

amies II - Scenario development for sustainable land use in the Greater Caucasus, Georgia –

Interdisciplinary research to foster sustainable land use, land development, and quality of life
(2014 – 2016)

Motivation: In mountainous areas of Georgia, a constantly declining agricultural sector and rural poverty can be observed. In some mountain regions, the number of livestock is decreasing considerably. A further retreat of agriculture and pastoralism from these ancient cultural landscapes will have considerable negative impact on landscape functions such as agricultural and touristic production functions, biodiversity, the landscape's appearance and aesthetics - and would thus worsen the living conditions of the local population. Research on the potentials of rural development with a focus on agricultural land use is therefore highly relevant.

Study region (Fig. 1): The study region is the Kazbegi district (population approx. 6,500),

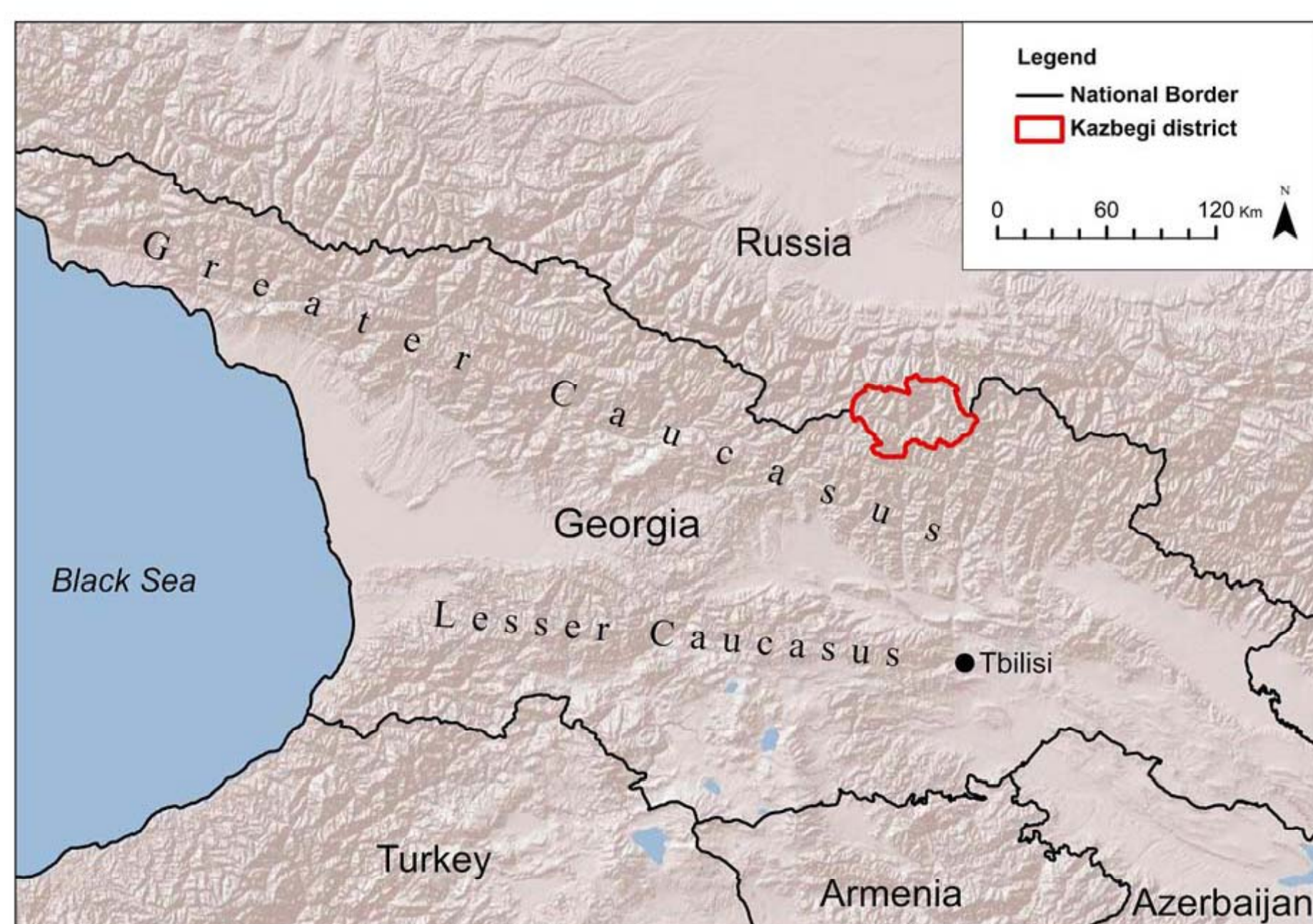


Fig. 1: Study region in the Caucasus Mountains.

a complex system of mountain massifs and deep canyons stretching from the dividing Jvari pass (cross pass) to the Russian border (North-Ossetia and Ingushetia) on the northern slope of the Great Caucasian Ridge (Fig. 2 to 4).

Applicants and co-applicants:

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Fig. 2: Tergi valley (1,700 m a.s.l.) and adjacent mountain massifs.



