, p. 57). Further information needed, can be found in the Annex and on the CD-Rom available through CTC in Tbilisi or SLE in Berlin.

If you are part of **CTC**, you might be especially interested in recommendations in the education sector (Chapter 3.11, p. 78) and in community development (Chapter 3.15, p. 89). If you want to support economic activities through cooperation with partners, you can look at options in the sector specific recommendation chapters and in the list of training needs in the Annex. On the CD-Rom, available through CTC in Tbilisi or SLE in Berlin, you also find an article on culture and education support. For guidelines to replicate the applied methodology, you can look in the Annex and more in detail on the CD-Rom. For an overview about mentioned problems in the region, the Sub-chapters on problem in the Chapter 2, p. 18 focus on these.

The **quick reader** can find summarised main findings in the “conclusions” part of each chapter.

## Executive Summary

The **project region** Zemo Svaneti is situated in a mountainous area in the north-west of Georgia. As a result of alarming socio-economic data gathered from this isolated district, in 2005 the Tbilisi-based NGO Centre for Training and Consultancy (CTC) launched pilot activities for support to regional development. These activities included an analysis of the potentials for sustainable economic development. The results of this analysis are contained in this report.

For this study, baseline data related to economic activities were collected through household interviews and focus group discussions, supplemented by expert interviews and secondary analysis. The study focused on the main economic sectors animal husbandry, crop production, forestry, and tourism. Disasters were also evaluated since they have a considerable impact on local livelihoods. Based on these assessments, recommendations were elaborated for the development of each sector. Finally, strategic options integrating the survey's findings into overall recommendations were formulated in order to contribute to the sustainable development of Zemo Svaneti.

**Animal husbandry** represents the principal occupation for subsistence as well as for income. Cattle breeding is of prime importance, but is characterised by a low level of productivity, which is reflected in a milk and meat yield far below viable possibilities.

Improving the feeding and rearing conditions of cattle offers the best prospect. In order to achieve progress in this field, it would be important to build on locally available knowledge and experience. The already transgressed carrying capacity – too many animals for the available fodder – sets clear limits for growth in this sector unless the circumstances are improved.

**Crop and vegetable production** is mainly for subsistence, only potatoes have a major importance for the cash economy. Plots are small and agriculture is barely mechanised, therefore it is a labour-intensive sector. However, the broad knowledge regarding cultivation and the interest in optimising agricultural practices represent the main potential in that sector.

Still, it is unlikely that **agricultural products** would become a driving force for the local economy due to the unfavourable production conditions and the difficult market access.

The two major **forest** uses are firewood and commercial timber production, but a considerable part of the logged wood is cut illegally. However, the local population is aware of the importance of sustainable forest use. The marketing of traditional Non Timber Forest Products (NTFP) and handicrafts could create new income

opportunities and generate an approach to utilising the forest without overexploiting it.

Zemo Svaneti has a high potential for **tourism**, but at present this is hampered by concerns that the region is insecure and by a lack of infrastructure for access and reception. Currently, only a few households in selected communities obtain income from tourism. The region has a potential to diversify its appeal in order to attract more visitors and encourage them to stay longer.

With regard to **disasters**, Zemo Svaneti can be considered a high risk area. It is reported that incidents have increased in the past 20 years, which might be a result of human activities or due to global climate change. The main prospects for tackling these issues are envisaged in the existing community-based response schemes and in the high awareness regarding the origin and impacts of disasters.

With respect to the **overall perspective for economic development**, cattle breeding offers the best short-term potential for increased income. The other economic sectors would mainly provide for subsistence and for a small additional income, and the commercial use of forestry resources is limited to certain areas. However, in the long run, tourism is considered to have the greatest potential for substantial growth. Since the different sectors are inter-dependent, recommendations are given separately for all sectors, and then later amalgamated into comprehensive strategic options.

For **improved cattle breeding**, the fodder base has to be improved by diversification and higher rations. Improved management schemes of pastures and meadows are also essential for higher productivity. In addition, the refreshment of the blood of the local breeds and the introduction of systematic reproduction would contribute to a better exploitation of the characteristics of the local breeds.

Given the previously mentioned limitations, the objectives of interventions in **crop production** should be to optimise cultivation in order to obtain better yields with the same or less effort, thus securing food diversity. This could be achieved through improved cultivation techniques, higher quality seeds or adapted mechanisation.

In order to achieve an improved market access for **agricultural products**, the processing of existing goods and the production of low-weight high-value products should be pursued. This would also include packaging and labelling. It is also recommended that groups should be created for collective marketing and that a local market place should be established. All innovations in the agricultural sector will require careful and adapted knowledge transfer. Risk aversion leads to hesitancy towards new production schemes, thus demonstration is of utmost importance.

With regard to **forestry resources**, activities should focus on two main objectives: forest protection and economic development based on a sustainable use of the

forest. Improved wood use combined with better heating systems and more effective insulation as well as the promotion of tourism through the establishment of a protected area combine both objectives. A strengthened administration is of primary importance to more effectively control forest use. Furthermore, Non Timber Forest Products (NTFP) should be marketed in order to increase income opportunities.

For expansion of the **tourism** sector, development actors should collaborate with the national Department of Tourism in the elaboration of a strategy document for Zemo Svaneti. Sustainable tourism should be a key element in the approach in order to prevent negative side effects from tourism development. In the short term, development actors should foster broader benefit sharing by: supporting advertising to attract more tourists; encouraging capacity building to involve more households, and advocating the establishment of local information centres to freely disseminate information and facilitate access.

**Disaster** prevention and preparedness should be addressed in all possible development interventions. In the short term, development actors should focus on activities related to prevention and response, improving low input defence schemes, supporting detailed risk and vulnerability analysis and encouraging exchange visits for mutual learning. In the long term, the challenges of integrated land use planning and the establishment of a disaster risk management system, as well as adapted “Linking relief, rehabilitation and development” (LRRD) programmes should be tackled by development actors.

Support to **education**, which aims at the enhancement of knowledge and skills, is crucial in all the given sectors. This could take the form of technical training, organisational development, and awareness raising. In the sphere of formal education, teachers could be supported in implementing the educational reform.

The strategic options presented at the end of the report are designed to be part of an overall development strategy and integrate the economic, social, and ecological objectives of society.

Support to **local economic development** aims at reducing poverty by increasing incomes and ensuring benefit distribution, while at the same time promoting a sustainable use of natural resources through the use of efficient production schemes. Short-term interventions should focus on cattle breeding and in the long term prepare the way for the development of tourism. Activities should broadly support product development, diversifying the goods produced in the region based on market analysis. Improved marketing should optimally build upon local marketing networks and production know-how.

**Community development** should foster cooperation between administration, civil society, and citizens. Its objectives include support to local economic development,

trust building between the State and its citizens, a strengthened democracy, and it should help to overcome the widespread attitude of resignation. The first steps necessary for community development in Zemo Svaneti comprise advocacy on all levels and training for the administrative sector and civil society. The planning process itself should produce tangible results within a reasonable timeframe and be accompanied by capacity building.

Finally, but equally important, **integrated land use planning** links environment, community, and economy and ensures the sustainability of resources. The objective is to balance land uses and land users' interests taking into account the limitations of the ecosystem. In the short term, it is necessary to increase awareness of the need for integrated land use planning, initiate a debate at different levels of society and create ownership within the population and the administrative sector. Constructive dialogue with the local administration is an appropriate first step for initiating the process. The establishment of a communication platform is a consecutive step to facilitate area planning and the development of land utilisation plans within the existing legal framework. This process concludes with the systematisation of land uses through the adoption of regional planning procedures and land utilisation plans.

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## Abbreviations

- BC before Christ
- CBO Community-based organisation(s)
- CIPPD Caucasus Institute for Peace, Democracy and Development
- CSDC Civil Society Development Centre Counterpart
- CSO Civil Society Organisation
- CTC Centre for Training and Consultancy
- DEA Association of Disabled Women and Mothers of Disabled Children
- DRM Disaster Risk Management
- EED Evangelischer Entwicklungsdienst (Church Development Service – An Association of the Protestant Churches in Germany)
- EFDS European Forum for Democracy and Solidarity
- EI Expert interviews
- FG Focus groups
- GMF Georgian Mountain Federation
- GTZ Deutsche Gesellschaft für technische Zusammenarbeit (German Agency for Technical Cooperation)
- HH household interviews
- HBS Heinrich-Böll-Stiftung
- IDEA International Institute for Democracy and Electoral Assistance
- IDP Internally displaced person(s)
- KAS Konrad-Adenauer-Stiftung
- LRRD Linking Relief, Rehabilitation and Development
- MDG Millennium Development Goals
- MoE Ministry of Environment Protection and Nature Resources of Georgia
- NGO Non Governmental Organisation
- NTFP Non Timber Forest Product(s)
- OECD Organisation for Economic Cooperation and Development
- Pers. comm. personal communication
- RESDP (Samegrelo-Zemo Svaneti) Regional Economic and Social Development Plan
- SDC Swiss Development Cooperation

- UN United Nations
- UNDAC United Nations Disaster Assessment and Coordination Team
- UNESCO United Nations Educational, Scientific and Cultural Organisation
- UN-OCHA United Nations – Office for the Coordination of Humanitarian Affairs
- USSR Union of Soviet Socialist Republics
- WFP World Food Program
- WWF World Wildlife Fund for Nature

# 1 Introduction

Georgia has, like many other countries, committed itself to the United Nations Millennium Development Goals (MDGs) aiming at the improvement of living conditions in a broad, participatory development process leading to better prospects for all sectors of the population. The elaboration of local or regional development plans based on strategic visions and embedded in the overall political and economic processes of the country is one contribution to attaining the MDGs.

Given alarming socio-economic data from the isolated, mountainous district of Zemo Svaneti<sup>1</sup> in 2005, the Tbilisi-based NGO Centre for Training and Consultancy (CTC) launched pilot activities to support regional development. This pilot phase was to include, among other activities, an analysis of the potentials for sustainable economic development. This report describes the data collected during this analysis, and based on this information puts forward recommendations to all levels of potential development actors from local civil society organisations, administrative structures and national as well as international agencies. It is an indication that development planning is again possible in the region: following the “Rose Revolution”, Zemo Svaneti has undergone a transformation bringing an end to the state of insecurity for which it had gained a notorious reputation in the aftermath of the civil war. This fact should encourage agencies and investors to plan for long-term involvement in the region.

This first chapter (Chapter 1.1, p. 1) presents in the opening paragraphs, a brief overview of recent political processes in Georgia and of the broader development vision of the Government. In the second part (Chapter 1.2, p.3), it provides an introduction to the specific region of Zemo Svaneti covering ecological, historical, economic and socio-cultural aspects which are considered to be important for development planning. In the last part of the document, the objectives of the research and some key definitions are elaborated.

## 1.1 Introduction to Georgia

Georgia is located in the South Caucasus bordering Russia, Azerbaijan, Armenia, Turkey, and the Black Sea. The country declared its independence in 1991 following the dissolution of the USSR. Previously, it had been one of the most prosperous

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<sup>1</sup> Zemo Svaneti is Georgian for “Upper Svaneti” which includes the valleys along the upper Inguri river starting from the Inguri hydroelectric station to its source at the foot of Mount Shkhara in the Great Caucasus range.

republics of the Soviet Union, supplying the USSR with agricultural products such as wine and fruits, and with industrial products, as well as providing a major tourist destination. Mountainous regions like Zemo Svaneti were provided comprehensive service systems and financial support, such as a higher salary level than in the lowlands. Tourism played a major role in sustaining incomes in Georgia and Zemo Svaneti was a leading centre for mountaineering. Since 1991, infrastructure, service systems and employment have markedly deteriorated, leaving remote regions in a particularly disadvantaged situation.

The clearly fraudulent parliamentary elections in November 2003 led to peaceful mass protests and to the resignation of President Shevardnadze, known as Rose Revolution (MANUTSCHARJAN 2003, EFDS 2005). This event stirred hopes for further democratisation which have only partly been fulfilled, e.g. in the area of combatting corruption.

After the breakdown of the Soviet Union, Abkhazia and South Ossetia strove for independence<sup>2</sup>, resulting in war in 1992 and 1993. Ceasefires have been signed since then, but the two regions can be considered as de facto independent, though not recognised by the international community. These conflicts have affected the political reform process, since the Government of Mikheil Saakashvili has declared that it will continue the democratisation process only after having restored Georgian unity (HBS 2005: 2).

A component of the political reform is the decentralisation process. Based on a law of 2001, the administration of the country has been organised on four levels: national level, regional level (in the case of this study, Samegrelo-Zemo Svaneti, with the capital of Zugdidi), district level (Zemo Svaneti which is equivalent to Mestia district) and below this communities (such as Mestia, Chuberi or Ushguli) (IDEA/CIPPD 2005). A new “Organic Law on Local Self-Government” was adopted in December 2005, abolishing the lowest level of government, i.e. the community level.<sup>3</sup> Some issues remain unclear, especially those related to fiscal decentralisation such as the provisions foreseen for local budgets. Consequently, one of the central problems of the current legislation remains unresolved – the small local budgets and a lack of certainty for planning purposes due to the fact that local budgets depend on the goodwill of central levels. The budget foreseen for local government has been reduced by 60 percent from 200 million Georgian Lari (GEL) to 70 million (IDEA/

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<sup>2</sup> As did Ajara under Governor Aslan Abashidze; the region was reintegrated after the Rose Revolution.

<sup>3</sup> However, the implementation of this reform has apparently been delayed, so at present communities are still functioning. Knowledge of the ongoing process is essential when working in Zemo Svaneti.



CIPPD, EI 14). The mountainous regions will be particularly affected by the reform process and it will create new challenges. Services will become less accessible, e.g. pensions will only be paid in Mestia.<sup>4</sup> The reform is to be implemented quickly but so far no appropriate training has been organised for the concerned civil servants.

**Selected Millennium Development Goals (MDGs) in Georgia**

MDG 1: Eradicate extreme poverty

MDG 2: Ensure coherence of Georgian Educational Systems with educational systems of developed countries through improved quality and institutional set-up

MDG 7: Ensure environmental sustainability

**Figure 1: Selected Millennium Development Goals (MDGs).**

Source: (UN 2004)

With regard to the United Nations Millennium Development Goals (MDGs), the situation in Georgia is still of concern. Reaching them is seen as a possibility (but not probable) in all areas except for eradicating poverty (MDG 1) and environmental sustainability (MDG 7) where it is considered unlikely (UN 2005). The study presented here collected baseline data on livelihood systems and analysed economic potentials with a focus on animal husbandry, crop production, forestry and tourism as the main income-generating activities in Zemo Svaneti. Thus, it focuses mainly on MDG 1. Activities that may be implemented on the basis of the recommendations formulated in this study could contribute to increasing the incomes and assuring the food production of people living in Zemo Svaneti, thereby fighting poverty and promoting food security. Other aspects addressed encompass disasters and their prevention and the sustainability of natural resource use (especially of forests), and are therefore linked to MDG 7. Another topic which is of particular interest to the project's commissioner, is education (MDG 2), especially with regard to the betterment of teachers' qualifications and vocational training.

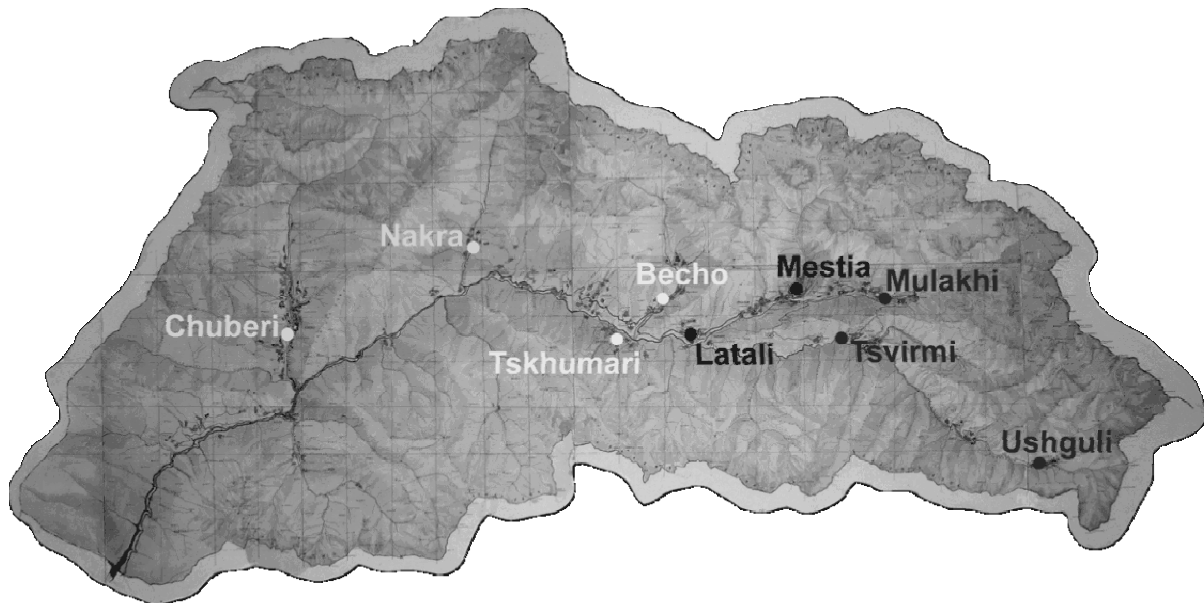
## 1.2 Introduction to Zemo Svaneti

This chapter provides a general introduction to Zemo Svaneti (see Figure 2) and its characteristics. It will also present the main features influencing socio-economic development. This information is based on literature review, expert interviews and on the results obtained from the field research.

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<sup>4</sup> Closed roads in the winter and long journeys would prevent the elderly from the more remote villages from receiving their benefits (EI 14).

Zemo Svaneti is situated in the north-western part of Georgia, bordering Abkhazia, Russia, and the inner-Georgian districts of Kvemo Svaneti and Samegrelo with which it forms the region of Samegrelo-Zemo Svaneti. The district capital is Mestia, 140 km from Zugdidi (which is the regional centre) and 540 km from Tbilisi. Zemo Svaneti has a population of approximately 14,000 persons distributed in 16 communities<sup>5</sup>. The region is also hosting internally displaced persons (IDPs) (N.N. 2006a: 1, GMF 2005: 13).<sup>6</sup> It is one of the highest inhabited areas of Europe, with altitudes between 700 and 2,200 metres above sea level. Settlements are surrounded by mountains of up to 5,000 metres. The mountain passes to Russia are closed, leaving only two roads to access the region, one from Zugdidi via Khaishi and one from Lentekhi, Kvemo Svaneti, via Ushguli, though the latter is closed during winter months.



**Figure 2: Map of Zemo Svaneti.**

... including the communities where this study was conducted (History Museum, Mestia).

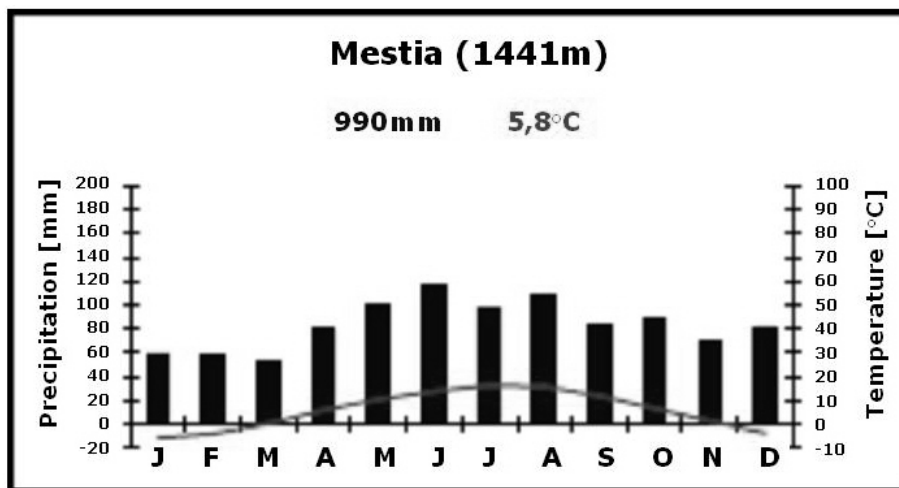
<sup>5</sup> Communities of Mestia district (from west to east): Khaishi, Chuberi, Nakra, Lakhamula, Pari, Etseri, Becho, Tskhumari, Latali, Lenjeri, Mestia, Mulakhi, Tsvirmi, Ipari, Kala, Ushguli.

<sup>6</sup> The numbers given vary between 943 (FG 8) and approximately 3,000 (RESDP 2006: 1). About one third live in Mestia. There are similar discrepancies regarding the total number of Zemo Svaneti inhabitants, ranging from 13,399 (GMF 2005: 20) to 14,248 (RESDP 2006: 1).

### 1.2.1 Ecology

The total area of Zemo Svaneti is 3,045 square kilometres. Out of the whole territory, 6.7 percent<sup>7</sup> is agricultural land of which 7 percent is arable land (1,209 ha), 9 percent meadows (1,858 ha) and 84 percent pastures (16,714 ha) (AGRICULTURAL DEPARTMENT OF MESTIA 2006). In 2005, forests covered 41.4 percent (126,954 ha) of the territory (MINISTRY OF ENVIRONMENT PROTECTION AND NATURAL RESOURCES OF GEORGIA 2006).

Due to the variations in altitude, the area comprises a wide range of ecological zones: Colchis-type flora zone at an altitude of 400-1,800 metres, sub-alpine zone at 1,800-2,400 metres, alpine zone at 2,100-3,000 metres and glacial zone above 3,000 metres<sup>8</sup>. The climate is influenced by the proximity to the Black Sea, thus precipitation is quite high, with precipitation throughout the year (1,000-3,200 mm; for Mestia, compare Figure 3) and the region is spared from the extremely cold winter temperatures otherwise characteristic of high mountain regions (GMF 2005).



**Figure 3: Annual precipitation and temperature in Mestia.**

Average precipitation distribution throughout the year in mm is shown in columns; the temperature throughout the year in °C is indicated with a line. Source: Schäfer 2003, p. 76

Forests often remain in an old-growth state, providing shelter for rare, endemic plants<sup>9</sup> and wild animals as well as protection against disasters.

<sup>7</sup> Approximately 20,400 ha. These figures are from the Agricultural Department of Mestia, 2006. Other sources cite a much higher figure for total agricultural land, e.g. N.N. 2006a: 3: 101,100 ha and GMF 2005: 9: 94,092 ha, indicating that over one third of the total area constituted agricultural land.

<sup>8</sup> For a detailed description of the typical flora and fauna of the different zones (see Annex 6.2 (p. 103)).

<sup>9</sup> In the whole of Georgia, approximately 13,000 plant species can be found of which some 380 are endemic to Georgia (PRICE 2000).

The region is reputed to be rich in minerals and ores which have been exploited since antiquity.<sup>10</sup> Quarries and mines are currently not exploited except for local requirements for construction material, presumably due to the high utilisation and transport costs which make the raw material uncompetitive on the world market. There are also numerous mineral water springs in all the valleys of Zemo Svaneti.

It is asserted that climate change has become evident since the middle of the 1980s<sup>11</sup> and is partly attributed to the Inguri hydroelectric power station (FG 14). There are revived plans to build a second dam on the Inguri, the Khudoni dam.<sup>12</sup> Feasibility studies regarding such an initiative are to be carried out by the World Bank and will begin in January 2007, probably taking 12 to 14 months to complete (pers. comm.). The Khudoni dam could have major positive and negative impacts on the region in terms of its economy and environment.<sup>13</sup>

### 1.2.2 Migration

Out-migration<sup>14</sup> has a major impact on all economic activities and life in general in Zemo Svaneti. It can be considered an overall consequence of difficult living conditions. People leave due to unemployment, disasters (FG 5, HH), and a lack of recreational facilities (FG 9). Young people studying in Tbilisi often do not want to return to the area except for summer holidays (FG 9, pers. comm., HH). An immediate consequence of migration is a lack of work force in the agricultural sector particularly in the higher and more remote communities of Zemo Svaneti: Mulakhi, Ipari, Kala and Ushguli. In these localities there are deserted houses and neighbourhoods, and during the hay-making season meadows are not scythed.

However, out-migration does also have some positive aspects. People who leave the region maintain strong family relations. They often receive part of the harvest and animal products, and in turn help family members to purchase certain products from outside Zemo Svaneti (HH). These transfers apparently constitute an important

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<sup>10</sup> The study did not explore mineral resources. Information regarding deposits was researched during the Soviet period and should be available with the Department of Geology and Mining in Tbilisi.

<sup>11</sup> Respondents in the household interviews frequently mentioned that climate change became evident following the Chernobyl disaster in 1986.

<sup>12</sup> During the study, this issue did not appear to be a major issue in Zemo Svaneti, opinions ranged from support for the plan (due to budget revenues), to opposition (since it was felt that it could aggravate climate change) (FG 8, 14, EI 28, pers. comm.).

<sup>13</sup> For more detailed information, see Annex 6.11 (p. 149).

<sup>14</sup> Zemo Svaneti has also seen an inflow of civil war refugees from neighbouring Abkhazia (approximately 1,000 persons, a third of them living in Mestia). The ones, who stayed in the region, are commonly Svans who had left the area after being affected by disasters. Therefore, they are generally integrated into local society, but they are also vulnerable to fresh disasters since many moved back into their old houses.

feature in the Svan economy. While the state has largely withdrawn from sustaining remote regions, family transfers become important in supporting regions that cannot survive on their own. When residents leave the area, land is usually leased to neighbours or relatives or is left fallow without giving potential users the right to access it. This fact sometimes becomes a cause for conflict (EI 36), but it can also help families with scarce land to increase their resources for production (see Chapter 2.2, p. 21).

Despite the fact that people often find themselves forced to leave, they also list reasons for staying in Zemo Svaneti: a strong love for the region and its traditions (FG 10, 9, 5) is mentioned, as is the agreeable natural environment and the good air, or even the lack of job opportunities for Svans, for example, in Tbilisi (FG 17).

### 1.2.3 Infrastructure and Institutional Environment

Poor infrastructure is seen as a major obstacle to development, negatively affecting all economic sectors. This holds especially true for the bad conditions of roads (see Figure 4), main roads (maintained by the government of Samegrelo-Zemo Svaneti) as well as local roads (maintained by the Mestia district government) (EI 28).

The budget allotted for the maintenance of main roads is insufficient for the necessary fundamental repairs (HH, FG 20, EI 28). This results in whole communities being cut off during the winter months. Furthermore, in winter there are either no tractors to clean the local roads from snow or these tractors do not have sufficient fuel to operate (HH, FG 18).

Moreover, disasters such as landslides, inundations, and avalanches further damage the existing roads and bridges. But poor road construction and planning can also give rise to such disasters. Local communities are cut off from their natural resources such as meadows, pastures, and forests, due to damaged local roads. This problem was identified as a cause of reduced productivity or as an obstacle to growth (HH, FG 16). The resources available for road repairs or improvement – often undertaken following disasters through cooperation between the national government and international agencies – are usually limited and cover only the most urgent and often not very sustainable initiatives (observation).

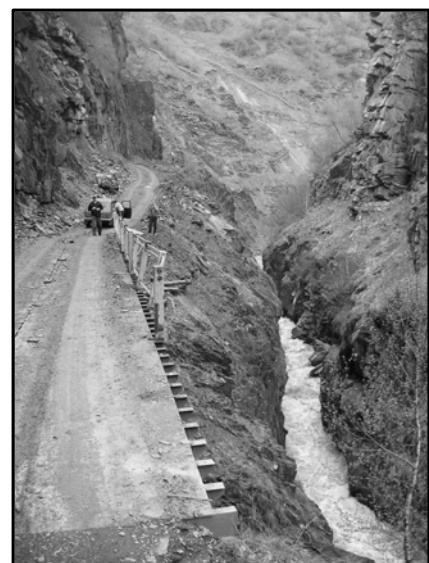


Figure 4: Deteriorated roads

Besides infrastructure, the institutional context has a major impact on development. Some services, which were present in the Soviet period, are nowadays virtually inexistent or remain insufficient (e.g. agricultural extension services) (HH). Two aspects are highlighted here due to their apparent significance for the local population: the availability of credits and the education system.<sup>15</sup>

There is little possibility for receiving credits for investment. Lack of available credit hinders investment in agriculture, tourism or trade and results in people selling their products when they need money, often during periods when prices are low (HH).<sup>16</sup> In order to establish a fully functioning bank with all its services, security is the main precondition. The branch of the Georgian People's Bank in Mestia limits its services to disbursing state salaries and pensions as well as six-month advances on these payments. Credits are not available through regular bank services as the bank has no facilities to receive and store money in a safe way (EI 44). For a few individual members of a micro credit union, credits are available on a separate basis.

Education is seen as the most important public service people use (HH, FG 17). The central villages of the respective communities are usually equipped with schools up to the 11<sup>th</sup> grade and kindergartens, while these may be hard to reach for children living in the more remote villages<sup>17</sup> (HH). Class size is very small, thus the effort to maintain structures is high (HH).

The quality of education was mentioned as the weakness of the educational system: the virtual absence of foreign language classes or the low professional level of teachers in general were given as reasons for being disadvantaged in accessing higher education (FG 17, HH). The ongoing education reform is taking a long time to reach Zemo Svaneti but teacher training has begun (observation, August 2006; HH). Two schools in Mestia and Chuberi have been selected as pilot schools for implementing the educational reform, and computers have been installed and new schoolbooks introduced (pers. comm.).

#### **1.2.4 Socio-Cultural Aspects**

Zemo Svaneti has a pronounced cultural heritage and strong traditions which constitute a source of pride for many Svans (FG 12, FG 10, FG 9, FG 14, FG 17,

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<sup>15</sup> These two aspects were mentioned in various interviews and focus group discussions as well as during informal talks. For more institutional and infrastructure aspects such as administration, health, electricity, water systems, and public transport, see CD-Rom, available upon request.

<sup>16</sup> For example, potatoes before the winter, when families need to buy supplies for the winter (see Chapters 2.4, p. 33 and 2.5, p. 37).

<sup>17</sup> For example in Labskaldi/ Tskhumari, Eli/ Tsvirmi, Mazeri/ Becho.

HH). These socio-cultural factors strongly influence local economic development processes and options. The upper part of Zemo Svaneti was never fully subdued by external rulers and the area lacked a central authority to oversee the heads of (extended) families, and village and community councils until the Soviet Union took over. The distinctive defence structures of the Svan, the tower houses,<sup>18</sup> are the architectural expression of such a segmented society.



**Figure 5: Women in Tsvirmi.**

Svans inherit land and property from father to sons (KOEHLER 2000) (see Chapter 2.2, p. 21).<sup>19</sup> Old age is venerated, and family elders are respected authorities. The “head of the family” is male, even if he is not the oldest living person of the family.<sup>20</sup> Gender-specific roles become apparent at many formalised social events such as reception of guests, weddings or funerals. They are most evident in the distribution of the workload between women and men. Most household and educational work, responsibilities for dairy cows and milk processing, work in the fields and gardens, and often also employment rest with the women (see Chapter 2.1.3).<sup>21</sup> (Daily and yearly calendars) Only labour demanding long absence from the house and heavy physical force are reserved for men, such as scything, ploughing, and felling of trees. Some agricultural labour is done together, such as harvesting potatoes and the

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<sup>18</sup> Some areas of Zemo Svaneti i.e. Murkhmeli in Ushguli, are part of the UNESCO World Heritage. Therefore, the state and some organisations are active in maintaining the culture heritage of these communities. (FG 12, HH, EI 3)

<sup>19</sup> Patrilineal system. The heritage and origin is defined through the male person. Women marry into other lineages and leave house and land. That often puts them in a position to mediate informally between families when disputes arise.

<sup>20</sup> “Or so he thinks” – the official representation of men as the heads of families is not always consistent with actual power relations within the households and families (pers. comm.).

<sup>21</sup> Women are aware of this triple burden and often highlight the fact that they do more work than the men.

collecting of hay. A dominance of men in representative positions can be noted even though women are legally and socially free to apply for the same posts as men.<sup>22</sup> Women appear to be more active in the educational sphere and are said to be a thriving force for development and change. (FG 6, 7, 4, 10, 15)

The social structure rests on the nucleus family and to a lesser extent on kinship and neighbourhood. These structures are considerably more important than the administrative “community” and this has an impact on social and economic cooperation. On the one hand, people prefer to interact with family members or neighbours. For instance, neighbours rent a car together to sell their cheese in Zugdidi, or a relative stays with the cattle on the highland summer pastures for milk production. The same holds true for cooperation in social events such as funerals and weddings. Within these networks, one finds a strong social coherence, including the exercise of social pressure.

On the other hand, the pronounced clan structures and the Soviet experience with compulsory cooperative structures might be at the origin of a reluctance to work in cooperative structures beyond the social entities mentioned above. This disinclination is driven by mistrust and high scepticism towards economic cooperation especially when crossing family borders. In combination with widespread risk aversion based on limited economic reserves, this hinders joint, community-based projects and cooperative investment.<sup>23</sup> Pro-active people ready to develop ideas and start implementing them with their own means seem to be rare. In general, people dream of being provided with services as during the Soviet period when remote regions were favoured (HH, FG 3, FG 11).

Unemployment and the lack of recreational facilities as well as a certain “demoralisation” of parts of the young male population has led to an increase in drug abuse with a peak in winter (pers. comm., HH) – with sometimes deadly consequences.<sup>24</sup> Elders complain that this “decline of discipline” has also led to the decreased authority of the traditional structure and thus the dysfunction of the local security system (FG 3, HH, EI 2). Even though alcohol is a culturally accepted drug, the consequences of the widespread abuse of often home distilled “Arakh” among men include liver diseases and acts of violence (Min 3, Min 5).

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<sup>22</sup> The same applies to participation of women e.g. in focus group discussions. They feel free to express themselves, but are not always considered of equal standing by men present in the discussion.

<sup>23</sup> For risk aversion, compare the Chapter 2.1, p. 18.

<sup>24</sup> Here the reference is to “hard” drugs such as heroin and chemical drugs.



However, traditional authority has largely maintained its importance until today and is personified in the acknowledged and powerful institution of “mediators” (FG 3).<sup>25</sup> This traditional conflict resolution practice – where not in contradiction with state legislation – was used under Soviet law in the past and is still applied under Georgian law.<sup>26</sup>

### 1.2.5 Activities of International Organisations

Programmes focusing on Zemo Svaneti represent a minority of the overall activities conducted by international organisations in the region.

Agencies include the district in their Samegrelo-Zemo Svaneti development projects with only small support offices or key partners to reduce running and implementation costs. One consequence is that the specific conditions of the high mountain region are subordinated to overall project goals usually designed for application to the predominant conditions. This is not due to a lack of knowledge but reflects project logic and the demographic importance of the district: total population of 14,000 inhabitants in comparison to 413,000 for the whole region.<sup>27</sup>

As a consequence of security concerns, support to development activities for Zemo Svaneti on a larger scale only began in 2004. Prior to this, activities were mainly restricted to humanitarian interventions following disasters and LRRD projects focusing on infrastructure maintenance and rehabilitation (Min 1, 6). Since 2004, projects supporting the agricultural, tourism and trade sectors have been implemented on a pilot scale.

A list of organisations formerly or recently engaged in the district can be found in Annex 6.10, p. 139<sup>28</sup>. Additionally, information about the Centre for Training and Consultancy (CTC), the NGO which commissioned this study, and its activities in Zemo Svaneti, can be found in the CD-Rom, available upon request.

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<sup>25</sup> Compare the upcoming Organisation for Security and Co-operation in Europe (OSCE) study.

<sup>26</sup> To what extent cannot be specified in this study, but the effect may be negligible (EI 6). During the Soviet period, the state – not being subject to democratisation processes – accepted traditional mechanisms and provided the framework in which these could function. For example, this included a 21-year prison sentence as a possible punishment in blood feuds. (EI 2)

<sup>27</sup> Numbers in GMF 2005 and N.N. 2006a and 2006b.

<sup>28</sup> This very concise overview is mainly based on interviews conducted between 24 July and 4 August 2006. The authors of this report recognise that this list does not cover all agencies working in Zemo Svaneti and apologise to the organisations which have been omitted. See Annex 6.10, p. 139 for a list of meetings. A CD-Rom containing data relevant to this report is available with CTC and SLE upon request as are copies of the Minutes of all pertinent meetings.

## 1.3 Background of the Study

### 1.3.1 Rationale and Objectives of the Project

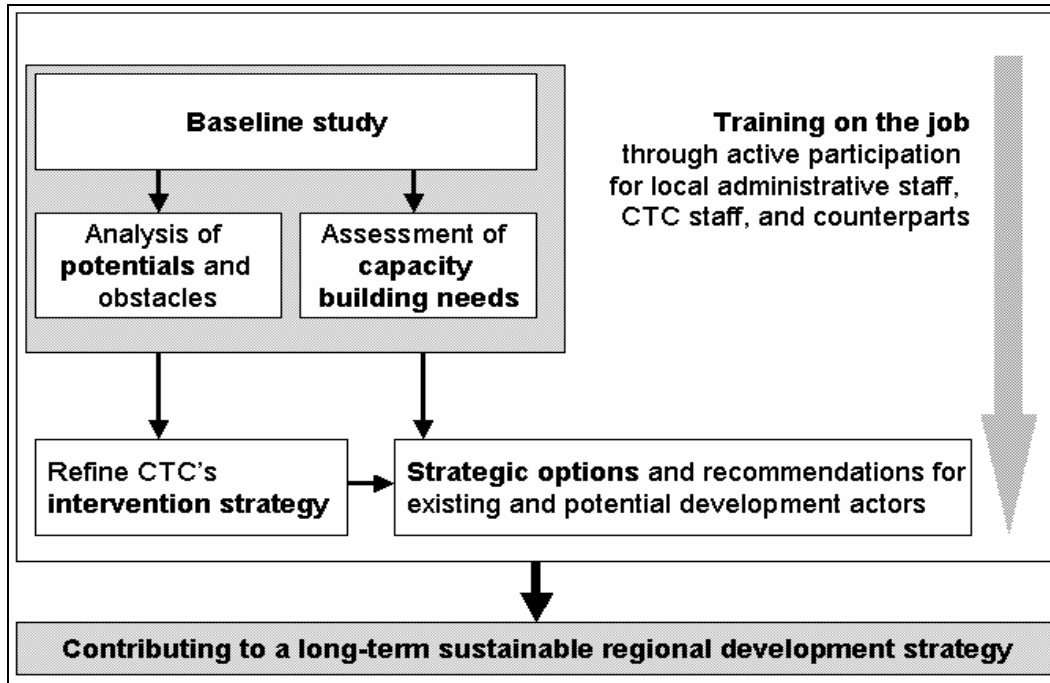


Figure 6: Rationale and concept of the study.

