Geophysical Research Abstracts
Vol. 13, EGU2011-10467, 2011
EGU General Assembly 2011

Assessment of geomorphic risks and attractiveness for recreational purposes

Yulia Blinova and Andrey Bredikhin
Moscow State Lomonosov University, Moscow, Russian Federation (ljuljawa@mail.ru)

In a progressively developing scope of tourism the interconnection of relief, as the basis of landscape, recreation, and tourism has become particularly topical question. The study of these connections opens new perspectives not only for the further development of tourist business, but also for scientific activities, since such developments in the study of geomorphological and recreational areas will allow more efficient use of natural resources, as well as ensure the safety of recreation. Approach to identify and evaluate recreation and geomorphological potential is based on the notion of “fields of attractiveness and risk” that represents an interconnection between relief and its attractiveness and risks of the recreational area. Comprehensive study of these “fields” gives a quantity, which indicates a complex functional suitability of territory for recreational purposes. The latter should be called “recreational and geomorphological potential”.

Currently, there are methods of assessing the recreational potential of the territory, including location, climatic conditions, the level of accomplishment, attractiveness and other factors. It is primarily used to determine the cadastral value of land.

Drawing an analogy with the cadastral valuation of land used for recreational purposes, it is possible to evaluate the attractiveness component of recreational and geomorphological potential of the territory. We should define the types of recreational activities, which are promising within the system “relief – recreational use – holidaymakers”. Obviously, the impact of the various characteristics of the relief is determined by the objectives of holidaymakers. For example, in organization of recreational sports morphometric parameters are the most significant (absolute height steepness, dismemberment). However, various kinds of recreational sports require different values of these parameters. For the attractiveness assessment it is important to give a numerical score in each of the claimed relief properties, especially taking into account the selected recreational activities. For example, consider the effect of slope steepness on the organization of the pedestrian walking and contemplative tourism. The slope steepness of can be divided into favorable (0-7^0), suitable (7-15^0) and unsuitable ($> 15^0$). Based on these considerations, we can give those 3, 2 and 1 point of attractiveness. Similarly, the differentiation is carried out on all the relief of attractive properties for other recreational activities. Then we can determine the average score of attractiveness for each type of recreational activity.

Similarly, we can differentiate the risk component of recreational and geomorphological potential. For each property of the relief given by the degree of risk they pose to the object: low (1 point), medium (2 points) or high (3 points). As in the assessment of attractiveness, a set of "risk" relief property for a specific area will be specific.

Selecting the average value in the evaluation component of recreational and geomorphological potential is not accidental. This allows us to unify the scale of assessments for the various recreational systems, and for different types of tourism activities taking place (or possible) within the system.

The assessment of geomorphic risk and attractiveness is particularly important for the areas with high contemporary geodynamics (South Iceland, Sicily, Kamchatka peninsula). In such territories along with high recreational attractiveness we should take into account enormous risks induced by active relief dynamics.