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Paper Authors

Khusanova Mashkhura Islamovna, Isakov Muyassar Kamilovich, Qalandarov Muxriddin Maqsiddin o`g`li, Yoqubov Azamat Komil o`g`li, To`liboyeva Farangiz Farxod qizi, Jonmirzayeva Durdona Nematullayevna, To`rayeva Marjona Sherali qizi, Karimov Valibek Abbos o`g`li

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ANALYSIS OF THE WORK DONE TO CREATE A NATIONAL GEOINFORMATION SYSTEM IN WORLD PRACTICE

Khusanova Mashkhura Islamovna[1], Isakov Muyassar Kamilovich[2], Qalandarov Muxriddin Maqsiddin o`g`li[3], Yoqubov Azamat Komil o`g`li[4], To`liboyeva Farangiz Farxod qizi[5], Jonmirzayeva Durdona Nematullayevna[6], To`rayeva Marjona Sherali qizi[7], Karimov Valibek Abbos o`g`li[8]

Teachers of "Geodesy and cartography" chair of Samarkand state architectural and civil engineering institute[1,2,3,4,5,6,7,8]

Abstract: The history of collecting information about arable land and using it, mainly for tax purposes, goes back five thousand years. In this regard, it is enough to refer to the history of the emergence of the science of geodesy.

Keywords: In world practice, one of the modern trends in the development of geographic information systems (hereinafter - GAT) is the creation of global, state-wide, in other words, national GATs based on the thematic GAT of state and special sectors

Introduction

The history of collecting information about arable land and using it, mainly for tax purposes, goes back five thousand years. In this regard, it is enough to refer to the history of the emergence of the science of geodesy. According to the books, there is information that in the ancient country of Egypt, the Nile River overflowed and invaded the cultivated fields around it. When returning to the water bed, there was a problem of allocating the lands that were damaged by the flood and became almost flat to their owners. They paid taxes for the use of the land.

Experts have determined who pays how much tax. In most cases, the tax depended on the amount of cultivated land.

In ancient times and in the Middle Ages, in all countries, it was customary to tax cultivated land. After all, the power of the state depends on the amount of taxes. To carry out the work, the cultivated areas were measured and taken into account.

Land is known to have been taxed as immovable property in the countries between the Tigris and the Euphrates as early as 1000 BC.

Information about the Roman cadastre dates back to the 5th century BC.

Land tax was introduced in England in 991. Since 1066, the cadastre has been maintained.

In France, the first cadastral "Calculation" was written from 1269.

According to the great master Amir Temur in the book "Temur's Laws", - "He determined the amount of the land area and the amount of harvest and tax from it. The arable land taken into account should be divided into the first, second and third plots (one plot equals 958 square meters). Let them collect three harvars of the harvest from the first

trial (one harvar is about 300 kg), two harvars from the second trial, and one harvar from the third trial. Let them divide half of it as wheat and half as barley, leave two to the farmer and take one. If the raiyat does not agree to pay the tax in this way, then they should set a price of five silver meschals (one meschal is equal to 4.8 grams) of silver for one harvar of wheat, and two and a half meskals of silver for one harvar of barley. In addition to this, they should not demand any tax from them. [16].

In order to carry out the above works clearly and correctly, of course, the cultivated land was measured. The harvest is taken into account. Employees were penalized if incorrect information was collected. The results of the measurement were checked by a board of high officials dealing with special state revenues and lands - the so-called holisa board. Kholisa also helped to improve the lands left without owners.

A brief overview of the state of creation of national geoinformation systems in world practice:

The introduction of the cadastre in the United States of America began in 1785. The state-owned geodetic service was engaged in determining the boundaries and areas of the land, the dimensions and size of the buildings built on it, while the jurists determined the ownership rights of the owners of the land and real estate. All documents were recorded in special property books and kept in court offices.

One of the modern trends in the development of geographic information systems (hereinafter - GAT) in world practice is the creation of global, state-wide, in other words, national GATs on the basis of thematic GATs of state and special sectors.