Indications of a deteriorating social and economic situation on the one hand and the recognised potential of the region and its people on the other prompted the CTC's intervention in Zemo Svaneti (CTC, SLE 2006: 1). During a first orientation phase, a resource centre was established and initial meetings with different stakeholders were organised. It was decided that two studies, one on traditional conflict resolution and one on the status quo of the economy and the development potentials of Zemo Svaneti should be conducted in order to gather comprehensive information relevant for all development actors and to sharpen CTC's intervention (EI 15, CTC/ SLE 2006: 2).

The stakeholders involved in this study (CTC, SLE and EED) agreed on a target system aiming at the development of strategic options based on a potential analysis, a needs assessment for capacity building and training on-the-job components (see Figure 6 for an overview).<sup>29</sup> The outcomes of this report will contribute to a long-term regional strategy for sustainable development and address various potential beneficiaries such as CTC, other development actors already active or

<sup>29</sup> For the goal system see Figure 8 Figure 8: Methods of research. and Figure 17 in Annex 6.1, p. 100.

willing to become active in Zemo Svaneti, Civil Society Organisations, and the local and central administration.

### **1.3.2 Defining Potential Analysis**

A potential analysis based on a review of baseline data is the key to providing practical and realistic recommendations for development. Such an analysis consists in identifying the natural resource potential, including the ecological carrying capacity, assessing human and social capital and the demand potential for local products, as well as considering institutional support potential (Rauch 2005).

This study perceives potentials as strengths, capacities and resources of individuals, groups of people, communities, and regional systems which can be utilised for sustainable development. It is also important to consider the willingness of these players to cooperate in future implementation and to take into account that the perception of potentials by the above-mentioned stakeholders differs according to a variety of factors.

### **1.3.3 Defining Strategic Options for Sustainable Development**

The identified potentials will be further discussed and recommendations will be determined in the strategic options in the third part of this study. What is the essence of strategic options for sustainable development?

The Organisation for Economic Co-operation and Development (OECD) defines strategies for sustainable development as follows:

“A co-ordinated set of participatory and continuously improving process of analysis, debate, capacity-strengthening, planning and investment, which integrates the economic, social and environmental objectives of society, seeking trade offs where this is not possible” (OECD 2001: 8).

Using this definition, only parts of strategy development can be covered by the present SLE study. The baseline survey contributes to a participatory analysis, initiates and fosters debates and partly strengthens capacities in the environmental, economic, and social spheres. Improving planning and investment, coordinating project interventions and seeking trade offs are far beyond the sphere of this assessment. The analysed potentials and given recommendations should therefore be seen as strategic options rather than as a regional strategy for sustainable development. These options are meant to be used in future development processes. The clearly stated criteria for the prioritisation of recommendations (see Chapter 3.1, p. 57) will ensure that the strategic options could serve as a basis for further

discussion between relevant stakeholders according to their needs, opportunities and programmatic visions.

## **1.4 Methodology**

This chapter briefly presents the methodology applied in the study.<sup>30</sup> The methodology followed a design for applied research and responds rather to the needs and conditions of the work of development organisations than to the standards of basic scientific research. Appropriate, simple, efficient, and inexpensive methods as developed for RRA/PRA<sup>31</sup> were selected to gather relevant information. The work was carried out in a manner which facilitated the transfer of methods to counterparts and their replication by trained partners in other contexts.

The present weak statistical data base renders an analysis of the current situation as well as planning processes based on hard facts difficult. This study had neither the scope nor the resources to fill these gaps. A broad range of sources of information were selected in an attempt to counterbalance the weakness of the data base through triangulation of information.

The team used a mix of methods in order to ensure, as far as possible, the inclusion of different views and aspects in the complex task of elaborating strategic options for socio-economic development of a region. Every effort was made to ensure that these methods focused on local views and knowledge, and took local requirements and capacities into consideration.

### **1.4.1 Ownership and Capacity Building**

Regular workshops were held with local decision makers in order to inform them about the objectives, progress, and results of the study and to be able to create ownership of the results. Furthermore, the research team collaborated closely with community representatives and local people of authority during the research and analysis phase. Through participation in this study, local decision makers, key informants and randomly selected people were invited and requested to share their knowledge, ideas, and visions with the research team.

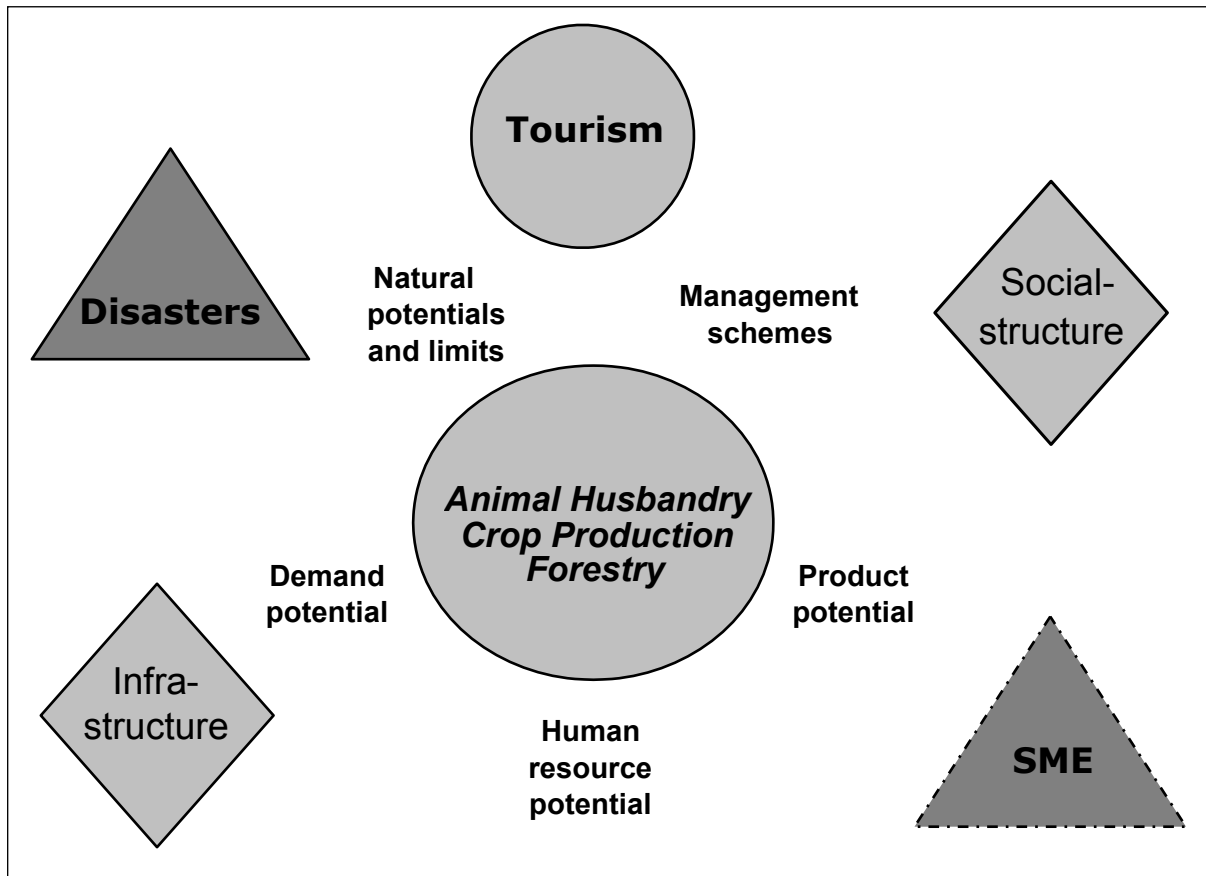
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<sup>30</sup> A more in-depth description can be found in the CD-Rom available with CTC or SLE upon request.

<sup>31</sup> RRA/PRA stands for Rapid/Participatory Rural Appraisal. For detailed focus group sheets and background documents relating to the methods described in the text, see CD-Rom.

### 1.4.2 Sector Focus

The analysis focuses on the main sectors of the regional economy: animal husbandry, crop production and forestry. In addition, tourism was included. Prevailing framework conditions, such as the existing infrastructure and social structure, are taken into consideration, with regard to their influences on production and marketing schemes (see Figure 7).



**Figure 7: Analysing the main economic sectors.**

Sectors are depicted in circles, framework conditions with a major influence on development activities are depicted diamond-shaped, and issues of multi-sectoral impact are illustrated with triangles.

Animal husbandry, crop production and forestry were analysed examining the existing management schemes. Products for subsistence or marketing and their potentials were studied taking into account natural preconditions, existing human resources and demand. In addition, they were studied for their possible links to the development of small and medium-sized enterprises (SME), and of tourism (Figure 7). Due to the impact of natural risks on all economic sectors, disasters were dealt with as a cross-cutting theme.

Tourism is widely seen as having the greatest growth potential. Since various potential assessments and development ideas for tourism in Zemo Svaneti have

been elaborated over the past two years (GMF study, FES booklet), the analysis focuses on organisational options to ensure community benefit, the added benefit of tourism through links to other economic sectors and on subsidiary aspects of tourism such as the possible positive feedback affecting nature and culture conservation (see Figure 7 ).

### **1.4.3 Sampling**

Given the large basic entity and the scarcity of resources, a “total survey” or census of households was beyond the means of the research. A sample had to be drawn to allow general conclusions based on selective and limited data collection. This was effected according to socio-economic clusters during a discussion with representatives of all the communities and of the district. All sectors have mixed economies, but there is a certain predominance or importance of a specific activity in each cluster: 1) lower situated communities with an important forestry sector, 2) communities with mixed economy and a reasonably developed crop production sector, 3) central communities situated at a middle level altitude concentrating on public services but with limited access to land, and 4) communities with an important animal husbandry activity.<sup>32</sup> In every cluster, two communities were included in the research, thus 50 percent of the communities.<sup>33</sup>

### **1.4.4 Qualitative and Quantitative Data**

In order to respond to the needs of the study and to optimally use the available sources of information, quantitative and qualitative data were collected.

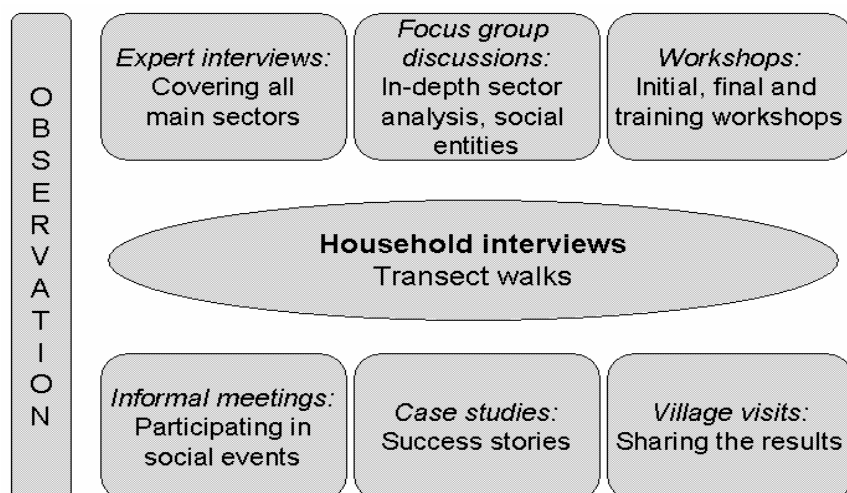
The quantitative data collected has mainly been used to evaluate the importance of sectors and differences between the clusters. It also provides an approximation for the use of certain resources such as hay or firewood. The qualitative data gathered, more exacting to analyse and more liable to interpretation by the researchers, encompassed 48 viewpoints and different ideas on regional development. The research phase began with interviews of relevant stakeholders such as representatives of state administration, local scientists or representatives of international organisations either working in Zemo Svaneti or working in a sphere

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<sup>32</sup> For an overview of the selected communities and villages where household interviews took place see Annex 6.1, p. 100. For a geographical overview, compare also Annex 6.12, p. 151.

<sup>33</sup> Ushguli, Tsvirmi, Mulakhi, Mestia, Latali, Tskhumari, Becho, Nakra, Chuberi.

potentially relevant to the development of that region.<sup>34</sup> Household interviews combined with transect walks, focus group discussions and observations in the communities were the central activities of the field phase. An overview of the methods applied is given in Figure 8. For further information regarding household interviews and focus group discussions details are given in Annex 6.1, p. 100.



**Figure 8: Methods of research.**

### 1.4.5 Market Analysis

The exploratory market analysis was conducted in the principal markets for Svan products in Zugdidi, Kutaisi and Tbilisi in order to complete the appraisal of the product and demand potential assessed in Zemo Svaneti. This analysis provided information on sales channels and the structure of markets and led to a better understanding of the opportunities and obstacles linked to the marketing of products. In addition, a visit was made to the “Goodwill” supermarket in Tbilisi, which has a section for organic products, to get an idea of the importance of organic products, a potential niche market for Svan products.

<sup>34</sup> See Annex 6.10, p. 139 for a list of interviews conducted. Minutes of meetings are available on a data CD-Rom upon request from CTC and SLE.

## 2 Results

The subsequent chapters present comprehensively the livelihoods in Zemo Svaneti, followed by the principal results of the study for the analysed sectors. Each chapter first describes the status quo also highlighting the main problems of the respective sector and then accents the potentials and constraints for improvement.

### 2.1 Livelihoods in Zemo Svaneti

Since their surroundings are characterised by high mountain terrain remote from district centres and hence living conditions are harsh, people in Zemo Svaneti have developed specific strategies for survival. This chapter seeks to give the reader some insights into these schemes, focusing on characteristics of household economy and workloads related to gender aspects.

#### 2.1.1 General Remarks

Zemo Svaneti encompasses sub-regions of different natural conditions, population density and thus predominant economic sectors. The economy is mainly based on subsistence agricultural production with some surplus cash products marketed at lowland markets. The relevant economic sectors are animal husbandry, crop production and, mainly in the lower parts of the region, forestry. An additional, though very modest, income is derived through involvement in tourism. Most people are small-scale farmers, estimated to constitute 99 percent of the local population (N.N. 2006a: 3). Only a few small and medium-sized enterprises (SME) exist.<sup>35</sup> 212 enterprises are registered, out of which 80 could be classified as individual entrepreneurs and 21 as limited liability companies, mainly active in timber production (N.N. 2006a: 2). There is no industrial exploitation of the mineral resources.

#### 2.1.2 Sources of Income for Households

Livelihood systems in Zemo Svaneti are based on a mix of subsistence, barter and income economy mainly within the family nucleus, the extended family and neighbourhoods.<sup>36</sup> Available resources consist of the work force, accessible land,

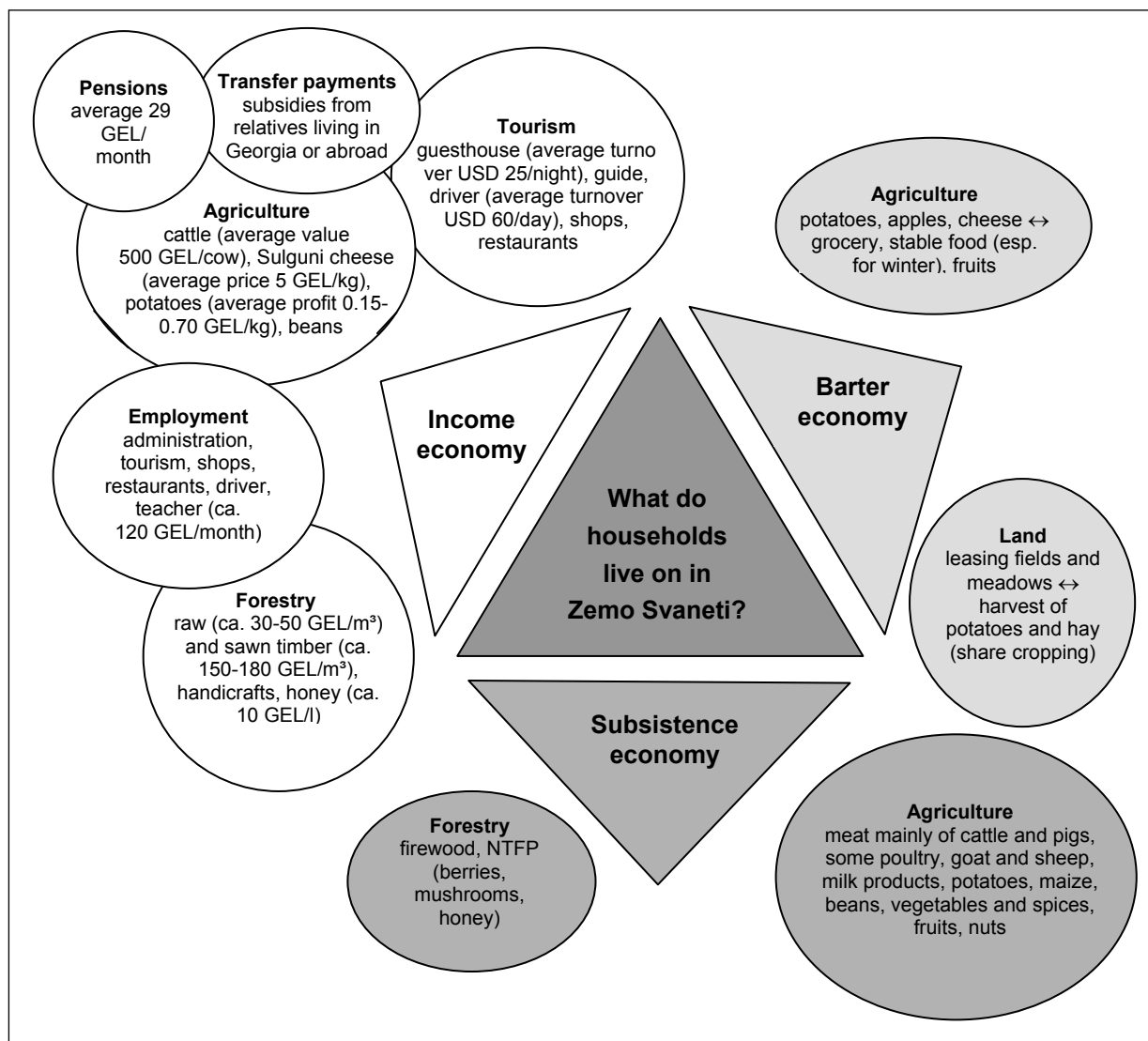
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<sup>35</sup> The number is apparently so small that the district of Mestia was not even included in the Regional Business Enabling Environment Survey (CSDC/ DEA 2006).

<sup>36</sup> The social structure is characterised by strong family relations including mutual economic support and decision making as well as by a strong role of neighbourhoods (which can, in some cases,



social networks, and, to a lesser degree, employment opportunities. The following figure (see Figure 9) gives an overview of the possible components of a household economy.



**Figure 9: Livelihoods of households in Zemo Svaneti.**

Source: HH, EI

The relevance of these components of household economy varies greatly from household to household, according to resources, networks and location within Zemo Svaneti.<sup>37</sup> In nearly every household, the agricultural sector plays a major role for income as well as for the barter and subsistence economy. During household

encompass a whole small village) for mutual support in cases of need (poverty, disasters) and limited joint economic activities based on reciprocity (see Chapter 1, p. 1).

<sup>37</sup> In order to illustrate the diversity of livelihoods, three examples of households are presented in Annex 6.3, p. 104.

interviews, respondents were asked to rank the different sectors according to their importance for the household income. Animal husbandry was considered most important, followed by crop production, forestry and trade. Tourism was ranked last (see CD-Rom, available upon request for quantitative results). In addition, transfer payments contribute significantly to the livelihoods of families in Zemo Svaneti.

### 2.1.3 Workload and Gender Aspects

**Table 1: Seasonal Calendar for Agricultural Activities in Tsvirmi.**

Source: FG 15

<b>Seasonal Calendar for Agricultural Activities in Tsvirmi</b>				
<b>Month</b>	<b>Activity</b>	<b>Men</b>	<b>Women</b>	<b>All year: Household activities such as cooking, cleaning, taking care of the children, milking, cheese production, etc.</b>
May	Fencing + fertilizing meadows and fields with manure	X	X <sup>38</sup>	
May	Taking the animals to the pastures - Nearby pastures - Far away pastures	X	X	
May	Cutting firewood	X		
May + beginning of June	Ploughing + seeding the fields	X	X <sup>39</sup>	
Mid June – mid July	Digging and clearing the fields (twice)	X	X	
July – beginning of September	Hay making - Cutting grass - Gathering hay to hay cocks - Transporting hay to stables	X	X	
September – October	Harvest of potatoes - Harvesting the field - Gathering the potatoes	X	X	
Mid October	Animals are taken from the pastures	X	X	
After 15 October	Collecting the dry firewood from the forest → Some families collect it in December and January to use the snow for easier transportation with the sledge	X		
October – December	Selling potatoes in Zugdidi → Women prefer to go since men often spend the profits on drink	X <sup>40</sup>	X	
Winter	Second load of manure spread on the meadows and fields	X		
January – May	Tool production and repair	X		

<sup>38</sup> Keep oxen in line.

<sup>39</sup> Keep oxen in line.

<sup>40</sup> Sometimes men.

Generally, the workload, for instance in agriculture, is clearly separated between men and women. (see Chapter 1, p. 1). Women bear the double and sometimes triple burden of working in the household, in agriculture and sometimes in employment. The seasonal calendar (Table 1) of the community of Tsvirmi presents an example of workload distribution for men and women.

Due to labour-intensive economies (see also Chapter 2.2, p. 21), out-migration and civil war, the availability of labour force represents a limiting factor especially during the high activity period of late summer.

## 2.2 Agriculture

This chapter endeavours to give an overview of the current circumstances of the agricultural sector of Zemo Svaneti. Firstly, an analysis is presented of the situation regarding animal husbandry and this is followed by a description of activities in crop, vegetable and fruit production. Marketing of agricultural products is described comprehensively for animal, and crop and vegetable production.

As highlighted above, the agricultural sector is of paramount importance for the livelihoods of people in Zemo Svaneti. In this study, all households except one replied that they were involved in this labour-intensive sector. The framework conditions for agriculture can be summarised as follows:

- Natural conditions: Agricultural activities are carried out from the colchis to the alpine zone (see chapter 1.2, p. 3), with productivity varying according to altitude. Limiting factors for agricultural activities are mainly the length of vegetation period of only four to six months, the shallowness and stoniness of soils, and the steep terrain. Generally, good ecological conditions are available for animal husbandry. Predominant soil types are: Mountain brown soil, mountain meadow soil and raw humus calcareous soil; fertile Mountain Chernozem is rarely found (CENN 2006)<sup>41</sup>. The distinctive feature of mountain ecosystems is their low stability and the use of unsustainable land frequently results in land degradation (loss of nutrients, erosion, natural hazards). Presently, some land is not being used due to deterioration caused by erosion or mudslides.
- Infrastructure and services: The poor condition of roads limits access to fields, meadows and pastures and hinders marketing of agricultural products see

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<sup>41</sup> For a detailed description of soils see the GIS database at <http://www.cenn.org>.

chapter 1.2, p. 3). Agricultural services are perceived as insufficient by the local population (HH). Basic veterinary services (vaccination) are available.

- Land ownership and use<sup>42</sup>: Privatisation of agricultural land took place only in the 1990s following the breakdown of the USSR, when the land was handed back to the former owners. In Zemo Svaneti a small amount of land could not be returned to the previous owners due to unclear property rights. Consequently, at present this land is not being used. According to respondents, privately used land (fields and meadows) is usually inherited and rarely purchased (HH). The traditional way of inheriting land is considered to be one of the main reasons for the individual lack of land. This related mainly to meadows and pastures (HH). Land is passed from father to sons, dividing the land equally between them (HH). This results in ever smaller production units and is also a reason for migration since men do not have enough land to feed their families (EI 39, EI 36, KOEHLER 2000). Share cropping<sup>43</sup> is quite common in Zemo Svaneti. Normally half the harvest, principally potatoes or hay, is paid for using the land (HH).
- Land use during the Soviet period: At the beginning of the Communist period, kolkhozes existed in three communities of lowland Zemo Svaneti<sup>44</sup>. Later, there were kolkhozes in every community and finally they were consolidated under larger sovkhoses. The kolkhozes were subdivided into farms. All land was state-owned, households were allowed to have a kitchen garden, cattle and pigs for subsistence. Agriculture was concentrated on animal production. Crops were produced almost exclusively for fodder. The main product, processed at the local plant (“Kombinat”), was Sulguni cheese<sup>45</sup>, which was sold to Zugdidi. At that time there was no agricultural mechanisation and cows were milked and hay cut by hand. (EI 37).
- Distribution of the workload: The different tasks in the agricultural sector are quite clearly assigned to men or women, whereas most of the workload is with women.<sup>46</sup> Due to out-migration, a lack of work force is a problem (FG 19, HH) and can be a limiting factor for production (see Chapter 2.1, p. 18).

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<sup>42</sup> Detailed information regarding agricultural land used for meadows, pastures and fields per community as well as for household possession is given in Annex 6.4, p. 106, Figure 22, p. 106 and Table 5 – Table 8, p. 107 – 110).

<sup>43</sup> Share cropping = in kind leasing of land.

<sup>44</sup> Nakra, Pari, Lakhamula.

<sup>45</sup> Sulguni is the principal type of hard cheese produced in Svaneti.

<sup>46</sup> For the specific tasks of men and women see Table 1 (Chapter 2.1.3, p. 20).

- Risk aversion: With regard to the introduction of innovative and new production methods, the high risk aversion of the majority of the local population must be taken into consideration. This reluctance to adopt new techniques is generally due to low reserves to support experimenting with new methods, but is also the result of bad past experiences, e.g. with joint investments (FG 15).

The following should be kept in mind with regard to this Chapter:

2006 was the hottest and driest year in Zemo Svaneti for some time (HH). This has resulted in a distortion of data regarding the current agricultural situation since a lack of maintenance of pastures and meadows and reduced possibilities for watering had a far more severe effect than in other years. People generally expect a very bad harvest in 2006.

## **2.3 Animal Husbandry**

### **2.3.1 Current Situation of Animal Husbandry**

Animal production<sup>47</sup> in Zemo Svaneti is mainly based on cattle. This activity plays a major role in income generation and for subsistence. The main products of economic importance are cheese and meat (for marketing schemes related to animal products see Chapter 2.5, p. 37).

Animal production also fulfils a social function: wealth is measured in animal possession and for all Svan festivities, slaughtering of animals is essential. Cattle also serve as a financial reserve, being sold or slaughtered when there is an urgent need for money. Furthermore, oxen play a significant role as draught animals.

In addition to cattle, pigs are also reared. They are important for home consumption (HH).<sup>48</sup> Very few sheep and goats are reared and if so, only for home consumption (HH). Currently, poultry keeping is at a very low level since most of the birds were slaughtered as a preventive measure against Avian Influenza. According to the agricultural statistical yearbook, the number of poultry decreased from 14,400 birds (2004) to 4,433 (2005). Despite this fact, households did not mention a need for poultry.

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<sup>47</sup> An overview of the number of animals in the different communities and on the average ownership per household is given in Annex 6.4.1, Table 6, p. 108 and Table 8, p. 110).

<sup>48</sup> For more information about sheep, pigs and goats see Annex 6.4.

## Cattle breeding

Cattle are used unspecifically for milk and meat (HH). Generally, people perceived their cattle to be relatively healthy. Diseases mentioned were brucellosis, foot rot, Foot-and-Mouth Disease and cow mumps (HH), also parasite infestations may play a role, but since these are not considered a disease, the household interviews did not provide sufficient information on this topic.

Breeds: Most people refer to their cattle as “Svanuri” – Svan local breed. This breed is one of the subgroups of the Georgian mountain breed (“Kartuli”) which is present in different mountainous areas of Georgia (M. RCHEULISHVILI INSTITUTE OF BIOLOGICAL BASIS OF CATTLE BREEDING OF GEORGIA 2006). The Georgian mountain breed is renowned for being well adapted to the severe climatic circumstances<sup>49</sup> and to poor fodder conditions. The breed is also noted for its high stamina<sup>50</sup> even at low sustenance levels. This breed’s comparatively small size and light weight permits it to graze even on steep pastures. The distinctive features of the Svan breed are its generally larger size (up to 350 kg) and its typical colour: dark, dominantly brown, often with a tiger pattern on the coat. The Khevsuruli breed, the Swiss Brown and the Caucasian Brown have been interbred with the Svan local breed (EI 33).<sup>51</sup> So far, no systematic documentation has been made available either of the phylogenies of these animals or regarding their performance and characteristics,<sup>52</sup> and little attention is paid to the importance of reproduction schemes for improving the performance of cattle breeding. Generally, insemination takes place spontaneously by bulls of neighbours in the village.<sup>53</sup>

Stables: Whereas in summer animals normally remain outside, in the winter cattle are kept in small traditional sheds which are directly connected to the Svan living house, “Machubi”<sup>54</sup>. The hygienic conditions of these barns were not assessed during this study.

Feeding: In most cases, cattle are fed almost exclusively with grass from the pastures (summer) and hay from the meadows (winter).<sup>55</sup> During the grazing period, there is no supplementary feeding. In winter, sometimes bran and very rarely maize,

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<sup>49</sup> Adaptability to temperature fluctuations and low oxygen levels of mountainous areas.

<sup>50</sup> Total resistance to leucosis and pyroplazmosis.

<sup>51</sup> Compare animal description in Annex 6.4.1, Figure 23 – Figure 26, p. 111 – 112.

<sup>52</sup> No systematic documentation of phylogenies is available anywhere in Georgia.

<sup>53</sup> Only three out of 47 respondents select a bull for reproduction (HH).

<sup>54</sup> See CD-Rom, photograph of barn.

<sup>55</sup> The fodder value (nutrients, energy units) as well as the optimal fodder rations of the natural mountain pasture grass and hay of meadows are described in detail in Annex 6.4.1, Table 10 – Table 13, p. 113 – 117.

potatoes, oats or flour are added (HH). Sometimes, people also feed their animals with the residues from pollarding in the spring. Concentrated feedstuff or silage is not given and the use of any additional fodder depends on the availability of money to purchase it (HH).

According to the respondents, an average cow is fed with 800 -1,000 kg<sup>56</sup> of hay per winter (HH). The requirement for hay in the winter far exceeds local fodder production. Thus people are forced to buy additional hay at a price from neighbours or other communities.<sup>57</sup>

Milk and meat performance: With an average milk production performance of 1,050 kg/year (5.2 kg/day) and an average lactation period of 6.6 months, milk performance is generally very low and varies greatly throughout the year with a minimum performance during the winter months (HH).<sup>58</sup> There are significant differences in milk performance between different households and communities ranging from 1 l/day to 16 l/day (HH, EI 33). Cows are manually milked twice daily. usually by women. Mechanisation is not in place.

Heifers usually calve for the first time at three years of age and normally give birth once a year. Meat performance averages out at 150 kg per adult animal equal to a live weight of 250 kg (HH).

### **Pigs, sheep and goats**

All households keep local breeds of pigs<sup>59</sup>, on average about four pigs per household (HH). Pigs are generally healthy. They live by grazing in villages and on surrounding pastures and are additionally fed with kitchen waste and whey. The meat is mainly used directly, without any processing, and is usually not sold (quantitative analysis). Before winter, some people prepare ham or haggis<sup>60</sup> (FG 19, HH). Pigs are protected by annual vaccination. In general, pig rearing is expensive since additional fodder has to be bought for the animals in the winter (FG 19).

The sheep breed present in Zemo Svaneti is a mixed variety, probably a descendant of the Imeruli sheep<sup>61</sup> (EI 33). These sheep are used only for meat and wool, not for milk (HH). The tasty meat (AGROWEB 2006) is used for personal consumption (HH).

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<sup>56</sup> Hay is usually measured in sledges and amounts to 2.5 to 3 sledges.

<sup>57</sup> Hay is sometimes paid for in kind, it usually costs between 0.1 GEL/kg (autumn) and 0.3 GEL/kg (winter and spring).

<sup>58</sup> See, Annex 6.4.1, Table 12 – Table 13, p. 116 – 117.

<sup>59</sup> See Annex 6.4.1, Figure 25, p. 111 for a description of the Svanuri pig.

<sup>60</sup> Haggis = the pig's stomach filled with its cooked intestines.

<sup>61</sup> See breed description in Annex 6.4.1, Figure 23, p. 111.

The half-rough wool is of good quality (AGROWEB 2006), but there is little output per shearing (1 kg). The wool is used almost exclusively for the manufacture of Svan hats or socks (HH, FG 19) which can be sold on the market (market analysis).

Goats<sup>62</sup> are kept predominantly for home consumption of meat. In Western Georgia, goat meat is considered to be a delicacy and with a price of 12 GEL/kg quite expensive (market analysis). Goat milk is only consumed by children, due to the low level of productivity and the lack of demand for milk or cheese (EI 33).

### **Pastures and Meadows**

The natural foundation for animal production in Zemo Svaneti is the existence of pastures and meadows, which make up 96 percent of total agricultural lands (see Chapter 1.2, p. 3).<sup>63</sup> Pastures are used exclusively for grazing, whereas meadows primarily serve for the production of hay as winter fodder.<sup>64</sup>

The management practices for the use of pastures and meadows can be characterised as follows: there is no systematic fertilisation, practically no elimination of undesirable plants and an infrequently working water management scheme. Such practices are particularly noticeable in the management of community-owned pastures.

During the Soviet period, a public “irrigation system” for meadows and pastures was in operation. This system was a network of small ditches (width and depth about 20 cm), sometimes including tubes, which led from a water source or river or creek to lower lying meadows and pastures. This interconnected public water distribution system permitted the watering of meadows and pastures in times of drought, and diverted the run off water into specific channels in times of heavy rain, thus preventing harm to the areas.

Today this water distribution system is only partially functioning due to a lack of maintenance (HH). Another reason for the poor condition of the watering system appears to be the privatisation of meadows: landowners partly destroyed the water tubes or refilled the water ditches, thus dismantling the interconnected public water distribution system, negatively affecting both meadows and pastures (HH).

Pastures: Pastures are owned by the communities and collectively used by the households (HH). They are not fenced, so borders between different types of land

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<sup>62</sup> Megruli goat, see description in Annex 6.4.1, Figure 24, p. 111.

<sup>63</sup> The distribution of areas of pastures and meadows between the communities can be found in Annex 6.4.1 (Table 5, p. 107 and Table 7, p. 109).

<sup>64</sup> An exception to this is the community of Ushguli where the abundance of land allows a mixed use of pastures and meadows which is not the case in any other community of Zemo Svaneti (EI 30).



uses are gradual, e.g. the forested areas surrounding pastures are often utilised for grazing activities. Moreover, there is no pasture rotation system in place, which would ensure that animals are systematically driven from one pasture to the next. Pastures can be differentiated as nearby (< 3 km) or faraway (>3 km) pastures. The grazing season usually begins around May (HH, FG 15), but in the earliest community it can start at the end of March (HH). Cattle are taken off the land between mid October and November (HH, FG 15).

Milking cows needed for daily subsistence usually graze nearby, whereas other cows, calves, young heifers, bulls and oxen are sent to the faraway pastures. They stay there for the whole grazing season, guarded by herdsman. For practical reasons, faraway pastures are only utilised if needed and if the available work force permits their use (EI 30). Two different herding systems are employed on faraway pastures which differ between communities depending on the altitude and tradition:

- The Alms system (comparable systems exist in the Tyrolean Alps). According to the time of the year, cattle (including milking cows) are moved to different pastures at increasing levels of altitude. Villagers remain permanently with the cattle and move with them (May to September), producing cheese at the site. (Communities: Nakra, Chuberi, formerly Ushguli)
- Simple herding system: Cattle are moved to faraway pastures. Depending on how many head of cattle are settled on the pasture and by which family, the families take turns in guarding the animals or pay a herdsman to watch the animals. In the case of milking cows, cheese is produced directly at the site. (Communities: Mestia, Tsvirmi, Latali, Tskhumari, nowadays Ushguli)

Meadows: They are mainly owned by private families (see above, HH). The average plot size is about 0.7 ha (HH and GMF 2005). Meadows are generally fenced in to protect the land from undesired grazing.

As in the case of pastures, meadows can be differentiated as nearby or faraway meadows and families usually possess both (HH). Hay is cut once or twice a year, depending on the annual climate and the altitude. Since the vegetation period begins around the end of April and lasts, on average, until the end of October, the earliest month for cutting is June (HH); the latest mentioned was October (HH). Usually, the intense cutting takes place between July and early September (HH, FG 2). In autumn, after the final cutting, cattle returning from the faraway pastures are often left to graze on meadows or fields after the harvesting of the crops (HH). Typically, hay is

transported by ox-sledge (HH), rarely by other means of transportation and is generally stored in family-owned barns.

The productivity of meadows naturally differs between communities depending on biotic and abiotic factors.<sup>65</sup> On average, it can be estimated at 3 t/ha of hay ((M. RCHEULISHVILI INSTITUTE OF BIOLOGICAL BASIS OF CATTLE BREEDING OF GEORGIA 2006) which is in line with data given for the productivity of grassland in Mestia district.<sup>66</sup> Despite the scarcity of winter fodder (see above), little is done to increase productivity through improved management practices. The following activities are undertaken by individual families to increase the productivity of land: watering (essential especially during the dry summer of 2006), fertilisation and eliminating hard and thorny plants from the meadows (HH).

