

**COMPOSING GEOINFORMATION MAPS OF WATER RESOURCES  
IN THE REPUBLIC OF AZERBAIJAN**

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The authors consider the creation of geoinformation maps of river basins and the database on water resources of Azerbaijan in order to improve water management. Versions of geoinformation cartographic models of river basins and administrative regions of Azerbaijan are compiled with the help of the geographic information system MAPINFO5.

**Keywords:** hydrology, geoinformation map, river basins, geoinformation systems, water resources, computer hydrology.

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At present the hydrological measurements, calculations, forecasts and map compiling are carried out by the help of automatized method. In order to realize all these tasks a new science called computer hydrology (comhydrology) is used. The comhydrology develops at the joint of hydrolog, geoinformatics and cybernetics as a compound part of computer geography. The basic task of this science is the automatized measurement, preservation and processing of hydrological information of water objects of the Earth by the help of space ships, artificial satellites and flying apparatuses over the surface of the Earth connected with over ground computer centres of various countries. The cartographical task of comhydrology is solved by the programs of geoinformation system (GIS). The GIS allows hydrologists to analyze the initial information, carry out the measurements and calculations, construct the diagrams and maps directly by computer (keeping contact with stationary artificial satellite system of GPS and QLONAS). At present in Azerbaijan there is no electronic library or national bank of hydrological data open for everyone, and the existing electronic bases of hydrometeorological data of the departments of hydrology and meteorology of the State Committee on Ecology and Environmental Control of Azerbaijan are open only for official use and they are paid figure 3 USD. For this reason the students, masters, postgraduate students, persons working for doctor's up to now use the traditional methods for collection and analysis

of hydrometeorological information. Taking into account of importance of creation of national geoinformation system of the geographical information of Azerbaijan, in particular the hydrometeorological one we have created geoinformation maps of water resources of Azerbaijan, where are reflected the basic hydrological characteristics in the forms maps, diagrams and marks which the students, masters, postgraduate students and other users can use freely all hydrometeorological data. For creation of geoinformation map of indices of water resources of Azerbaijan we at first compiled a digital map of river basins and then electronic table of digital hydrological data. Using selected hydrological data bases we have been composing geoinformation maps for water resources of the Azerbaijan Republic. For example, in this article are given next Hydrological GIS maps:

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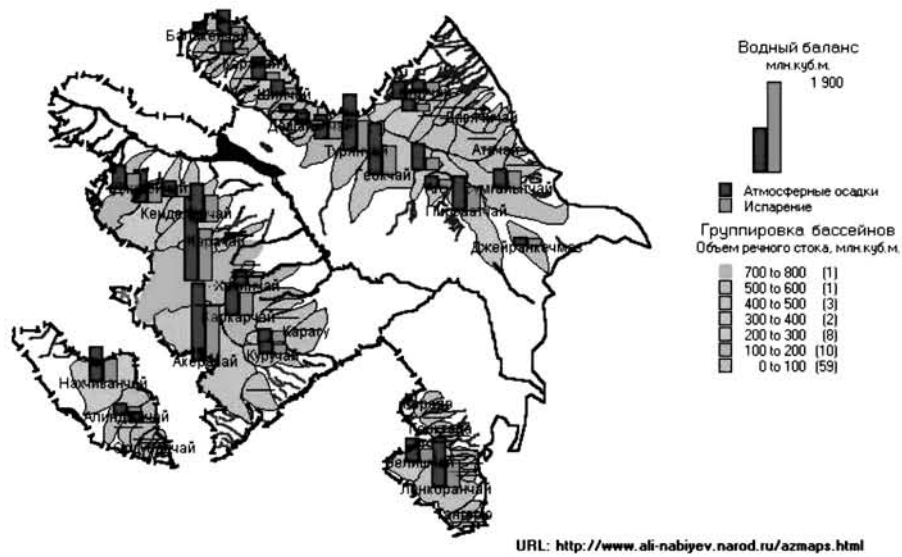
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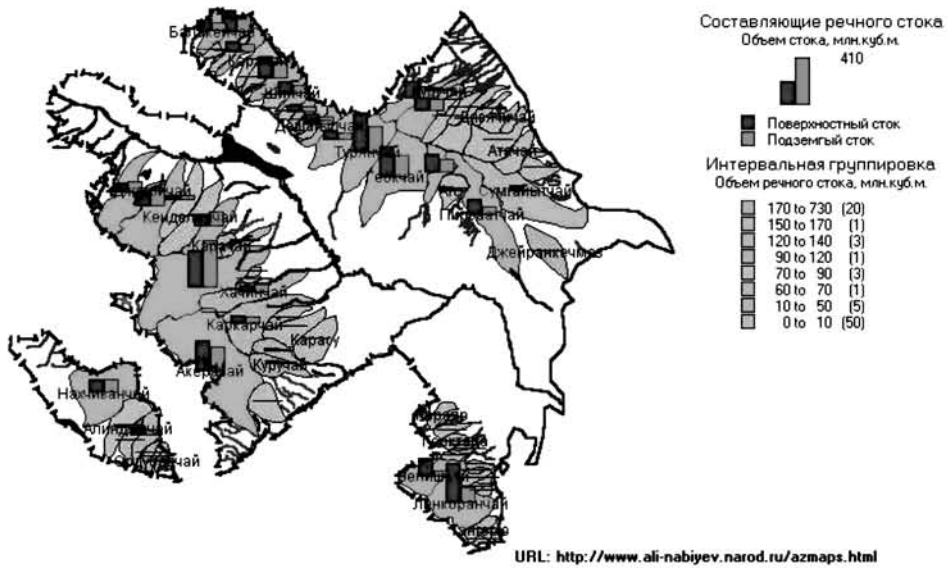
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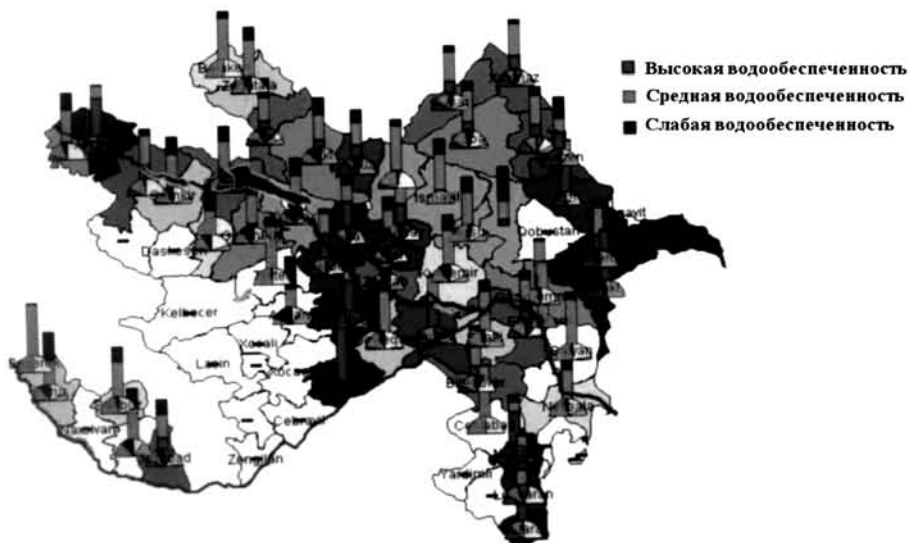
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Pic. 1. Geoinformation map of water balance of river basins of the Azerbaijan Republic



Pic. 2. Geoinformation map of water resources of river basins of the Azerbaijan Republic



Pic. 3. Using water resources by administrative regions of the Azerbaijan Republic