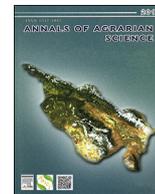




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# The socioeconomic situation of private households in the Kazbegi region – First insights based on quantitative data

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### ABSTRACT

The private households in rural parts of Georgia suffer from low income and few possibilities of generating monetary income are available. The interdisciplinary research project AMIES aims at fostering sustainable land use and quality of life. Using data from the household survey that was conducted within the research project in summer 2011, the current socioeconomic living conditions of the inhabitants of the mountainous region Kazbegi in the Greater Caucasus are examined.

The descriptive analysis shows that many households are involved in agricultural production, but mostly on a low level. Agricultural products are rarely sold and most of the time used by the private households for their own consumption as subsistence. Numbers of cattle and chicken show, that the households in the sample mostly keep low amounts of animals. This is also true for sheep, although in the past especially in Kazbegi sheep played an important role. A look on intentions of the households shows that approximately half of the households indicated that they intend to enhance their supply in the touristic sector in the next year, but fewer people also consider it likely to do so.

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## 1. Introduction

The data presented here are based on a social scientific study. As a research unit of the joint research project “Analyzing Multiple Interrelationships of Environmental and Societal Processes in Mountainous Regions of Georgia” (AMIES) it is focused on the “Changes in socioeconomic structure/social changes” concerning sustainable land use and tourism activities of private households in the Kazbegi area. The research area was chosen by the interdisciplinary team of the AMIES scientists.

The research area is mountainous at an elevation of approximately 1700 m a.s.l. and located in the Greater Caucasus [1]. The Kazbegi district covers a surface of 1082 km<sup>2</sup> [2]. It is of political interest because it holds the only Georgian border check point with Russia that is not located in one of the autonomous republics of Abkhazia or South Ossetia. This makes the Georgian military road an important route of transport for goods, also connecting Armenia, and Russia via Kazbegi [3]. It was closed from July 2006 until March 2010 [4], stopping the trade relations with Russia.

The region is characterized by harsh natural conditions due to the high elevation, uneven topography and long winters with a staple snow cover for three to five months up to an elevation of 1900 m a.s.l. Industry and social infrastructure are hardly developed and areas for agriculture are scarce. 90% of the people are ethnic Georgians.

Some inhabitants work in state institutions but more people are self-employed, either in livestock farming or in seasonal tourism. 40% of the land in Kazbegi can be used for agricultural purposes, while 85% of the land in whole Georgia is suitable for agricultural purposes. Livestock farming was a traditional economic activity in the region. Most important in this regard was sheep breeding for the production of milk, wool and meat. Since the independence of Georgia in 1991, sheep husbandry has declined from 120,000 to 20,000 [2,5].

Despite the decline in animal numbers, 80% of the population is considered to be involved in animal husbandry which also denotes the most important field of agriculture. Sheep and cattle are partly nomadic and are brought to pastures in central regions of Georgia for winter. The region itself lacks processing enterprises such as dairy processing [5], the value chain of dairy production is inefficient and there are large gaps in demand and supply. Poor nutrition of cows (due to insufficient arable land) and lack of knowledge lead to low milk production [6]. Private households often keep some

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chickens, pigs and cattle. Field crops and potatoes are grown by private households, along with vegetables in some cases. These are mostly used for self-consumption [2] few households grow potatoes in order to sell them. The average plot size of a household in Kazbegi is 0.43 ha (with 0.08 ha cultivated with potatoes on average) [5].

Subsistence agriculture is prevalent, specifically in small villages. Production in greenhouses stopped several years ago when gas for heating the greenhouses was no longer free and the border to Russia was closed. The industrial sector has never been important in the Kazbegi region [2]. Ancient lynchets (e.g. in Juta) are a sign of the use of steep slopes for the cultivation of crops some decades ago. The fact that common cereal weeds can still be found is an indication of the cultivation of barley and wheat in former times. Today people mostly cultivate potatoes and some vegetables on a small scale [7].

In an analysis of the change in land cover around Stepantsminda for three points in time (1971, 1987 and 2005/2011), Theißen [8] found that pastures covered the largest share of the area and was very stable at all points in time. These pastures are mostly not fenced and used for grazing by livestock. Woody vegetation is expanding, transforming some of the pasture from 1971 into shrubs in 2011. Fenced meadows for making hay constitute the second largest land use type while arable land only covers a small share of the area [1,8].

