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## Analysis The role of natural capital in sustaining livelihoods in remote mountainous regions: The case of Upper Svaneti, Republic of Georgia

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#### ARTICLE INFO

#### ABSTRACT

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Keywords: Common pool resources Rural households Natural capital Property rights Post-Soviet In the Greater Caucasus of the Republic of Georgia, proponents of a new ski tourism zone and long-term timber concessions claim that new wage opportunities will benefit households. These developments will also limit access to common-pool resources (CPRs). This study uses the sustainable livelihoods framework to identify the conditions under which a development strategy will improve livelihood outcomes in the region. Analysis of original household survey data, in-depth interviews, and field observation reveals that households depend on CPRs for a range of market and non-market benefits. Low-income households depend on CPRs for up to 60% of their total income. OLS regression estimates show that households in villages farthest from market centers have a higher income dependence on CPRs and are more likely to participate in forest use activities. A majority of households secure access to market benefits from CPRs, or wage income must increase in proportion to lost CPR income and affordable substitutes must be provided. Access to non-substitutable components of CPRs must be secured, and the distribution of changes in access to natural capital and new wage opportunities must be accounted for.

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#### 1. Introduction

Across the world, large-scale land acquisitions by transnational and national interests to secure increasingly scarce food and natural resources result in the dispossession of land, water, forests and other common properties from local communities (White et al., 2012). Land deals – through sale, lease or coercion – typically take place in areas where property rights are insecure (Borras et al., 2011). Rural regions and their environments are increasingly viewed as a resource to be exploited, and local communities often lack the power to resist (Marsden, 2009). In the post-Soviet context, natural resources are privatized and rural areas are commercially developed in an effort to attract investment and to create employment opportunities. However, these enclosures have the adverse effect of limiting access for locals to resources that are important for their livelihoods.

A multitude of recent studies, including a meta-analysis covering 51 cases across 17 developing countries in East Africa, Southern Africa, Asia and Latin America (Vedeld et al., 2007) and a global survey across 24 developing countries (CIFOR: Center for International Forestry Research, 2011), have established that flows of income – primarily fuel wood, wild foods and fodder – harvested from common pool resources (CPRs) such as forests, meadows and pastures, make up a significant share of total income for rural households. On average, forest

environmental income comprises about 20 to 22% of total household income (Vedeld et al., 2007). This overwhelming evidence of dependence demonstrates potential synergies between the sustainable management of resources and poverty alleviation (Sunderlin et al., 2005) or at the very least, the role that maintaining forests plays in preventing a rise in poverty (Wunder, 2001).

At the same time, 86% of forests and wooded areas across the world are formally owned by central governments (Agrawal et al., 2008). Therefore, the degree to which the state protects, manages use, restricts access or extracts raw materials from CPRs also affects rural households that depend on CPR income for their livelihoods. On the one hand, the state can support CPR use by local communities, while on the other hand, it can undermine livelihoods by restricting access or by allowing or promoting unsustainable use of CPRs.

The forests of the former Soviet Republic of Georgia are of global importance. They make up part of Conservation International's Caucasus biodiversity hotspot, and many areas, inaccessible deep in the mountains, are rare cases of intact temperate zone forests (Forest Law Enforcement and Governance (FLEG), 2010). These forests serve important environmental functions such as providing habitat for endangered species, including the West Caucasian tur (*Capra caucasica*), and mitigating global climate change by sequestering and storing carbon. Deforestation accounts for 10 to 15% of annual greenhouse gas (GHG) emissions (Van der Werf et al., 2009).

The cultural heritage and traditional property regimes of Upper Svaneti, a district in the Greater Caucasus of Georgia (see Fig. 1), are







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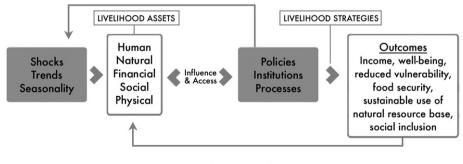
**Fig. 1.** Upper Svaneti district in the Republic of Georgia. Modified by author from De Waal (2011).

also important in their own right. Georgia is home to three UNESCO World Heritage sites, including the village of Ushguli in Upper Svaneti, which has a preserved landscape of medieval-type stone houses and towers. For centuries, the region has been settled by the Svans who, even during feudal times, maintained their independence. Farms were collectivized during the Soviet period, but villages maintained historical property boundaries by oral recordkeeping. After the collapse of the Soviet Union, meadows and cropland that were part of collective kolkhoz farms were redistributed by villagers according to traditional village and family ownership. Although the forests and interspersed pastures are currently managed as part of the state Forest Fund (the total stock of forest assets in the country) by the Ministry of Energy and Natural Resources, informal traditional boundaries still exist on these lands, too. In Upper Svaneti, local state-employed forest rangers identify trees to be harvested within informal, traditional village forest boundaries, and within villages, households adhere to traditional forest boundaries by not trespassing in or harvesting fuel wood or nontimber forest products (NTFPs) from non-family forests.

Two state-led developments are now jeopardizing household access to forests, pastures and meadows in Upper Svaneti. First, the construction of a commercial ski tourism zone is creating conflict over cropland and meadows held under traditional ownership and threaten environmental degradation, such as deforestation and erosion. Second, the revision of the state Forest Code to allow 49-year concessions to forests — including their underground water and mineral resources — to be awarded to private companies will limit access to forests and interspersed pastures for locals and damage ecosystem functions if enforcement of management plans does not improve. State officials cite increased job opportunities in the tourism and timber industries as benefits for the communities in the district, suggesting that opportunities for wage income from the planned development are a sufficient substitute for lost CPR income and non-market benefits.

Before these developments were initiated by the state, it had designated a large portion of the Upper Svaneti district as a planned Protected Area, which would have taken into consideration traditional use zones and placed restrictions on long-term concessions and resorts. Georgia has an extensive system of 64 Protected Areas developed through a project initiated by the World Bank on a grant from the Global Environment Facility (GEF) in 2002. The district of Upper Svaneti was included in this project, but since then, the Ministry of Environment and Natural Resources has been restructured and charged with a new mission of capitalizing on Georgia's forest resources and scenic beauty rather than protecting them, as part of a new development strategy to attract investment.

The purpose of this study is to identify the conditions under which a rural development strategy will sustain or improve livelihoods for



**Fig. 2.** Sustainable livelihoods framework. Adapted from Carney (1998).

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