MONITORING THE DYNAMICS OF CHANGES IN LAND AND FOREST COVER USING REMOTE SENSING AND GIS IN MOUNTAINOUS AND MOUNTAINOUS AREAS OF KASHKADARYA REGION

Introduction. Nowadays developing remote sensing technology and Geographic Information Systems (GIS) allow us to perform analysing and monitoring landscape ecology and spatial anal- ysis approach to address the problem of deforestation [1–3]. Monitoring and studying of recent changes in natural resources like land, forest using remote sensing and geo- information technologies have put forward a new dimension and interactive approaches in mapping and analysis. Studying forest resources during the last twenty years, the availability of remote sensing data is Landsat 5 TM, Landsat 8 OLI [4]. Land cover changes it embraces, for example, the quantity and type of surface vegetation, water, and soil cover. Land-cover changes fall into a modification class of land-cover. The latter is a change of condition within a land-cover category, such as the thinning of a forest, bare land/open land, and agricultural area composition [5]. The purpose of the research discussed in this paper was analysing land cover changes and creating map that occurred from 2001 to 2021, using pre-existing land cover map data sets as inputs. This work aimed to assess apparent land cover changes during the observed time frame mainly with respect to forest bare land and agricultural areas. Such information was needed to augment understanding and interpretation of land cover effects on remote sensing analysis [6].

Full text