Fig. 3: Mount Kazbeg (5,047 m a.s.l.), the highest peak of the area.



Fig. 4: Kanobi village (2,000 m a.s.l.): farming at the margin.

Methodological concept (Fig. 5): Land-use options to improve the livelihood of the local population are at the centre of research, and will be analysed from the human perspective in the socio-economic **project unit D**. Land use however depends on and, in turn, affects the soil potentials of the region, which are at the focus of **project unit B**. Both soils and land use determine the rich phytodiversity and vegetation of the region (**project unit C**), whereas the vegetation pattern affects the carrying capacities for domestic animals and thus the agronomic potentials.

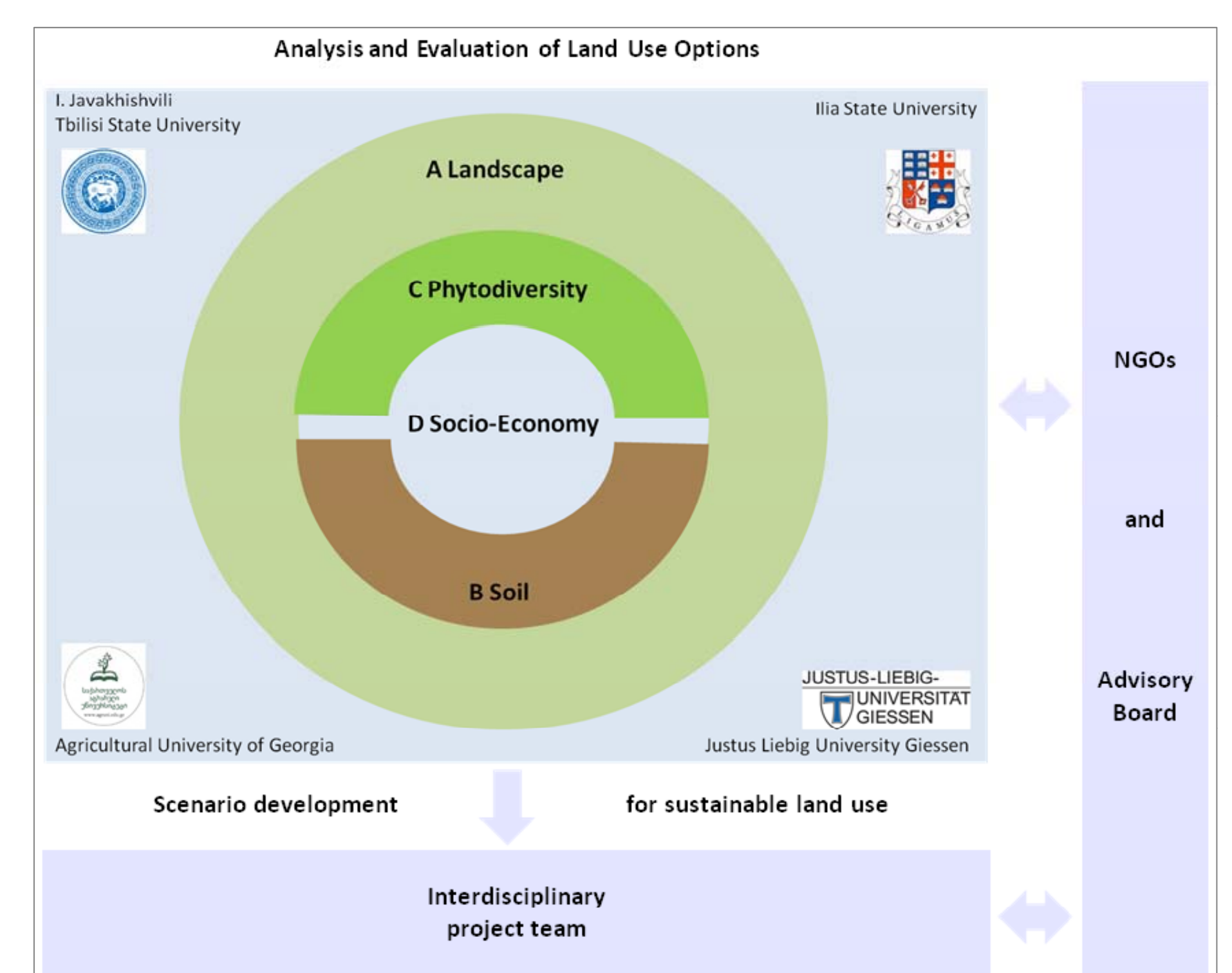


Fig. 5: Project structure of amies II.

Project unit A integrates the disciplinary results from a landscape perspective and provides detailed maps of land-use potentials based on the results gained in projects B to D. Project unit A further prepares an interdisciplinary development of normative scenarios, which is intended for the third year of the project, and coordinates the installation of a **German-Georgian Advisory Board**. The Board members from relevant institutions are intended to act as multipliers of the gained results, who will transport them to other **institutional experts and potential users**.