



Climate Change Adaptation Strategies for Sustainable Tourism Development in the Lake Baikal Natural Territory

Natalia Luzhkova

V. B. Sochava Institute of Geography SB RAS, Irkutsk, Russia (gbt.international@gmail.com)

Lake Baikal Natural Territory is located in Eastern Siberia and includes three regions with the total area of 1,550,700 sq km. With the status of UNESCO Nature World Heritage Site, Lake Baikal is the only natural area protected on the Federal level in Russia. Its picturesque landscapes attract visitors from foreign countries, while at the same time, current legislation limits certain human activities (logging, mining, manufacturing and etc.) within its Central Ecological Zone (further CEZ, 89,071 sq km); these regulations allow tourism to become one of the main industries within the protected zone. In order for the tourism industry to be sustainable under climate change, prioritized types of tourism have to be identified and scenarios of their development have to be adopted by the regional governments and Federal Protected Areas located within the Zone. Hiking is seen as one type of suitable tourism, due to its low impact on natural features. In order to develop its infrastructure environmentally friendly methods and techniques have to be used. First, the general plan for the industry has to be adjusted between interested land users across the Zone. Second, within each establishment (e.i. county, National Park, Nature Preserve) a concept of hiking tourism has to be adopted and further an algorithm of trail constructions has to be introduced. The algorithm consists of ten stages: three for planning (trail concept, scouting, trail class choice), seven for constructions (general flagging, corridor clearance, detailed flagging, tread building, structures' installation, site cleaning, maintenance). Under the possibility of climate change, the scouting plays a crucial role. This stage of the algorithm is the trail site investigation considering geographical and engineering factors before any project implementations. The results of research on climate conditions, geology, hydrology, soil, landscapes, and endangered species along with studies on attractive objects, accessibility, relief peculiarities revile the most fragile ecosystems affected by climate change. For their preservation and tourist development of the area different management strategies have to be elaborated according to various scenarios of climate change. These strategies vary in costs for trail constructions and further maintenance.

Baikalsky Nature Biosphere Preserve is used as a model territory where scientific research is conducted for hiking tourism development. Along with the monitoring of nature processes, several scenarios for trail planning, construction, and maintenance are being analyzed.