### **Carrying capacity<sup>67</sup>**

The total head of cattle in Zemo Svaneti amounts to 16,910 (AGRICULTURAL DEPARTMENT MESTIA 2006)<sup>68</sup>. This large number of cattle creates a considerable requirement for fodder, and currently the natural fodder base from meadows and pastures is insufficient to meet this need.

Figure 10 (p. 29) below demonstrates the availability of pasture area per cattle in the different communities. In eight communities, the number of cattle exceeds the estimated sustainable<sup>69</sup> number of 0.5 to 0.7 heads per hectare by far (M. RCHEULISHVILI INSTITUTE OF BIOLOGICAL BASIS OF CATTLE BREEDING OF GEORGIA 2006), in only one community (Kala), the situation between animals and pasture area seems balanced. However, also in this community, the cattle population is close to the limit for the natural conditions, especially taking into consideration the fact that currently not all pastures are utilised due to bad road access, a limited work force and damage as a result of mudslides or erosion.

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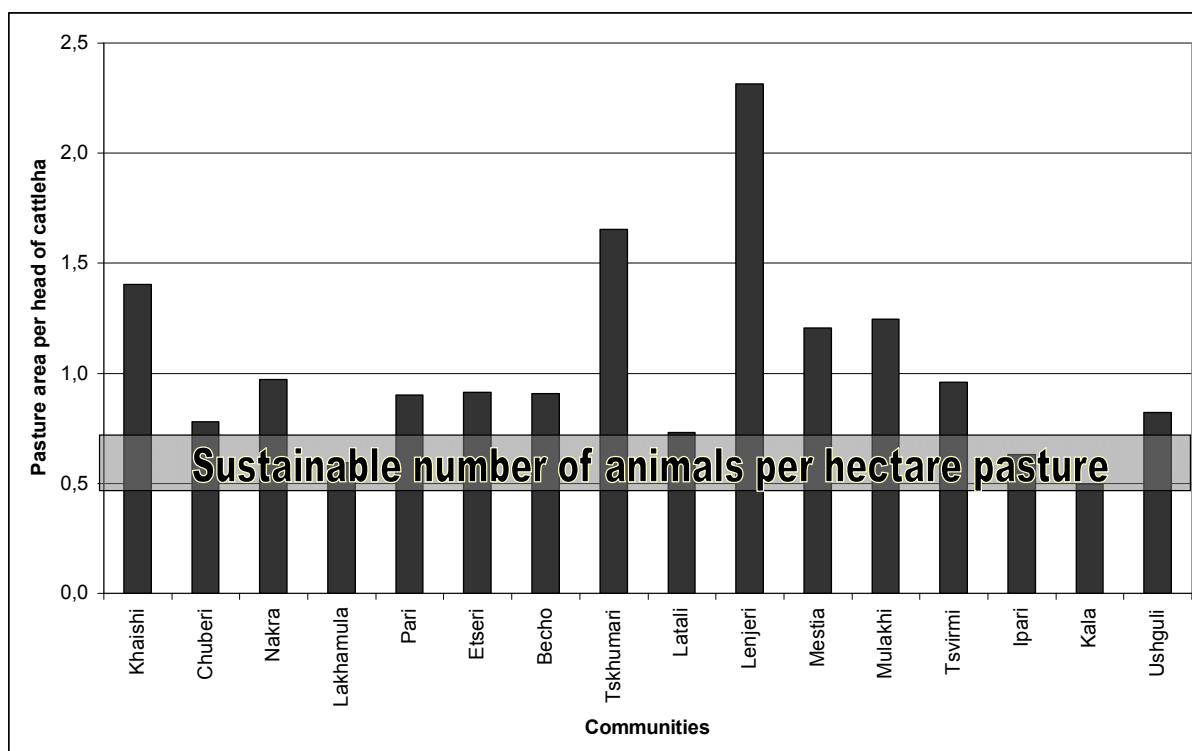
<sup>65</sup> Altitude, precipitation, soil nutrition, sun radiation, etc.

<sup>66</sup> Hay harvest perennials 4 t/ha (sown), annual 2.1 t/ha (sown) (MINISTRY OF ECONOMIC DEVELOPMENT OF GEORGIA, 2006).

<sup>67</sup> Carrying capacity is the sustainable number of cattle per a unit of land area, so that there is no detriment to the ecosystem.

<sup>68</sup> A detailed table giving the total head of cattle per community can be found in Annex 6.4.1, Table 6, p. 108.

<sup>69</sup> Under given natural conditions.

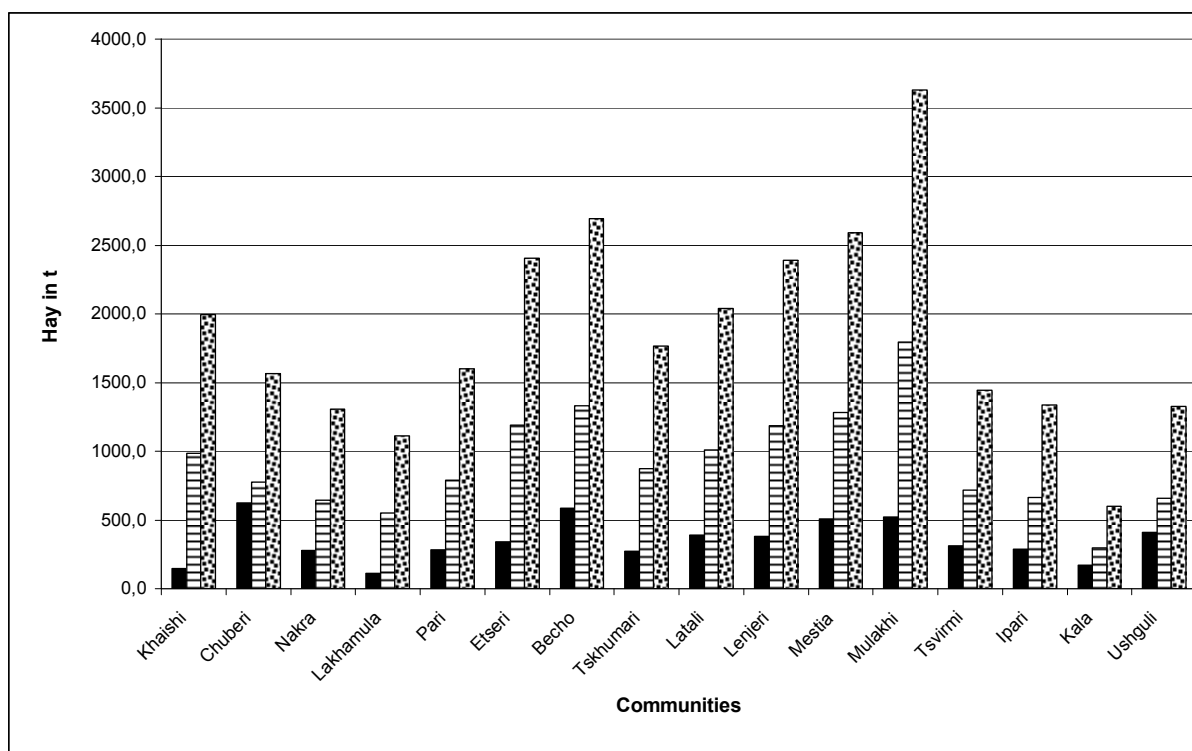


**Figure 10: Pasture area available for grazing in ha per head of cattle in different communities.**

Available pasture area per head is shown in black columns, the grey line indicates a sustainable number of head (1head/ha). Communities are placed in an order according to their geographical position (from west to east). Source of data: Agricultural Department of Mestia 2006, GMF 2005.

The scarcity of animal fodder from natural resources combined with the existing number of animals and the lack of additional feed, results in high pressure on pastures and surrounding forests in most of the communities studied (HH, observation). The overuse of land has significant negative impacts: the grass sod and physical characteristics of soils of pastures are damaged through overgrazing, thus the danger of soil erosion is increased, and the natural regeneration of trees is impaired threatening the permanent forest cover. Additionally, it increases exposure to disasters such as mud slides or avalanches (see Chapters 2.7, p. 40 and 2.9, p. 51).

Still, the situation with regard to pastures is not as severe as that relating to fodder resources from meadows for the winter. Figure 11 illustrates the fodder deficit by comparing the availability of hay from existing meadows, the fodder required according to recent feeding conditions per winter, and the fodder needed for an average milk production of the local breed of 8-10 l/day.



**Figure 11: Winter Fodder needs and availability in different communities of Zemo Svaneti.**

Available hay from existing meadows is shown in black columns, the fodder needed under recent feeding schemes per winter is given in stripes and the fodder needed for milk production of the local breed of 8-10 l/day is given in dotted columns. Communities are positioned according to their geographical position (from west to east). Source of Data: Agricultural Department of Mestia 2006 and M. Rcheulishvili Institute of Biological Basis of Cattle Breeding of Georgia 2006.

### 2.3.2 Problems in Animal Husbandry

The Svan population faces numerous problems with regard to animal husbandry. Below, the problems are outlined in a concise listing of the different animal husbandry activities.

#### Cattle Breeding

Low milk and meat performance due to:

- Insufficient and poor fodder, resulting from:
  - No additional feed source,
  - Natural limitations, and
  - High number of animals.
- No refreshment of blood, and
- The absence of systematic reproduction systems.

### **Pigs, Sheep and Goats**

Of marginal economic importance.

### **Meadows and Pastures**

Low productivity of land, due to:

- Limited maintenance: poor water management and no weed elimination.
- Natural conditions.

Scarcity of land, due to:

- Difficult access.
- Limited work force, and
- Loss of land through poor maintenance or disasters.

### **Carrying Capacity**

Overuse of land, due to:

- High pressure on land, and
- Absence of management schemes.

## **2.3.3 Potentials and Constraints in Animal Husbandry**

### **Cattle breeding**

The problem of low milk and meat performance is understood by households, although it has been demonstrated that the natural limitations for fodder production cannot be modified. The Svan population is aware of the optimal fodder condition for their animals since the Soviet period. The financial situation of households, characterised by low reserves for such investments is a clear constraint to obtaining additional fodder from external sources. The fact that a high number of animals aggravates fodder scarcity and that people consider cattle as a financial reserve, are problems that are difficult to resolve when considering establishing a more sustainable cattle population.

Hence, building upon the existing genetic resource is a potential still to be exploited. If the Svan local breed were well nourished and managed, this cattle population could produce around 3,000 l/year of milk which would triple the present milk

performance, and could attain a meat performance of 210 kg equal to a live weight of 350 kg (EI 30, FG 19).<sup>70</sup>

For refreshment of blood, local experience acquired with other breeds during the Soviet period and the general receptiveness to new breeds (HH) could be exploited. The local population recalls that during the Soviet period, Swiss Brown breeds from Russia (Kabardino-Balkaria) which were very well adapted to Svan animal husbandry conditions were cross-bred resulting in higher milk and meat production.

For systematic reproduction, it would be necessary to draw on the expertise of well-trained individuals, who are already selecting their animals for reproduction (HH). However, for broader implementation there is the constraint of the generally limited experience on this topic in Georgia.

### **Pigs, Sheep, and Goats**

Since pig keeping is only profitable as an economic activity when carried out on an intensive basis, the prevailing shortage of feed presents a severe constraint, especially in winter.

The successful breeding of sheep in some communities of Zemo Svaneti is a good basis for further exploitation, bearing in mind the intensive breeding of sheep during the Soviet period. The work time available during the long winter, tradition and the value added through production of handicrafts (hats and socks) would favour such an undertaking.

Taking into account the current marginal importance of goat production and the low demand for goat meat and cheese, it is not recommended to explore goat keeping as an economic potential for households.

### **Pastures and Meadows**

With regard to productivity, it would be possible to build on the population's existing knowledge concerning traditional pasture and meadow management. There is awareness regarding the requirement for better land maintenance and regarding the potentialities to increase productivity within the given natural limitations. A will exists to improve the scarce facilities for fodder production for the existing number of animals. People are eager to make more land available for use, e.g. by leasing out unused areas in communities (EI 33), and by transforming fields into meadows or through weeding overgrown meadows and pastures (FG 3). However, land available

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<sup>70</sup> The optimal fodder rations for an improved milk and meat production are given in Annex 6.4.1, Table 5, p. 107.

for use is limited due to bad infrastructure and the limited work force. Another threat to available land are disasters, which have already been responsible for the loss of some pastures and meadows (HH, see Chapter 2.9, p. 51).

### **Carrying capacity**

The overuse of land and its environmental consequences (loss of soil fertility, disasters) are evident to the population, which is a prerequisite for change. However, the high pressure on land, being poverty-driven, is very difficult to overcome. Also the lack of experience in communal pasture management schemes may impede change in the short-term.

## **2.4 Crop and Vegetable Production<sup>71</sup>**

Crops and vegetables are cultivated throughout Zemo Svaneti on fields surrounding the villages or in kitchen gardens around the houses. Most households are engaged in cultivation, but the importance given to it varies significantly from community to community.<sup>72</sup> Crops are used for subsistence, and the overproduction – this mainly relates to potatoes - is sold. Vegetables are grown almost exclusively for home consumption or for supporting family members who have migrated to the cities. There is little mechanisation in place.

This chapter first describes current cultivation schemes and the problems related to them. Later, potentials for cultivation are listed and considered bearing in mind the constraints attributed to the potentials.

### **2.4.1 Current Cultivation Schemes of Fields<sup>73</sup>**

In general, households possess fields of an average size of 0.2 to 0.3 ha (HH, GMF 2005: 11), but in some cases there are significant variations.<sup>74</sup> The main cultivated crops are potatoes - by far the most important crop due to its role in the cash economy - and maize, but beans are also grown. As crop production provides little income for comparatively a lot of work, some people have begun to turn their fields into meadows in order to achieve a better income through cattle (FG 4).

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<sup>71</sup> Crops, as referred to here, comprise plants cultivated on fields and thus on a larger scale than in the kitchen garden. Products from the kitchen garden are referred to here as vegetables.

<sup>72</sup> In Tskhumari, animal husbandry and crop production are almost equally important, whereas little importance is given to crop production in Ushguli and Chuberi (HH).

<sup>73</sup> For a yearly calendar for fields see Annex 6.4.2, Table 17, p. 121.

<sup>74</sup> For the total area of fields per community see Annex 6.4.1, Table 5, p. 107.

Fields are normally fertilised once a year with manure to improve soil quality (HH, FG 4, FG 7). Crop rotation between potatoes and maize is partially applied but the rotation schemes do not appear to be very systematic (FG 4). The practice of leaving fields fallow is not followed due to the shortage of land. Fields are rarely watered (HH).

No major diseases or pests were reported apart from the Colorado beetle. To fight it, people mainly use pesticides (HH), farmers rarely collect them by hand or mix both methods (HH).<sup>75</sup> Except for this instance, no use of pesticides or other chemicals was either mentioned or observed.

Seed potatoes are normally taken from the personal harvest<sup>76</sup> (HH) and farmers are usually satisfied with their quality<sup>77</sup> (HH). However a decrease in seed quality was mentioned in some interviews (HH). Following inundations and landslides in 2004, international organisations provided seed potatoes to support the population<sup>78</sup> (HH).

The average harvest of potatoes per household is 3.4 tons<sup>79</sup> in absolute numbers (HH). According to the statistical yearbook of agriculture, the average potato harvest amounts to 10 t per ha in Mestia district (MINISTRY OF ECONOMIC DEVELOPMENT OF GEORGIA 2006: 69).

## 2.4.2 Current Cultivation Schemes of Kitchen Gardens

Vegetables cultivated in kitchen gardens comprise carrots, garlic, onions, cabbage, beetroot, herbs, cucumbers, tomatoes, beans and maize; raspberries are also grown. Home gardens are regularly watered if a water source is easily available (HH). Like the fields, they are usually fertilised with manure once a year (HH). For vegetables and fruits, no serious problem with pests and diseases was observed (HH). In and around the kitchen garden, there are fruit trees such as apple, pear, plum, and walnut. These trees are usually old and branches are not pruned. Women produce jam, sauces and compote from fruits and berries which are utilised within the household; otherwise no processing was reported.

Herbs and spices are often cultivated and used for several dishes, particularly for Svan salt ("*Svanuri Marili*").

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<sup>75</sup> The Colorado beetle and the application of pesticides are new phenomena for Zemo Svaneti (for approximately the last 10 years) (HH).

<sup>76</sup> 24 out of 38 use their own seeds exclusively.

<sup>77</sup> 13 out of 24 respondents ranked the quality of potato seeds as good, 6 as satisfactory, and 5 as bad.

<sup>78</sup> 11 out of 38 respondents were targeted with this type of humanitarian aid.

<sup>79</sup> On average, potatoes are produced on fields of 0.2 ha (see Annex 10.4.1, Table 7, p. 113).



For marketing schemes of crops and vegetables see Chapter 2.5, p. 37.

### **2.4.3 Problems for Crops, Vegetables and Fruits**

General limiting conditions:

- The small size and fragmentation of fields;
- Lack of manure, and
- Lack of technical equipment.

Problems for the cultivation of potatoes:

- Colorado beetle as the main threat;
- Exposure to climate conditions, and
- Bad quality of potatoes with regard to external appearance.

Problems for vegetables and fruit:

- Short vegetation period.

### **2.4.4 Potentials for Crops, Vegetables, Fruits and Medicinal Plants**

The potential for intensifying or extending crop and vegetable cultivation is limited by unfavourable natural conditions making the cultivated products of Svaneti barely competitive with lowland products. The main potential therefore appears to be the improvement of cultivation for subsistence and further study of the production of niche products on a potentially expanding market. Low input agriculture utilising few chemicals for cultivation predominates, and the population is aware of the importance of fresh and healthy products (FG 19, HH).

The use of fields for fodder plant cultivation is a further potential. A few families have already converted their fields to meadows in order to achieve a better milk performance and to increase profit by selling cheese (FG 4).<sup>80</sup>

#### **Potatoes**

Among the local population of Zemo Svaneti, there is a significant willingness to improve potato production. The tradition of potato growing in Zemo Svaneti provides a good knowledge base regarding cultivation techniques. People also expressed an interest in using better technical equipment. Svan potatoes are famous throughout Georgia due to their good taste, and there is a rather high market demand for them.

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<sup>80</sup> The underlying logic is: cheese is easier to transport and to sell than potatoes. However, a limiting factor for milk production is the lack of fodder.

However, they do not obtain the best price due to their quality and appearance (market analysis, FG 4, FG 15, HH).

Mountainous regions are favourable locations for the production of potato seeds, since the cold climate reduces the risk of pest infestations (EI 39). However, as experience from an earlier project has shown, people find it difficult to see the advantage of producing potato seeds for income generation rather than potatoes which could be both sold and consumed.<sup>81</sup>

### **Vegetables and Fruit Trees**

Despite the fact that the cultivation of vegetables is not for commercial use, it retains great importance since it supplements the diet of the population which, according to a Swiss physician, appears quite unbalanced (EI 35). Vegetable growing increases the diversity of sources of nutrition, thus corresponding to Goal 1 of the Millennium Development Goals (MDGs) for Georgia (UN 2005: 11).<sup>82</sup> Yet, the short vegetation period limits the supply of vegetables.

In addition to the cultivation of vegetables, people mentioned the potential of added value through fruit processing.

### **Spices and Medicinal Plants**

Svan salt is one of the few products with an existing Svan “brand name”<sup>83</sup>. It is sold throughout Georgia and is in high demand (market analysis). People know how to produce Svan salt and the necessary herbs are grown only by Svans in Zemo Svaneti. However, not all Svan salt is produced by Svans<sup>84</sup>, and there is no quality control endorsing the “brand name”.

The mountain region has a great variety of endemic and common alpine plants, some of which are used for medicinal purposes by knowledgeable local people. An interest was expressed in commercialising this potential (FG 11). It is predominantly the older people who retain the knowledge about plants and this experience is passed on only within certain networks.

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<sup>81</sup> In 2004, this fact plus the difficulties resulting from numerous natural disasters throughout the region, prompted CARE to initiate a potato seedling programme including technical training (EI 39).

<sup>82</sup> MDG Target 2: “Halve, by 2015, the proportion of people that have unbalanced diets”.

<sup>83</sup> “Brand name” here is not meant in a strict sense; it rather refers to the fact that this type of salt, regardless of where it has been produced, is sold as “Svan salt”.

<sup>84</sup> The recipe is freely available.

## 2.5 Marketing of Agricultural Products

The marketing or bartering of agricultural products is one of the few income sources for Zemo Svaneti. The main markets are in Zugdidi, Kutaisi and Tbilisi, and most products are brought to the market in shared transportation by the producers themselves and there sold in bulk to resellers. These market expeditions are also convenient in order to purchase all goods not available in Zemo Svaneti. This is particularly important before winter climatic conditions close the access routes and cut off the region.

### 2.5.1 Current Marketing Schemes

Bartering: Cheese and potatoes are the main food items used for barter (quantitative analysis). Both these items are bartered for basic grocery requirements such as vegetables, sugar, oil or flour (market analysis, HH). It is interesting to note that sales methods are often more similar to bartering than profit-oriented marketing.

Selling: Potatoes are the main commercial crop (HH). Apart from potatoes, beans are occasionally sold (HH). The most important cattle product is Sulguni cheese; but live cattle (HH) and meat (HH) are also sold.

People cannot pinpoint their profit, but state that they have to sell in order to buy provisions for the winter (HH, FG 4). In other words, the profit is often directly re-invested in family provisions. The price for Sulguni cheese varies throughout the year (see CD-Rom, available upon request) with a peak around Christmas, while the price for potatoes steadily increases with the duration of winter. People are aware of the price fluctuations but usually are unable to adapt their marketing strategy to this phenomenon since they have little economic leeway to wait for better opportunities. Only a few households are able to take advantage of the situation and benefit from higher prices in the winter (HH) or spring (HH, FG 4).

The marketing of animal products is normally organised alongside the selling of potatoes in autumn or winter by renting a truck or minibus together with neighbours, families or friends. (HH, FG 4) People have to pay for transportation<sup>85</sup>, which decreases the possible profit (HH). If there is an urgent need for income, cheese is also sold regardless of the period of the year, and brought to the market by minibus or car (HH).

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<sup>85</sup> The cost of transport varies depending on the products. However, prices have substantially increased over the last few years.

Within Zemo Svaneti and in the local community, only fresh products like meat and khachapuri-type<sup>86</sup> cheese (HH) are sold. There is hardly any local demand for processed products and they are not available in the local shops.

There are three main types of marketing:

- Selling directly (when cheese is the sole product to be sold, especially in communities which are closer to the market),
- Selling to, or bartering with, merchants passing through the communities, and
- Selling to resellers on the market. This is especially the case in the autumn when potato and cheese selling is combined. The profit is lower with wholesaling (HH) than with direct selling.

Each marketing method has its advantages and disadvantages: direct selling requires little organisation and can thus be handled flexibly whenever a need for money arises, though each extra market visit increases relative transportation costs. Selling or bartering to merchants is easy and saves time and transportation. (market analysis Zugdidi, HH, FG 4). People state that market access is especially difficult in Zugdidi if they do not sell there the whole year. The market is said to be controlled by permanent merchants (FG 4).<sup>87</sup> But wholesaling prevents people from comparing prices thus placing the producer in an unfavourable position.

## 2.5.2 Problems of Marketing

Marketing problems are mainly linked to difficult market access and organisational matters. Some exacerbating factors are:

- Bad roads,
- High transportation costs,
- Selling at unfavourable times (due to little economic leeway), and
- Little direct or local selling of products.

## 2.5.3 Potentials for Marketing of Agricultural Products

### Existing Knowledge

Some people in Zemo Svaneti do have an understanding of processing technologies for basic agricultural products but the level of knowledge varies within the

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<sup>86</sup> Khachapuri cheese can be referred to as the Georgian cream cheese.

<sup>87</sup> This opinion was confirmed by the Zugdidi market administration who stated that due to potentially high competition Svans would not be accepted by competitors (market analysis Zugdidi).

population<sup>88</sup>. The population is also aware that products from Zemo Svaneti have a certain reputation and there is considerable interest and enthusiasm in diversifying production (FG 19). Constraints against exploiting this potential are the limited capacities for investment (if required) for product diversification and the general reluctance to venture into new production and techniques if the benefit is not guaranteed.

### **Ways of Marketing**

Individuals often expressed a desire for a local market place. There is a certain amount of local demand from Svans and from tourists. The fact that most households in Zemo Svaneti produce the same goods at home obviously limits the local demand. However, during the summer months when many migrants return home for vacation and when the tourist inflow is at its peak, local products could be marketed in the community.

For collective selling, people organise themselves among families and neighbours. In order to save transportation costs, they also organise joint transport. However, people do not sell together; economic activities are carried out individually. This may not be the most cost-effective system, but, for the time being, it appears to be the one favoured by the Svan population due to a reluctance to delegate economic activities to individuals outside the core family.

### **Products**

With regard to cheese and potatoes, there appears to be a demand for Svan production on the markets in Tbilisi, Zugdidi and Kutaisi (market analysis). The Svan potatoes are noted for their good taste, but their external appearance is often not appealing (see Chapter 2.4, p. 33). The bad road conditions and the high transportation costs clearly constitute limitations to marketing.

## **2.6 Conclusions for Agriculture**

Animal husbandry: The main potential for animal husbandry is seen in cattle breeding. It plays a major role for the subsistence of households and for extra income. The low milk and meat performance is attributable to a variety of problems: the low quality and scarce fodder base, the absence of refreshment of the existing breed and the need for a process of systematic reproduction.

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<sup>88</sup> For example, for cheese, yoghurt, ham, jam, compote.

A major problem is the current overuse of meadows and pastures as a natural base for the feeding of cattle, resulting in a threat to man and the environment. The main challenge in this sector is perceived to be reduction of the excessive pressure on natural resources through an improved management scheme, building upon the existing capacities of the local population.

Crop, vegetable and fruit production: The potentials for intensifying cultivation are limited by the unfavourable natural conditions. The broad knowledge regarding cultivation and the interest in optimising cultivation represent the main potentials in this sector. All innovative measures must adequately take into account the difficulties of successfully introducing new methodologies and the general risk aversion factor.

Marketing of agricultural products: The potential for Svan agricultural products to become a driving force for the local economy appears limited by the unfavourable production conditions and the poor market access. Ways to increase profit by adding value (through processing and through the production of light but high value products) or by reducing transport costs (through local marketing) have to be explored.

## **2.7 Forestry**

Forests play a role in the livelihoods of the people of Zemo Svaneti by providing the principal fuel source for heating and cooking. In the lower, western parts of the district, sawmills for commercial use are an important source of income. Illegal logging plays a major role in the communities of Khaishi, Chuberi, Nakra and Pari. Some sawmills in Chuberi which were operating without a licence have recently been closed down by the Nature Protection Agency. This had repercussions on the local population and provoked an angry reaction which was principally directed towards the local government.

### **2.7.1 The Current Situation**

#### **General information<sup>89</sup>**

In 2004, 39.9 percent of Georgian territory was covered by forest. Mountain forests constitute 98 percent of the total wooded area (Ministry of Environment Protection and Natural Resources, 2006). This underlines the importance of mountain forests in

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<sup>89</sup> Data regarding wood species and prices can be found in Annex 6.5, p. 123. A more detailed analysis of the forestry situation including the strengths and weaknesses of the commercial sector can be found in the minutes of the meetings of the forest focus discussion in Nakra (see CD-Rom, available upon request).

Georgia. Consequently, many of the issues mentioned here may also apply to other rural areas.

The Mestia district encompassed 126,954 ha of forest in 2005, which is equivalent to 41.4 percent of forested land. The total forest area is categorised as soil protecting and water regulating forest. All forest land is state owned.

### **The different dimensions of forest use**

The high forest cover of the region makes it a substantial resource. Five general types of forest use can be identified:

- **Household use** (mainly for firewood<sup>90</sup> and Non Timber Forest Products (NTFP<sup>91</sup>)).
- **Traditional wood processing and handicraft production** by individuals or families.
- **Commercial use**, especially through wood processing in sawmills and through the sale of firewood.
- **Agricultural use** by the majority of people active in animal husbandry (grazing, pollarding) and
- **Indirect use** (e.g. landslide protection, recreational function) which cannot be attributed to specific persons (HH).

Firewood constitutes the main energy source for heating and cooking in the region. The average consumption is 15m<sup>3</sup> per household per year (WWF 2005: 2). The figures for Zemo Svaneti appear to be comparable.<sup>92</sup>

### **The role of forest administration**

The responsible agency for forest land use is the Forestry Department which this year became part of the Ministry of Environment Protection and Natural Resources of Georgia (MoE). The Georgian forest administration is divided into 42 forest regions with 308 forest districts. Mestia district is one of them (TORCHINAVA 2005). At the district level, local foresters are responsible for sustainable forest management. Currently, between 1,000 and 5,000 ha are under the responsibility of one forester (pers. comm.). Detailed forest management plans are in place, which should be

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<sup>90</sup> 25 respondents out of 25 mentioned firewood as a use of forest they practice.

<sup>91</sup> NTFP which are especially relevant in Svaneti are berries, honey, herbs, spices, medicinal plants, resin, game and mushrooms.

<sup>92</sup> The WWF estimates that 90 percent of illegally cut wood is for household consumption (EI X). The figures gathered during the course of the household interviews varied between 2 and 150 (!) m<sup>3</sup> per year. Quantities between 15 and 20 m<sup>3</sup> were frequently quoted which is the officially permitted level.

complied with, and these include the sale of vouchers or the issuing of tenders which give the right to cut a certain volume of wood in specific areas. The trees to be cut are marked by the administration, sometimes together with the forest user (HH). Forest cutting is controlled by the Nature Protection Agency which is a separate body within the MoE.

New forest legislation foresees the privatisation of large areas of forest in the near future through long-term leasing.<sup>93</sup> This will, under certain conditions, transfer the management of these forests to private enterprises.

The forest administration and the property aspect are perceived differently by the population. In most cases the sale of vouchers was mentioned as the main activity of administration (HH<sup>94</sup>). With regard to ownership of forest land, the forest has often been described as being village, community or family owned and not state property, as is actually the case (HH).<sup>95</sup> Substantial mistrust of the forest administration was expressed during the forest focus group discussion (FG 1), most probably due to the recent suspension of forest cutting implemented in the community (see above).

## Forest products and their economic status

### Sawn wood

There are about 35 sawmills for commercial use in Zemo Svaneti, 16 of them in Khaishi and 11 in Chuberi. Becho, Mestia and Nakra each have between one and three (pers. comm.).

A small share of the production of these sawmills (mainly boards for construction) is sold in the communities (HH), but the main output is sold as round timber for further processing to other regions<sup>96</sup>.

Sawmill owners require official authorisation for the wood they process<sup>97</sup> (HH), but it is common knowledge that the amount of timber cut is far higher than the quantities permitted. (pers.comm).<sup>98</sup>

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<sup>93</sup> Only 8 percent of the national forest would be categorised 1A protected forest. The rest would be privatised with the state retaining only a control function. (EI 9)

<sup>94</sup> 11 out of 15 of the given responses, followed by “control over logging” (4) and “protection of forests” (3).

<sup>95</sup> This perception is probably based on the strong social heritage of land in Zemo Svaneti. The traditional rights to use the forest appear to prompt this answer rather than the legal ownership of land (HH). Clans or villages were said to control the cutting in “their forests” and it was asserted that conflicts had occurred between families and the state (FG 1).

<sup>96</sup> Officially there is no export of wood from Georgia since a moratorium is in place to halt illegal forest cuttings (TORCHINAVA 2005).



## Handicrafts

Traditional skills in wood carving are well developed. The items (chairs, kitchen equipment, crosses, etc.) are mainly produced on request and seldom sold, mostly within the same community (HH, EI 38). The wood carving skills usually evolve from family knowledge or are individually acquired. There is no systematic exchange of these skills.

## Non Timber Forest Products (NTFP)

A number of NTFP are collected and partially processed in Zemo Svaneti. Marmalades and compotes are examples of processed products.

NTFP are generally used at the household level only. This is especially true for berries, mushrooms, herbs for tea (e.g. Rhododendron) (see also ELKANA,1998) and hunting. Nuts, especially walnuts, honey and pine resin<sup>99</sup> are sometimes sold (HH, MINISTRY OF ECONOMIC DEVELOPMENT OF GEORGIA 2005).

In 2005, 22 tons of honey was produced from 1,353 beehives in Zemo Svaneti (MINISTRY OF ECONOMIC DEVELOPMENT OF GEORGIA 2005: 127). Generally, honey is sold at a comparatively high price<sup>100</sup>. However, no Svan honey could be found during the market analysis.

### 2.7.2 Problems

Forest overuse which can, in very severe instances, lead to deforestation represents the main challenge in the forest sector. Three main factors contribute to this situation:

- The cutting of firewood,
- Commercial timber production, and
- Overgrazing<sup>101</sup>.

A shortage of staff and insufficient control structures make it impossible for the forest administration to efficiently prevent illegal logging for commercial or firewood use.

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<sup>97</sup> In Chuberi, for instance, only the sawmills in the centre of the community have a licence (pers.comm.).

<sup>98</sup> Estimated volumes of illegally logged timber can be found on CD-Rom, available upon request.

<sup>99</sup> Used for Svan chewing gum.

<sup>100</sup> 11 GEL/kg (market analysis).

<sup>101</sup> Grazing in forests around the villages impedes natural generation which will eventually lead to deforestation of these areas if no protective measures are introduced.

The last major reforestation efforts in Zemo Svaneti were undertaken in the 1990s.<sup>102</sup> In addition, the yield from the sawing process is quite low, leading to the production of a lot of waste which is generally not being recycled (pers. comm.<sup>103</sup>). Bad management by unskilled and untrained personnel is perceived to endanger the beekeeping sector through bee diseases (EI 38).

### 2.7.3 Potentials and Constraints

The overall need for a sustainable forest management based on internationally agreed principles was often referred to by respondents (HH). This high awareness appears to provide a good foundation upon which to initiate processes within the population. Furthermore, foresters from the state administration are well trained and are mindful of the situation.

The considerable volume of by-products resulting from wood processing in the sawmills has a potential for being used in different ways. Sawmill owners could make a profit from their “waste” and this would help to reduce the pressure on the forest. A few people are already using sawdust for heating (EI 32) and other by-products from the sawmills for the construction of fences (FG 1). The fact that many people already prefer to buy firewood rather than collect it themselves could facilitate the sale of alternative fuels.

With regard to other forms of wood processing, there is a strong tradition of wood-carving. In addition, some people have carpentry skills and these capabilities could be cultivated.

NTFP are purely natural products and could be promoted based on the reputation of Svan products. Beekeeping skills are highly developed in some families and beekeepers demonstrate a willingness to share their knowledge (FG 4, HH).

Forest contributes significantly to the characteristic scenery of Zemo Svaneti. The mountains and the opportunities for hiking are recognised as offering the most important tourism potential in Zemo Svaneti (HH, see Annex 6.6, p. 124). Old-growth forests remain and have the potential to become an attraction (HH).

The weak administrative framework, in terms of equipment and number of personnel, makes it difficult to improve the situation through the present state resources. In particular, the control system is inadequate and ineffectual. In order to resolve the

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<sup>102</sup> In 1995, 175 ha were afforested. Since 2000 no more than 31 ha of plantings a year have been undertaken (MoE 2006: 53). This is a consequence of the political instability in the country and the critical financial situation (TORCHINAVA 2005).

<sup>103</sup> The yield from roundwood has been estimated at only 50 percent (FG1).

problem of the overuse of wood resources some other constraints have to be considered:

- People depend heavily on firewood. There is **little awareness about energy saving**. Poverty does not permit most people to think about alternatives.
- It is extremely difficult to contend with the **illegal wood sector**. People sometimes refer to a “wood mafia” which defends its activities even through violent means.
- Prevailing **conflicts between the legal and the traditional system** over property rights could make cooperation between the local population and the administration difficult.

In addition, the frequent restructurings of the forest administration and a policy process perceived as non-transparent make it difficult to envisage a consistent long-term vision in forest policy (EI 9, WWF 2006).

#### **2.7.4 Conclusions**

Forest offers multiple functions which contribute in varying degrees to the prosperity of Zemo Svaneti. Independently from its specific function, sustainable forest management (including animal husbandry activities) is the key to the positive future use of this natural resource.

Forest privatisation, as foreseen in the most recent reform plans, is seen as a risk to the future sound development of this sector since no reforestation plans are envisaged in the contracts with users (pers. comm.).

The principal factor giving rise to unsustainable forest use - the (illegal) overuse – has, for the most part, to be tackled through measures imposed by the state or by the international community (illegal trade). But small-scale activities can also create new income opportunities and are not *a priori* in conflict with sustainability but may even reduce the pressure on forest resources.

### **2.8 Tourism**

Currently, tourism plays a marginal role in the Svan economy. This fact strongly contrasts with the high expectations linked to tourism development expressed by the population, administration and many development actors (HH, FG 8, 14, 20, EI 10, 23, GMF 2005). These expectations are linked to the unquestionable natural beauty

and cultural attractions of the region and are based on the knowledge that during the Soviet period Zemo Svaneti was an established tourism destination.<sup>104</sup>

As outlined in the introduction, during this study tourism was analysed with regard to:

- Organisational schemes,
- Mechanisms for benefit sharing, and
- How the potential of the region is valorised and conserved through tourism development.

Other aspects relevant for tourism planning, e.g. a detailed potential analysis according to individual community or a study of data concerning tourism, were not part of the present study.<sup>105</sup>

### 2.8.1 Current Situation

Only a few households in specific communities or villages earn income from tourism (FG 13, FG 20, HH, see Chapter 2.1, p. 18).<sup>106</sup> By contrast, the expectations attributed to a growth in tourism are high throughout all communities (FG 3, 6, 13). In 16 out of 27 interviews, the respondents stated that they wanted to get involved in tourism.<sup>107</sup> The assumed growth potential is not based on consistent statistics regarding tourist numbers.<sup>108</sup> Up until now, more prosperous segments of the population have benefitted from tourism: most families are hesitant to invest in tourism or just do not have the means to do so. Thus families with better houses or with greater financial possibilities are in a more favourable position to become involved in this activity. The assumed benefit from tourism for comparatively little effort does induce some people to favour becoming involved in tourism rather than in other economic activities (FG 20, EI 38).

