GEOECOLOGICAL ANALYSIS OF LANDS USING GIS TECHNOLOGY

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Annotation: *this article introduces fendomental knowledge about geoecological research, the definition of geoinformation data for further research of databases on GIS technology platforms and geoecological technologies.*

Key words*: geoecology, geoanalysis, geodetic sensing, monitoring, perennial trees, human settlements, remote sensing, land types*

INTRODUCTION

For beginners, geoecology is one of the integral academic disciplines that meet the principles of integrated university education. In the course of studying the discipline, the theoretical and methodological foundations of geoecology are consistently considered; geoecological features of the functioning, dynamics and evolution of the geographical environment and its components that occur during natural trends in their development and anthropogenic impact, geoecological aspects of the functioning of natural and anthropogenic geosystems, the main geoecological problems of humanity and possible ways to solve them.

Geoecological assessment of a territory is the determination of the degree of suitability of natural and territorial conditions for human life and activity. The basis of geoecological research is the differentiation of the territory with an assessment of the state of landscapes and their components [1-5].

MAIN PART

Geoecological assessment shows the degree of anthropogenic impact on the landscape and its resistance to this impact. Differentiation of the territory makes it possible to determine the ecologically significant properties of the landscape. Territorial planning and economic activities are carried out within certain administrative and economic boundaries that do not coincide with natural ones, so homogeneous units of division of natural systems – landscape facies, biocenosis, etc. - are of key importance. Natural biokos systems have different ability to resist external influence, have different ability to recover after the end of external influence. Natural changes in environmental parameters include natural factors that are stable and do not require anthropogenic intervention [6-10].

As a subject of geoecology research that is acceptable for a wide range of sciences, we consider the vectors of stable trends in evolutionary or anthropogenic changes in the long-term stable, most environmentally significant ecoparameters of the ecosphere and the associated changes in the quality and comfort of ecosystems, landscapes – the habitat of biota and humans.

The landscape with its natural potential is essentially the natural potential for sustainable development of any territory that a person uses for their own purposes. The value of primary

biological productivity is an indicator of the stability of the landscape and its natural ecological potential.

Geoecological problems include those that clearly show stable trends in evolutionary or anthropogenic changes in the most vital (environmentally significant) ecoparameters of the ecosphere as a whole or its individual components, which are associated with changes in the quality and comfort of the living environment for biota and humans [11-15].

For a fundamental study of the terrain, you need to consider some factors such as neighboring cities or terrain areas. For example, take the city of Kuvasay, which is located between the mountains of Kyrgyzstan and the mountain ranges of the Ferghana region figure-1.

Figure-1. Satellite cross-section of the area.

This drawing clearly shows (1:15000 scale) the borders of the area with the neighboring republic, mountain landscapes, settlements and agricultural land of the Kuvasai area.

These research methods will help introduce fundamental data for GIS technology and determine geo-economic indicators. To improve the methods of collecting GIS technology programs and to develop geodata about the area, it is necessary to introduce geoecological attribute data [16-21].

Data compiled geoinformation maps will allow you to determine the actual geodata for the area and introduce monitoring for geoecological changes. By default, there are several land funds in this object where they need geoecological monitoring.

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