



Information support of territorial wildlife management of Lake Baikal and the surrounding areas (Russia)

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The UNESCO World Heritage Committee inscribed Lake Baikal in the World Heritage List under all four natural criteria as the most outstanding example of a freshwater ecosystem. It is the oldest and deepest lake in the world, which is the main freshwater reserve surrounded by a system of protected areas that have high scientific and natural values.

However, there is a conflict between three main interests within the territory: the preservation of the unique ecosystem of the lake and its surrounding areas, the need for regional economic development, and protection of interests of the population, living on the shores of Lake Baikal. Solutions to the current challenges are seen in the development of control mechanisms for the wildlife management to ensure sustainable development and conservation of lake and the surrounding regions.

For development mechanisms of territorial management of the complex and valuable area it is necessary to analyze features of its functioning and self-control (adaptable possibilities), allowing ecosystems to maintain their unique properties under influence of various external factors: anthropogenic (emissions, waste water, streams of tourists) and natural (climate change) load. While determining the direction and usage intensity of the territory these possibilities and their limits should be considered.

Also for development of management strategy it is necessary to consider the relation of people to land and water, types of wildlife management, ownership, rent, protection from the negative effects, and etc. The relation of people to the natural area gives a chance to prioritize the direction in the resource use and their protection.

Results of the scientific researches (reaction of an ecosystem on influence of various factors and system of relations to wildlife management objects) are the basis for the nature protection laws in the field of wildlife management and environmental protection.

The methodology of legal zoning of the territory was developed. It reflects a modern system of relationships to the land in the laws and regulations on the federal, regional and local levels. It is a tool for informational and legal support in the decision-making process in the field of the wildlife management. The federal laws regulate the situation in general, and the departmental regulations govern its adjustment by components.

The analysis of legal acts' dynamics in the sphere of wildlife management and environmental protection was conducted in order to monitoring the situation and evaluate the changes of relationships to the territory for 10 years (2001-2011 years). As the result with the use of GIS-technology a map of legal zoning was created.

This electronic map has become a GIS model of the legal zoning, besides the informational content each contour includes cadastral data and information about its legal status. The model is created as a form of refraction of legislative base through a natural and economic basis of the territory. It allows shifting to the analysis of strategy of the territorial use, choice of optimal strategy of regional development, and decision-making and its realization.