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<sup>104</sup> During the Soviet period, large numbers of tourists trekked across Zemo Svaneti as part of a Greater Caucasus trek. Alpinists and adventure tourists took advantage of the challenges provided by the Svan environment and history enthusiasts visited localities of unique cultural heritage. Hotels and tourist centres provided the visitors with the necessary amenities (FG 3, 6).

<sup>105</sup> A potential analysis for tourism indicating trends and estimates was conducted with the support of GTZ (EI 12, 21, FG 14, GMF 2005).

<sup>106</sup> About 6 families in Mestia, 4 in Ushguli, 2 in Mazeri/ Becho, 2 in Cholashi/ Mulakhi, 1 in Ipari/ Kala and 1 in Adishi/ Ipari (FG 13, FG 20, EI 42, HH).

<sup>107</sup> The question was asked 27 times and more than one answer was possible. Tourism was mentioned 16 times, followed by animal husbandry (8), trade (5) and crop production (3).

<sup>108</sup> Nevertheless, a trend of growth was confirmed by all respondents (FG 14). According to GMF estimates, some 1,200 visitors travelled to Zemo Svaneti in 2005, representing a growth-rate of 53 percent compared to the previous year. Even if these are approximate figures, they do confirm a trend (GMF 2005).

Visitors mainly come to Svaneti during the summer and the peak period is July and August. Most are accommodated in Mestia, stay for two to four days, and undertake one-day treks or jeep tours to Ushguli. Beside Mestia and Ushguli, Becho is a main destination (FG 14, EI 42, HH). Slightly more visitors come in organised groups than on an individual basis. Most of them come from abroad (FG 14). Four major tour operators based in Tbilisi offer tours to Zemo Svaneti (EI 23). The region is usually advertised as part of an overall trip to Georgia and is not a tourism destination in itself (FG 14, EI 31). Treks, mountain-bike tours, horseback riding and alpine tours are organised upon request (EI 31, FG 14).

Since there are no functioning hotels, all tourists stay in private guesthouses. These usually operate without a licence in order to avoid taxation. Some guesthouse owners have links with tour operators in Tbilisi (FG 14, 20, EI 31, HH) or with intermediaries in Mestia (HH). Others are publicised in guidebooks or receive tourists by word of mouth (FG 14, EI 31, HH). There is no transparent pricing system for the guesthouses linked to the quality of the services offered. So far, a “trickling down” of benefit beyond the described networks of operators is not noticeable. Apart from the direct service providers, little benefit is procured by secondary providers such as small merchants, souvenir sellers, suppliers of foodstuffs (FG 13, HH).

Zemo Svaneti is advertised in most tourist brochures on Georgia. Information material such as trekking guides, internet pages, brochures and basic trekking maps is increasingly available. A future website on Zemo Svaneti, listing guesthouses, attractions and contacts, is under preparation (EI 10, 42). Locally, the situation is quite different: little visual advertising material exists and no information is available concerning available services. There are some paths for trekking, but routes are poorly indicated and not maintained.

In 2004, international organisations began providing support to tourism reception structures (EI 10, 23). The focus is on research and the establishment of basic infrastructures for improved reception (guesthouses) and products (tour routes, events, etc.) (EI 10, 23). So far, this support is limited to pilot activities. In November 2006, the SDC and FES-supported training centre for tourism will be inaugurated. It will serve to support the local development of skills and the diversification of tourism products, and will include awareness raising on topics such as nature protection in its training curricula. (EI 42)

### **2.8.2 Problems**

The list below is not a comprehensive description of the obstacles to tourism development. However, it does correspond with the aspects of tourism mentioned above.

The present limited number of visitors impedes a broader benefit sharing. Guesthouse owners would seek support from secondary suppliers only if the demand increased beyond their capacities (FG 20, HH). Some structural problems represent major obstacles for increasing the number of guests:

- Poor transport infrastructure is not conducive to attract tour operators or tourists,
- Zemo Svaneti's reputation for being an insecure locality (FG),
- The fact that Zemo Svaneti is not being publicised as a tourism destination in itself but as part of a general tourism package (FG 14, EI 31),
- The limited level of services: only basic amenities and low professional reception skills (e.g. limited English language skills),
- Lack of tourism products: purely geographically focussed and thematically not diverse, and
- Little detailed and valid information on the choice of services and offers available.

Neither state nor community-based organisations exist that could assist in redistributing some of the benefits. This situation already generates misunderstandings and jealousies between and within communities:

- A tourism market controlled by a limited number of people precludes activities by newcomers and hence fairer benefit-sharing (FG 20), and
- Tourism-related activities are organised with the help of guesthouse owners. Consequently, the benefit from tourism is limited to a restricted network of people.

Despite the high expectations there is great hesitancy about investing in tourism due to:

- The high investments required (particularly with regard to the improvement of sanitary facilities),
- The inaccessibility to small credits throughout Zemo Svaneti (FG 14, 20),
- Lack of know-how to enter the sector (FG 20),
- Guesthouse owners cannot openly advertise their services since they want to avoid taxation, and
- Structural disadvantages compared to other mountain regions of Georgia e.g. for developing skiing tourism (distance, roads, ski-lifts).

Tourist attractions are insufficiently valorised and inadequate attention is paid to international competition, for example:

- There is no transparent pricing system for the guesthouses linked to the quality of services offered;
- Information on local attractions is not easily accessible (e.g. lack of marked routes);
- Infrastructure is needed for developing mountain tourism (e.g. a mountain rescue system, waste management);
- There is little awareness regarding possibilities for improving services (FG 14, EI 42), and
- No attention is being paid to the negative side effects of an increasing number of visitors such as overuse of natural resources.

### **2.8.3 Potentials and Constraints**

Potentials for developing tourism are discussed here according to the current situation as well as the problems directly connected with these prospects. These potentials are then weighed against constraints linked to them.

#### **Natural conditions**

The unique natural heritage and the beautiful landscape, modelled over time by human agricultural activities, are important assets for the region and present a potential for developing sustainable, ecologically friendly tourism. Recognition of the protective functions of forest is widespread and nature is cited as a major tourist attraction (HH).

Despite this, little action is taken to pro-actively preserve nature, partly due to poverty and lack of alternatives, leading to the indiscriminate use of natural resources, and partly due to a lack of awareness.

The local population is extremely dependent on natural resources and lacks the financial security to be able to be selective in its use of these resources. In some areas this leads to immense damage to ecosystems (see Chapters 2.3, p. 23 and 2.7, p. 40.). Furthermore, there is no waste management system or sewage treatment structure in place, which with the anticipated growth of the tourism sector, would increase environmental harm to the natural potential of the region.

### **Distribution of benefit**

Developing an economic sector such as tourism is supposed to bring benefits to individuals and, indirectly, to the community. A need for involving more community members in the benefit from tourism has been mentioned in various discussions.

There are different options for redistributing this profit, including state involvement through taxation.<sup>109</sup> In the case of Zemo Svaneti, the population generally appears reluctant to pay taxes, due to a mistrust towards government and dissatisfaction with the poor infrastructure.

An alternative potential for benefit sharing builds upon existing informal networks for mutual support based on kinship, neighbourhood and friendship. These networks could serve as a nucleus of self-organised structures in order to broaden the benefit from tourism (FG 20, HH, observation). However, these specific social entities and their closed character prevent a spreading of this benefit beyond the solidarity groups.

### **Marketing the diverse attractions of Zemo Svaneti**

The ongoing marketing and advertising endeavours constitute a sound base for intensifying promotional activities. Communities situated off the main travel routes are desperate to attract visitors and are aware that it is necessary to improve and intensify advertising at all levels (FG 20). However, the local population generally lacks the capacities and the ideas on how to market the attractions of their villages. But communities do have some ideas for diversifying tourism products, for example through establishing a winter sports resort or by developing agro-tourism.

Zemo Svaneti has a potential to attract tourists from the different market segments of explorative, nature, adventure and culture tourism.<sup>110</sup> The main potential is in the area of explorative tourism which is linked to trekking and alpinism. Communities lacking the major attractions of famous mountains or glaciers do have the alternative of relating their offer to interesting features of their daily lives and their environment. The hospitality of the Svans, their houses, their characteristic and unspoiled villages and the traditional production systems represent a potential for attracting some visitors without major investments.

The potential for diversifying the offer should not be overestimated given the current preferences of visitors; the need for state and private investment in infrastructure,

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<sup>109</sup> In Georgia, income tax goes into the central budget. In some regions of the world, local “visitors’ taxes” are collected by the community. For the time being, the only “community income” is that derived from entrance fees to local museums.

<sup>110</sup> Ideas for diversification are presented in Annex 6.6.2, p. 124.



and the fact that the main tourist season coincides with the peak workload in the agricultural sector.

#### **2.8.4 Conclusions**

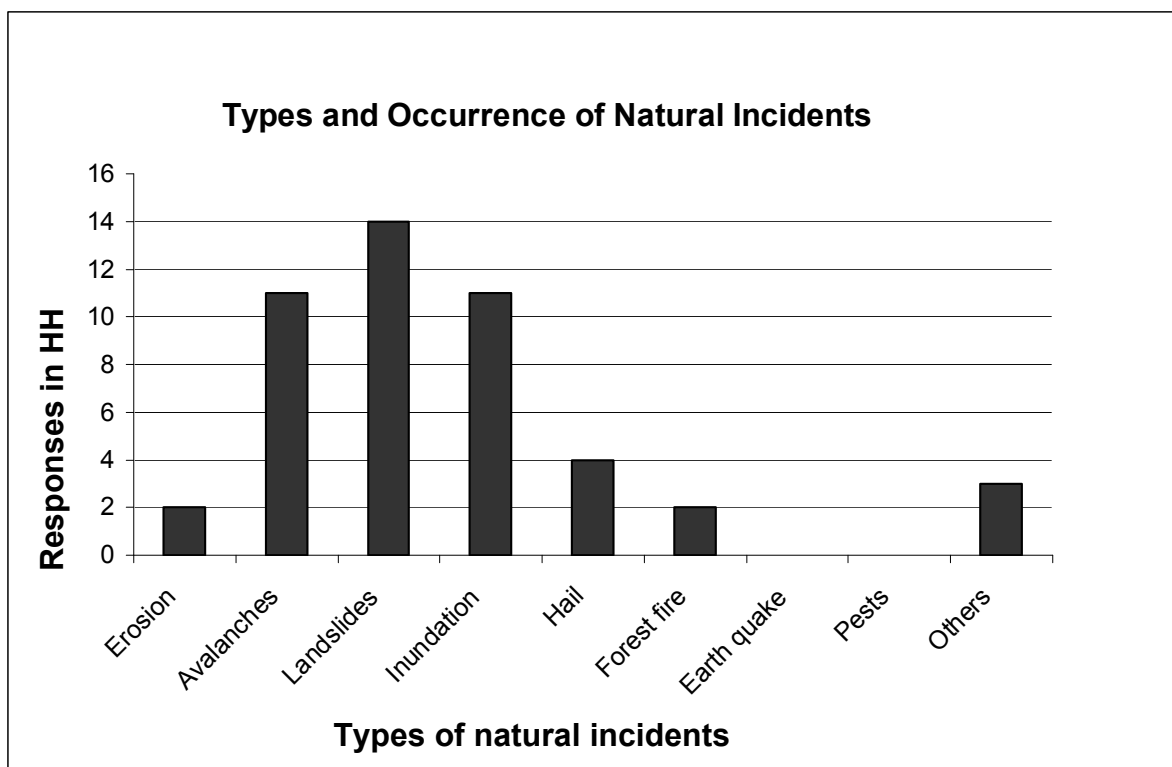
More families will become involved in tourism only when the volume of tourism grows and visitors stay longer. The networks through family and neighbourhood ties represent a potential nucleus for organising broader benefit sharing of the profit earned from tourism. The principal local attractions could be better advertised locally and further valorised in order to preserve them for future generations. The region does have the potential to diversify its tourism products beyond trekking and alpinism. It should, nevertheless, be kept in mind, that tourism will increase gradually and is sensitive to security issues. Currently the reception capacities are insufficient to cater to the needs of guests who are increasingly exigent.

### **2.9 Disasters**

The geomorphology of Zemo Svaneti, characterised by steep slopes, rocky and erosive mountains and a bare glacier and wild river network, contributes to the fact that Zemo Svaneti is a high risk area for disasters (UNDP, UNEP, OSCE 2004: 22).

#### **2.9.1 Current Situation**

Recently, a more frequent occurrence of natural incidents such as inundations,, landslides, avalanches and hail have been observed by the population (HH, see Figure 12). Variations in the microclimate (HH, GMF 2005: 13) are said to be influencing natural incidents. These changes may be related to human activities such as pasture management, forest management or the construction of infrastructure and settlements (Inguri hydro power station, roads) (EI 3, HH, GMF 2005: 13) combined with the impacts of global climate change (UNEP, GRID-Tbilisi 2002). At present there is no available scientific proof for this perceived change since no detailed scientific study on changes in flora and fauna or other in-depth studies on severe changes in the ecosystem have yet been undertaken for Zemo Svaneti.



**Figure 12: Types and occurrence of natural incidents in Zemo Svaneti.**

Source: HH

As can be seen in Figure 12 the most frequent natural incidents in the past ten years were landslides, avalanches and inundations. These incidents occur yearly with more or less severe consequences for the local population depending on where they occur and what they destroy.

Below, a brief description is given of the different aspects of the current schemes for preventing and responding to disasters, along with an evaluation of the consequences of these calamities.

### **Risk areas**

So far, no detailed expert studies such as risk mappings have been undertaken (El 21). A group of geologists visited the region in 1987 and there have also been other more recent surveys assessing the exposure of communities to natural incidents. These surveys identified high risk areas and recommended resettlements, but no preventive resettlements have taken place. (FG 12, 16)

### **Road infrastructure**

Road construction is undertaken with insufficient attention to the eventuality of inundation. The drainage systems for roads, if they exist at all, consist of ditches about 30 cm deep running alongside the roads and usually clogged by weeds.

## General awareness and vulnerability of population

The local population feels defenceless towards the dangers of disasters (HH, FG 5). People use the forest in an unsustainable way for a variety of reasons (EI 12, FG 8, see Chapter 2.7, p. 40 ) even though they are conscious of the importance of mountain forests for the prevention of disasters (HH). While this connection is very clear to people, there is little recognition of the link between road construction, pasture or forest management and disaster prevention (FG 16). The local population's vulnerability<sup>111</sup> is high due to generally low economic reserves. Furthermore, the means and the propositions for prevention and response are limited (FG 16, HH). Planning procedures, for example for construction sites, appear ineffectual and seem to be of less consequence than other factors such as the shortage of land (HH, see Chapter 2.2, p. 21).

## Prevention and response schemes

People take certain measures in high risk seasons to prevent the disaster from hitting their settlement or in order to reduce the impact, e.g. by moving temporarily to safer places, building dikes, or simple water channelling devices with tree trunks (FG 5, HH, see Annex 6.7, p. 132). Both local administration and international organisations assist in reinforcing roads and bridges against inundation effects by constructing cages of wood, stones and iron along the river banks (HH, observation, FG 8).

The response of the community and the recovery possibilities depend very much on the severity of the disasters. Neighbours within villages support each other (HH, FG 5). Roads and yards are cleaned and fences re-erected (HH). Wherever possible, the mud is cleared from the fields (HH). For the reconstruction of houses and infrastructure, people normally wait for compensation<sup>112</sup> from the state (HH, Min 4).

### 2.9.2 Problems

The impact of natural incidents on society is evaluated as being more severe nowadays than in the last decades (FG 16, HH, GMF 2005). Affected households assess the severity of these disasters between medium and high (HH). Such incidents can result in:

- Poverty,

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<sup>111</sup> "By vulnerability, we mean the characteristics of a person or a group in terms of their capacity to anticipate, cope with, resist, and recover from the impact of a natural hazard." (BLAIKIE ET AL. 1994: 9)

<sup>112</sup> Usually 5,000 GEL per household.

- Human losses, and
- Out-migration.

Inadequate response schemes in communities facing the impacts of natural disasters results in people, livestock, houses, and infrastructure, such as roads and fences, being highly vulnerable. This can lead to severe problems such as:

- Death and injuries,
- Loss of animals, particularly cattle, and
- The destruction of houses.

Settlements are often situated in high risk areas, e.g. below a steep deforested slope or in the natural flood retention area of a river. This can lead to substantial damage to houses and possessions. The means and knowledge for effective reconstruction of houses, taking into consideration location, building materials, and preventive constructions are scarce due to limited financial reserves, land rights and limited human capacities. When a natural incident occurs, often people have only their basic agricultural equipment such as shovels and sledges to rescue people and livestock.

The perceived alterations in the microclimate particularly affect the agricultural sector, e.g. resulting in droughts<sup>113</sup> or late hail which reduces the harvest. In addition, agricultural activities related to animal husbandry as well as those connected with crop, vegetable and fruit production are hampered by disasters<sup>114</sup>. Subsequently, this results in:

- Low agricultural productivity,
- Limited economic activities and consequently reduced income, and
- As a result, low financial reserves.

The destruction of basic infrastructure such as roads, bridges, and public buildings like schools, impedes development, and this is perceptible through:

- Blocked access roads to villages, meadows and pastures,
- Limited access to hospitals and other services, and
- Difficulty in marketing products.

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<sup>113</sup> This summer was the driest one in years, see Chapter agriculture.

<sup>114</sup> See Chapter 2.2, p. 21: Fields are spoiled by mudslides, pastures and meadows are devastated by landslides, and the fertility of soils is diminished as a result of erosion and the consecutive out-wash of nutrients.

### **2.9.3 Potentials and Constraints**

#### **Awareness regarding the impacts of disasters**

People strongly voice their need and desire to live in safer places (HH). Generally, there is a broad understanding about the functions of the forest to prevent disasters (HH).

Within the community, a rather resigned attitude towards effective preventative measures prevails (FG 8). The possible benefit of training is not clear and people appear to give more importance to financial compensation than to the development of preventive schemes. There is a lack of comprehension regarding the complexities of disaster prevention, including risk mapping, response schemes and the subsequent links to different economic activities in agriculture or tourism (FG 8, 16).

#### **Community-based response schemes**

In some communities, people have developed small-scale systems to respond to disasters (see Annex 6.7, p. 132). There are also some ventures connected to reforestation activities (HH) and endeavours to reactivate water management systems for fields and meadows and pastures (see Chapter 2.2, p. 21, HH).

Scepticism towards technical measures was expressed in one discussion, although participants openly invited experts to come and visit their communities (FG 8).

#### **Reforms in land management in Georgia**

Georgia is currently undertaking a series of administrative reforms (see Chapter 1.2.3, p. 7), and is also tackling land registration and cadastre modifications (EI 21). This process can provide a firm foundation for disaster-sensitive uses of land in Zemo Svaneti. Furthermore, traditional land management systems for pastures, meadows, fields, and forests already exist at the local level (see Chapters 2.2, p. 21 and 2.7, p. 40).

This development process towards a synergy of traditional land uses and administrative land reforms, including the introduction of a cadastre system, is at an early stage (EI 21, pers.comm.). Consequently, suspicion and apprehension is widespread among the population with regard to this prospective change in traditional rights and responsibilities.

#### **Systematic disaster prevention and response being initiated**

There are several state authorities in Zemo Svaneti such as the agriculture, refugees and forest departments that deal with disaster impact as part of their daily work. Concurrently, several community-based organisations (CBOs) and civil society interest groups such as mountain associations or farmers' cooperatives (compare

ACH project, EI 27) are beginning to organise themselves. These entities could provide a base for a systematic and participatory process of analysis, strategy development and implementation of preventive and responsive instruments.

The administrative authorities in Zemo Svaneti did not express a definite requirement for change in the systematisation of land uses or for prioritising the topic of disaster risk reduction in their policies. Besides, it has to be kept in mind that the current decentralisation process may limit the capacities of communities to invest in a systematic approach to cope with disasters (see Chapter 1, p. 1). Small cooperatives created for economic gain may also be reluctant to integrate disaster prevention into their agenda.

#### **2.9.4 Conclusions**

Regular natural incidents as well as extreme natural calamities limit the growth potential for sustainable local development in Zemo Svaneti. Local capacities to reduce the vulnerability of the population are limited and should be strengthened in order to be able to address the problems of the region. The main potentials for dealing with these problems are seen in the awareness of disaster impacts, the community-based response schemes and the ongoing land reform and the introduction of systematic prevention and response.

## **3 Recommendations**

### **3.1 General Vision for Sustainable Development in Zemo Svaneti**

Mountainous regions, like Zemo Svaneti, are worldwide in an unfavourable situation compared with lowlands: they are characterised by remoteness, difficult access, natural resource limitations, limited land, and are prone to disasters. At the same time, they are often refuges for natural heritage such as old-growth forests, endemic species, and a high biodiversity. Furthermore, many mountain populations have been able to conserve their cultural heritage, being less exposed to trade and exchange. For all these reasons, Western and Central European countries have often decided to dedicate state efforts to sustaining such regions in order to preserve their natural and cultural heritage, and maintain their recreational value for the population.

In the case of Georgia, special attention was accorded to remote regions during the Soviet period by way of comprehensive services and higher salaries than in the lowlands. Following the dissolution of the USSR, there has been no deliberation regarding the significance of mountainous regions. It has to be determined whether special value should be attributed to mountainous regions and thus trade offs awarded in the form of subsidies or transfers. Mountainous regions such as Zemo Svaneti would then have to resume responsibility for preserving their natural and cultural heritage which is in the interests of the entire state, and withdraw from any economic development activity which is prejudicial to the ecological resources. Economic development within given limits would be possible with the strong support of the central government. The fact that Georgia is a state in transformation with a shaken economy makes negotiation for such trade offs and tangible support from the central government rather unlikely in the years to come. However, until such a debate is conducted the local population and economy should receive assistance to best use their resources in the areas of their choice.

The potential for growth in any economic sector in Zemo Svaneti is limited. Nevertheless, improvement of living conditions is possible. There has to be a differentiation between potentials in the short term (approximately three to five years) and in the long term. Cattle are often the main source of income (see Chapter 2.1; p. 18), and therefore for increasing earnings, cattle breeding presents the main potential in the short term. Clearly, natural resources impose narrow limits for growth, especially with regard to any increase in cattle numbers. Moreover, Zemo Svaneti has to contend with other mountainous regions, e.g. in the production of cheese or meat.

The other economic sectors may mainly serve for subsistence and a small additional income. This is also true for tourism which is often mentioned as having the main growth potential. Yet, the reputation of Zemo Svaneti being a dangerous place still persists, in Georgia as well as abroad. Transforming this image will take time as will the improvement of infrastructure, both preconditions for development of the tourism sector. One sector which does present a potential for commercial operations in some areas is forestry. However, it is important to consider the natural limitations; large areas of old-growth forests are already being destroyed.

Given the natural limitations, only tourism has the potential for substantial growth in the long run. Long-term investment in tourism in Zemo Svaneti will have to be accompanied by immediate measures aimed at improving the region's image and infrastructure and at strengthening its capacities, all necessary to foster growth at a later stage.

In the following chapters, recommendations for promoting sustainable development in Zemo Svaneti will be presented. They are prioritised based on the results of the baseline assessment and the potential analysis discussed above. First, they are presented for all the sectors, including support to education which plays a crucial role in all technical interventions but also for the future of the human capital of Zemo Svaneti.

Later, strategic options for sustainable development (compare Chapter 3.12, p. 81) will combine appropriate and further prioritised measures.

When intervening in any of these spheres, it is essential to pay special attention to coordination. Any intervention has to be embedded in the current reform processes (decentralisation, education) and included at the beginning of comprehensive planning processes.

## **3.2 Recommendations for Agriculture**

This chapter comprises recommendations for the agricultural sector. As for the results, animal husbandry is dealt with first, then crop, vegetable and fruit production. Recommendations for marketing of agricultural products and knowledge transfer in agriculture is handled comprehensively for animal and crop and vegetable production.

## **3.3 Recommendations for Animal Husbandry**

### **3.3.1 Recommendations for Cattle Breeding**

The envisaged goal should be to improve the conditions in which cattle are reared and bred in order to enhance milk and meat performance. At the same time, the



ecologically favourable conditions for animal husbandry in Zemo Svaneti should be taken into account.

Firstly, the fodder base has to be improved: other sources of fodder should be sought apart from hay, e.g. concentrated fodder stuff, silage and fresh fodder. In addition, an increase in fodder rations for cattle is necessary which would, in turn, raise the general efficiency of milk and meat production.

A reduction in total head of cattle combined with increased feeding would contribute to an increase in efficiency.<sup>115</sup> Taking into account the social and financial importance of cattle for Svan households, this does not appear feasible in the short term, but could be studied as a role model on a model farm and be promoted in the long term (see Chapter 3.11, p. 78).

The use of arable land for fodder production, growing leguminous plants or introducing new fodder plants<sup>116</sup> could be a first feasible step to compensate for the shortage in animal fodder and reduce the pressure on overused pastures and meadows. Bearing in mind the natural limitations, additional fodder will have to be procured from other parts of Georgia. In this regard, the poor infrastructure is a severe constraint for transport.

The introduction of new bulls is essential for a refreshment of the blood of the local breed. For best results, introduced breeds should be acclimatised to local conditions (e.g. use of breeds accustomed to mountain conditions such as the Swiss Brown). At present, artificial insemination is not performed, thus its introduction should be accompanied by appropriate training activities. The refreshment of the blood of the local breed should be combined with the introduction of a selective reproduction scheme. In addition, the existing genetic resources of the local breeds should be exploited by systematic selection of reproducing animals. This is a general problem and could be tackled through training. This would subsequently permit the introduction of a systematic documentation of the animals' phylogenetic tree and their characteristics. Other supportive activities could be information and knowledge transfer regarding proven good practices of cattle keeping, e.g. through users' manuals (see Chapter 3.11, p. 78). It is recommended that experienced technical experts be contracted to conduct these trainings, preferably from Georgian associations that have demonstrated their competence in this field.

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<sup>115</sup> An assessment of the estimated efficiency of increased milk production through better feeding, can be found in Annex 6.4.1, p. 106.

<sup>116</sup> See also Chapter 2.4.4, p. 35.

In order to support the above activities, adequate veterinary services should be provided.

### **3.3.2 Recommendations for Sheep and Pigs**

Bearing in mind the current focus on meat and wool production in the sheep rearing area, these activities could be intensified and associated with increased production for the tourism sector. The potentiality for the production of sheep cheese could also be explored, since prices are high and there is a substantial demand (market analysis). However, it should be borne in mind that the local population has no experience in cheese production and that there is a shortage of typical milk breeds in Zemo Svaneti.

The limited information collected during this study regarding pig keeping and the existence of pigs does not permit a formulation of recommendations for the intensification of pig keeping.

### **3.3.3 Recommendations for Pastures and Meadows**

Taking into consideration the generally unbalanced interrelationship between the productivity of pastures and meadows and fodder requirements for the existing cattle, a viable solution should be found.

The management of meadows and pastures should be improved in order to increase productivity. One measure that could be introduced to increase yield could be the institution of fertilisation of meadows and pastures following the pattern of the far more intensive system of Alpine agriculture. If such an option is considered feasible, the ecological consequences of a higher nutrient input on the biodiversity of mountain meadows and pastures should be assessed and weighed against the advantages for economic prosperity.

Weeding of land should be properly executed, using land more efficiently. Moreover, in a community-led process, there is the possibility to renovate and clean the former water distribution system which is still partially in existence.

In order to improve the management of the meadows and pastures in Zemo Svaneti, a first priority would appear to be the establishment of an integrated system to manage the communal lands in a sustainable way (e.g. marking and fencing borders between land uses, creating a pasture rotation scheme). This would also have a positive impact on forest regeneration and reduce threats from natural hazards. However, it must be mentioned here that this is a long-term process and this would just be the first phase of an extended exercise. Such an activity is primarily the responsibility of the state and would require integrated land use planning designating clear responsibilities (see Chapter 3.14, p. 86).

All endeavours recommended above should be linked to knowledge transfer and capacity building activities on sustainable management methods conducted by technical and possibly local experts (see Chapter 3.11, p. 78).

### 3.4 Recommendations for Crops, Vegetables and Fruits

It should be borne in mind that crop and vegetable production is, and will remain primarily a subsistence activity, which provides a modest additional income through the sale of some products. The first recommendations given are for the improvement of potato production due to its relevance for income and then suggestions are made for vegetables. Methods for improving quality and yield should be explored more comprehensively but here only some possibilities are discussed. Bearing in mind the unfavourable production conditions and the difficult market access, niche products and high value products should be identified.

#### 3.4.1 Potatoes

The improvement of potato production should be a priority. With regard to all the recommendations outlined below, the high risk aversion towards new and unknown techniques and the knowledge transfer required should be taken into consideration (see Chapter 3.11, p. 78).

With **new, more adapted seeds**, potato quality could be enhanced. The local population did show an interest in new potato varieties but it was indicated that they would only be accepted if their success was first guaranteed. **Soil fertility** can be improved in different ways. It can be attained through diversification and better handling of manure (EI 36). Furthermore, a systematic way of crop rotation, planting legumes and alternating this crop with a fallow system could enhance soil quality. Using some fields for planting **fodder crops** for cattle could be one possible way to increase income and include this product in the crop rotation. It could prove more profitable to grow potatoes mainly for home consumption and cultivate fodder crops on the remaining fields. During the course of the study, nobody mentioned experiences with the cultivation of fodder crops. Additionally, in order to ensure a benefit, a calculation has to be made of the quantity required to obtain a higher milk performance.

Parallel with measures to improve cultivation methods, the **introduction of adapted technical equipment** (e.g. mini-tractors for grass-cutting, ploughs for potato harvesting, irrigation systems) would improve cultivation efficiency and reduce the workload. To secure sustainability, customised management structures for the use and maintenance of such technical equipment should be envisaged. Microcredit

schemes for small groups of farmers for investment in agricultural equipment could also contribute to such an initiative.

### 3.4.2 Vegetables, Fruit Trees, Herbs and Medicinal Plants

When considering the improvement of vegetable and fruit production, the gender issue is of great importance. Women are responsible for home gardens and they already have very limited time (see Chapter 2.1.3, p. 20, Table 15, p. 119 and Table 16, p. 120). Therefore, the main objective of any intervention should be to optimise production, i.e. to achieve better results with less or the same amount of work. It has to be stressed that during the field phase of the study, people did not express a necessity for an improvement of their kitchen gardens and fruit trees.

The best adapted cultivation methods have to be ascertained prior to initiating a project, but again some possible initiatives are listed here.

As previously mentioned, kitchen gardens are sometimes watered, but only if water is easily accessible. Therefore, **water retention** and efficient distribution systems could be useful in order to secure higher productivity even during years of drought. The introduction of **small greenhouses** for extending the vegetation period could be recommended once the first successful results have been achieved with the new cultivation schemes and people are more willing and able to invest. It should also be noted that these investments would be more costly and require more training support than improvement of already existing cultivation methods.

For processed fruits, the demand has to be ascertained, both at the national and local level. **Pruning and maintenance** of fruit trees could contribute to an increased yield.

Intensification of **herb cultivation** is possible. The growing of herbs does not entail using a large surface area and they can be conserved for a long time and are easy to transport. A grinding mill for herbs is currently under completion in Zugdidi. The potential for organic herbs should be examined. For **medicinal plants**, certain people have knowledge in this area. The procurement of additional data on this subject was beyond the scope of this study, but since natural medicine is a growing market and the plants are lightweight high value products, the potential should be explored in a separate study.

For all the above mentioned recommendations, it is most important to determine possible methods of knowledge transfer and underline the importance of demonstration sessions (see Chapter 3.11, p. 78).

## **3.5 Recommendations for Marketing of Agricultural Products**

### **3.5.1 Central Market Place**

A central market place could help to sell products locally. A need for such a structure was emphatically expressed by the population (HH, FG 4). According to local entrepreneurs (FG 13), a local market place should have been installed several years ago.. The main factors hampering this initiative were the primary investment for such a market, the need to be able to access price information and coordination of the organisational set-up. But local salesman could bring their experience to this enterprise and make use of the local demand. A first step in this direction would be to improve the existing reseller system by making price information and networks accessible.

### **3.5.2 Organisational Set-up**

Another recommendation for improving market access and making marketing less costly is to form marketing groups with the goal of unifying efforts towards common aims and benefits. These groups should consider the specificity of Svan society, which entails an aversion to joint investments and an important cultural tradition of collaborating within the family and with neighbours.

### **3.5.3 Diversification of Products**

A strong feature to be further exploited is the reputation connected with Svan products relating to good taste as well as to healthy and natural production (market analysis). Building upon these capacities and resources, it is recommended to diversify products towards different processed goods which can be stored satisfactorily and therefore sold at different times. Keeping in mind the value added in each step of processing, this potential could be exploited for the following products:

- Cheese: Improvement of the quality of Sulguni cheese, as it has been mentioned it is often too hard and salty; smoking of Sulguni cheese and introduction of new varieties other than Sulguni.
- Meat: Production of sausages, ham.
- Fruits: Production of jam, juice and compotes.
- Vegetables: Production of sauces and pickles.
- Herbs: Svan herbs and salt.

A precondition for an increase in marketed and processed products is a strengthened framework for agricultural production and the financial resources to pay for the

necessary infrastructure. For such an endeavour, low-level credits to small cooperatives should be envisaged. For the introduction of new products, as a first step an in-depth demand analysis for the new product should be undertaken, subsequently further training has to be provided to familiarise staff with the new processing techniques. Furthermore, the possibility of encountering difficulties with the new production schemes has to be taken into consideration (see Chapter 3.11, p. 78).

Another possible development possibility would be to increase the value of existing products. Up until now, people in Zemo Svaneti have made little use of chemicals for cultivation. The potential for organic farming could therefore be developed with a minimal effort on the part of farmers interested in that type of production scheme. New cultivation methods would have to be introduced, systematising the existing low-input cultivation, and different means of knowledge transfer would be needed. Certification would have to be ensured in order to attribute the appropriate value to the organic product. A precondition for such an undertaking would be a market analysis to assess the interest in organic Svan products and the possible extra benefit to be gained from such an initiative.

#### **3.5.4 Packaging and Labelling**

In order to ensure an adequate profit from the sale of the goods listed above, proper packaging and labelling would be advantageous. In the case of organic products, certification would certainly assure farmers an access to a wider and more profitable market than that for conventional production (market analysis).

### **3.6 Recommendations for Knowledge Transfer in Agriculture**

Many of the recommendations given for animal husbandry, crop and vegetable production include the necessity for knowledge transfer. Possible ways to achieve this and also constraints to this process will be elaborated in this chapter.

In order to introduce new or improved agricultural techniques, demonstration of the procedure is of utmost importance. This was often stressed by the people themselves (FG 18) and knowledge transfer could help to reduce the existing scepticism. People may not have confidence in new forms of cultivation or new animal husbandry techniques which they are not used to and which they feel are too risky to try out (see Chapter 2.1, p. 18). The importance of tradition or a lack of time and work force can be other reasons. Very often respondents stressed the need for technical equipment rather than expressing a need for improved management schemes. This attitude originates from the Soviet period when infrastructure was

available and sustainability not an issue to be taken into consideration when planning interventions. It was also inferred that agricultural activities are not regarded as a job, i.e. as employment, but as a necessary subsistence activity.

Therefore for medium-term implementation, pilot farms could be selected to apply new and different agricultural techniques. Another possibility would be to use a model farm for experimenting with new techniques and as a base for demonstration, training and discussion. The latter is a rather long-term investment and will only produce results after a certain period of time. To ensure sustainability of a model farm, participation of the local population is crucial. In addition, in the agricultural sector, the gender issue has to be taken into account since women already have a high workload (see Chapter 2.1, p. 18).

In addition to the above mentioned recommendations, small activities like distributing a manual on agricultural methods would be helpful. Such supplementary activities should be elaborated with the help of knowledgeable local people in order to best focus on local conditions. Internet is also a possible though limited way to create a platform of exchange and information about agricultural issues (e.g. Agroweb).

Apart from this, there is the possibility of setting up an extension service and this type of facility could be implemented immediately with the potentiality to reach different communities. Extension services can include training on specific subjects, e.g. different ways of improving soil fertility, systematic reproduction of cattle, etc.

### **3.7 Conclusions for Agriculture**

Animal husbandry: In order to increase milk and meat performance, the fodder base has to be improved through diversification and higher rations. The advantages to be gained from a reduced number of head of cattle could only be demonstrated over the long term, while at the same time taking into account the social and financial importance of cattle. The refreshment of blood of the local breed is of great importance. This can be undertaken utilising new bulls that are acclimatised to mountainous regions and/or artificial insemination. The latter is so far not practised in Zemo Svaneti. The above activities should be combined with selective reproduction schemes.

In order to increase the productivity of pastures and meadows, the management of land has to be improved. This can be achieved through improved water management, fertilisation and weeding of land, but the prime concern has to be an integrated management of communal lands, which is a long-term process.

For all the recommendations given, the utilisation of different methods of knowledge transfer is of primary importance.

Potatoes: Due to the limitations to production, crop production will remain a basic part of the household economy, providing staple foods and diversifying diets. The objective of interventions should therefore be to optimise production in order to obtain better yields with the same or less effort. This can be accomplished through the use of improved cultivation techniques, better adapted seeds or modified mechanisation. Another option could be the facilitation of market access through the production of low-weight high-value products and by processing existing products but this would require further in-depth analysis. All such innovations call for systematic and appropriate knowledge transfer .

Marketing of agricultural products: For improved marketing, recommendations are presented at different levels. The need for a central market place was frequently mentioned and this had been impeded primarily by a lack of investment, inadequate price information, and absence of an organisational framework. In addition, the formation of marketing groups could save costs and improve market access. Diversification and processing of products, exploiting the good reputation of Svan products, is another option for increasing income. In order to achieve this, an intensification of agriculture is a precondition and financial resources are needed, which could be in the form of small credits to involved groups. The potential for organic farming could be developed with little supplementary effort, if farmers were to indicate an interest in it and if a market analysis of the demand for organic Svan products and of the extra benefit to be realised from such an activity were undertaken.