During soviet times, the Kazbegi region featured several large-scale soviet hotels and tourism was a major business in the region. It had become a mountaineering center and was well-known for its nature and mountain sports activities. However, the facilities from that time are now run-down and due to uncontrolled tourism, the landscape and ecosystems suffered damages. Today, tourists are drawn to the Kazbegi region mainly because of its nature [2] (e.g. the Mount Kazbeg, 5047 m a.s.l. [9]), sports activities and cultural sites (e.g. the Holy Trinity Church above Gergeti). International tourists mostly come from Israel, but there are also tourists from Germany, the Baltic countries, Poland, the Czech Republic and France. Tourism operators in the region note that there is a lack of regulations and restrictions. Also the infrastructure of basic needs of tourists is incomplete [2].

By and large, the potential of the tourism sector is considered high, but as a seasonal phenomenon [10]. The number of tourists is increasing: in 2010 there were 23,126 tourists in the Stepantsminda municipality and in 2011 there were 36,647 tourists [9].

Approximately 70% of the tourists are of Georgian nationality [9]. Compared with other mountainous regions in Georgia, Kazbegi is relatively close to the capital Tbilisi. Stepantsminda can be reached in approximately three hours (149 km) and is also reachable with public transport several times a day for 15 GEL ( $\approx 6$  €) [9]. One year after the household survey that serves as the data base for this work, a large Hotel (with 150 rooms eventually) opened in Stepantsminda. This example shows that tourism can also have negative effects on the area since sports activities that are offered by the hotel (e.g. using quad bikes) are likely to lead to erosion and harm the environment [11].

The shortage of job opportunities in the Kazbegi region is a general economic problem. Young people leave the region in order to study or work in larger cities, thus drawing work force from the aging population which is needed to maintain (or even expand) agriculture and the rural market economy [10].

Due to the fact that the National Statistics Office of Georgia (GeoStat) as well as the Georgian Agricultural Census 2004 [12] and other public available literature do not offer specific data for the research area separately this paper provides socio-economic microdata of private households within a regional case study describing a snapshot of their present living conditions. It is based

on a socioeconomic empirical research approach and focused on household characteristics like income, sociodemographic criteria, land use, and animal husbandry, tourism activities and intentions. It offers a contribution to the other subprojects of ecological, soil science and biodiversity issues and could finally be used to develop a concept for sustainable land use and sustainable tourism activities.

## 2. Objectives and methods

As can be seen from the following figure (Fig. 1) the structural framework of the socioeconomic subproject encompasses a quantitative household survey. This constitutes the core of the subproject and provides the data for this paper. To gain further information on touristic activities of private households and possible links to agricultural food production, qualitative interviews were conducted. These interviews were held with small-scale farmers, food-producing households, and value chain actors on the one hand (see Ref. [13]), on the other hand with private guest house owners and employees of the local tourism information center and the tourism division within the economic department of the local municipality (project part Sustainable Tourism, [14]).

The quantitative survey focuses on the social phenomenon 'household' through quantifiable evidence. Detailed quantitative data gives an insight into the socio-economic living conditions in order to understand which economic sectors contribute to household income. Furthermore, theoretical evidence in literature is fundamental for the development of research objectives and the analysis of interrelationships of variables which shall be verified by the collected data (deductive approach). This process results in a twofold approach: Descriptive data provides a thorough picture of the current situation while behavioral intentions are modelled to find out what influences households in their intention to enhance activities in the tourism sector [15]. Therefore, data are often gathered by standardized questionnaires or structured observations and transferred into numerical values by measurement, counting, and evaluation. At last, the "hard" data are analyzed by statistical techniques with the intention to create valid and reliable general claims [16].

In contrast, the qualitative face-to-face and expert interviews are basically differing in the way data is collected and analyzed. Qualitative oriented research stresses the understanding of unique characteristics of a social field, like in this context the agricultural and tourism activities or of a subject (e.g. food producing household, private guest house owner). In order to record these as close and differentiated as possible the basic instruments are direct observation, open communication with participants, or text analysis following the inductive approach. The collected data are "soft" and outline deep information which is not statistically representative.

By linking the quantitative and qualitative method within one project, it is possible to expand the insights and experience to gain a more complete picture of the objective. In social sciences it is a well-known and common strategy to combine quantitative and qualitative approaches; often referred to as a mixed methods design.

The mixed methods design focuses on collecting, analyzing, and mixing quantitative and qualitative aspects within a quantitative procedure. So, during the collection of quantitative data with the help of the quantitative instruments (e.g. questionnaire), qualitative data are gathered simultaneously (e.g. by personal notes of the researcher on the attitude or behavior of the respondent) [17].

The overall objective of the household survey as a quantitative case study is to investigate the people's socioeconomic living conditions, that is: their land use activities as well as their efforts to

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