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AEROCOSMIC MONITORING OF INFRASTRUCTURE OF JABRAYIL DISTRICT ON THE BASIS OF ARCHIVE DATA AND MULTISPRECTURAL SPACE DESCRIPTIONS

Abstract

17,000 sq. km of the most productive lands in the Karabakh region of our Republic, 900 settlements, 130939 houses, 2389 industrial and agricultural facilities, 1025 education, 798 health centers, 1510 cultural institutions, 5198 km of roads, 348 bridges, 7568 km of water supply lines and 76,940 km of power lines were destroyed. Cultural objects that make up the cultural heritage of Azerbaijan: 12 museums and 6 art galleries, 9 palaces of historical significance burned. 4,600,000 (four million six hundred thousand) books and unique manuscripts were destroyed. 927 libraries were destroyed and burned. It is impossible to accurately calculate the damage to the national cultural centers of Azerbaijan in the Nagorno-Karabakh region and surrounding areas, because the destroyed treasures are unique cultural samples not only of Azerbaijan, but also of the entire world civilization. For this reason, the dynamics of infrastructure change in the Jabrayil region was assessed and the results were presented in the form of digital electronic maps using modern technology of geographic information systems (GIS) technology and data obtained from the processing of space images reflecting the research area. ArcGIS software of the Geographic Information System (GIS) and data obtained from the processing of space imagery of the area were used to assess the changes in the Jabrayil region. 1:100000 scale map and "Azersky" space drawings for 2018-2020 were used to monitor the dynamics of infrastructure facilities of the territory. The study also calculated normalized relative vegetation indices (NDVI) of the area based on spatial images covering different periods to assess changes in the vegetation of the study area, identified types of objects at certain intervals, calculated areas and compiled electronic maps of different scales. A 1:100000 scale map of the area and the capabilities of GIS technology were used to identify the infrastructure facilities of the selected study area of Jabrayil district for 1980. At the same time, the information collected about the area was entered into the GIS database (VB), and various thematic layers were created on the basis of topographic maps. Construction and green areas were calculated using the capabilities of the ArcGIS program and the results were presented in tabular form.