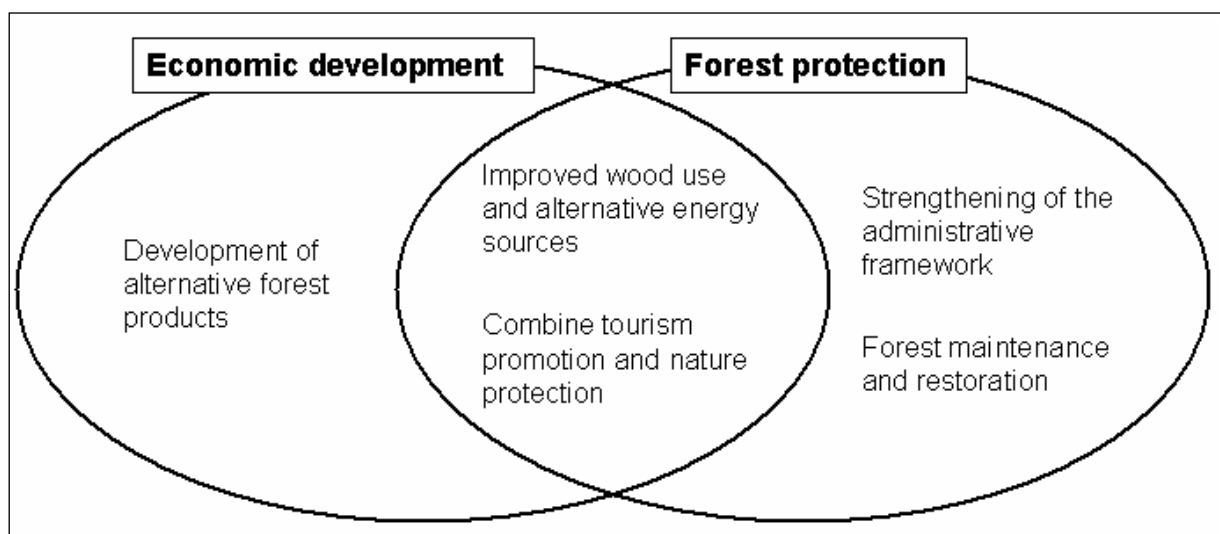
The development of appropriate packaging and labelling would be of benefit for all the above recommendations.

Knowledge transfer in agriculture: Educational activities in support of the above recommendations are regarded as crucial for their successful implementation. This is due to scepticism and risk aversion towards new agricultural schemes. Knowledge transfer can range from the provision of manuals to on-site visits to pilot or model farms.

### **3.8 Recommendations for a Sustainable Forest Use**

With regard to forestry, two principal goals should receive specific attention: **forest protection** and **economic development** based on a sustainable use of forest. Reviewing the following recommendations, it is apparent that improved wood use and the development of alternative energy sources combine these two goals and involve several actors (see Figure 13). So does the recommendation on combining tourism promotion and nature protection through the establishment of a protected area but such an undertaking has to be decided within a policy framework.





**Figure 13: Combining forest protection and economic development based on a sustainable use of forest.**

### 3.8.1 Improved Wood Use and Alternative Energy Sources

A reduction of the demand for firewood would drastically reduce the pressure on forest resources. There are three principal ways to reduce the necessity for cutting firewood:

- By using by-products for heating (especially sawdust),
- By improving energy efficiency through more efficient heating systems and improved insulation, and
- Through the additional use of alternative energy sources (e.g. solar panels).

Awareness-raising concerning energy efficiency and alternatives to wood (e.g. as a part of environmental education) could provide a foundation for such ventures.

Valorising the by-products from sawmills would create new income opportunities which would assist in reducing the need to cut more wood. The NGO Rural Communities Development Agency has some experience in the field of wood pellet production which enables the conversion of sawdust into a heating source. The initial investment required for the purchase of mechanical presses is relatively low (EI 12).

The use of sawdust for insulation should be linked to existing skills in carpentry which would have to be strengthened through training.<sup>117</sup>

<sup>117</sup> Training sessions in carpentry are planned by the development initiative Pro Mestia. A day-care centre in Cholashi has been built by Pro Mestia using resource-conservation techniques (see also training needs compiled in the Annex 6.8, p. 133).

Improved heating systems<sup>118</sup> and insulation would require relatively **high investments** which would be amortised only over the long term. It would appear appropriate to structure interventions at different levels as follows:

- **Sawmills:** Disseminate information in order to increase understanding of the issue, promote capacity-building<sup>119</sup> and ensure the supply of, or assistance in the acquisition of, technical equipment for interested sawmills.
- **Households:** Awareness raising for the topic and establishment of a link to producers of alternative products.<sup>120</sup> People who can afford a higher investment could be helped to install improved heating systems. Guesthouse owners, for example, generally have more financial means and have a greater need for improved heating due to the expectations of tourists.
- **Public places,** such as schools could be provided assistance to install central heating or alternative energy sources like solar panels. A central heating system was being installed in the newly renovated school at Mestia at the time of this study.

### 3.8.2 Combine Tourism Promotion and Nature Protection

Promotion of the region's features for tourism should also include the forest. Protected areas are an opportunity to ensure nature conservation and provide an attractive location for tourism. The Georgian Protected Areas Development Centre (GPADC) is working on proposals for a future national park in Zemo Svaneti. Another possibility would be a biosphere reserve which a priori seeks to combine economic activities with nature protection. The international framework for this is the UNESCO Man And Biosphere Programme (MAB). This could be an approach to introducing integrated land use planning in the long-term (see Chapter 3.14, p. 86).

### 3.8.3 NTFP and Handicrafts: Marketing of Alternative Forest Products

There are several Non Timber Forest Products (NTFP) which people utilise but which are commercialised only to a very small extent. Handicrafts (particularly

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<sup>118</sup> The Georgian association "Mta-Bari" is an organisation which has undertaken work on more efficient stoves and heating systems for environment protection and sustainable development.

<sup>119</sup> For example, technical know-how, marketing.

<sup>120</sup> For example, contacts with sawmill owners.

wood-carving products) as well as NTFP could, supported by a strong marketing and promotion component,, create new income opportunities.<sup>121</sup>

**Processing** can contribute to an increased economic benefit. Jams, compotes or dried mushrooms are easy to store and transport and have a higher added value than raw products. In addition, fruits and nuts of plants endemic to Zemo Svaneti (ELKANA 1998) are products which could provide a good potentiality for accessing niche markets.

**Honey production** has an important economic potential. Appropriate training and motivation of knowledge and experience exchange could promote both honey production and marketing and also contribute to achieving standards that would protect the sector from diseases.

### **3.8.4 Strengthening the Administrative Framework**

As demonstrated above, increased income generation is not inevitably in contradiction to forest protection. However, sustainable wood use cannot be guaranteed without an effective control of cuttings. Overall the capacities, in terms of numbers of personnel and state entities operating under the authority of the MoE to strengthen and enforce the sustainable use of forests, have to be improved. An increase in the field staff, particularly of the controlling bodies, and an improved coordination between these structures and the main administration, for example through improved communication systems, are of primary importance. Needless to say, this would necessitate a high level of investment in terms of time and resource input.

### **3.8.5 Forest Maintenance and Restoration**

In a situation such as that prevailing in Zemo Svaneti where damage of the forest coverage is already evident, consideration must be given to restoration of the affected areas.

Due to the heavy burden exerted on the land by the cattle population (see Chapter 2.3.1, p. 23), natural regeneration is not possible in the grazing areas and unfenced plantations would be destroyed by the animals. Consequently, the first step towards a sustainable solution is to consider possible changes in the management of forestry resources and animal husbandry activities. A **plan which integrates the different**

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<sup>121</sup> Particularly with regard to wood-carving products, it is not a shortage of skills but a lack of market access that limits the income generation (FG 1, EI 38).

**land uses** could serve as a basis for harmonising the different activities (see Chapter 3.14, p. 86).

### 3.8.6 Conclusions

For forestry, the optimum objective would be a combination of economic growth and sustainable forest use. This should be attained through improving wood and energy efficiency at different levels, from the household to sawmills. Another option could be to capitalise on the uniqueness of forests by combining tourism with nature conservation. Therefore economic potential, processing of NTFPs and production of handicrafts should be explored. An essential feature of this approach is the sustainable management of forest land. To ensure the latter, priority should be given to the restoration of forests. In addition, support should be provided to the administrative framework.

## 3.9 Recommendations for Tourism

Zemo Svaneti is one of many high mountain regions with a strong cultural appeal and therefore it is competing in a high quality market and this should be perceived as a challenge and an incentive to increase efforts to **preserve these valuable resources**. In the short term, tourism will probably only bring a limited benefit to individuals and communities of Zemo Svaneti. However, in the long term, tourism does have the potential to provide considerable additional income to the families involved in such activities. In order to scale up sufficiently, **investments from the state** are urgently needed to facilitate access to the area and ensure political stability. A comprehensive **tourism development strategy** should be prepared which, among other things, would identify mechanisms with components for benefit sharing or for re-injecting parts of the profits into the local communities. In the years to come, the state as a planner and coordinator will need support from the national and international community for the implementation of numerous aspects of the overall strategy. The recommendations below contain general guidelines on how the research team believes tourism could be developed.

### 3.9.1 Local Tourism Development Plan

A long-term tourism development plan respecting **guidelines for sustainable tourism** should be drafted. An order of priority for implementation of the different

elements of the plan should be given, and the first step should be an analysis of the ecological and social carrying capacity.<sup>122</sup>

This local tourism development strategy encompassing product management and capacity building in the most favourable regions should be developed by the Department of Tourism. According to a representative of that Department, this plan would be part of the ongoing elaboration of an overall “master plan” for tourism in Georgia which is being undertaken in cooperation with the United Nations World Tourism Organisation (UNWTO).

### 3.9.2 Sustainable Tourism<sup>123</sup>

International agencies involved in supporting sustainable economic development and in developing tourism should lobby for the development of Zemo Svaneti as a sustainable tourism destination. When directly supporting service providers they should encourage them to adhere to the concept of sustainable tourism.

General **basic infrastructure**<sup>124</sup> needs to be installed to prevent environmental harm and to balance the increased pressure on natural resources resulting from the requirements of visitors (EI 35, 42). Since it appears unlikely that the local budget will provide funding to install such systems, alternative sources should be sought, for example international agencies could support the installation of such structures, given their double function as being of overall benefit to the communities and laying a base for sustainable tourism.

Households with an increased need for resources due to service provision should be assisted to use them more efficiently (see Chapter 3.8.1, p. 67). They could then serve as demonstration households and multipliers for innovative techniques. Agencies working in the field of energy efficiency could make use of this opportunity. Utilising **resource efficient systems** could be part of a “code of conduct” which donor supported service providers should comply with in order to agree on some basic rules. Such rules could include the re-investment in nature conservation of some of the profit obtained from tourism. This could be undertaken through a fund

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<sup>122</sup> This analysis should elaborate guidelines based on a detailed destination management study, thus increasing the value of the region for the growing market segment of “sustainable tourism”.

<sup>123</sup> According to EU 2002, sustainable tourism “meets the needs of present tourists and host regions while protecting and enhancing opportunities for the future. It is envisaged as leading to management of all resources in such a way that economic, social and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity and life support systems” (EU 2002: 75).

<sup>124</sup> For example, sewage and waste management systems.

with a transparent participative management – and utilising alternative energy e.g. solar water heaters.<sup>125</sup>

### **Benefit sharing**

If tourism development is expected to support more than individual households with the objective that their benefit will, in due time, trickle down to other segments of the community, the focus should be on a broad benefit distribution of tourism revenues in order to pursue pro-poor economic growth. A need for this type of benefit distribution has been expressed especially by people presently not operative in tourism (FG 20). Thus, the importance of benefit sharing and the organisational options to achieve it should be part of a tourism strategy and, accordingly, of training curricula.

Benefit sharing can be achieved through different means. An **information panel** in the local information centre for displaying material about local services would help to make the business more transparent. **Local advertising** of services could also encourage visitors to stay longer in Zemo Svaneti. An **improvement of services** required by tourists (e.g. restaurants) through capacity building would, by word of mouth and through using marketing techniques lead to greater demand and, in the long term, the involvement of more service providers.<sup>126</sup>

One option for benefit sharing could be through the establishment of a **welfare fund** by the beneficiaries for formalising and controlling benefit sharing, and apportioning part of the revenues to projects beneficial to and selected by a community or social entity. Further consideration needs to be given to the structure and size of such a fund in order for it to be acceptable to the local entrepreneurs and communities. **Training** should be arranged within the community in order to ensure a proper establishment of the fund and its future transparent management. In addition close monitoring of the fund should be secured (EI 42).

### **3.9.3 Marketing and Diversification**

Local communities should be supported with appropriate training and material to advertise their attractions in an informative and visual way in order to stimulate visitors to discover more about the local offer.

A process of **self-organisation** for collecting and displaying material featuring the attractions of the communities, e.g. with the help of local artists, and for setting up a

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<sup>125</sup> See Annex 6.6.3, p. 129 for Geotourism Charter as an example.

<sup>126</sup> Local products for hiking like jam, cheese, sausage, ham, bread, but also handicrafts and souvenirs. Restaurants could improve their services (observation).

framework for local information centres could be initiated and supported by development actors (FG 14, 20, EI 42, HH). These information centres could also be used for establishing direct links with tour operators in Tbilisi (FG 20). A closer **cooperation with the Department of Tourism**, should also be sought in order to ensure their involvement in promotion on the national and international market (EI 4).

This support should not only be directed to communities already receiving guests but should also help communities that are not yet on the tourist routes to attract visitors.

The communities should first consider products already in demand (trekking, culture, alpinism: how to better mark and maintain trekking routes, how to better exhibit their cultural treasures) but also products not yet on offer. One such product could be **agro-tourism**<sup>127</sup> described in Annex 6.6.2, p. 124, because of its close links to the agricultural sectors analysed in this research (FG 8). This product may not be much in demand at present, but it could be linked to existing trekking tourism and needs little investment.

### 3.9.4 Tourism Development Using an Integrated Approach

Possible **synergies between tourism development and community development** are abundant (see Chapter 3.15, p. 89). Support to a diverse tourism sector should therefore be embarked on employing an integrated approach, linked to activities in various other sectors. These other sectors could include nature conservation awareness<sup>128</sup> and support to the preservation and promotion of cultural heritage and living culture. Nature conservation activities could be linked to educational and cultural activities, e.g. through painting or poetry competitions and concerts, thus mobilising and raising awareness as well as contributing to a more animated social life in the region.

The establishment of a pilot **microcredit scheme** or support to existing credit unions should be envisaged and, if successful, this initiative should be extended to other economic activities than tourism. The **support of small enterprises** in trade and crafts can be linked to tourism development, e.g. encouraging the processing and sale of local products, strengthening supply chains and providing training, e.g. in business management (see Chapter 3.13, p. 82).

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<sup>127</sup> Agro-tourism is here understood as presenting the agricultural production system as the main attraction for tourism. The guest lives with his/ her hosts and is both integrated into the family and the farming activities thus learning about special techniques and living an “authentic” experience.

<sup>128</sup> This could comprise awareness raising for protected area management, waste management, water management, alternative energy sources or disaster risk management.

### 3.9.5 Conclusions

Development actors should support the Department of Tourism in the elaboration of a strategy document for Zemo Svaneti. The focus of such a strategy should be “sustainable tourism” and, in developing the approach, consideration should be given to the negative side effects of tourism development and ways of avoiding them.

In the short term, development actors should ensure a broader benefit sharing of the revenue from tourism by supporting:

- Advertising to attract more tourists,
- Capacity building to involve more households, and
- Local information centres to democratise information and make it easily accessible.

When initiating activities, development actors should ensure that their beneficiaries share a vision of resource-friendly tourism and a desire to share a part of the benefit with the whole community. This can be achieved by elaborating:

- A code of conduct for the respective groups of service providers, and
- A welfare fund jointly managed and employed for the benefit of a defined social entity larger than the benefiting household.

Over a longer period, a more comprehensive offer of tourism products should be developed.

- Existing products should be extended to other communities (e.g. more marked trekking routes),
- New products valorising specific attractions of communities should be promoted and presented as a tourist package by the communities (e.g. Tskhumari: Cave visit linked to a hike to Labskaldi church and a view of Leila mountains), and
- Linking Zemo Svaneti to neighbouring regions such as Kvemo Svaneti and Racha would in the long term assist in developing top quality, challenging treks involving many communities and potentially various service providers (porters, guides, drivers).

## 3.10 Recommendations: Disasters

Recommendations for tackling the problems related to disasters have to build on local potentials and take the constraints into account. The following chapter will introduce some possible measures and formulate a first prioritisation based on the discussion in Chapter 2.9, p. 51. **Risk mapping, capacity building and low input disaster prevention** can be implemented in the short- to medium term. These components should lead to noticeable improvements which are especially useful for



the subsequent development of a **disaster risk management system, comprehensive planning and the establishment of a rescue system.**

### 3.10.1 Risk Mapping

For all the recommendations presented below and their implementing components, a **detailed risk mapping** of Zemo Svaneti would be helpful. Ongoing programmes such as the Land Register Project (EI 21) could be extended to Zemo Svaneti, providing a GIS-supported data base which should be expanded by incorporating a detailed hydro-morphological and geological expert study which would be carried out on-location. If time and finances permit such an undertaking, a detailed vulnerability analysis at village level would complete a detailed disaster preparedness analysis (see Chapter 3.10.6, p. 77).

### 3.10.2 Capacity Building

Based on the general awareness regarding the impacts of disasters, training and capacity building targeted at improving the existing prevention and response mechanisms could be developed.

The Centre for Training and Consultancy's (CTC) organisational network and local training centre in Mestia could provide both trainers and a suitable venue to conduct workshops, courses and excursions. A training curriculum could target motivated people in civil society who are mindful of the need and possibility for action, using them as multipliers and in this way gradually involving more and more people from the communities. Such a curriculum could consist of modules relating to **basic preventive constructions**, experience exchange with other mountainous regions affected by natural incidents (EI 22), **awareness raising on risk areas**, and an examination of resettlement scenarios within Zemo Svaneti. In cooperation with specialised development actors such as SDC, GTZ, or the United Nations, training could target **local and regional administration** as well as **village representatives**.

In addition, the population could be empowered by providing **informal environmental education**, addressing the topic of disaster prevention through:

- Village-based site visits and small projects including risk analyses combined with voluntary work such as reforestation on high-risk slopes,
- Fencing to prevent animals from grazing in the forest, and
- Cleaning of water channels in order to permit a well-directed diversion of water flows.

This training should target community representatives as well as farmers, in order to foster **self-organisation** and active involvement in community organisation.

### 3.10.3 Low Input Disaster Prevention

Damage caused by disasters can be significantly decreased through the introduction of small-scale measures. The **road drainage system** could be improved by arranging proper maintenance<sup>129</sup>, by installing perpendicular concrete tubes in order to redirect the water flow and by introducing u-shaped iron bars into the road surface to collect the water from sections of the road and redirect it, thus preventing erosion of the road surface. Detailed measures should be developed through an engineering expert study. This survey should also include recommendations for sites and designs for **defence barriers** to reduce the risk of avalanches, floods and landslides.

In general, disaster prevention is dependent on the willingness and awareness of the specific community or village. Success stories encourage motivated people, and serve as positive examples for prevention strategies for the local population. Therefore, the projects which are already functioning in neighbouring regions such as Kvemo Svaneti, implemented by development actors like SDC, could be utilised as examples for successful low input disaster prevention.

### 3.10.4 Rescue System

A rescue system to provide immediate assistance and relief following disasters should be introduced (HH, FG 14). Based on the interest expressed by people active in mountaineering (see Chapter 2.8, p. 45), an adapted **reactivation of the rescue system** established during the Soviet period is considered appropriate. Through **technical and financial support** and **capacity building**, selected development actors could empower the administration and local interest groups in creating such a rescue system. This system would ensure the safety of tourists and enhance local disaster preparedness.

### 3.10.5 Comprehensive Planning

Currently, land planning is based on social heritage systems and poorly incorporated into the administrative system. **Adapted and integrated planning tools and instruments** related to land classification, statistics, regulations, and land uses (see Chapter 3.14, p. 86) could be included in advisory development projects. In the long term, risk areas for inundations should be marked and left unused, giving the rivers and streams a place for flooding. This nature rehabilitation programme should be

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<sup>129</sup> For example: regular cleaning.

introduced only after training and awareness raising about the location of houses and infrastructure.

### 3.10.6 Disaster Risk Management (DRM) System

There is no disaster risk management system (DRM) in place for Zemo Svaneti. When soliciting advice regarding the installation of a DRM it is important that this is done in **cooperation between administration, civil society and development actors**. Such a system should include risk and vulnerability analysis, the participatory development of prevention strategies, training for more efficient prevention and reaction and the elaboration of comprehensible response schemes with clear responsibilities and competences. So far, experiences with DRM systems indicate that there could be difficulties in establishing **effective prevention and response mechanisms** in Georgia (EI 22, UNDAC 2005). These difficulties result from insufficient financial resources for disaster prevention and training, and indecision and misunderstandings between different levels of the administrative system, e.g. national and local responsibilities for responding to disasters (EI 22). Taking into account the complex social structure of Zemo Svaneti and the basic administrative structures (see Chapter 1.2, p. 31), development agencies should consider DRM to be a **long-term intervention**.

### 3.10.7 DRM in LRRD Programmes

Bridges and roads along all access routes are threatened every year and regularly destroyed (EI 22, FG 16, observation Mulakhi (Cholashi), GMF 2005). This is partly due to insufficient protection of the foundations of bridges and to inadequate site selection (FG 16). These rehabilitation sites are supported by international agencies as part of small-scale Linking Relief, Rehabilitation, and Development (LRRD) projects by international agencies. These unsustainable structures, built for a limited duration, require reconstruction after only a few years (FG 16). In order to improve sustainability, coordinated action between the different national and international development actors concerning DRM is needed. Collaborative efforts are required such as co-financing more **sustainable rehabilitation** structures like flood-secure (placement) and stable (material) bridges or alternatives to bridges like fords (EI 22).

In order to coordinate activities on a broader scale, **coordinating structures** in Zemo Svaneti such as communication platforms (see Chapter 3.14, p. 86), regular meetings of local, national and international development actors (see Chapter 3.12, p. 81) could be supported by **financial and advisory mechanisms**.

### 3.10.8 Conclusions

Disaster prevention and preparedness should be addressed in all possible development interventions, thus ensuring sustainability of programmes and activities.

In the short term, development actors should focus on:

- Prevention and response schemes, building on local capacities and awareness,
- Improving low input defence schemes,
- Detailed risk and vulnerability analysis, and
- Exchange visits for mutual learning.

With a focus on long-term interventions, the challenges of integrated land use planning and the establishment of a DRM system, as well as adapted LRRD programmes should be supported by development actors.

## 3.11 Support to Education

As indicated in the results and recommendations of this study, knowledge transfer in all sectors is crucial for the sustainable development of Zemo Svaneti. Inequitable material access to knowledge, poor teaching facilities and the generally low standard of the education sector are perceived as major problems (see Chapter 1, p. 1)

The intention to improve the quality and institutional set-up of the education system can be found in the MDGs (see Chapter 1, p. 1) and an educational reform is currently underway.

Education refers here to formal and non-formal knowledge transfer to people of all ages.<sup>130</sup> This chapter particularly addresses the CTC, but also other development actors (e.g. Elkana, GNAAP) and the administrative authorities.

### 3.11.1 Outline

The overall objective is the improvement of knowledge and skills. Short-term goals are to contribute to a better quality of education, to raise awareness regarding certain issues (e.g. disaster prevention) and to achieve greater equality of opportunity through better access (e.g. training in remote communities). In the long term, the

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<sup>130</sup> Formal education is defined as the highly institutionalised, chronologically graded and hierarchically structured education system. Non-formal education is any organised, systematic, educational activity carried on outside the formal system. ([http://www.infed.org/biblio/non\\_formal\\_paradigm.htm](http://www.infed.org/biblio/non_formal_paradigm.htm), access: 26/10/2006)

objectives are similar, but more complex issues such as disaster risk management or teacher training could also be tackled.

Knowledge transfer can have different aspects:

Technical training aims at a more efficient use of assets and resources by transfer of practical knowledge and skills (e.g. processing of products).

Organisational training aims at supporting self-organisation (e.g. project planning), at enabling a better expression of interests and needs, and at reaching a common goal within interest groups.

Awareness raising promotes an understanding of specific issues and problems as well as possible ways to respond to them. These issues are not necessarily on the agenda of the target group due to limited access to information (e.g. disaster prevention and response).

In order to be successful and sustainable, all the above-mentioned training activities should be embedded in an intervention strategy and linked to concrete action. For an improvement in the quality of education, a favourable learning environment has to be guaranteed. This can be achieved through improving education methods and facilities (e.g. demonstration plots, museum visits).

Teacher training is a component supporting the formal education system. It responds to immediate needs due to the ongoing education reform process and the perceived low standard of education. It also aims, in the long term, at equal access to education and knowledge for the population of Zemo Svaneti and better opportunities for the younger generation.

### **3.11.2 Opportunities and Threats**

On one hand, there are some potentials which provide a base for support to education, primarily the existing educational framework, a heritage from the Soviet period, and the strong demand for an improvement of the system as well as the expressed needs for specific training. Education is seen as the most important public service people use (HH, FG 17). There was an evident need for technical training in all sectors analysed (see above). Supporting capacity building to better respond to the requirements of post-Soviet society is a need pronounced at all levels (see Chapter 2, p. 18) and by various stakeholders (FG, HH, EI). Furthermore, there are abundant good ideas (e.g. improved heating systems), but a lack of means to realise them. These means can be material or organisational, attitude-related, or knowledge-based.

On the other hand, people are frequently demoralised and this is a serious constraint. If education support is to be broadly successful, a change of attitude has to be urged. This may take a long time and may involve sensitive issues. Specialised trainers and

modern teaching methods are scarce in Zemo Svaneti. Risk aversion due to little economic attitude and mistrust of joint economic enterprises represents another constraint for the success of technical and organisational training (see Chapter 1, p. 1).

### 3.11.3 Example

Recommended sector-specific trainings are described in the section on recommendations. A detailed list of training needs can be found in Annex 6.8, table 22, p. 133. Figure 14 (p. 81) demonstrates how a combination of training interventions linked to a credit scheme could produce results in the animal husbandry sector. This Figure is based on the fact that milk production in Zemo Svaneti is barely one third of the yield of the same breed under better feeding conditions.<sup>131</sup> The logic is that better feeding increases benefit through increased milk performance and improved marketing of processed products. The intervention begins with awareness raising regarding this potential to increase the benefit from dairy production beyond the investments.

In a second step, organisational training assists an interest group to define its common goals and demonstrates how to reach them, and how to set the internal rules and responsibilities within the group.

Later, the group applies for a microcredit. The credit is granted but it is linked to further training, e.g. in best-feeding practices and improved keeping conditions. Technical training can also start to include systematic analysis of milk performance of different cows and offspring of specific bulls.

Then, fodder can be purchased and the other suggestions can be implemented, step by step, resulting (after an incubation period) in higher milk performance.

Technical training in a fifth step helps to better process the milk into higher value cheese. Organisational training helps the group to find the most efficient and suitable ways to market its products. The result is increased income allowing reimbursement of the credit and retention of some capital for other investments.

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<sup>131</sup> See EI 38. One respondent in Nakra claimed a milk performance of 15 l/day for his animals 8.5 months a year (compared to the Zemo Svaneti average of 5.5 l/day 6.6 months/year) partly due to additionally purchased fodder (bran, oats). The research team cannot make a definite pronouncement on how much profit can be made by which quantity of additional fodder, since milk performance in winter, summer fodder consumption and potential prices for improved cheese are unknown. A calculation of the estimated increase of efficiency through better feeding is given in Annex Table 14, p. 118 and Table 15, p. 119.

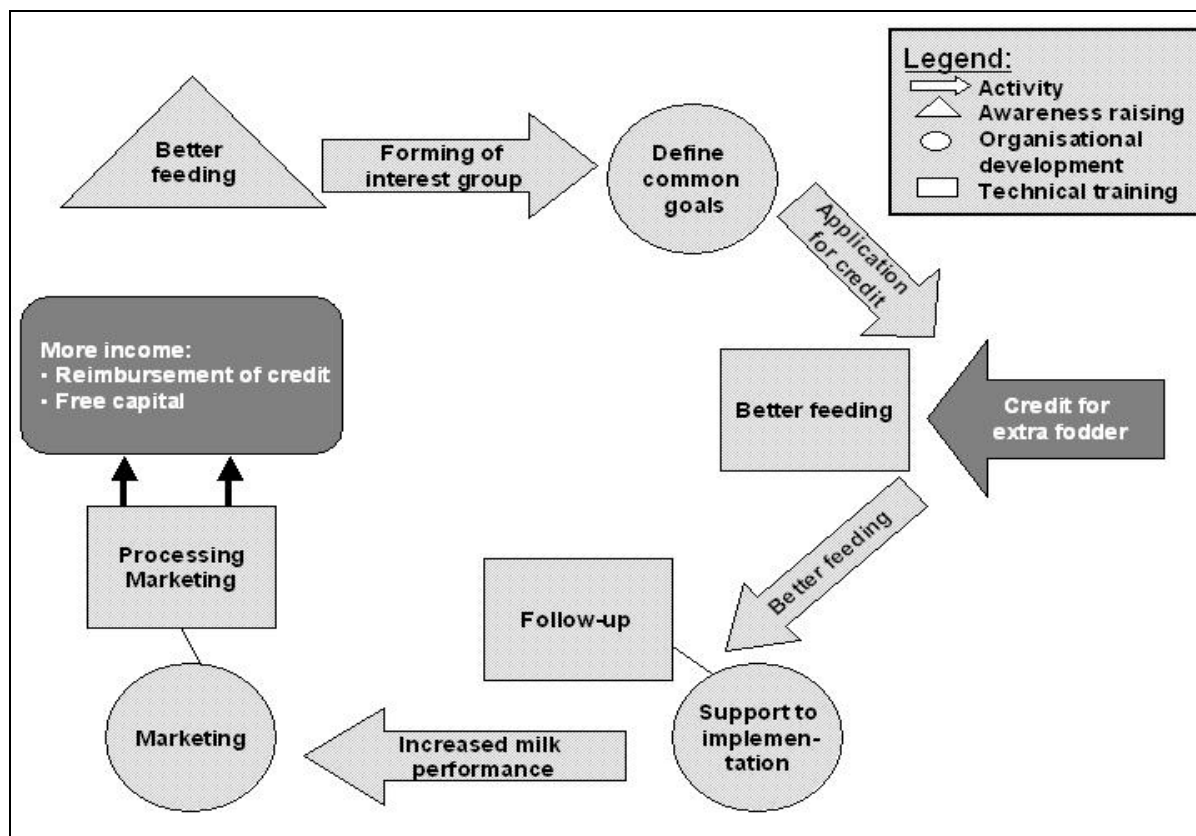


Figure 14: Training interventions to increase benefit from cattle breeding.

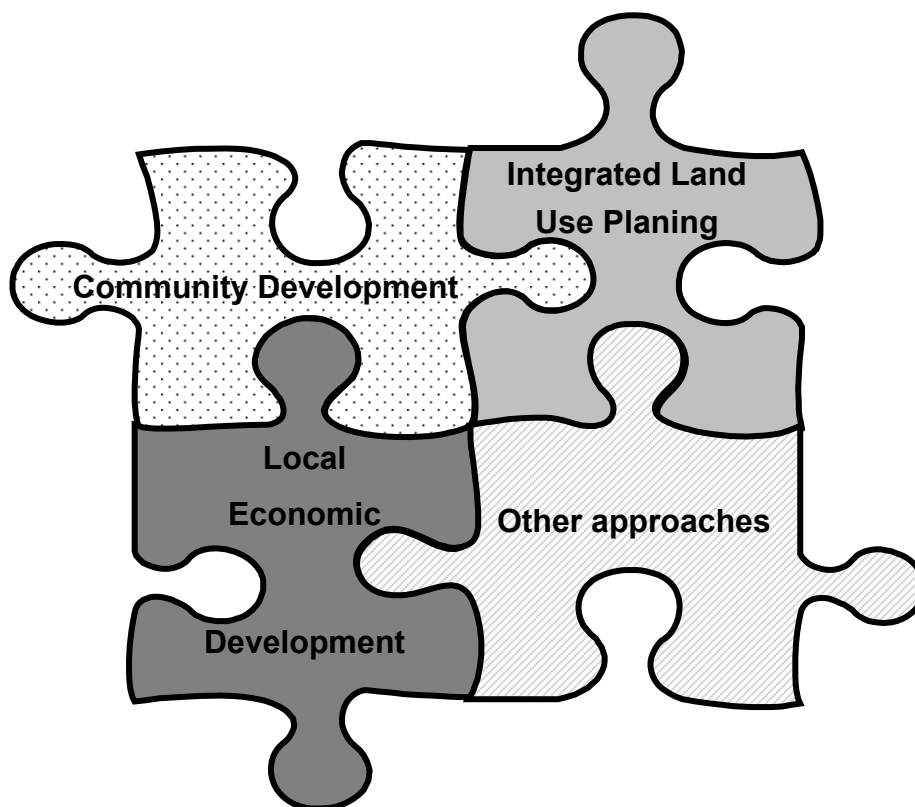
### 3.12 Strategic Options

In the following chapter, strategic options for the sustainable development of Zemo Svaneti are described based on the above discussion of the needs of the region and its inhabitants as well as of the sector-specific potentials and recommendations. They represent approaches linking components from the different sectors to best use their synergies. These options are not excluding each other but can be pursued simultaneously contributing to an overall development strategy and integrating political, economic, social and ecological dimensions of society. The options should be seen as interdependent and supportive to each other. Three strategic options are presented as areas of priority intervention:

- Local Economic Development
- Integrated Land Use Planning
- Community Development

The options outlined were developed and prioritised according to the following criteria and do not claim to be a comprehensive list:

- Short and long-term strategies
- Potentials outweighing the constraints
- Outreach and target groups



**Figure 15: Strategic options contributing to sustainable development of Zemo Svaneti.**

The concrete recommendations for interventions within options focus on short-term programmes which can, in the view of the research team, be realistically implemented. In order to be realistic; they have to be assessed within the constraining or supporting framework conditions, for their need (demand), for the time frame in which they can be implemented, as well as for the requirement for human and financial resources

Opportunities and threats for these interventions are discussed, and potential implementation structures are identified. In some cases, pilot activities giving immediate and tangible results are proposed. Long-term approaches call for immediate first steps to create the basis for a successful implementation, thus recommendations are also made pertaining to this factor.

### **3.13 Local Economic Development**

In Georgia, no discussion has yet taken place of whether economic development in mountainous regions should be supported by transfers. Planning for local economic development should be managed through a participatory process in order to be sustainable and to correspond to the needs of the population. It should also be embedded in an overall strategy coordinated by government.

Difficulties with regard to inputs and the close interdependence of the subsistence and market economy in Zemo Svaneti have to be considered when planning



interventions. In addition, the natural resource limitations set narrow boundaries for sustainable growth in agriculture and forestry.

### 3.13.1 Outline

Local economic development should aim at

- Reducing poverty by increasing the income of the population and ensuring benefit distribution, and
- Sustainable use of natural resources by improving production schemes.

**Short-term interventions** should focus on improving the production schemes and increasing the benefit from cattle breeding, and developing additional sources of income (within the given limitations).<sup>132</sup>

In order to increase the general benefit for both these focus sectors, comprehensive interventions should support product development based on market analysis and marketing.

**A long-term strategy** should support tourism as the main potential for substantial economic growth. In order to develop this sector, a sound foundation has to be established now placing a strong focus on benefit sharing and sustainable tourism.

### 3.13.2 Proposed Sector-Specific Interventions

Sector-specific approaches where the research team sees the highest potentials are summarised in the table below.

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<sup>132</sup> For recommendations on how crop production and forestry can be supported and improved see Chapter 3.4, p. 61 and 3.8, p. 66.

**Table 2: Possible interventions in cattle breeding and tourism.**

A detailed description of recommendations can be found in the respective sector chapters.

	<b>Cattle breeding</b>	<b>Tourism</b>
<b>Address</b>	All development actors active in economic development, local cooperatives and associations, scientific institutions	All development actors active in tourism development, local cooperatives and associations, private entrepreneurs
<b>Steps</b>	<ul style="list-style-type: none"> <li>• Improved production conditions (fodder, pasture management – identifying and disseminating good breeding animals)</li> <li>• Market analysis and product development</li> <li>• Processing and marketing of products</li> <li>• Extension services</li> </ul> → Spreading and multiplying of results	<ul style="list-style-type: none"> <li>• Advocacy for sustainable tourism</li> <li>• Diversification and specification of tourism products</li> <li>• More transparent, broader and better advertising</li> <li>• Support associations</li> <li>• Develop code of conduct</li> <li>• Support accompanying infrastructures<sup>133</sup></li> </ul>
<b>Opportunities</b>	<ul style="list-style-type: none"> <li>• A potential milk performance far exceeding present production</li> <li>• Strong social coherence</li> </ul>	<ul style="list-style-type: none"> <li>• High interest of the population to become involved in tourism</li> </ul>
<b>Threats</b>	<ul style="list-style-type: none"> <li>• Lack of confidence in engaging in joint economic enterprises</li> <li>• Risk aversion and little entrepreneurial spirit</li> <li>• Strong limitations by the ecosystem (carrying capacity)</li> </ul>	<ul style="list-style-type: none"> <li>• Closed network of tourism actors</li> </ul>
<b>Pilot activities</b>	Model farm <sup>134</sup> : <ul style="list-style-type: none"> <li>• Improvement of keeping conditions: number of animals adapted to available fodder to reach higher production</li> <li>• Systematic reproduction and refreshment of blood</li> <li>• Cultivation of fodder plants</li> <li>• Small processing plant for meat</li> <li>• Diverse cheese production</li> <li>• Information Services (extension services, information acquisition, training)</li> </ul> → Scaling up/increasing number of model farms	<ul style="list-style-type: none"> <li>• Developing tourism packages for communities</li> <li>• Installing information centres in communities, listing treks (small area maps), guesthouses, other attractions</li> <li>• Organisational training for associations</li> <li>• Technical training for service providers</li> </ul>

<sup>133</sup> E.g. waste management, sewage system, mountain rescue system (link to disaster risk management).

