

## **The Importance of Agricultural Mapping in Soil Science**

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### **ABSTRACT**

*The analysis of scientific research on the creation of agricultural maps in Uzbekistan shows that scientists of the Republic have developed a large number of scientific and practical experiments and descriptions in the study of agriculture using cartographic methods.*

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**Introduction:** As in other countries, a wide range of scientific research on agricultural mapping has been conducted in our country. There is a two-pronged approach to agricultural mapping of Uzbekistan.

The first approach to mapping the territory of Uzbekistan is the results of research and cartographic works of foreign researchers (historians, geographers, cartographers, ambassadors, etc.). Mapping of agricultural crops and production in the territory of Uzbekistan is mainly the work of Russian (former Soviet) scientists.

The second enterprise is the mapping of the Republic's agriculture and its industry by "internal" or "aid" researchers.

**The purpose of the study:** Scientists of the Republic have developed a large number of scientific and practical experiments and descriptions in the study of agriculture using cartographic methods. study (on the example of Bukhara district).

**Objectives of the study:** Observation and study of the results of the work carried out by scientists of the Republic on the mapping of agriculture in the Republic using cartographic method.

**Object of research:** Alluvial meadow-alluvial, desert-sand soils of irrigated oasis in Bukhara district of Bukhara region were selected.

**Subject of research:** Basic properties of irrigated soils and mapped lands.

**Main part:** The territory of the selected research object is located in Bukhara oasis. The Bukhara oasis is bordered by the Konimex-Hazara gorge in the Navoi region, which consists of tertiary deposits of the Avtobachi and Kyzyltepa plateaus. This area is the primary subaerial delta of the Zarafshan River and is considered to be the transition area between the large alluvial plains and the delta. (B.A.Ковда). [2.106, 43-77]

Analysis of scientific research aimed at compiling agricultural maps in the country shows that scientists

of the Republic of Uzbekistan have developed a lot of scientific and practical experiments and descriptions in the study of agriculture using cartographic methods. In our country, agricultural mapping can be studied in 3 stages. These stages are: the former alliance phase; the next stage of independence; the third is the stage of modern technologies. The former union phase covers the period from 1968 to 1991. Practical mapping of agriculture In 1968, Uzgiprozem (now Uzdavyerloyiha State Scientific Design Institute-DILI) published 21 thematic maps of agricultural lands of Uzbekistan. These maps were created on a small scale, ie on a scale of 1: 1000 000. Cartographic works on mapping of agriculture and its branches by A. Egamberdiev, T. Mirzaliyev, SH, M. Muhitdinov, A. Bazarbayev in 1983-1987 of particular importance.

The Uzdavyerloyiha Scientific Design Institute and the Cartography State Scientific-Production Enterprise have made a significant contribution to the cartographic study and mapping of the agricultural sector of the Republic and its regions, which was established in the post-independence period. The Agricultural Map of Uzbekistan, the Land and Water Map of Uzbekistan, created by these organizations in 1992-1999, and the atlases created for schoolchildren include scientific, practical and statistical information on the agricultural maps of the Republic. Based on data.

Created in 2012 and republished in 2016, the Geographical Atlas of Uzbekistan contains a total of 135 maps and plans, including 13 general geographic maps, 13 city plans and other thematic maps. The "Atlas of Local Lore" of the regions, created by the IIC "Cartography" in 2014-2015, is divided into three areas, and in the field of socio-economic maps is presented 9 types of agricultural maps. The stage of modern technologies. The research work on the creation of scientific and methodological aspects of agricultural mapping using geographic information systems belongs to SAAvezov, associate professor of Urgench State University. More than 15 themed cards have been created. The analysis of scientific research aimed at compiling agricultural maps in Uzbekistan shows that scientists of the Republic have developed a lot of scientific and practical experiments and descriptions in the study of agriculture using cartographic methods. It is possible to analyze the content of this research, which is mainly focused on production by agricultural land types and sectors.

At present, climate change, the negative impact of natural and anthropogenic factors on the flora and fauna, the efficient use of agricultural land, their cultivation, timely and planned implementation of agro-technical measures and timely measures against diseases of crops and livestock. In order to address these issues, in addition to the regional distribution and production of agriculture and animal husbandry, which are the two main sectors of agriculture, there is a need to address the following issues, including the provision of technical and logistics services in the content of maps did. These include veterinary stations and plots in the regions; veterinary pharmacies to help fight the disease in agriculture and animal husbandry; petrol stations for agricultural machinery; for example, wells for livestock irrigation and their condition.

Effective organization of agro-technical measures related to agriculture in the region, the prevention of diseases of plants or livestock by describing the above technical and logistical elements in the maps of agriculture and animal husbandry, which is the main branch of agriculture. Distribution across the regions and planning of preventive measures, quality maintenance of agricultural machinery, regular monitoring of wells will prevent the destruction of pastures by livestock in areas where there is a shortage of water.

Based on these issues, the research work of researchers in the field of research and development of indicators by ensuring the integration of all agricultural sectors with each other, the basis for the various things that affect, There is a need for an electronic map of the region's agriculture as a scientific and practical solution for the production of analytical forecasting indicators.

In conclusion, in order to find practical solutions to the tasks set in the decisions and measures taken at the governmental level, the attention paid to agriculture in the country and in its regions, in each of the relevant regions "Rural Kho" "Interactive map of agriculture" to describe the production of agricultural products in the districts, export-import indicators by region, as well as agricultural land types, types of crops and products. The creation of "Agricultural Vep-Cards" for obtaining operational information on cultivation is currently the main cartographic resource for agricultural development, assessment and forecasting.

**Conclusion:** The analysis of scientific research aimed at compiling agricultural maps in Uzbekistan shows that scientists of the Republic have developed a lot of scientific and practical experiments and descriptions in the study of agriculture using cartographic methods. It is possible to analyze the content of this research, which is mainly focused on production by agricultural land types and sectors

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