DISASTER PREDICTION MAPPING USING GIS AND REMOTE SENSING TECHNICS. (GIS MANAGEMENT SYSTEM FOR EARTHQUAKE RISK ASSESSMENT ON THE EXAMPLE OF SCHOOLS IN THE CITY OF TASHKENT.)

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Abstract. Every year, various natural disasters occur around the world. From floods and hurricanes to earthquakes and wildfires, natural disasters can cause significant damage to architecture. Air pollution, earthquakes and droughts are particularly common in Uzbekistan, causing significant damage. The paper presents the experience of studying earthquake risk assessment and seismic resistance of educational institutions in the city of Tashkent, using GIS mapping methods (using the example of schools in the Uchtepa district).

Development of a methodology for effective management of seismic risk and a system of continuous monitoring of earthquakes using the example of schools in the city of Tashkent using geographic information systems (GIS).

The purpose of this work is to create a map, a GIS management system for assessing the risk of earthquakes using the example of schools in the city of Tashkent. Characteristics of risk elements on the territory includes a database of all elements on the territory, the damage and (or) destruction of which is associated with social and (or) economic losses, including indirect ones. They are determined on the basis of an engineering survey of objects and corresponding calculations. The results of the technical inspection for each facility are entered into the technical passport of the building or structure, which serves as a document for assessing the seismic risk of the facility and forming a plan of preventive measures to reduce the risk.

In particular, the geographic information system (GIS) is considered one of the effective tools for improving monitoring systems using modern information technologies and cartographic databases. This scientific project presents the structure of GIS, practical applicability and requirements that a modern system for assessing

the risk of earthquakes must meet using the example of schools in the city of Tashkent, built on the GIS platform.

Risk and resource maps are created to ensure that community members are aware of the risks (for example, hazardous locations and facilities) and the resources in their area (for example, evacuation points, storage areas for guns and special equipment, and the location of other "useful" items in the area). in case of earthquake objects).

The maps also help identify current security challenges in the area. In addition, to ensure that every member of the local community can act correctly in the event of an emergency, maps are compiled by all members of the local community and distributed to the population. Such measures can significantly improve preparation for and response to seismic threats, reducing the risk to life and health of the population and contributing to the overall seismic safety of the republic.

REFERENCES

1. https://eos.com/ru/blog.

2.United Nations Centre for Region Development (UNCRD), Reducing Vulnerability of School Children to Earthquakes, School Earthquake Safety Initiative (SESI), 2009 135 129.

3.Institute of History and Archeology. "History of the Uzbek SSR", volume I, Tashkent 1967