### **3.13.3 Proposed Comprehensive Components**

Of the following components, microcredits play a significant role for any possible investment. Market analysis, product development and marketing can be read in this consecutive order. Organisational development strengthens the possibilities for people to act as groups of interest.

#### **Microcredit**

On the one hand, high risk aversion is an impediment for all changes in economic activities. A microcredit system would aim at increased independence for economic activities responding to the difficult conditions for conventional banking (low interest rates, no conventional collaterals, fear of security problems). The mistrust within the society towards joint investment has to be considered. On the other hand, there are some first experiences with credit unions in the region. The existing strong social coherence is a base for a joint liability lending system, where a group of people is responsible for the reimbursement of given credits. In addition, the prospects for an individual lending system accepting non-conventional collaterals should be explored.

#### **Market Analysis**

A detailed market analysis is necessary to establish a basis for product development by exploring the potential for expansion and diversification.<sup>135</sup> It should consider the diverse forms of marketing and the importance of barter economy and possible niche products such as organic farming.<sup>136</sup>

#### **Product Development**

Product development aims at reducing the vulnerability of the local population and economy through a diversification of income sources, by adding value and reducing (relative) transportation costs through processing and allowing more flexibility with regard to date of sale.

The existing diverse production for subsistence provides a good starting point for new commercial products. The very few specific market advantages of Zemo Svaneti

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<sup>134</sup> A model farm has limited outreach and should therefore place strong emphasis on extension and information services. It can surmount risk aversion by producing and announcing good results (workshops, leaflets, brochures). Conditions have to be as realistic as possible.

<sup>135</sup> A brief market analysis was conducted during this research on the main markets for Svan products. The results can be found on the CD-Rom, available upon request.

<sup>136</sup> Some ideas for products which could be explored have been listed in Chapter 2.2, p. 21 and 3.2, p. 58.

(e.g. traditional skills and its reputation for the production of natural tasty products) have to be taken into consideration.

An opportunity to motivate product development is the small product fairs. Tourism packages, improved quality standards in cheese production or technical training and demonstration are other possibilities.

## **Marketing**

Effective marketing is indispensable for being able to sell products and is therefore strongly linked to product development and based on market analysis.

The reputation of Zemo Svaneti for pure and natural products can be exploited here. In addition to marketing products outside of Zemo Svaneti, the local market, although limited and the link to tourism has to be strengthened. The latter reduces the impact of the bad infrastructure and the remoteness of the area.

Labelling and certification systems could help to exploit the reputation of Zemo Svaneti for its local products. For the development of organic products, labelling and certification systems are indispensable for successful marketing. Business training could help to motivate people to become more active and to develop their own marketing strategies.

## **Organisational Development**

Organisational development can encourage people to become active themselves and to find common solutions. The objective would be to attain a higher production and marketing efficiency and to increase benefit sharing. The existing social networks can be an important basis for this.

Possible steps of organisational development are:

- An inventory of existing organisations,
- Giving incentives for forming organisations, and
- Supporting organisations through training.

## **3.14 Integrated Land Use Planning**

### **3.14.1 Outline**

When discussing integrated land use planning, the research team refers to an ecosystem-based tool that links environment, community, and economy and ensures sustainability of resources. This process integrates the values of the society and builds common land use objectives. Therefore the planning process should be undertaken in a participatory and transparent way, using appropriate planning tools. In order to ensure a sustainable use of land, integrated land use planning should be

an essential part of the development portfolio of the administrative system and communities.

In the short term, it is necessary to raise awareness about the need for integrated land use planning. The objective would be to initiate a debate and to create ownership within the population and administrative system. This goes hand in hand with addressing the urgent needs of communities to secure their living (e.g. disaster prevention, mitigating overuse of land). Another goal is to begin identifying and balancing land uses and land users' interests, which is an objective for the long term and equally as important as strengthening ownership of the administrative system. Additionally, solutions have to be found to use the synergies between administrative and traditional ways of land use planning (see Chapter 3.10, p. 74). Systems for implementation, monitoring, and evaluation should be developed accordingly.

The following goal-oriented steps leading to the objectives address all interested development actors, but especially the local administration, the local population (with a major focus on community representatives and interest groups), and specialised development actors, working in the field of integrated land use planning (e.g. Cadastre and Land Register Project, National Agency of Public Registry; see list of institutions in the Annex 6.10, p.139).

Land use planning should be coordinated under the leadership of the district administration and be embedded in ongoing land reform and decentralisation processes as well as within the framework of national planning documents (e.g. Tourism Master Plan). Therefore, as a first step, consultancy to the local administration is appropriate for empowering them to begin the process (see Figure 16).

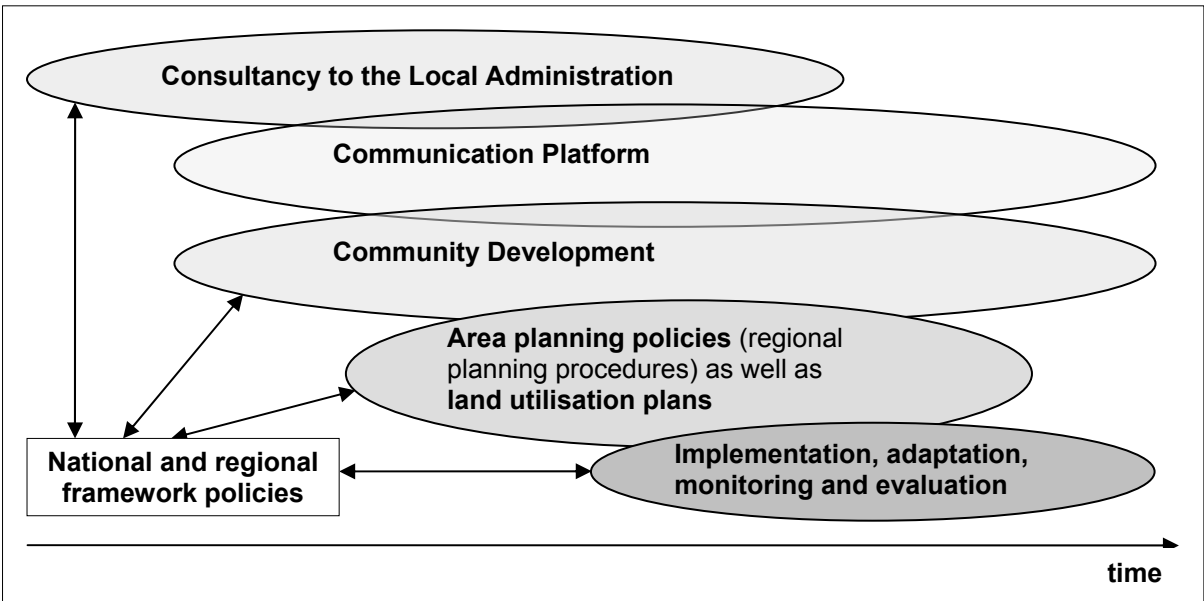


Figure 16: Time scales and components for integrated land use planning.

In order to achieve the long-term objectives, there is a need for a cooperative environment between administration and civil society. The following components are necessary in order to integrate the process into an overall strategy for sustainable development of the region:

- Establishment of a communication platform,
- Community development, and
- Area planning policies (regional planning procedures) as well as land utilisation plans.

Following the consultancy process to the local administration, this activity should be extended to the community level. In order to secure the participation of the local population and to give an opportunity to voice opinions, it is recommended that a communication platform will be established. This platform could also be used to prevent and settle possible conflicts arising from land use specification.

This process concludes with the systematisation of land uses on the basis of the traditional land use schemes, through the adoption of regional planning procedures and land utilisation plans. This includes institutionalised mechanisms for monitoring and evaluation of the implementation as well as for the continuous adaptation of plans (see Figure 16).

Outcomes of the integrated land use planning process could include measures concerning the management of community pastures, land consolidation, the set up of a UNESCO Man and Biosphere Reserve, or strategies related to disaster risk management.

### **3.14.2 Opportunities and Threats**

Generally, the population has a strong interest in using the land in an efficient way. Poverty-driven overuse of natural resources counters this interest (see Chapter 2.2, p. 21 and Chapter 2.7, p 40). Although traditional management structures (e.g. pasture management) exist, they are often insufficient for an effective resource management. Existing traditional land distribution based on the social heritage system (see Chapter 1, p. 1) may impede redistribution of land uses. This threat goes hand in hand with possible scepticism towards the benefits of change (see Chapter 1, p. 1). Although the traditional land use schemes in place, as for example in forestry, should be exploited (e.g. building upon the perceived family property of forests by giving the responsibility directly to the respective families).

A lack of understanding regarding participatory planning could hamper the process, as could the limited technical and financial resources of administration. Throughout the entire process, skills in conflict prevention and mediation are necessary. Since traditional conflict prevention and mediation systems already exist in Zemo Svaneti

(see upcoming OSCE Study), these should be made use of to design the process successfully.

### **3.14.3 Recommended Programme Component**

#### **Possible intervention: consultancy for local administration**

As a first step, the consultancy intervention should tackle the above-mentioned objectives and constraints:

- Technical training in:
  - Basic knowledge on participatory planning,
  - Adapted land use planning methods, and
  - Map-supported analysis and categorisation of land uses and users.
- Fostering a strong participation of local administration in the design of (regional) legal frameworks (e.g. regional development strategy, the decentralisation process),
- Clarifying responsibilities and rights related to integrated land use planning, and
- Continuous backstopping of the process.

Another objective should be preparing the ground for the subsequent steps (see Figure 16), e.g. by lobbying for interventions in community development.

#### **Possible pilot activity: exchange visits**

In order to sensitise the administration to the various issues, exchange visits would be organised to other districts in Georgia with similar ongoing processes (see also EI 21, EI 22), to demonstrate examples of successful land planning visible for the local administration.

## **3.15 Community Development**

### **3.15.1 Outline**

Community development is a process based on purposeful interaction of community members which provides a basis for social and economic development of the community (BRENNAN 2004: 3). It thus leads to cooperation between administration, civil society and citizens. Sustainable economic development is an integral part of community development, but not its only objective. Its objectives include:

- To support local economic development according to prioritised needs,
- To build trust between the state and its citizens,

- To strengthen democracy through participation,
- To contribute to the ongoing decentralisation process, and
- To overcome the widespread attitude of resignation.

Community development is a very complex process which produces results only over the long term. However, measures to initiate such a process can be started now, preparing the ground for future results. The following recommendations address all agencies interested in fostering community development, e.g. the state, civil society, citizens and international organisations.<sup>137</sup>

Possible steps for community development include: Advocacy for community development on all levels; training of administration and civil society; the planning process itself accompanied by capacity building and including some form of institutionalisation of the process; and the implementation of the developed plan.

### 3.15.2 Opportunities and Threats

Being a complex, difficult-to-steer process, community development is challenged by a number of serious threats which have to be taken into account. Yet, there are some resources that can be built on. Local community development processes can be linked to the Local Agenda 21 process, providing for an exchange of experiences within a larger network and legitimating funding from international donors. Community development in Zemo Svaneti can further build on existing traditional capacities for self-organisation.<sup>138</sup>

In Georgia efforts are currently being made to establish planning as a policy instrument. A tourism master plan is under development (see Chapter 3.9.1, p.70) and a strategic planning document at the regional level has been developed with the support of the World Bank and local NGOs.<sup>139</sup> Still, capacities for planning – especially when it involves participation – and for implementation appear rather weak, partly due to limited budgets. The ongoing decentralisation processes will eliminate the lowest level of government, thus impeding direct participation by citizens. Moreover, there have been few experiences with, and little demand for, bottom-up planning processes, from both the official side and the Svan population.

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<sup>137</sup> Two organisations shall be mentioned here: CTC sees a need for community development and a potential role for itself, and REC Caucasus is working on community development in two other mountain regions of Georgia.

<sup>138</sup> See Chapter 1, p. 1. Traditional structures and their importance today have been explored in the upcoming OSCE study.

<sup>139</sup> This process is being coordinated by the National Security Council. Compare also the RESP papers in the literature section.



Community development is clearly focused on planning and on the process itself, thus providing neither quick nor tangible results. Experiences in Zemo Svaneti and Racha<sup>140</sup> demonstrate that people judge any process by its concrete results, thus this expectation has to be considered when participating in a planning process.

In order to implement a community development process, these threats have to be addressed. The current framework conditions with decentralisation reform and regional development planning are conducive to implementing introductory activities.

### **3.15.3 Programme Components**

Normatively, planning for development should take place on the lowest level – in the communities. Considering the current legislation on decentralisation, it seems to be more appropriate to lobby for planning at the district level, which now constitutes the lowest level in the political framework. The plan developed there should be combined on a regional level with a regional plan. In the short term, it is more obvious to append community development to the regional planning process which is already being undertaken, thus participating in the regional planning process from the local level.

Based on this argument, advocacy on the regional level could contribute to an understanding of participation of the lower levels. The district level should act as a mediator between communities and regions, thus strengthening its position for lobbying for the district's interests. As Mestia district comprises all communities of Zemo Svaneti, it would be reasonable to initiate a pilot phase on a lower level in order to acquire local experiences and serve as an example for those who follow.<sup>141</sup> It would imply, though, that the funding of prioritised activities depends solely on donors, as communities will no longer be part of the decentralised political structure (see Chapter 1, p. 1). Thus, the following programme components should be the first to be implemented:

#### **Advocacy**

The first step to begin preparing the ground for community development processes. It is important to lobby for the idea on all levels, e.g. through publishing analytical work,

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<sup>140</sup> See Annex 6.9, p. 137.

<sup>141</sup> This would follow the example of REC Caucasus on whose experiences any community development project could build and learn from.

inviting experts, establishing a network,<sup>142</sup> and organising exchange visits.<sup>143</sup> Awareness raising could also be connected to one of the following components.

### **Capacity building for administration**

It is important for local administration to know about their responsibilities and tasks after the decentralisation reform, currently a knowledge gap. Training should also increase local capacities to voice the district's needs on regional level. In addition, management trainings could be carried out in order to enhance general capacities as a first step towards community development.

### **Capacity building for civil society**

This means the support to existing organisations or to groups of people. A first step could be an open room for people to gather and examine certain subjects and discuss possible common goals.<sup>144</sup> In order to give the process the essential dynamic, steps to reach these objectives should be identified that do not need external support. As much as possible, local resources and capacities should be mobilised. Activities requiring external support should be carefully analysed; then access to small grants and exchange programmes could be assisted by training in proposal writing as well as information on programmes, possible donors, and technical support.

### **Pilot project at community or village level**

A pilot community or village could follow the initial advocacy phase. It could serve as an example and boost the simultaneous awareness raising process on all levels. However, it should provide tangible results in a reasonable timeframe in order to ensure the population's interest in becoming active with regard to planning. Easy-to-implement pilot activities building on local capacities and micro grants should accompany the process.<sup>145</sup>

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<sup>142</sup> Besides REC and CTC, DEA and CSDC have been involved in the RESDP process in Zugdidi.

<sup>143</sup> For example, to other mountainous regions within the network of mountain conventions, which have experiences with community development.

<sup>144</sup> Topics could be as diverse as marketing of products or reviving the local cinema.

<sup>145</sup> The choice of activity depends on the preference of the participating stakeholders, e.g. renovate the culture house, rehabilitate the water system, and rebuild a small bridge or a fort to access cut-off meadows.

## 4 Outlook

In order to achieve sustainable local economic development, the region of Zemo Svaneti has to face two main challenges: limited natural resources and unfavourable production and marketing conditions. In the most important economic sector, cattle breeding, the number of head of cattle exceeds the available fodder for optimal productivity by a factor of three. All sectors are conducted as low input activities demanding high labour and leading to limited results. None of the resources is optimally used. This research reflects the complexity of necessary and possible interventions with a broad approach and optional responses.

The region will continue to depend on transfer payments from the state, from international donors, from migrants or from a mix of the three. A general debate on support to mountainous regions in Georgia has to be engaged in if the question of out-migration is to be addressed.

Within the presented limitations, optimisation of production is possible in all spheres. The diversity of economic activities of Svan households is one of their strengths and should be considered by integrated development interventions seeking to support links and synergies between the sectors. This should mainly occur by supporting product development and marketing and including a credit component. In a more sector-focused approach, first priority should be attributed to cattle breeding. Improving the breeds and their keeping conditions, in particular by adapting the quantity of fodder to the number of head of cattle, would lay the base for higher productivity and thus create a greater margin for processing value-added products. Tourism has, in the long term, the highest growth potential. A sound base for its sustainable development should be laid today by focussing on support to strategy planning and on seeking mechanisms for benefit sharing as well as by tackling the needs in infrastructure development.

Resource management is of crucial importance if the occurrence of disasters and their negative effects on the population are to be reduced. It will also ensure the future availability of resources. For efficient long-term resource management, complex planning processes have to be engaged, balancing the needs of the population with the use of forests and agricultural land as well as land for settlements and construction by elaborating appropriate regulation schemes. These processes should be conducted in a participatory way and link the village and community level to the administrative level taking decisions and distributing the budget. These processes are long-term undertakings and can today only be catalysed by development actors through advocacy and consultancy on all different levels in order to lay the base for positive results in the future.

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## 6.1 Methodology

### 6.1.1 Objectives of the Project

<p><b>Overall objective</b> A long-term regional strategy for sustainable development of Zemo Svaneti contributes to improved living conditions of the local population.</p>		
<p><b>Project Purpose 1</b> CTC and other development actors know strategic options for sustainable development in Zemo Svaneti based on an analysis of socio-cultural, economic, ecological and political potentials.</p>	<p><b>Project Purpose 2</b> CTC knows the priority needs for capacity building and training of the local population as well as potentials and obstacles for regional development of Zemo Svaneti in order to refine its intervention strategy.</p>	<p><b>Project Purpose 3</b> CTC knows a replicable and participatory methodology for conducting an analysis of potentials and elaborating strategic options towards sustainable development.</p>
<p><b>Result 1.1</b> Baseline data concerning socio-cultural, ecological, economical and political aspects is available and verified in the field.</p>	<p><b>Result 2.1</b> Capacity building needs of the population of Zemo Svaneti are assessed and prioritised.</p>	<p><b>Result 3.1</b> A participatory toolkit for a step-by-step approach for the analysis of potentials and the elaboration of strategic options for development is designed.</p>
<p><b>Result 1.2</b> Potentials and obstacles for regional development of Zemo Svaneti have been assessed and analysed.</p>	<p><b>Result 2.2</b> CTC's intervention strategy has been assessed regarding the population's capacity building needs and the region's potentials.</p>	<p><b>Result 3.2</b> This methodology has been tested and applied in Zemo Svaneti in close cooperation with CTC.</p>
<p><b>Result 1.3</b> Strategic options giving concrete and prioritised recommendations for sustainable development in Zemo Svaneti have been designed with the involvement of other development actors. They are publicly available.</p>	<p><b>Result 2.3</b> Recommendations for refining CTC's intervention strategy on the basis of the assessment have been discussed.</p>	<p><b>Result 3.3</b> CTC and specified counterparts are trained in the application of the methodology.</p>

**Figure 17: Objectives of the study**

## 6.1.2 Sampling

The following table lists the communities of Zemo Svaneti and the ones where the research took place. Table 4 shows where focus group discussions have been conducted.

**Table 3: Clusters, communities and villages selected for the research.**

Cluster	Main sector	Communities (selected ones in bold)	Selected villages
1	Forestry	<b>Chuberi</b>	Centre, Karsgurishi, Lakhami
		<b>Nakra</b>	Centre, Kurkhvaishi, Tavrar
		Khaishi, Lakhamula	
2	Crop production	<b>Becho</b>	Mazeri, Chokhuldi, Ushkhonari
		<b>Tskhumari</b>	Grebaldi, Tviberi, Labskaldi
		Pari, Etseri	
3	Tourism and services	<b>Mestia</b>	Centre, Gvaldiri, Laghami
		<b>Latali</b>	Centre, Lakhushti, Matkhvarishi
		Lenjeri	
4	Animal husbandry	<b>Tsvirmi</b>	Centre, Tviberi, Gibe Chobani, Eli
		<b>Ushguli</b>	Jibiani, Charjani, Murkhmeli
		<b>Mulakhi</b>	Tsaldashi, Cholashi
		Ipari, Kala	

**Table 4: Focus group discussions.**

Cluster	Community	Focus group discussion (by sector or social segment)
1	Nakra	Animal husbandry, elders, forestry
2	Tskhumari	Crop production, men, disasters, women
3	Mestia	Administration, cultural heritage, cultural life, small business, tourism, women, youth
4	Tsvirmi	Animal husbandry, disasters, village representatives, youth
4	Ushguli	Animal husbandry, tourism

### 6.1.3 Instruments of research

#### Household Interviews

48 household interviews were conducted in 27 villages. The questionnaire consisted of 294 questions covering spheres as general economic aspects, extent and intensity of land use, crop production, animal husbandry, forestry, tourism, marketing of products, disasters, administrative systems, migration, and development visions.<sup>146</sup> Not all questions were asked in every interview. In addition to the interviews, expert interviews and transect walks were conducted to get a more vivid idea of the villages and their resources. Basic community and resource maps were drawn in exchange with local people.<sup>147</sup>

#### Focus Group Discussions

Focus group discussions as a flexible tool for guided, goal-oriented information gathering and analysis of potentials were organised in the following step of the field phase. One community per cluster was selected according to the interest expressed by and cooperation with local representatives as well as the characteristics of the dominating sectors.

The group discussions focussed either on economic sectors or were formed to cover different social and age groups and to address specific strengths and problems of the communities. The group size varied between 6-14 participants, the meetings lasted between 1-3 hours.<sup>148</sup>



**Figure 18: Focus group discussion with women in Tskhumari.**

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<sup>146</sup> See CD-Rom for the blank household interview sheet.

<sup>147</sup> See annex 6.12, p. 151 for resource map sketch.

<sup>148</sup> See CD-Rom for blank focus group sheets.

## 6.2 Biogeographic Zones and Main Biomes

The climatic differences of east and west Georgia account for a major contrast in ecosystem diversity, and vertical zonation between the two areas. West Georgia has five major biome zones that can be identified, but is notably lacking in arid and semi-arid treeless areas. The biome zones are:

- Forest (coastal plane – 1,900 m above sea level),
- Subalpine zone (1,900 – 2,500 m),
- Alpine zone (2,500 – 3,000 m),
- Subnival zone (3,000 – 3,600 m),
- Nival zone (> 3,600 m). (STATUS REVIEW OF THE BIODIVERSITY CONSERVATION IN THE CAUCASUS 2006, p. 1)<sup>149</sup>

For Zemo Svaneti, all zones excluding the coastal plane zone can be identified. Besides the colchis type, lowland forest (400 – 1,900 m above sea level), characterised by diverse flora as fear, spruce, pine, and oak, the subalpine biome is very diverse. “This is believed to be due to the biome’s geographical location, contrasting climatic conditions and its very disrupted and complex topography. The flora of the upper tree line (2,400-2,750 m.a.s.l.) is especially complex and diverse in terms of species composition and community structure. It is rich in rare endemic and relic species. Major plant community types include light woodlands, crook-stem forests, lying shrubs, high grasslands, and broadleaf meadows. At about 1,800-1,900 m.a.s.l. sparse park like forests replace closed canopy forests.” (CENN 2006)

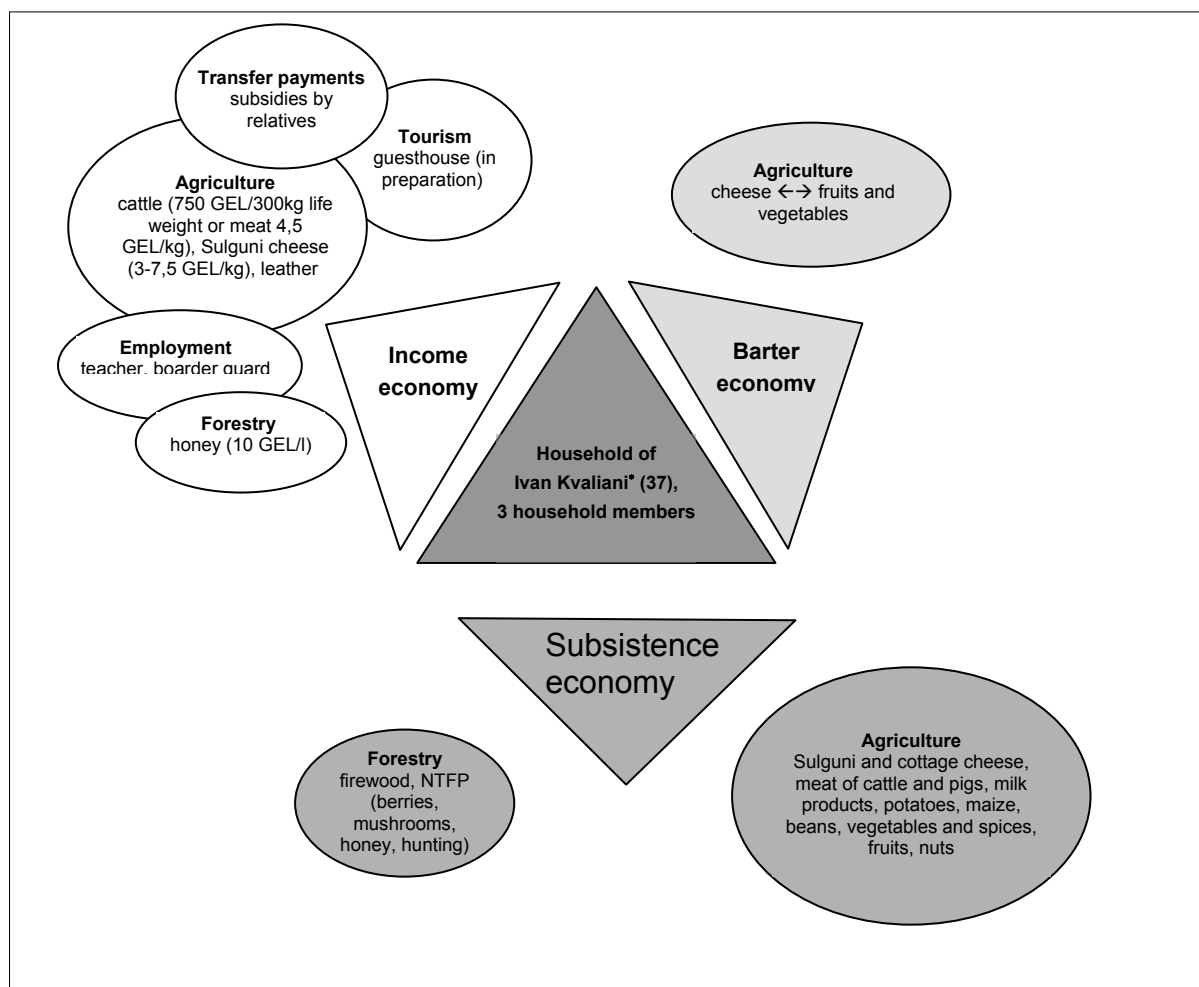
High mountainous alpine meadows and meadow-steppes (alpine zone) play a crucial role in the ecosystems of Zemo Svaneti. They are characterised by the spread of grasses able to form strong tussocks (matgrass, fescue, sedge). Motley grass is rare. There are no trees. Shrubs (mostly rhododendron, hawthorn) are rare and stretched on the ground. They are characterised by high biodiversity. In the upper part of the alpine zone only depleted fragments of alpine meadows are found. (CENN 2006)

The subnival zone consists of certain groups of plant species that are adapted to the extreme conditions of the subnival zone (3,000-3,600 m). Nevertheless the proportion of endemic species is remarkably high (60-70%) throughout whole Georgia. (CENN 2006)

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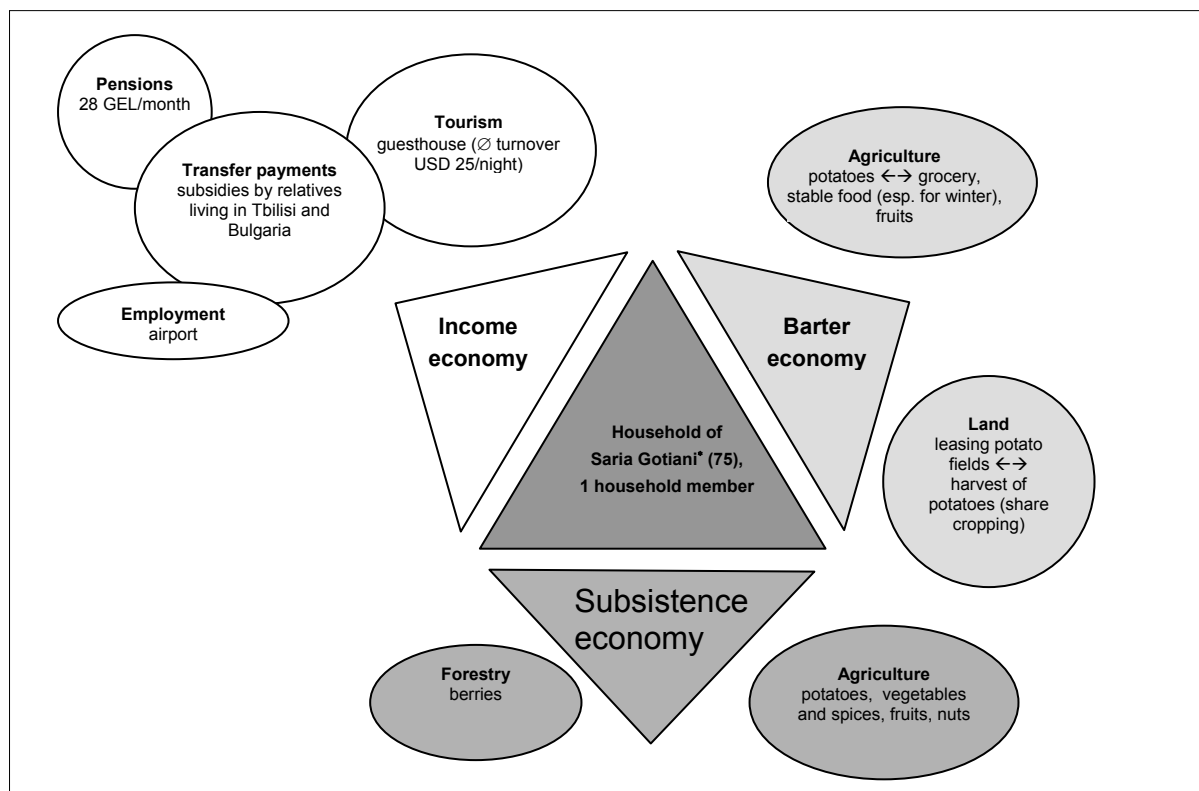
<sup>149</sup> <http://www.countdown2010.net/caucasus/Georgia%20Review%20Countdown%202010.pdf>.

### 6.3 Livelihoods in Zemo Svaneti – Three Examples



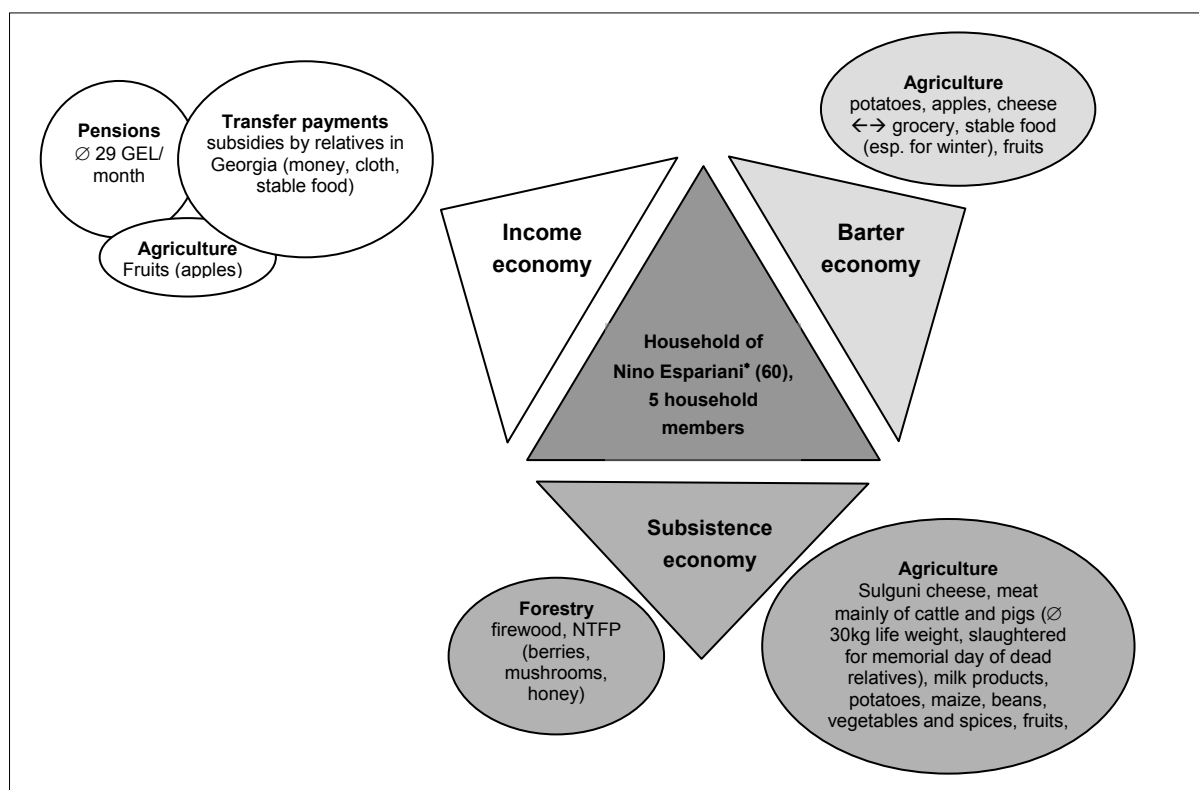
**Figure 19: Livelihood of farmer Ivan Kvaliani, Nakra.**

Source: HH, EI



**Figure 20: Livelihood of widow Saria Gotiani, Mestia.**

Source: EI

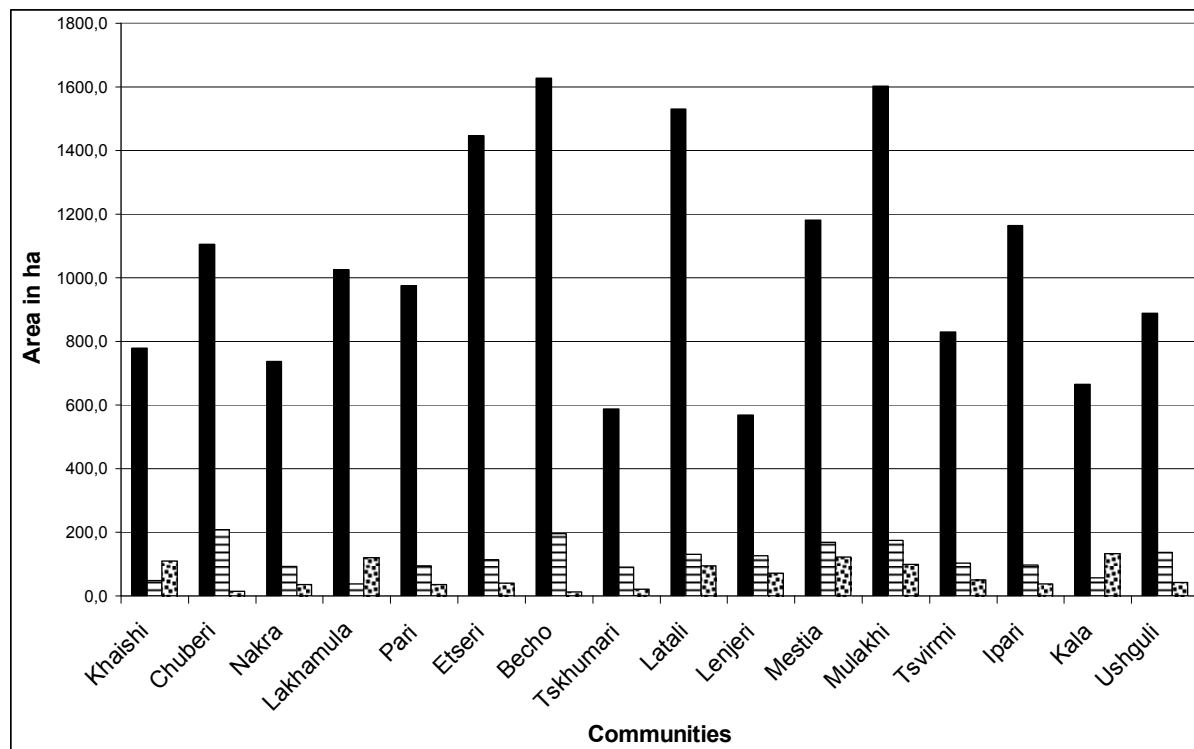


**Figure 21: Livelihood of Nino Espariani, Latali.**

Source: HH

## 6.4 Agriculture

### 6.4.1 Animal Husbandry



**Figure 22: Area of pastures, meadows and fields in different communities of Zemo Svaneti.**

Area of pastures in ha (black), area of meadows (stripes), area of fields (dotted), Communities are sorted in geographic order (west to east). Source: Agricultural department Mestia (2006)



**Table 5: The distribution of areas of pastures, meadows and fields (total, potato fields, and maize fields) in ha for communities of Zemo Svaneti.**

Communities are sorted in geographic order (west to east). Source: Agricultural department Mestia (2006).

