

An overview of the research priorities of GASU related to the Project

Today, mountain territories, such as the Altai Republic, draw constant attention at both the international and national levels as vital and extremely vulnerable "keepers" of ethnic, cultural, and biological diversity. At the same time there are still a great number of challenges, which should be addressed and solved in a sustainable way.

In the Strategy for Social and Economic Development of the Altai Republic till 2028, sustainability is also among the key principles. The experience of cooperating with Mountain Partnership (the Altai Republic is the only member-region from Russia) allows the statement that the sustainable development of mountain territories should be built in a special way. However, today there is no official document reflecting the specificity of social and economic development of Russian mountain territories. At the same time, the mountain territories are sources of biodiversity and fresh water; the most vulnerable ecosystems are located here. Mountain areas are more sensitive to climate change, and the indigenous inhabitants can hardly adapt to new ecological and economic conditions.

The SUNRASE Project related interdisciplinary research activities of Gorno-Altai State University are mainly focused on 4 key themes:

Studying, conserving, and reviving tangible and intangible heritage of peoples of Altai and its neighbouring territories;

Studying the influence of climate change, manifestation of adverse natural conditions, and human impact on socio-, bio-, and geosystems of Altai;

Sustainable wildlife management and biodiversity conservation;

Assisting in the social and economic prosperity of the Greater Altai region through sustainable development of agriculture, alternative energy, and ecological tourism.

Thus, the overall research objective of GASU is to assist in the sustainable development of socio-, bio-, and geosystems of the Altai mountain region in the context of climate change through: studying the dynamics of climate change and manifestations of adverse natural phenomena; studying the anthropogenic pressure on geosystems of Altai and monitoring of ecological condition in the region; assisting in biodiversity conservation; studying the hydrological regime and water quality of mountain rivers; maintaining food security through assisting in sustainable development of mountain agriculture; revealing specific features of the response of geotechnical systems to influences of various origin; assisting in rational wildlife management and sustainable tourism development; assisting in the preservation of the tangible and intangible cultural heritage of the Indigenous peoples of the Altai Republic; assisting in the development of ecological education in the Altai Republic; studying the best world practices in the field of sustainable development of mountain territories and subsequently introducing them into the region, including the process of preparing future specialists at Gorno-Altai State University.

The research activities fall under two Major Programmes of the Medium-Term Strategy (2014-2021). They are mostly directed towards achieving SO4 and SO5 of the Major Programme II – Natural Sciences, in particular towards the creation of a scientific substantiation of specific characteristics of mountain regions, which should be taken into account while making political decisions; carrying out complex studies and educational programmes in the field of natural sciences, including the use of modern information and communication technologies; assistance to regional authorities in the development of mechanisms for the sustainable management of natural resources and of disaster risks caused by climate change, which are most clearly manifested under high-mountain conditions with the account of the existing international experience; strengthening cooperation in the field of ecological and geological sciences, as in both existing (Altaiskiy and Katunskiy) and potential (Sailugemskiy) MAB biosphere reserves, and the Transboundary Biosphere Reserve “Great Altai” (Kazakhstan/Russian Federation), and using these territories as learning sites for inclusive and comprehensive approaches to sustainable development.

Sustainable regional development is impossible without taking into account the interests of its local and indigenous communities. Therefore GASU research activities correspond to SO7 and SO8 of the Major Programme IV – Culture and are directed towards the protection, preservation, promotion, sustainable use, and transmission of tangible and intangible heritage as well as towards the support of various forms of cultural expressions at the regional, inter-regional, and international levels.