



Application Of Geographic Information Systems Of Fergana Region

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ABSTRACT

Geographic information technologies are new information technologies aimed at achieving various goals, including the informatization of production and management processes, not only for large-scale purposes but also for the regions of the Republic. In this article, it is possible to identify new achievements of geographic information systems in relation to the Fergana region.

KEYWORDS

Geo-information, cartography, atlas, GIS, ArcGIS, cadasters, mapping.

INTRODUCTION

Geo-information technologies can be defined as a set of software and technological, methodological means of obtaining new types of information about the world around. They are designed to improve efficiency: management processes, storage and

presentation of information, processing and decision support. This consists of the introduction of geo-information technologies in science, production, education and application in practice of the information obtained about the surrounding reality [1].

OBJECTIVES

A feature of geographic information systems (hereinafter - GIS) is that, like information systems, they are the result of the evolution of these systems and therefore include the foundations of the construction and functioning of information systems. GIS as a system includes many interconnected elements, each of which is connected directly or indirectly with each other element, and any two subsets of this set cannot be independent without violating the integrity, the unity of the system. [1, 2]

Another feature of GIS is that it is an integrated information system in the field of geodesy and cartography. Integrated systems are built on the principles of integrating technologies of various systems. They are often used in so many different areas that their name often does not define all of their capabilities and functions. For this reason, you should not associate GIS with the solution of tasks only for geodesy or geography. "Geo" in the name of geoinformation systems and technologies defines the object of research and not the subject area of using these systems [3, 4].

The integration of GIS with other information systems creates their multidimensional nature. GIS processes information in a complex way, from data collection to storage, updating, and presentation, so it is important to consider GIS from a variety of perspectives. As a management system, GIS is designed to provide a decision-making process for optimal land and resource management, urban management, transportation and retail management, and the use of oceans or other spatial features. Unlike information systems,

GIS introduces many new technologies for spatial data analysis, combined with e-office technologies, and optimizing solutions based on them. Because of this, GIS is an effective method of converting and synthesizing a variety of data for management tasks. At this time, many production organizations are used for this purpose, both in the field of Cadastres [5].

METHODOLOGY

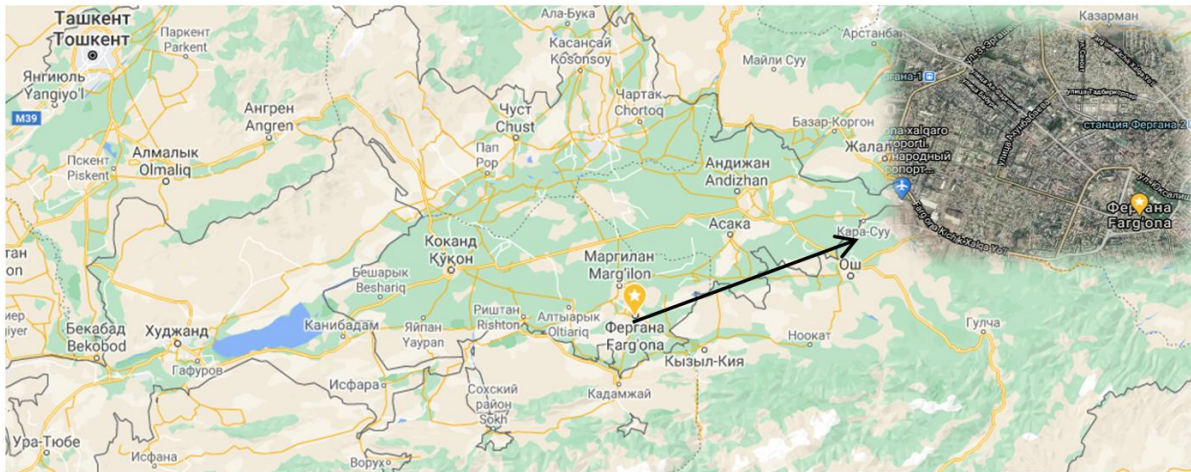
How geosystems GIS integrate information collection technologies from systems such as:

- Geographic information systems;
- Systems of cartographic information;
- Automated mapping systems;
- Automated photogrammetric systems;
- Land information systems;
- Automated cadastral systems, etc [1].

As a database system, GIS is characterized by a wide range of data collected using different methods and technologies. It should be emphasized that they combine the capabilities of text and graphic databases [6].

As a modelling system, GIS uses the maximum number of modelling methods and processes used in other information systems.

As a system for obtaining design solutions, GIS largely use the concepts and methods of computer-aided design and solve several special design problems that are not found in typical computer-aided design. Figure-1 shows an example for the operation of geoinformation systems of the Fergana region, and for example, the city of Fergana is given with its small ring [5].



Picture 1. Fergana region and small ring road of Fergana city.

As information presentation systems, GIS is the development of automated documentation support systems using modern multimedia technologies. They have business graphics and statistical analysis tools and, in addition, thematic mapping tools. It is the efficiency of the latter that provides a variety of solutions to problems in different industries when using data integration based on cartographic information [7].

RESULTS

Since the systems of mass use of GIS allow the use of cartographic information at the level of business graphics, which makes them accessible to any schoolchild or businessman, and not just to a specialist geographer. That is why making any decisions based on GIS technologies is not limited to creating maps, but only using cartographic data. Organization of data in the GIS. Thematic data are stored in GIS in the form of tables, so there are no problems with their storage and organization in databases. The biggest problems are the storage and visualization of graphical data.

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