
Pre-geoinformation-cartographic support for the development of new protected areas

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Предваряющее геоинформационно-картографическое сопровождение проектирования новых ООПТ

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Currently, GIS is used in many protected areas (PA), both for inventory, environmental monitoring, thematic mapping, and to assess the current state of the territory, functional zoning and management. GIS and mapping are of particular importance in the design of new PA. With the help of GIS, it is possible to perform multi-user tasks, such as the placement of infrastructure, regulation of livestock grazing, planning environmental protection measures and the choice of solutions that provide a minimum level of impact on

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nature, conservation at the required level of biodiversity and protection of water bodies, especially in PA visited by tourists. On the scientific and methodological side in the design of PA important validity of geographic information and cartographic model, the suitability of its basic and applied potential to address the issues of conceptual support and management of PA. In the Altai Krai in the coming years it is planned to create several tourist-oriented PA - two national parks: "Mountain Kolyvan" and "Togul". There is an experience of creation of GIS at the design stage of the natural Park "Foothills of Altai" in the vicinity of the resort of Belokurikha. Pre-GIS of the Park solved various problems: - collection, classification and ordering of information on the design conditions of the PA; - data collection for the study of the dynamics of changes in the state of ecosystems and landscapes; - construction of thematic maps based on research results; - assessment of the situation and collection of additional (redundant) information to predict the development of the environmental situation on PA. With the help of GIS, the functional zoning of the natural Park was carried out, a preliminary aesthetic assessment was carried out for the placement of viewing platforms, tourist routes were laid and a protected protection zone was allocated. The territory of planned national Park "Mountain Kolyvan" pre-GIS was developed in 2002-2004 was created a database of field information to the project rationale of creation originally of the nature Park. The ecological and geographical analysis and mapping of the territory was carried out. Now borders of the planned national Park "Mountain Kolyvan" are changed, the area of PA is increased. The new version of GIS on the territory of the Park, created during the design phase, will update the existing data, integrate the new information received, as well as conduct monitoring studies using previously obtained data and maps. Work has begun on the creation of GIS national Park "Togul". Data are being collected and maps are being prepared. Application of geographic information methods and creation of GIS at the stage of PA design provides pre-project research, collection, systematization, storage of information, creation of a pilot prototype of GIS, as well as will contribute to a more complete analysis of the prerequisites and conditions for the creation of PA.