Communities	Meadows	Pastures	Fields total	Fields potato	Fields maize	Fields beans
	[ha]	[ha]	[ha]	[ha]	[ha]	[ha]
<b>Khaishi</b>	48,5	780,0	109,2	105,0	2,0	2,0
<b>Chuberi</b>	208,5	1105,0	14,0	14,0	-	-
<b>Nakra</b>	93,0	737,0	35,2	20,0	10,0	5,0
<b>Lakhamula</b>	37,3	1026,0	120,9	100,0	15,0	5,0
<b>Pari</b>	94,8	975,0	35,1	7,0	25,0	3,0
<b>Etseri</b>	113,6	1446,0	40,2	40,0	-	-
<b>Becho</b>	194,9	1628,0	12,0	12,0	-	-
<b>Tskhumari</b>	91,1	587,0	22,1	22,0	-	-
<b>Latali</b>	130,1	1531,0	94,2	87,0	5,0	2,0
<b>Lenjeri</b>	126,5	568,0	72,2	57,0	10,0	5,0
<b>Mestia</b>	169,2	1181,0	121,2	121,0	-	-
<b>Mulakhi</b>	174,5	1602,0	99,4	99,0	-	-
<b>Tsvirmi</b>	103,8	830,0	50,2	20,0	25,0	5,0
<b>Ipari</b>	96,0	1165,0	38,4	38,0	-	-
<b>Kala</b>	57,2	665,0	131,8	125,0	-	3,0
<b>Ushguli</b>	136,0	888,0	41,1	8,0	30,0	3,0
<b>TOTAL</b>	1875,0	16714,0	682,6	589,0	70,0	18,0

**Table 6: The distribution of animals (cattle, cows, pigs, and sheep and goats) in heads for communities of Zemo Svaneti.**

Communities are sorted in geographic order (west to east). Source: Agricultural department Mestia (2006).

Communities	Cattle	Cows	Pigs	Sheep and goats
	[heads]	[heads]	[heads]	[heads]
<b>Khaishi</b>	1096,0	767,0	1650,0	355,0
<b>Chuberi</b>	860,0	602,0	1780,0	350,0
<b>Nakra</b>	717,0	502,0	813,0	210,0
<b>Lakhamula</b>	610,0	427,0	760,0	170,0
<b>Pari</b>	879,0	615,0	363,0	225,0
<b>Etseri</b>	1321,0	925,0	875,0	310,0
<b>Becho</b>	1479,0	1035,0	1720,0	500,0
<b>Tskhumari</b>	970,0	679,0	760,0	85,0
<b>Latali</b>	1120,0	784,0	1860,0	650,0
<b>Lenjeri</b>	1315,0	920,0	1473,0	410,0
<b>Mestia</b>	1425,0	997,0	1770,0	355,0
<b>Mulakhi</b>	1993,0	1395,0	2070,0	340,0
<b>Tsvirmi</b>	795,0	556,0	610,0	60,0
<b>Ipari</b>	736,0	515,0	345,0	60,0
<b>Kala</b>	330,0	231,0	300,0	55,0
<b>Ushguli</b>	730,0	511,0	630,0	350,0
<b>TOTAL</b>	16376,0	11463,0	17779,0	4495

**Table 7: The distribution of areas of pastures, meadows and fields (total, potato fields) in ha per household for communities of Zemo Svaneti.**

Communities are sorted in geographic order (west to east). Source: Agricultural department Mestia (2006).

Communities	Households (Source: GMF 2005)	Meadows per household	Pastures per household	Fields total per household	Fields potato per household
		[ha/house- hold]	[ha/house- hold]	[ha/house- hold]	[ha/house- hold]
<b>Khaishi</b>	421,0	0,1	1,9	0,3	0,2
<b>Chuberi</b>	303,0	0,7	3,6	0,0	0,0
<b>Nakra</b>	90,0	1,0	8,2	0,4	0,2
<b>Lakhamula</b>	113,0	0,3	9,1	1,1	0,9
<b>Pari</b>	94,0	1,0	10,4	0,4	0,1
<b>Etseri</b>	232,0	0,5	6,2	0,2	0,2
<b>Becho</b>	365,0	0,5	4,5	0,0	0,0
<b>Tskhumari</b>	220,0	0,4	2,7	0,1	0,1
<b>Latali</b>	379,0	0,3	4,0	0,2	0,2
<b>Lenjeri</b>	307,0	0,4	1,9	0,2	0,2
<b>Mestia</b>	713,0	0,2	1,7	0,2	0,2
<b>Mulakhi</b>	264,0	0,7	6,1	0,4	0,4
<b>Tsvirmi</b>	113,0	0,9	7,3	0,4	0,2
<b>Ipari</b>	92,0	1,0	12,7	0,4	0,4
<b>Kala</b>	33,0	1,7	20,2	4,0	3,8
<b>Ushguli</b>	68,0	2,0	13,1	0,6	0,1
<b>TOTAL</b>	3807,0	0,5	4,4	0,2	0,2

**Table 8: The distribution of animals (cattle, cows, pigs, and sheep and goats) in heads per household for communities of Zemo Svaneti.**

Communities are sorted in geographic order (west to east). Source: Agricultural department Mestia (2006)

Communi- ties	Number of Households (Source: GMF 2005)	Cattle per household	Cows per household	Pigs per household	Sheep and goats per household
		[heads/ household]	[heads/ household]	[heads/ household]	[heads/ household]
<b>Chuberi</b>	303,0	2,8	2,0	5,9	1,2
<b>Nakra</b>	90,0	8,0	5,6	9,0	2,3
<b>Lakhamula</b>	113,0	5,4	3,8	6,7	1,5
<b>Pari</b>	94,0	9,4	6,5	3,9	2,4
<b>Etseri</b>	232,0	5,7	4,0	3,8	1,3
<b>Becho</b>	365,0	4,1	2,8	4,7	1,4
<b>Tskhumari</b>	220,0	4,4	3,1	3,5	0,4
<b>Latali</b>	379,0	3,0	2,1	4,9	1,7
<b>Lenjeri</b>	307,0	4,3	3,0	4,8	1,3
<b>Mestia</b>	713,0	2,0	1,4	2,5	0,5
<b>Mulakhi</b>	264,0	7,5	5,3	7,8	1,3
<b>Tsvirmi</b>	113,0	7,0	4,9	5,4	0,5
<b>Ipari</b>	92,0	8,0	5,6	3,8	0,7
<b>Kala</b>	33,0	10,0	7,0	9,1	1,7
<b>Ushguli</b>	68,0	10,7	7,5	9,3	5,1
<b>TOTAL</b>	3807,0	4,3	3,0	4,7	1,2

**Imeruli sheep**

Nowadays in Georgia the unique sort of Imeruli sheep is bred. It is characterised by the expensive biological-productive peculiarities, insemination happens at the age of 5-6 months, it's much productive, represents the expensive genetic materials for the creation of the new types or sorts of sheep. It gives the extra class half rough wool and tasty meat. It is shaved 3 times during a year. The weight of the ram is 35-40 kg, the. Cutting of the wool composes 1,8 kg and 1,2kg, productivity 250-300 %.

**Figure 23: Description of the Imeruli sheep breed**

Source: AGROWEB (2006)

**Megruli goat**

In west Georgia two types of Megruli goat with dairy direction are bred: lowland and mountain goats.

The live weight of mountain nanny-goat is 40-45 kg (max.50-60 kg), of billy-goat 50-55 kg (max. 70-90 kg).

Lowland type goat is small but it's characterised by much more dairy. Annually it gives nearly 300-400 kg milk by keeping in the pasture conditions during 6-8 month lactation, but the best of them give 800 kg milk with the 4% fatness. Productivity is nearly 120%. It's characterised by the firm constitution, the hair is short and its rough without baize, white or light grey, its horny.

**Figure 24: Description of the Megruli goat breed**

Source: AGROWEB (2006)

**Svanuri pig**

Svanuri pig is extended in the high mountainous zone in west Georgia (1800-2000 meters from the sea level). It's formed in the result of the wild pig's domestication. Stern climatic conditions and poor food influenced on its development. By the immunogenetical learning it's clear, that they are alike to their wild ancestors. The same data are given by learning the construction of cranium. Out coming from this, phenotype and genotype prove the origin of this sort directly from its wild ancestors. It is characterised high meat taste peculiarities. Meat is like marble, which is used for bacon. This sort has high endurance towards diseases and is late matured. It is accustomed to Svaneti

high mountain conditions. Because of small live weight Svanuri pig was massively crossed to the big white boar for increasing productivity. All this influenced negatively on nomadic peculiarities. The amount of this sort is very small and needs the special attention.

Characteristics	Boar	Sow
Live weight, kg.	50-60	35-40
Body length, cm.	82-90	77-85
High productivity, unit	-	5-6
Milk products, kg.	-	28-30
Average daily increase, g	200-250	200-250

**Figure 25: Description of the Svanuri pig breed.**

Source: AGROWEB (2006)

### Georgian mountain cattle

Georgian mountain cattle are represented by the ancient local sorts, created by national selection, which are extended in all regions of Georgia. Aristotle remarked that there are small cows at the river Phazisi (West Georgia) that are characterised by large quantity of high fatness milk, this was Georgian mountain cow, which is still preserved in Georgia. During the centuries it was formed many kinds in this sort of cattle by the result of isolated breeding in different parts of the country and different direction selection, which are Khevsuruli, Pshavuri, Rachuli, Adjaruli, Osuri, Svanuri. They differ from each other exteriorly, also by the development and productivity indicators.

The unique peculiarities of Georgian mountain cattle are: the adaptation to the stern climatic conditions and to the poor food, endurance and sustenance. Georgian Mountain cow is bred in the high mountain regions of Caucasus, where there is shortage of winter food for animals and the pastures are so steep, that no other cattle can feed themselves but Georgian Mountain cow. It is very small-sized body-dwarf (100cm) but it has unique productivity potential. This is suitable for the country which territories more than 50% are represented by mountains and hills. They use steep tablelands (30-350). These breeds have peculiarities characteristic exclusively to them and have no analogues anywhere. These are: high endurance to diseases (absolute resistance to leucosis and pyroplazmosis); adaptability to the temperature fluctuations and low oxygen consistence in mountainous area; adaptability to the steep pastures, which is practically impossible for other breeds; specific taste of milk and milk products. The sort is small, but it has universal productivity. The weight of grown-up cows is 200-250 kg and of producing bulls 350-400 kg. The average lactation yield of Georgian mountain cow is 500-700kg. The dairy product in the breeding farms hesitates between 1000-1500 kg with the fatness of 4,2-4,4 in different years. It is characterised by low milking rate in primitive feed conditions, but in case of improved feeding and maintenance, milking rate increases on average up to 2000kg with 4.2% fatness.

The milk is characterised by small diameter fat bubbles. In the best years grown-up cows, which represent the sort's potential ability, are equal to the productivity indicators of the specialised high cultural sorts. The Georgian mountain cattle are characterised by the good taste peculiarities of meat.

Characteristics	Cow	Producing-bull
Live weight, kg.	180-220	250-300
Average yield, kg	500-700 (max 4111)	-
Consistence of milk (%):		
Fat	4.3-4.6	-
Protein	3.2-3.3	-
Live weight of calf at born, kg	10-12	12-15
The steers weight (18-20 months), kg	-	200-220
Average daily increase, g	-	500-600
Outcome of slaughter (%)	-	52-54

**Figure 26: Description of Georgian mountain cattle.**

Source: AGROWEB (2006)

**Table 9: Typical rations for dairy cattle of Local Georgian Mountain Breed in high mountain region in summer period (150 days), live weight 300-350 kg (milk fat 3.8-4.0%).**

Source: M. Rcheulishvili Institute of Biological Basis of Cattle Breeding of Georgia 2006

Fodder's name	Unit	Milk yield per day (kg)				
		4 and less Ratio 1	4-6 Ratio 2	6-8 Ratio 3	8-10 Ratio 4	10-12 Ratio 5
<b>Natural food:</b>						
The natural pastures' grass	kg	21	24	28	31	35
Table salt	g	34	39	45	50	60
Mononatrium phosphate	g	80	85	100	110	115
<b>The Ration includes:</b>						
Feed unit	kg	4	4.6	5.3	5.9	6.7
Energy feed unit	kg	3.8	4.3	5	5.6	6.3
Dry substance	kg	5.6	6.4	7.5	8.3	9.4
Digestible protein	g	546	624	728	806	910
Sugar	g	483	552	644	713	805
Calcium	g	25.2	28.8	33.6	37.2	42
Phosphorus	g	29.7	32.4	38	41.3	45.1
Iron	mg	840	960	1120	1240	1400
Copper	mg	10.5	12	14	15.5	17.5
Iodine	mg	0.63	0.72	0.84	0.9	1.05
Carotene	mg	803	1032	1204	1333	1505
Correlation sugar/prot.	%	0.9	0.9	0.9	0.9	0.9
Correlation calc./phosphorus	%	0.9	0.9	0.9	0.9	0.9
<b>Summer demand during 150 days:</b>						
The Natural pastures' grass	t	3.2	3.6	4.2	4.7	5.3
Table salt	kg	5.1	5.9	6.8	7.5	9
Mononatrium phosphate	kg	12	12.8	15	16.5	17.3
<b>The norm of day ration:</b>						
Feed unit	kg	5.6	6.5	7.5	8.5	9.5
Digestible protein	g	532	617	713	807	903
The ration structure						
The Natural pastures' grass	%	100	100	100	100	100

**Table 10: Typical rations for dairy cattle of Local Georgian Mountain Breed in high mountain region in summer period (150 days), live weight 350-400 kg (milk fat 3.8-4.0%).**

Source: M. Rcheulishvili Institute of Biological Basis of Cattle Breeding of Georgia 2006

Fodder's name	Unit	Milk yield per day (kg)				
		4 and less Ratio 1	4-6 Ratio 2	6-8 Ratio 3	8-10 Ratio 4	10-12 Ratio 5
<b>Natural food:</b>						
The Natural pastures' grass	kg	22	25	29	33	36
Table salt	g	38	41	47	53	60
Mononatrium phosphate	g	80	85	106	118	133
<b>The Ration includes:</b>						
Feed unit	kg	4.2	4.8	5.5	6.3	6.8
Energy feed unit	kg	4	4.5	5.2	5.9	6.3
Dry substance	kg	5.9	6.8	7.7	8.8	9.6
Digestible protein	g	572	650	754	858	936
Sugar	g	506	575	667	759	828
Calcium	g	26.4	30	34.8	39.6	43.2
Phosphorus	g	30.2	35.3	33.9	44.8	49.9
Iron	mg	880	1000	1160	1320	1440
Copper	mg	11	12.5	14.5	16.5	18
Iodine	mg	0.66	0.75	0.87	0.99	1.08
Carotene	mg	946	1075	1247	1419	1548
Correlation sugar/prot.	%	0.9	0.9	0.9	0.9	0.9
Correlation calc./phosphorus	%	0.9	0.8	0.9	0.9	0.9
<b>Summer demand during 150 days:</b>						
The Natural pastures' grass	t	3.3	3.8	4.4	5	5.4
Table salt	kg	5.7	6.2	7.1	8	9
Mononatrium phosphate	g	12	14.3	15.9	17.7	20
<b>The norm of day ration:</b>						
Feed unit	kg	5.9	6.8	7.8	8.8	9.8
Digestible protein	g	561	646	741	836	931
The ration structure						
The Natural pastures' grass	%	100	100	100	100	100



**Table 11: Typical rations for dairy cattle of Swiss Brown in high mountain region, live weight 500 kg, lactation productivity 3600 kg, milking per day 12 kg, milk fat 3.8-4.0%.**

Source: M. Rcheulishvili Institute of Biological Basis of Cattle Breeding of Georgia 2006

<b>Summer Period (150 Days)</b>		<b>Winter Period (215 Days)</b>	
<b>Natural food:</b>		<b>Natural food:</b>	
<b>The Hay of Alps pastures</b>	35 kg	<b>The Hay of Alps pastures</b>	11.6 kg
<b>Sunflower cake</b>	1.0 kg	<b>Crude flour of maize</b>	2.3 kg
		<b>Crude flour of soy-bean</b>	1.8 kg
<b>Table salt</b>	73 g	<b>Table salt</b>	73 g
<b>The Ration includes:</b>	10.9 kg	<b>The Ration includes:</b>	11.5 kg
<b>Feed unit</b>	10.9 kg	<b>Feed unit</b>	12.1 kg
<b>Energy feed unit</b>	12.3 kg	<b>Energy feed unit</b>	12.5 kg
<b>Dry substance</b>	1085 g	<b>Dry substance</b>	1120 g
<b>Digestible protein</b>	875 g	<b>Digestible protein</b>	376 g
<b>Sugar</b>	59.5 g	<b>Sugar</b>	117 g
<b>Calcium</b>	31.5 g	<b>Calcium</b>	53 g
<b>Phosphorus</b>	1575 mg	<b>Phosphorus</b>	464 mg
<b>Carotene</b>	6.8 %	<b>Carotene</b>	0.3 %
<b>Correlation sugar/prot.</b>	1.9 %	<b>Correlation sugar/prot.</b>	
<b>Correlation calc./phosphorus</b>		<b>Correlation calc./phosphorus</b>	2.2 %
<b>The norm of day ration:</b>		<b>The norm of day ration:</b>	
<b>Feed unit</b>	10.6 kg	<b>Feed unit</b>	10.6 kg
<b>Digestible protein</b>	1060 g	<b>Digestible protein</b>	1060 g
<b>Summer demand during 150 days:</b>		<b>Winter demand during 215 days:</b>	
<b>The Hay of Alps pastures</b>	5.2 t	<b>The Hay of Alps pastures</b>	2.5 t
		<b>Crude flour of maize</b>	0.5 t
		<b>Crude flour of soy-bean</b>	0.2 t
<b>Table salt</b>	1 kg	<b>Table salt</b>	16 kg

**Table 12: Typical rations for dairy cattle of Local Georgian Mountain Breed in high mountain region (Mestia), during winter period 215 days, live weight 300-350 kg (milk fat 3.8-4.0%).**

Source: M. Rcheulishvili Institute of Biological Basis of Cattle Breeding of Georgia (2006)

Fodder's name	Unit	Milk yield per day (kg)				
		4 and less	4-6	6-8	8-10	10-12
		Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5
<b>Natural food:</b>						
The Hay of Alps pastures	kg	8	9	11	12	13.5
Table salt	g	25	37	45	50	55
<b>The Ration includes:</b>						
Feed unit	kg	5	5.6	6.9	7.7	8.5
Energy feed unit	kg	6.2	6.9	8.5	9.2	10.4
Dry substance	kg	6.8	7.6	9.3	10.2	11.5
Digestible protein	g	544	612	748	816	918
Sugar	g	152	171	209	228	257
Calcium	g	76	85.5	104.5	115.2	128.3
Phosphorus	g	30.4	34.2	41.8	45.6	51.3
Carotene	mg	240	270	330	360	405
Correlation sugar/prot.	%	0.3	0.3	0.3	0.2	0.3
Correlation calc./phosphorus	%	2.5	2.5	2.5	2.5	2.5
<b>The norm of day ration:</b>						
Feed unit	kg	5.6	6.5	7.5	8.5	9.1
Digestible protein	g	532	617	713	807	903
<b>Winter demand during 215 days:</b>						
The Hay of Alps pastures	t	1.7	1.9	2.4	2.6	2.9
Table salt	kg	5.4	2	9.6	10.8	11.8

**Table 13: Typical rations for dairy cattle of Local Georgian Mountain Breed in high mountain region (Mestia), during winter period 215 days, live weight 350-400 kg (milk fat 3.8-4.0%).**

Source: M. Rcheulishvili Institute of Biological Basis of Cattle Breeding of Georgia (2006)

Fodder's name	Unit	Milk yield per day (kg)				
		4 and less	4-6	6-8	8-10	10-12
		Ration 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5 + 0.5 kg of soy bean flour
<b>Natural food:</b>						
The Hay of Alps pastures	kg	8.5	10	11	12	11
Crude flour of soy-bean	kg	0	0	0	0	0.5
Table salt	g	35	41	47	53	60
<b>The Ration includes:</b>						
Feed unit	kg	5.4	6.3	6.9	7.7	7.6
Energy feed unit	kg	6.5	7.7	8.5	9.2	9
Dry substance	kg	7.2	8.4	9.3	10.2	9.7
Digestible protein	g	578	630	748	816	893
Sugar	g	162	190	209	228	209
Calcium	g	80.8	95.5	104.5	114	106
Phosphorus	g	32.3	38	41.8	45.6	44.8
Carotene	mg	255	300	330	360	336
Correlation sugar/prot.	%	0.3	0.3	0.3	0.3	0.2
Correlation calc./phosphorus	%	2.5	2.5	2.5	2.5	2.4
<b>The norm of day ration:</b>						
Feed unit	kg	5.9	6.8	7.8	8.8	9.8
Digestible protein	G	561	646	741	836	931
<b>Winter demand during 215 days:</b>						
The Hay of Alps pastures	T	1.8	2.15	2.4	2.6	2.4
Crude flour of soy-bean	Kg	-	-	-	-	108
Table salt	Kg	7.5	8.8	10.1	11.4	129

**Table 14: Rough calculation on cost-effectiveness of additional feeding of hay in winter through increased milk performance and higher cheese production – PART I.**

Subject	Source of data	Unit	Number
Milk production per dairy cattle winter (215 days), average now 0.5 kg/day <sup>150</sup>	HH, pers. comm.	kg	108
Possible cheese output now <sup>151</sup>	HH	kg	12
Possible money through cheese selling now <sup>152</sup>	HH	GEL	72
Milk production winter (215 days) of a dairy cattle of local breed (300-350kg life weight), average 3kg/day	M. Rcheulishvili Institute (2006) <sup>153</sup>	Kg	645
Milk production winter (215 days) of a dairy cattle of local breed (300-350kg life weight), average 5kg/day	M. Rcheulishvili Institute (2006)	kg	1,075
Milk production winter (215 days) of a dairy cattle of local breed (300-350kg life weight), average 7kg/day	M. Rcheulishvili Institute (2006)	kg	1,505
Possible cheese output (Daily average milk production: 3kg)	HH	kg	72
Possible cheese output (Daily average milk production: 5kg)	HH	kg	119
Possible cheese output (Daily average milk production: 7kg)	HH	kg	167
Possible money through cheese selling (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 3kg)	HH	GEL	430
Possible money through cheese selling (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 5kg)	HH	GEL	717
Possible money through cheese selling (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 7kg)	HH	GEL	1,003

<sup>150</sup> The average milk yield in winter is estimated at 0,5kg/day and dairy cattle. According to household interviews, milk performance is decreasing to zero during the winter period.

<sup>151</sup> For simplification of the calculation, it was assumed that all milk is used for Sulguni cheese production. 9kg of milk are needed per kg of Sulguni cheese. Cheese production is thus the division of milk yield by 9.

<sup>152</sup> Average price for Sulguni cheese was taken from the household interviews (6GEL/kg). The product of cheese price with the possible cheese output results in the money earned from cheese selling.

<sup>153</sup> Full name: M. Rcheulishvili Institute of Biological Basis of Cattle Breeding of Georgia.

**Table 15: Rough calculation on cost-effectiveness of additional feeding of hay in winter through increased milk performance and higher cheese production – PART II.**

Subject	Source of data	Unit	Number
Average hay availability per cattle <sup>154</sup>	HH, Agricultural department Mestia	t	0.4
Average hay needed (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 3kg)	M. Rcheulishvili Institute (2006)	t	1.7
Average hay needed (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 5kg)	M. Rcheulishvili Institute (2006)	t	1.9
Average hay needed (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 7kg)	M. Rcheulishvili Institute (2006)	T	2.4
Additional fodder need (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 3kg)	Own calculation	t	1.3
Additional fodder need (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 5kg)	Own calculation	T	1.5
Additional fodder need (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 7 kg)	Own calculation	T	2
Money needed for fodder (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 3kg) <sup>155</sup>	HH	GEL	130
Money needed for fodder (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 5kg)	HH	GEL	150
Money needed for fodder (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 7kg)	HH	GEL	200
Profit (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 3kg) <sup>156</sup>	Own calculation	GEL	300
Profit (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 5kg)	Own calculation	GEL	567
Profit (dairy cattle of local breed at 300-350kg life weight, daily average milk production: 7kg)	Own calculation	GEL	803

<sup>154</sup> Estimated productivity of meadows 3t/ha. The available hay per cattle is calculated from the hay available from pastures (Product of meadow productivity and area of meadows available) divided by the number of cattle,

<sup>155</sup> Price for hay: 0,1GEL/kg (HH). Money spent for additional fodder is calculated as the product of the price for hay and the additional fodder needed in kg.

<sup>156</sup> The number given is the total money earned from cheese selling minus the expenses for additional hay. For the final profit made, transport costs would have to be subtracted yet.

## 6.4.2 Work Distribution in Agriculture

**Table 16: Yearly calendar of activities in animal husbandry for the community of Nakra.**

Sources: FG 2, HH

Main activity	Month	Main responsibility
Cattle in the barns, Feeding Selling meat Selling cheese	January to March	Mainly women Men and women
Selling cheese Making/renovating fences	April	Men and women Men
Cattle taken to nearby pastures	May till June	
Cattle to distant pastures Making cheese	June	Men Women
Cattle from faraway pastures taken back, often grazing after hay making on meadows	Late August until October	
First time cutting of grass Gathering hay Intensive milking and making cheese	June to August	Men Women Women
Second cut of grass Start of selling cheese Bringing down hay	September	Men Men and women Men
Start of selling meat/live cattle	October November	Men and women
Taking the cattle into the barn Restoring of barns	November	Men
Intensive selling of cheese Milking still done	December	Men and women Women

**Table 17: Yearly calendar of activities in crop and vegetable production.**

Sources: FG 2, 4, 7, 10, HH

<b>Main activity</b>	<b>Month</b>	<b>Main responsibility</b>	<b>Remarks</b>
Fertilising	March/ April	Women	Manure is spread on the fields and later ploughed in In Tsvirmi, fertilising is done a second time in winter: Manure is spread on the snow and left until the snow melts and the manure trickles into the ground
Repairing fences	March to May	Men	
Ploughing	March to May	Men	Mainly done with oxen
Sowing/ planting	May	Women, men sometimes help	On southern slopes in Mestia, potatoes are rarely planted in March and can be harvested in late June
Weeding	June/ July	Women, men sometimes help	Hoeing is done in two turns; weeding on all fields and kitchen gardens
Harvesting	August to the end of October	Women	Main harvest of potatoes is done from mid September to end of October.
Selling	October to May	Women and men	The main part is sold in autumn Women mentioned that they prefer selling due to the possibility that men invest the profit in drinking before going home

**Table 18: Main agricultural activities of men and women.**

Source: HH

<b>Main activity</b>	<b>Month</b>	<b>Main responsibility</b>	<b>Remarks</b>
House maintenance	All year long more or less intense.	Women	In summer, women do less in the household
Looking after cattle in the barns	December until the end of February: Giving extra fodder (e.g. bran), milking and making yoghurt/cheese if the cows have still milk	Women	Men give hay and clean the barns. The cattle is brought to the pastures in May
Cattle on the pastures	May to October	Often, a herdsman is looking after the cattle	
Ploughing	May	Men	
Sowing	May	Women	
Work in the kitchen garden	May to September	Women	Hoeing is done in two turns; weeding on all fields and gardens
Second time hoeing	June/July	Women	
Gathering hay and bringing it down	July to August	Women	Women mainly gather the hay
Business/trade	August to May	Women and men	
Harvesting	September	Women	Carrots, pepper, beets
Harvesting	October	Women, men also help	Potatoes



## 6.5 Forestry

### 6.5.1 Forest Details for Georgia and Zemo Svaneti

The following data is from 2005 and was provided by the forest department (MoE 2006).

#### Forest types

The major part of Georgian forested areas is mountain forest (98%), plane forest areas cover only 2% of the wooded land. Coniferous forests cover around 16% with 27% of the total wood reserve. Deciduous forest cover 73% with 68.5% of the reserve. The rest is covered by soft leaf species (8.5% of the area) and other.

#### Forest coverage

The total Georgian “forest fund” area which is state property and under control of the forest department is 3,006.4 thousand ha. The forest fund within each Svan community varies mostly between 11,500 and 15,000 ha. Khaishi has 18,400 ha, Becho 9,691 ha and Mestia 7,135 ha.

### 6.5.2 Economic Aspects<sup>157</sup>

The following table shows some prices given in interviews for logged round wood and for sawn timber per m<sup>3</sup>. The yield for the production of planks was estimated as being 50%. The price for sawing 1m<sup>3</sup> of round wood was said to be around 15 GEL. Mainly fir, spruce and pine are cut (pers.comm., FG 1).

**Table 19: Wood prices for round wood and sawn timber given by different interview partners.**

Price in GEL per m <sup>3</sup>	Informal talk 1 (Chuberi)	Informal talk 2 (Chuberi)	Focus group Nakra (FG 1)	Forest department
Round wood <sup>158</sup>	80	100		55-60
Sawn timber		180-over 200	140 fresh 195 dry	150-160

One sawmill owner said that about 50 to 60m<sup>3</sup> were sawn per day, the work is mostly done from June till beginning of October (pers.comm.).

<sup>157</sup> Little data on economic aspects could be gathered, therefore the given data can only show trends.

<sup>158</sup> Logged but not processed.

## 6.6 Tourism

### 6.6.1 General Data

**Table 20: Importance of sectors for household economy**

Which sector is the most important for your living? (Please rank 1 = most to 5 = least important)	Median	Standard Deviation/ n
Animal husbandry	1.33	0.56/ 46
Crop production	1.77	0.71/ 44
Employment	1.80	0.79/ 10
Forestry	2.80	0.79/ 10
Trade	2.83	1.17/ 6
Tourism	3.00	1.87/ 5

**Table 21: Wishes to get active in specific sectors**

In what sector(s) do you wish to become active? n = 27	No. of responds
Animal husbandry	8
Crop production	3
Forestry	0
Trade	5
Tourism	16
Others	2

### 6.6.2 Diversification of Tourism Products

The vast majority of visitors stay 2-4 days, do one-day hikes or car visits to Ushguli. A diversification of products and their advertising would help to attract more visitors and to incite visitors to spend more time in the region.

#### Sustainable tourism

Links for developing Zemo Svaneti as a sustainable tourism destination:

- [http://portal.unesco.org/shs/en/ev.php-URL\\_ID=4951&URL\\_DO=DO\\_TOPIC&URL\\_SECTION=201.html](http://portal.unesco.org/shs/en/ev.php-URL_ID=4951&URL_DO=DO_TOPIC&URL_SECTION=201.html)
- <http://www.toinitiative.org/index.htm> (Tour Operators Initiative for Sustainable Tourism Development)
- <http://www.nationalgeographic.com/travel/sustainable/>
- [http://www.nationalgeographic.com/travel/sustainable/pdf/geotourism\\_charter\\_template.pdf](http://www.nationalgeographic.com/travel/sustainable/pdf/geotourism_charter_template.pdf)
- [http://www.biodiversity.ru/coastlearn/tourism-eng/con\\_tourism.html](http://www.biodiversity.ru/coastlearn/tourism-eng/con_tourism.html)
- <http://www.rainforest-alliance.org/programs/tourism/tour-operators/codes-of-conduct.html>

- [http://www.visit21.net/VISIT\\_Ecolabels\\_CodeOfConduct.html](http://www.visit21.net/VISIT_Ecolabels_CodeOfConduct.html)
- <http://www.worldtourismforum.org/news/release.2004-12-01.4206950607>

## Hiking

The hiking potential of the region is considered the main attraction for tourists (FG 13, EI 42, HH). Some routes are described in guide books (Under Eagles Wings, Trekking in the Caucasus).

The alpine landscape with its forests, glaciers and wildlife is of course the base for developing hiking tourism. There are so far five marked routes (including a five days trek from Becho to Ushguli) and a few guides who received first training.

Which capacities exist? Guides, 5 marked routes, some guesthouses along the routes, experience of Soviet times, famous Svan hospitality (FG 20)

Which resources exist? Landscape, paths, forest, alpine plateaus, glaciers, wildlife, horses and donkeys (for riding and as pack animals)

Which needs have been mentioned?

- Experienced and trained guides
- Language courses for guides (FG 14, FG 20)
- Exchange programmes with children for language training (FG 20)
- Tour Maps, regional maps (FG 14)
- Marked routes (FG 14)
- Guesthouses (FG 14)
- Mountain huts (refuges) (FG 14)
- Rescue system (FG 14)
- Longer treks, linking them to trans-Caucasian hikes (Kvemo Svaneti, Racha, Kazbegi) (EI 42)

What conclusions can be drawn?

- Equipment like boots, tents, rain clothes, etc. for guides
- Maybe: selected material for rent visitors
- Pack animals
- More training courses

## Agro-tourism

### **Agro-tourism: valorising the existing way of life**

Svans consider themselves, and quite rightly so, great hosts. Their houses usually contain enough space for accommodating four to six visitors at a time, the villages are scenic and quiet, and good organic home made products are served. Everybody knows and uses traditional processing methods with nearly no mechanisation in as diverse spheres as kitchen gardening, milk processing and apiculture, and, if distraction is needed, horses are available to ride to a highland pasture.

With very little investment, e.g. into improving slightly the sanitary facilities, these on-farm activities could be marketed as “tourism events”. Some training on reception skills as well as language would be essential, but besides that mainly marketing and advertising of the product would be needed. Such tourism would allow communities off the “track of main attractions” to receive at least some tourists. It would also allow maintaining and even intensifying the agricultural activities whilst still getting active in the new and potentially attractive tourism sector.

### **Figure 27: Agro-tourism**

Agro-tourism has been mentioned by some stakeholders as a potential (FG 14).

Which capacities exist? Hospitality, enough space for accommodation in the houses, traditional processing skills, good natural home made products

Which resources exist? Basic farming systems (nearly no mechanisation), cows, horses, charm of small villages

Which needs have been mentioned?

No needs communicated

What conclusions can be drawn?

- Basic facilities like guesthouses exist, only little upgrading is necessary
- On-farm activities like horse-riding, hay-making, milking the cows, sleeping in the hay, producing cheese have to be adapted as tourism events.
- Marketing and advertisement of these products is necessary

### **Extreme sports tourism/ adventure tourism**

Rafting, mountain-biking, paragliding, alpinism

Which capacities exist? Alpinist guides (FG 14), one paraglider

Which resources exist? White water mountain rivers (extreme conditions) (EI 42), famous and attractive alpine peaks with differing difficulty levels like Ushba, Shkhara

Which needs have been mentioned?

No needs communicated

What conclusions can be drawn?

Extreme sports and adventure tourism existed in Soviet times. There is awareness that the region has potential for such activities.

There are four operators in Tbilisi specialised on extreme sports (EI 31) – that market can be further explored (training, attracting tour operators from abroad)

## **Winter sports**

Winter sport potentials are mentioned in nearly every discussion on tourism (FG 14, 20, HH, EI). A ski resort existed on the southern flank of Mestia (chair + T-bar lift). A potential for summer-skiing has been assessed by specialists in 2006 (EI 4, HH). Ski-tours are seen as a potential, too (EI 42). Svan people know about prosperous investments in winter sports in Kazbegi region (Gudauri) (HH). In winter people have a lot of free time and little leisure activities (FG 9, FG 17, HH). Winter tourism would enlarge the tourism season.

Which capacities exist? Ski-instructors, rudimentary rescue-system (FG 14)

Which resources exist? Suitable mountain slope preconditions, plains for cross country skiing, enough snow (up to 6m, secure from December - April)

Which needs have been mentioned?

Investments into ski-lifts (HH)

Support to rescue system (material, money for training and equipment)

What conclusions can be drawn?

Winter sport tourism needs high investments on a long run and has to be based on good infrastructure (roads, hotels, supply system like water, etc., secure delivery of sufficient electricity). These preconditions are not given in 2006.

Some winter sports activities with little investments (ski-tours, cross country tours) could be developed in order to give young people options and occupation for the long winter months. They could attract more adventurous travellers.

## **Cultural tourism**

The unique towers and archaeological attractions like churches and traditional architecture as well as the local museums are subject of local pride and often mentioned as main attractions for tourists (FG, HH, EI). Ushguli is listed in the world heritage of UNESCO. Communities like Ushguli work on the conservation of towers and monasteries (La Maria church) (FG 20, HH).

Which capacities exist? Local knowledge on historic and cultural heritage, restaurateurs, guides, ongoing activities for renovating churches, icons, towers

Resources: Numerous historical sites, ethnological (machubis), historical, archaeological and famous person museums,

Which needs have been mentioned?

Money to renovate/install museums (pers.comm.)

Money to maintain the towers (especially roofs)

What conclusions can be drawn?

Churches are never open (in order to protect the valuable icons) and it is always difficult to find the keys. A more transparent system would help to better use the cultural heritage (pers.comm.). Better displayed archaeological items as well as explanatory boards and on site explanation boards might add to better understanding and thus “complete experience” of the region.

**Nature tourism**

Zemo Svaneti could offer special sub-products like bird-watching, nature photography, etc.

Which resources exist? Birds like vultures and eagles, countryside, lichens, endemic plants, old-growth forest

What conclusions can be drawn?

The nature of Zemo Svaneti could be better advertised for attracting specialised tourists such as bird watchers, a rather well organised segment of tourism. Locally, little awareness on how this could be done exists. An expert to develop this market segment should be consulted.

**Health tourism**

The numerous mineral water springs are seen as a major attraction of the region for installing sanatoriums or for bottling the water.

Which capacities exist? The sources are known and looked after

Which resources exist? Mineral water springs in most of the valleys (e.g. in Becho alone there are 4 frequented springs)

Which needs have been mentioned?

Analysis for the quality of water; bottling plants

What conclusions can be drawn?

Most of the mineral water sources have a strong taste of iron or sulphur (observation). It is questionable whether these springs alone would attract investors and become competition for the well-settled spas of Georgia.

### 6.6.3 Geotourism Charter<sup>159</sup>

This global template is designed for nations but can also be adjusted for signature by provinces, states, or smaller jurisdictions, and for endorsement by international organizations. **Geotourism** is defined as tourism that sustains or enhances the geographical character of a place – its environment, culture, aesthetics, heritage, and the well-being of its residents.