The national geographic information system (hereinafter - MGAT) represents a complex of information resources integrated into a single system, created by ministries and agencies based on their powers and distribution of powers by sectors.

The analysis of the world practice shows that, despite the wide development of geoinformation technologies in various sectors, currently only a few leading countries have started to create global GATs at the national level.

The greatest progress in this matter has been achieved by the Republic of Korea, whose government is paying serious attention to the development of geoinformation technologies and systems, as one of the main tools of the country's political and economic management.

Over the past 12 years, by completing two phases of work, the Republic of Korea was able to create a national geoinformation system that meets the standards of a highly informed state. Currently, 285 organizations in the country are engaged in the field of geoinformation technologies, and the costs for their development are about 250 million. is US dollars. The level of computer technology used is not only in accordance with world standards, but also considered standard.

In 1989, the government of the State of Qatar decided to create an integrated nationwide GAT based on an assessment of the requirements of various organizations and institutions for the use of GATs. To this end, the government has established the MGAT Steering Committee and the Center for GAT (MGATM), which is charged with the functions of coordinating and operating MGAT. The center is also responsible for creating and providing access to Qatar's Digital Topographic Database (RTMB). RTMB includes high-resolution, topologically structured vector maps, orthoimages, space photographs and perspective images, a detailed digital model of the terrain, and a recently added high-detail 3D model of urbanized areas needed by a large number of

users. ArcGIS products from ESRI (USA) are used as the main software of Qatar MGAT.

Today, more than 50 government agencies use MGAT in their daily operations, and as long as all work is done according to the same GAT standards, all agencies' data and end-to-end applications are interoperable, all agencies are connected by high-speed fiber-optic GIS, which allows rapid data exchange. provides, which ensures the effective implementation of the national GAT.

Today, the US government is actively using digital cartographic data and GAT technologies at the federal level in virtually every department and agency, from emergency management and national security to environmental studies, conservation, and public health. The application of GATs and the advantages of their use in these fields are well described, and the number of examples is increasing.

Thus, despite the high level of development of geoinformation technologies, the United States is just beginning to create a national GAT.

Among the CIS countries, it is necessary to recognize the experience of Moldova, which has established MGAT in 2021 in order to implement the provisions of the Law on Geodesy and Cartography, rational use of finance, time and human resources, as well as to regulate the process of implementation, application and maintenance of information systems based on geographic data. began to implement the creation project.

The "Concept of the National Geographic Information System", as well as the "List of institutions responsible for the creation of network geographic information systems to be integrated into the National Geographic Information System" was approved by the Resolution of the Government of the Republic of Moldova No. 1298 of October 28, 2003 "On the Creation of the National Geographic Information System" , the responsibility for the coordination of activities for the design, implementation, application and maintenance of the national geographic information system was assigned to the State Agency for Land Relations and Cadastre and the Department of Information Technologies, which should cooperate with all institutions responsible for the collection and use of geographic information at the national level.

Thus, it should be noted that despite the high level of development of geoinformation technologies in almost all leading countries of the world, MGAT was actually created and implemented only in the Republic of Korea, Qatar and some other countries. In the rest of the countries, the concepts for the implementation of the MGAT creation projects are at different stages from development to practical implementation. Nevertheless, creation of MGAT is a global trend.

Literature:

1. Decree of the President of the Republic of Uzbekistan dated May 30, 2002 No. PF-3080 "On further development of computerization and introduction of information and communication technologies"

2. Resolution PQ-2045 of the President of the Republic of Uzbekistan dated September 25, 2013 "On measures to implement the investment project "Creation of National Geographic Information System";

3. Decision PQ-1989 of the President of the Republic of Uzbekistan dated June 27, 2013 "On measures to further develop the National Information and Communication System in the Republic of Uzbekistan"

4. Decision No. 231 of the Cabinet of Ministers of the Republic of Uzbekistan dated August 14, 2014 "On approval of the regulation on the procedure for maintaining the state cadastre of territories"

5. Decision No. 12 of September 12, 2014 of the State Committee for Land Resources, Geodesy, Cartography and State Cadastre of the Republic of Uzbekistan