#### The Geotourism Charter

WHEREAS the geotourism approach is all-inclusive, focusing not only on the environment, but also on the diversity of the cultural, historic, and scenic assets of \_\_\_\_\_,

WHEREAS the geotourism approach encourages citizens and visitors to get involved rather than remain tourism spectators, and

WHEREAS the geotourism approach helps build a sense of national identity and pride, stressing what is authentic and unique to \_\_\_\_\_,

THE UNDERSIGNED parties to this Agreement of Intent commit to support these geotourism

principles, to sustain and enhance the geographical character of \_\_\_\_\_ its environment, culture, aesthetics, heritage, and the well-being of its residents:

**Integrity of place:** Enhance geographical character by developing and improving it in ways distinctive to the locale, reflective of its natural and cultural heritage, so as to encourage market differentiation and cultural pride.

**International codes:** Adhere to the principles embodied in the World Tourism Organization's Global Code of Ethics for Tourism and the Principles of the Cultural Tourism Charter established by the International Council on Monuments and Sites (ICOMOS).

**Market selectivity:** Encourage growth in tourism market segments most likely to appreciate, respect, and disseminate information about the distinctive assets of the locale.

**Market diversity:** Encourage a full range of appropriate food and lodging facilities, so as to appeal to the entire demographic spectrum of the geotourism market and so maximise economic resiliency over both the short and long term.

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<sup>159</sup> Source: [http://www.nationalgeographic.com/travel/sustainable/pdf/geotourism\\_charter\\_template.pdf](http://www.nationalgeographic.com/travel/sustainable/pdf/geotourism_charter_template.pdf) (27/11/06)

**Tourist satisfaction:** Ensure that satisfied, excited geotourists bring new vacation stories home and send friends off to experience the same thing, thus providing continuing demand for the destination.

**Community involvement:** Base tourism on community resources to the extent possible, encouraging local small businesses and civic groups to build partnerships to promote and provide a distinctive, honest visitor experience and market their locales effectively. Help businesses develop approaches to tourism that build on the area's nature, history and culture, including food and drink, artisanry, performance arts, etc.

**Community benefit:** Encourage micro- to medium-size enterprises and tourism business strategies that emphasise economic and social benefits to involved communities, especially poverty alleviation, with clear communication of the destination stewardship policies required to maintain those benefits.

**Protection and enhancement of destination appeal:** Encourage businesses to sustain natural habitats, heritage sites, aesthetic appeal, and local culture. Prevent degradation by keeping volumes of tourists within maximum acceptable limits. Seek business models that can operate profitably within those limits. Use persuasion, incentives, and legal enforcement as needed.

**Land use:** Anticipate development pressures and apply techniques to prevent undesired overdevelopment and degradation. Contain resort and vacation-home sprawl, especially on coasts and islands, so as to retain a diversity of natural and scenic environments and ensure continued resident access to waterfronts. Encourage major self-contained tourism attractions, such as large-scale theme parks and convention centers unrelated to character of place, to be sited in needier locations with no significant ecological, scenic, or cultural assets.

**Conservation of resources:** Encourage businesses to minimise water pollution, solid waste, energy consumption, water usage, landscaping chemicals, and overly bright nighttime lighting. Advertise these measures in a way that attracts the large, environmentally sympathetic tourist market.

**Planning:** Recognise and respect immediate economic needs without sacrificing long-term character and the geotourism potential of the destination. Where tourism attracts in-migration of workers, develop new communities that themselves constitute a destination enhancement. Strive to diversify the economy and limit population influx to sustainable levels. Adopt public strategies for mitigating practices that are incompatible with geotourism and damaging to the image of the destination.

**Interactive interpretation:** Engage both visitors and hosts in learning about the place. Encourage residents to show off the natural and cultural heritage of their



communities, so that tourists gain a richer experience and residents develop pride in their locales.

**Evaluation:** Establish an evaluation process to be conducted on a regular basis by an independent panel representing all stakeholder interests, and publicise evaluation results.

## 6.7 Disasters: Case Study Tviberi



### **Village Tviberi (community Tskhumari) – response scheme to mudslides**

Tviberi is located at a light slope. A deep rut-marked access road leads to another village and to the forest south of the village, which was clear-cut during Soviet time. During snow melt in spring, mudslides occur frequently on and nearby this road. The first water melts normally do not carry so much mud, thus the water retention system of the road is sufficient. Later, when the soil is saturated with water, mud makes its way down the slope, narrowing into the road and using the road as a channel towards the main square of the settlement. There it broadens, affecting houses and fields.

Shortly before a mudslide might take place, the people of the threatened neighbourhood gather and try to canalise the mudslide. They use huge tree trunks which are put near the site where the incident usually starts. When the mud has grown over the first trunk, they install a second one.

Thus, their response scheme is mainly based on basic equipment and tools, managed without professional assistance, eventually resulting in limited success. Neither any preventive structure built by engineers nor improved road construction with water drainage were considered useful to more effectively prevent harm.

**Figure 28: Response scheme of the village Tviberi.**

Source: FG 5

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## **6.8 Education Support: Supporting Technical and Vocational Training**

In all sectors analysed a need for technical training became apparent. Given the broad range of training needs this study could not develop them in all detail. This sub-chapter lists technical training options for the different sectors identified during the research as well as the chapters (or the annexes) where the ideas are described in some more detail. The list of training needs cannot claim to be complete nor prioritised. It can, nevertheless, serve as a base for future research and project planning. Some organisations with know-how in certain fields are listed as potential partners/implementers, but this list, of course, does not claim to be complete.

**Table 22: Ideas for technical and vocational training.**

Sector	Training courses	Content	Organisations
Animal husbandry	Controlled reproduction	Selection & documentation, artificial insemination, new breeds	GNAAP
	Pasture/ meadow management	Irrigation, weeding, fertilising, controlling access	Elkana
	Processing	Cheese varieties, ham, sausage, haggis, packaging/ labelling	
	Marketing	Organisational training for joint marketing, self-organisation skills, introduction of idea of cooperatives	Elkana
	Demonstration farm	Mixed demonstration farm for animal husbandry and diversified agriculture where all mentioned training materialises	
	Agricultural information	Using web-based information systems for Knowledge exchange on agricultural methods in Georgia	AGROWEB Georgia (GNAAP and Elkana/FAO)
	New and improved keeping methods	Technical training on improving keeping conditions (e.g. feeding efficiency)	GNAAP
	Organic animal production	Principles and techniques, market access	Elkana
	Integrated land use planning	Organisational training for community employees	
Crop production	Crop and vegetable varieties	Adapted varieties of existing crops and vegetables, cultivation of new crops e.g. fodder crops	Elkana
	Soil management and fertilisation	Crop rotation, fertilisation schemes (diversification and improved handling)	Elkana
	Organic farming	Principles and techniques	Elkana
	Mechanisation	Organisation of common management scheme, use and maintenance	
	Diversification of production by processing	Jams, compote, herbs and spices, packaging and labelling	
	New and improved cultivation methods	Pest prevention and control, inter cropping, water retentions systems, small green houses for extending the vegetation period	Elkana

Sector	Training courses	Content	Organisations
Forestry	Sustainable forestry	General Inputs on sustainable management (including animal husbandry), Selection of trees/ logging “etiquette”, restoration of forest	WWF, Forest Administration
	Processing	Efficient use of logged trees: diversification of products, valorising saw dust and other by-products, wood-carving	RCDA
	Handicraft	Wood-carving, carpentry	Local masters, Pro Mestia
	Marketing	Labelling sustainable wood for improved market access, marketing of handicraft (also linked to tourism)	
	Energy efficiency	Planning construction and insulation of houses, Energy efficient stoves	Pro Mestia, RCDA (improved heating), Association Mta-Bari
	Alternative energy sources	Renewable energy (wood pellets, passive solar energy, mini hydro power stations)	RCDA, Tourism Information Centre Mestia
Tourism	What is tourism?	Products, organisational options, complex aspects and side effects of tourism, benefit sharing	CTC
	Service provider training (guesthouses, guides, drivers)	Providing adequate service, code of conduct, nature conservation and tourism, culture and tourism, benefit sharing	Tourism Information Centre; FES, RCDA
	Self-organisation in communities	Resource mapping, defining the product(s), organisational forms, advertising, benefit sharing	
	Specific training for diverse products	Mountaineering, rafting, skiing	Adventure club, AGA, local alpinists
	Rescue systems	First aid for drivers and guides, rescue system for trekking, mountaineering	AGA, local alpinist

Sector	Training courses	Content	Organisations
<b>Disasters</b>	DRM	Disaster prevention, responsibilities in preparedness and reaction, joined reaction training	SDC
	Community based preparedness	Part of small projects including participatory risk analysis combined with low input prevention activities	
	Technical training	Depending on techniques used for prevention	SDC
	Exchange events	Organise site trips to other mountainous regions in Georgia, e.g. Racha, Kvemo Svaneti	SDC
<b>Business development</b>	Management	Business planning and founding, legal and tax issues, accountancy and management	GAWB
	Craftsmanship	Carpentry, wood carving, handicraft production/ diversification, planning and accountancy	Pro Mestia
	Market access	Organisational options, wholesale market	
	Processing	Wood, agricultural products, packaging, labelling	
<b>Education</b>	Teachers training	Non-frontal training, education reform, extracurricular activities	CTC, Education Department Mestia
	Language	Exchange trips (teachers, pupils), native language teachers for summer school	Peace Corps Volunteers
	Self organisation and development of skills	Library management, extracurricular activities (drawing, folk songs, writing)	CTC
<b>Culture</b>	Culture and tourism	History, archaeology, site visits, interpretational signboards	Archaeology Institute, Culture Department Mestia
	Entertainment	Organisational support	Local trainers, CTC
	Sports	Organisational support	Local trainers

## **6.9 Exchange of Experiences**

Exchange of experiences with community development in Chiora, Racha – 30/09/2006

### **6.9.1 The Project**

The Regional Environmental Centre for the Caucasus (REC Caucasus) together with the Russian REC implements a programme on „Sustainable Development of Mountain Regions of the Caucasus – Local Agenda 21“. „The overall goal of the project is elaboration of Local Agenda 21 for the mountain regions of the Caucasus by involving a maximum number of villages in the planning process.“ (REC CAUCASUS 2005: 2) About three years ago, the process started in eight pilot villages, two in each of the participating countries. One of the Georgian pilot villages is Chiora, a village in Oni district, in Racha.

The project started with a preliminary analysis of the situation and information collection, followed by the community development process leading to a Local Agenda 21. In the coming years, these local agendas shall be implemented with the help of donors, e.g. international organisations. (REC CAUCASUS 2005)

### **6.9.2 The Meeting**

In order to bring together villagers from Zemo Svaneti and from Chiora, but also to establish a working contact between CTC and the described project, a small group visited Chiora on a weekend. Two SLE members accompanied two villagers from Zemo Svaneti, a teacher from Mestia and a teacher from Nakra. CTC representatives were not able to join for diverse reasons, thus this short report shall serve as a basis for further cooperation.

At first sight, access to Oni district seems a lot easier than to Mestia district, due to asphalted roads and sound construction at river banks. Behind Oni, the road gets worse and leads to “Third Racha”, an area behind a small gorge. There are three villages, the first being Chiora, 28 kilometres behind Oni. The meeting took place with Bakuri, member of administration and founder of an NGO in the process of registration. He has been working as coordinator in the village for the REC Caucasus project.

Concerning the process of community development, he could not make detailed statements. The whole process started with some experts coming to Chiora. Afterwards, some trainings took place, especially in the area of project proposal writing and tourism service. Today, about 10 to 15 families are able to receive guests, but there are only few tourists who pass through Chiora on their way to Kvemo Svaneti. The trainings in project management were open to everyone. Afterwards, 15 young people who actively participated in the trainings were chosen to discuss projects together with the mayor. The projects are based on ideas of all inhabitants. Now, people look for funding of these projects.

At the same time, the founding of NGOs has been supported. Today, there are two registered NGOs and one in process of registration. In the latter, inhabitants of all villages of “Third Racha” planned to work together due to similar problems. Problems include: lack of employment, no snow clearing in winter, bridges in bad conditions, no market place.

Some small-scale projects were carried out as pilot activities. A shepherd’s house about one hour from Chiora was rehabilitated with funds of REC (1000\$) in order to be able to receive guests. This does not yet yield much benefit so far, no tourists have been received. Three families participated in an experiment on organic farming; they were trained in growing carrots, beetroot, and tomatoes. The families seemed to like especially the success with tomatoes which due to a special technique (“Hügelbeet”, putting hay and manure in the soil and then cover it) grew the first time in years.

After three years, the Local Agenda has been written. Potentials identified include:

- Ham processing: Ten people shall find employment through processing ham as this is the most expensive product produced in Chiora (so far, in home production). Oaks in the area support pig keeping.
- Processing of dried fruit
- Rehabilitation of the water system (apparently, the German Embassy has approved funding)
- Establishing a resource/community centre in the school building

### **6.9.3 Observations**

- The problems mentioned seemed to be very similar to those of Zemo Svaneti.
- When being asked for experiences with the community development process, the interviewed person stated to have no experiences which might be interpreted as general low interest in the process. This is underlined by the great interest shown



in identified potentials and in planned projects. Results were mentioned as very important.

#### 6.9.4 Conclusions for Zemo Svaneti

Community development processes should not be considered as a result in itself. The long-term process should be accompanied by tangible projects, which make the villagers see that something moves. Based on initial funding, concrete results have to be reached in a reasonable timeframe to keep motivated people on board.

Pilot activities have to be considered very important. The interest of the two Svans in results and concrete projects underlines that.

Communication with pro-active people in Zemo Svaneti should be done very carefully in order to not disappoint them by misunderstandings.

The network of the villages in the Caucasus participating in the project: „Sustainable Development of Mountain Regions of the Caucasus – Local Agenda 21“ as well as REC Caucasus could be great partners for CTC in future to learn from and share experiences with.

#### 6.9.5 Acknowledgements

At this point we would like to thank Bakuri and all the other villagers who took their time for explaining us the project in Chiora. Special thanks we owe to Nina Shatberashvili and Davit Tchitava of REC Caucasus for their openness in sharing their experience and making the visit possible.

### 6.10 Lists of Interviews and Discussions

Table 23: List of Expert Interviews.

No	Institution	Name(s)	Function(s)	Place	Date
EI 1	Auswärtiges Amt (German Foreign Ministry)	Fried Nielsen	Leiter des Arbeitsstabs “Kultursponsoring und private Stiftungen” im AA	Berlin	22/06/06
EI 2	Freie Universität Berlin (Free University Berlin)	Jan Koehler		Berlin	06/07/06
EI 3	Berliner Georgische Gesellschaft e.V.	Rolf and Brigitta Schrade		Mahlow	07/07/06

No	Institution	Name(s)	Function(s)	Place	Date
EI 4	Department of Tourism (Ministry of Transport and Economy)	Gigi Kuparadze Beka Jakeli	Deputy Chairman  Head of Division of Planning, Resorts Development and Statistics	Tbilisi	26/07/06
EI 5	German Embassy	Jessica Fernandez		Tbilisi	26/07/06
EI 6	OSCE Mission to Georgia	George Tugushi	National Human Rights Officer	Tbilisi	26/07/06
EI 7	International Organisation for Migration (IOM)	Natia Kvitsiani	National Programme Officer	Tbilisi	27/07/06
EI 8	United Nations Development Programme (UNDP)	Peter Van Ruyseveldt Matilda Dimovska	Deputy Resident Representative Assistant Resident Representative	Tbilisi	27/07/06
EI 9	World Wildlife Fund for Nature (WWF)	Ilia Osepashvili	Senior Forest Officer	Tbilisi	27/07/06
EI 10	Friedrich-Ebert-Stiftung (FES)	Günther Fichtner	Resident Representative	Tbilisi	28/07/06
EI 11	Ministry of Agriculture	Mirian Dekanoidze	Deputy Minister	Tbilisi	28/07/06
EI 12	Rural Communities Development Agency	Rostom Gamisonia		Tbilisi	28/07/06
EI 13	World Bank	Ilia Kvitaishvili Inga Paichadze	Rural Development Specialist External Affairs	Tbilisi	28/07/06
EI 14	Caucasus Institute for Peace, Democracy and Development (CIPDD)	David Losaberidze		Tbilisi	31/07/06
EI 15	Centre for Training and Consultancy (CTC)	Irina Khantadze Mathias Valentin	Director of CTC Founder of CTC	Tbilisi	31/07/06
EI 16	European Commission	Nino Metreveli	Project Manager EC-ACH project	Tbilisi	31/07/06

No	Institution	Name(s)	Function(s)	Place	Date
EI 17	GTZ "Support to Value Added in Agricultural Sector; Enhancing Food Quality and Safety"	Dr. Rainer Neidhardt Giorgi Gavashelishvili	Head of Project Senior Advisor	Tbilisi	31/07/06
EI 18	President Advisory Group	George Tevdorashvili Irakli Jeiranashvili	Chief Advisor for Zemo Svaneti	Tbilisi	31/07/06
EI 19	ELKANA	Maka (Mariam) Joradze Tamaz Dundua	Director of CTC Project Manager	Tbilisi	01/08/06
EI 20	Georgian National Association for Animal Production (GNAAP)	Giorgi Saghirashvili Tamar Kartvelishvili Ekaterine Tsurtsunia	Vice president Vice president AgroWeb Georgia	Tbilisi	01/08/06
EI 21	Cadastre and Land Register Project (CLRP)/ National Agency of Public Registry (NAPR)	Alexander Schmidt Lika Chanturia	Consultant CLRP/ KfW NAPR Head of Department	Tbilisi	01/08/06
EI 22	Swiss Development Cooperation (SDC)	David Tchitchinadze	National Programme Officer	Tbilisi	02/08/06
EI 23	GTZ (support of SME)	Knut Gerber		Tbilisi	02/08/06
EI 24	Regional Environmental Centre (REC) Caucasus	Lilit Harutyunyan Nato Kirvalidze Nina Shatberashvili	Programme Coordinator Executive Director Regional Coordinator	Tbilisi	02/08/06
EI 25	The Georgian Association of Women in Business (GAWB)	Nino Elizbarashvili	President	Tbilisi	02/08/06

No	Institution	Name(s)	Function(s)	Place	Date
EI 26	Civil Society Development Centre (CSDC) Counterpart Association of Disabled Women and Mother of Disabled Children (DEA)	Ia Esebua Madonna Kharebava	Head of CSDC Director DEA	Zugdidi	03/08/06
EI 27	Acción contra el Hambre (ACH)	Lucia Oliveira	Head of Base	Zugdidi	04/08/06
EI 28	Economic Department (Government of Samegrelo-Zemo Svaneti)	Gela Svirava	Head of Economic Department	Zugdidi	04/08/06
EI 29	Pro Mestia	Markus and Elsbeth Röthlisberger		Cholashi/ Mulakhi	16/08/06
EI 30	--	Teimuraz Nijaradze	Member of MAAP (Mestia Association for Animal Production)	Ushguli	22/08/06
EI 31	--	Vakhtang Davituri	Deputy Director of a tourism business	Ushguli	22/08/06
EI 32	Gamgebeli (mayor) Chuberi	Zhuzhuna Gurchiani	Mayor	Chuberi	22/08/06
EI 33	--	Konstantin and Lela Nijaradze	--	Ushguli	23/08/06
EI 34	Makhshi Eli	Semlar Khvibliani	Makhshi	Eli/ Tsvirmi	23/08/06
EI 35	Pro Mestia	Markus and Elsbeth Röthlisberger		Cholashi/ Mulakhi	23/08/06
EI 36	Gamgebeli (mayor) Mulakhi	Oshangi Jujeliani	Mayor	Cholashi/ Mulakhi	24/08/06
EI 37	--	Kleon Tsindeliani	Former Kolkhos director	Nakra	25/08/06
EI 38	--	Bachuki Gvarmiani		Nakra	30/08/06
EI 39	Care	Buba Jafarli		Tbilisi	06/09/06

No	Institution	Name(s)	Function(s)	Place	Date
EI 40	Georgian National Association for Animal Production (GNAAP)	Tamar Kartvelishvili Ekaterine Tsurtsunia	Vice president AgroWeb Georgia	Tbilisi	07/09/06
EI 41	Regional Environmental Centre (REC) Caucasus	Lilit Harutyunyan Nina Shatberashvili	Programmes Coordinator Regional Coordinator	Tbilisi	07/09/06
EI 42	Tourism Information Centre	Zauri Chartolani	Director	Mestia	07/09/06
EI 43	United Nations Development Programme (UNDP)	Peter Van Ruyseveldt	Deputy Resident Representative	Tbilisi	07/09/06
EI 44	People's Bank	Keto Japaridze	Bank Director	Mestia	08/09/06
EI 45	Grinding plant	--	--	Zugdidi	09/09/06

**Table 24: Focus group discussions.**

Cluster	Community	FGD topic	Focus group participants <sup>160</sup>	Partici-pants <sup>161</sup>	Date	Number in text <sup>162</sup>
1	Nakra	Forestry	All	7	30/08/06	1
		Animal husbandry	All	10	29/08/06	2
		General	Elders	5	30/08/06	3
2	Tskhumari	Crop production	All	8	31/08/06	4
		Natural disasters	All	4	02/09/06	5
		General	Men	4	31/08/06	6
		General	Women	8	01/09/06	7
3	Mestia	General	Administration	6	06/09/06	8
		General	Youth	12	31/08/06	9
		General	Women	12	31/08/06	10
		Cultural life	All	7	08/09/06	11
		Cultural heritage	Culture workers	3	07/09/06	12
		Small business	Business people	6	06/09/06	13
		Tourism	Service providers	9	05/09/06	14
4	Tsvirmi	Animal husbandry	All	14	30/08/06	15
		Natural disasters	All	12	30/08/06	16
		General	Youth	10	29/08/06	17
		General	Village representatives	8	29/08/06	18
4	Ushguli	Animal husbandry	All	4	03/09/06	19
		Tourism	All	9	03/09/06	20

<sup>160</sup> For detailed target group of discussions as well as topics, please see data CD-Rom available with CTC Tbilisi and SLE Berlin.

<sup>161</sup> Numbers of participants varied during the discussions. The number represents the core of the discussion.

<sup>162</sup> The numbers in the last column are used for quotations: FG 19 corresponds to the focus group discussion in Ushguli on animal husbandry.

**Table 25: List of minutes of meetings during preparatory visit.**

<b>Organisations/people met</b>	<b>Representatives</b>	<b>Date</b>	<b>Abbreviation</b>
CTC	Irina Khantadze	16/05/06	Min 1
FES	Günther Fichtner	16/05/06	
EED	Gerlind Melsbach	16/05/06	
GTZ	Knut Gerber	17/05/06	
RCDSP	Rostom Gamisonia	17/05/06	
Dean of geography faculty	Nino Pavliashvili	16/05/06	
Dean of agriculture faculty	Rusudan Dzidzishvili	18/05/06	
Local government	Zaza Gorozia	19/05/06	Min 2
Counterpart	Ia Esebua	19/05/06	
DEA	Madonna Kharebava	19/05/06	
ACH	Lucia Oliveira; Tea Agumela	19/05/06	
Women of mountain regions	Rusudan	20/05/06	Min 3
ACH	Paata Kaldani	20/05/06	
Education department	Victor Chkhumiani	20/05/06	
Georgian Regional Development Support Association	Besarion Guledani	20/05/06	
CTC Mestia team	Merab Khergiani; Nino Ratiani	20/05/06	
Mestia gamgebeli	Nino Japaridze	20/05/06	
Mulakhi gamgebel	Oshangi Gujejani	21/05/06	Min 4
Ipari gamebeli	Gia Rustitsani + community women	21/05/06	
Ushguli school principal	Nona Ratiani; Maia Khajbani	21/05/06	
Community members	Genadi + Goga Jerkseliani	22/05/06	Min 5
Doctor		22/05/06	
Museum	Pridon Nijaradze	22/05/06	
Gamgeoba accountant	Roman Marguelani	22/05/06	
MDF	Irma Alpenidze	24/05/06	Min 6
EED	Gerlind Melsbach	24/05/06	
GTZ	Knut Gerber	25/05/06	
OSZE	Iris Muth	25/05/06	
CTC	Irina Khantadze; Pavle Tvaliashvili	25/05/06	

**Table 26: Organisations met and main topics of conversation.**

(in alphabetical order)

Organisation	Main topics of discussion	Contact
Association of Disabled Women and Mothers of Disabled Children (DEA); Civil Society Development Counterpart (CSDC)	Their economic assessment in ZS (WB funded) Experience on cooperation with government Hints for development work in Georgia Methodology applied in Zemo Svaneti	Ia Esebua, cpartzug@gol.ge; Madonna Kharebava, madonna_k@gol.ge <i>Zugdidi</i>
Accion Contra el Hambre (ACH)	EC funded ACH Project in Zemo Svaneti: - Project rationale - Main steps - Farmer groups selection Coordination of different stakeholders	Lucia Oliveira; hob_zugdidi@yahoo.com <i>Zugdidi</i>
Cadastre and Land Register Project (CLRP) and National Agency of Public Registry (NAPR)	- Data on soil (but few details on Zemo Svaneti) with Alexander Schmidt Situation in Zemo Svaneti on land reforms and registry - Work of NAPR - Law/ institutions - Customary vs. statutory law concerning land	Lika Chanturia, ikachaturia@yahoo.com <i>Tbilisi</i>
Care	Care potato seed project ZS 2004 Care community development project	Jonathan_Puddifoot@care.org.ge; Buba_Jafarli@care.org.ge <i>Tbilisi</i>
The Caucasus Institute for Peace, Democracy and Development (CIPDD)	Work of the decentralisation commission Reform plans NGO criticism on reform plan Training needs for administration	David Losaberidze, david-los@cipdd.org <i>Tbilisi</i>
CTC	- CTC as an organisation (organisational support to NGOs) - Target groups (NGOs, enterprises, administration, general public) - Training (institutional development, management skills, foreseen: policy formulation) - Intervention strategy (client = local government)	Matthias Valentin, val@ctc.org.ge; Irina Katadze, irina@ctc.org.ge <i>Tbilisi</i>
Department of Tourism	Activities of department of tourism Tourism potential (e.g. cultural heritage) Plans of department for development in Zemo Svaneti	givi.kuparadze@tourizm.gov.ge; beka.jakeli@tourism.gov.ge <i>Tbilisi</i>



Organisation	Main topics of discussion	Contact
Elkana	<ul style="list-style-type: none"> <li>- Organic farming</li> <li>- Linking producers to market</li> <li>- Training and capacity building</li> </ul>	Maka Joradze director@elkana.org.ge <i>Tbilisi</i>
Embassy Germany	Current projects funded by BMZ Caucasus initiative (Georgia mediator between Azerbaijan and Armenia)	Jessica Fernandez, wi-10@tifl.diplo.de; ku-10@tifl.auswaertiges- amt.de <i>Tbilisi</i>
EU	<ul style="list-style-type: none"> <li>- Rural Development project in Samegrelo-Zemo Svaneti</li> <li>- Methodology/Content/Next Steps</li> <li>- Resource/information centre in Zugdidi (ACH)</li> </ul>	Nino.METREVELI@cec.eu.int <i>Tbilisi</i>
Friedrich Ebert Foundation (FES)	<ul style="list-style-type: none"> <li>- Tourism potential</li> <li>- Security</li> <li>- Social structure</li> <li>- Working style in ZS</li> <li>- CBO support</li> <li>- Capacity building on tourism</li> <li>- Entry points</li> <li>- Project history</li> <li>- FES vision for joint project with SDC on tourism centre Mestia</li> </ul>	Günther Fichtner  <i>Tbilisi</i>
Georgian Association Women in Business GAWB	Plans for Zemo Svaneti: Business incubator; workshop in Mestia; possible co-operation with CTC	Nino Elizbarashvili, wbus@caucasus.net <i>Tbilisi</i>
Georgian National Association for Animal Production (GNAAP)	<ol style="list-style-type: none"> <li>1. They just started to work in Zemo Svaneti, mainly in the field of artificial insemination: two people will be trained to conduct that</li> <li>2. Their main goals: knowledge transfer of animal husbandry by meetings &amp; webportal</li> </ol>	ekatherine_tsurtsumia@hotmail.com <i>Tbilisi</i>
Regional Government Samegrelo-Zemo Svaneti, Economic Department, Zugdidi	<ul style="list-style-type: none"> <li>- Regional Economic and Social Development Plan, financed through World Bank</li> <li>- Foreseen projects in Mestia district</li> </ul>	Gela Svirava, gsvirava@mail.ru <i>Zugdidi</i>
Government - Analytical Group	Inform government on our project; Gather information on their plans / projects	Giorgi Tevdoraqshvili, gtevdorashvili@admin.gov.ge; Irakli Jeiranashvili, ikajeiran@admin.gov.ge <i>Tbilisi</i>

Organisation	Main topics of discussion	Contact
GTZ	Value chains	rainer.neidhardt@gtz.ge; giorgi.gavashelishvili@gtz.ge <i>Tbilisi</i>
GTZ	- Exchange of experiences made by GTZ in Zemo Svaneti - SME + Tourism	knut.gerber@gtz.ge <i>Tbilisi</i>
IOM	IOM project (so far only a proposal over 2 mio \$ for a duration of 30 months which she did not share with us) IOM mandate /migration from and in Z.Sv.	Natia Kvitsiani, natia@iom.ge <i>Tbilisi</i>
Mestia Association for Animal Production (MAAP)	Animal Husbandry in Zemo Svaneti Improvement of breeds Improvement of fodder Associations and other organisations for ZS Tourism development	Teimuraz Nijaradze (899 209719) <i>Ushguli</i>
Ministry for agriculture	Agriculture potential Problems of agriculture Programme supporting agriculture	<i>Tbilisi</i>
OSCE	Human rights situation Situation in Svaneti Decentralisation	George.Tugushi@osce.org <i>Tbilisi</i>
Regional Environmental Centre (REC)	- REC-project: SD in Caucasus - Local Agenda 21 - Exchange on Methodological Approach, esp. similarities to SLE/CTC-study	nina.shatberatshvili@rec-caucasus.org <i>Tbilisi</i>
Rural Community Development Agency (RCDA)	Recommendations GTZ project GMF project --> methodology and experience outcomes Data validity NTFP + wood processing (+ figures and details) Business Politics – Kodori gorge Comments on SLE approach	Rostom Gamisonia rgamisonia@hotmail.com <i>Tbilisi</i>
SDC	Natural Disasters Disaster Risk Management Disaster Preparedness	david.tchitchinadze@sdc.ge <i>Tbilisi</i>
Tourism Information Centre	Tourism perspectives in ZS Training program Sustainable tourism Benefit sharing	Zaori Chartolani <i>Mestia</i>

Organisation	Main topics of discussion	Contact
UNDP	Raising their interest General recommendations UNDP experience in Zemo Svaneti (non-existent)	peter.van.ruysseveldt@undp.org; matilda.dimovska@undp.org <i>Tbilisi</i>
Worldbank	Forestry project WB Development plan Samegrelo Zemo Svaneti Khudoni Dam (pre-feasibility study is being done) Micro projects Sectors with potential CTC/SLE study	Inga Paichadze, ipaichadze@worldbank.org; Ilia Kvitaishvili, ikvitaishvili@worldbank.org <i>Tbilisi</i>
WWF	Forestry strategy National forest strategy (leasing forest to private entrepreneurs) WWF point of view Forest use Illegal logging	Ilia Osepashvili, iosepashvili@wwfcaucasus.ge <i>Tbilisi</i>

## 6.11 Khudoni Dam: Potential and Threat

In the last years of Soviet reign, a second dam upstream of Inguri dam had been planned to produce hydroelectricity exceeding local and national needs. After initial works, the construction was stopped due to both the breakdown of the Soviet Union and protests from local population fearing dislocation and environmental changes, in particular negative consequences on the local climate.

Today, Khudoni dam is again on the agenda. According to the Zugdidi economic department, the dam, a tender worth 5 mio. US\$, was launched by the ministry of Economy and the World Bank in 2006 for a technical feasibility and environmental impact study. Once approved, a tender for the actual construction should be announced. The department is expecting high interest from international investors (mainly Russian and Turkish) who will be the owners of the produced energy.

Such a project would have different consequences on the region: 10% of the initial investment is foreseen for the budget of Zemo Svaneti and mainly earmarked for infrastructure projects, in particular improvement of roads. The construction itself as well as the maintenance and operation would require labour force which would partly be recruited in Zemo Svaneti. This influx of money would represent a major injection of money into the local economy and could act as an initial spark for triggering investments and thus economic growth.

The construction would also mean that the inhabitants of Khaishi (1,500 persons) and partly of Chuberi (1,200 persons) would have to be re-located. Forests and fields would be flooded, further reducing the economic resources of the region. Habitat for plants and animals would be destroyed, further reducing their possible refuges. Consequences on the local climate are difficult to predict, but people of Svaneti sometimes link the higher occurrence of disasters to increased precipitation influenced by reason of the Inguri dam.

Locally, the opinions on the dam vary. There is hope for economic growth, strongly pronounced by local politicians. There is also fear that the fruits of the dam will be harvested by others, since the energy is for export and the main beneficiaries will be the enterprises running the dam. There is uncertainty on the ecological consequences.

Today, already a consequence can be felt: no major investment in main roads between Mestia and Zugdidi is planned until the dam is built, i.e. for the moment until 2009 (EI 27).

## 6.12 Maps

### 6.12.1 Map of Georgia



**Figure 29: Map of Georgia.**

Source: [www.nti.org/db/nisprofs/maps/georgia.jpg](http://www.nti.org/db/nisprofs/maps/georgia.jpg), 27.11.2006

### 6.12.2 Resource map of Tsvirmi

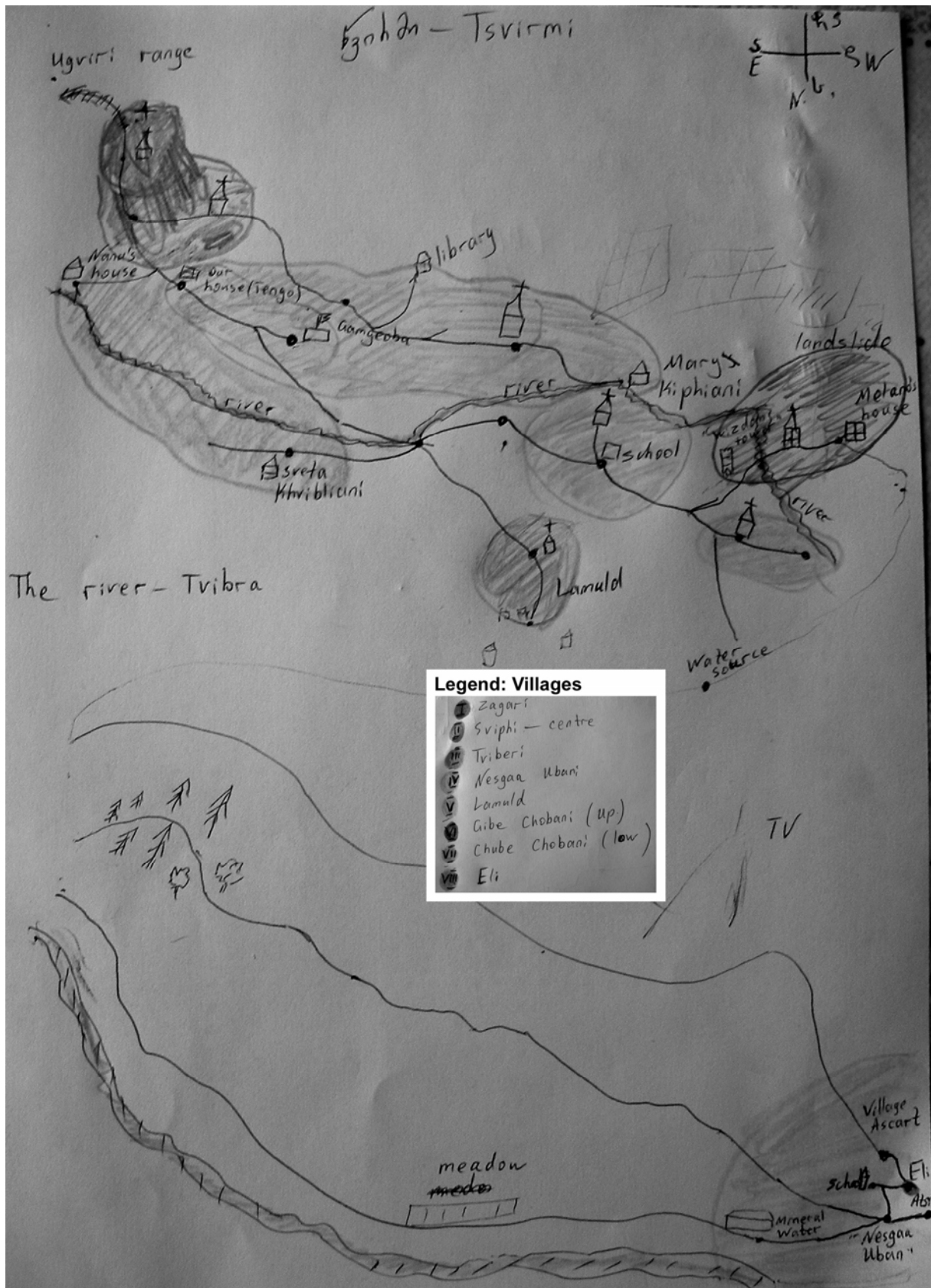


Figure 30: Resource map of Tsvirmi.

Source: HH

## 6.13 Contents of CD-Rom

- Excel files containing the detailed results of the household interviews (including the quantitative analysis),
- Community profiles,
- Results of the market analysis,
- Minutes of the focus group discussions,
- Needs and potentials in education and culture,
- Details on institutional and infrastructure aspects,
- Methodological information (including PRA methods and a blank form of the household interviews),
- Key principles for sustainable development strategies,
- 10-step approach for conducting a potential analysis,
- Forest statistics (MoE 2006),
- Brief information on CTC
- Project preparation visit report,
- Terms of Reference, and
- Some photos.