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HISTORY OF THE DEVELOPMENT OF SOIL MAPPING

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Anotation: In this article, the history of soil mapping on a global scale during a certain period of time allows to trace the development of the science of geography and soil cartography.

Kalit so‘zlar: tuproq zonalari, masshtab, karta, shkala, matritsa, geografik rayonlashtrish, kongress, FAO, YUNESKO.

INTRODUCTION.

The beginning of global mapping, as it is known, is based on the "Scheme of soil zones of the Northern Hemisphere" compiled by V.V. Dokuchayev on a scale of 1:50,000,000 in 1889. It contained only eight sections, including five wide soil zones, and was truly one of the main soil cards of its time. At the same time, its fundamental importance is very great.

This soil map showed us for the first time that the distribution of soils on the earth is not irregular, but has a natural and understandable character. In addition, the soil map compiled by V. V. Dokuchayev visually reflected the soil zoning law.

This law and the first soil map created became the foundation for further development of world soil maps compiled by scientists such as K. D. Glinka (1906, 1915, 1927), L. I. Prasolov (1937), Kellogg (1938), D. G. Vilensky.

By comparing these soil maps with each other, it can be noted that their better quality and clarification reflected the increasing diversity of the world's soils, and the increasing complexity of the structure of the world's soil cover and the definition of the limits of distribution, geographic and genetic characteristics of different soils. . The first soil map of the world according to K. D. Glinka showed only 18 soil sections, while the map of L. I. Prasolov had 30, I.P. On Gyerasmov's map (1964) it was equal to 93. It can be seen that soil cartography is constantly developing and improving to this day [1-5].

THE MAIN PART

When drawing up soil maps, scientists reflected various features as the main factor, including Dokuchayev's and Glinka's soil maps, which were mainly drawn up with a deductive method based on known relationships between natural conditions and soil nature, L.I. special soil - was the result of generalization of cartographic materials. Analysis of the development of world soil cartography based on the review of the

indicated maps L. I. Prasolov (1939), I. P. Gerasimov (1945, 1957, 1966), D.G. Vilensky (1947), V. A. Kovda (1965), M. A. Glazovskaya (1973), B. G. Rozanov (1977), G. V. Dobrovolsky (1982). At the international congress of soil scientists held in Moscow in 1974, the new soil map of the world was presented by V. A. Kovda, E.V. Edited by Lobova, G. V. Dobrovolsky, and B. G. Rozanov.

This soil map was very different from the previous ones in terms of cartography and composition. This map was created on a scale of 1:10,000,000. In addition, there are 300 units on the map, and the zonal and facies boundaries of soils, as well as geochemical and evolutionary genetic views are also reflected. On the soil geochemical map, 12 soil-geochemical structure regions were separated. Structured soil - a geochemical map briefly describes the reaction of soils, the composition of humus and secondary minerals, the directions of weathering, the main directions of soil formation, and the climatic conditions of the regions in accordance with the above.

According to the above information, the soil map created by V. A. Kovda and others does not allow for a more perfect and detailed description compared to the previous ones, but reflects new demarcated areas and directions in the genesis and soil geography.

Currently, the international soil map of FAO/UNESCO occupies a special place among the settlement maps, which was compiled for 20 years (1961-1978) on the recommendation of the international society of soil scientists. One of the main advantages of this card is that it is developed on the basis of the internationally agreed nomenclature and diagnostics of utrogals that can meet international standards. The nomenclature is mainly derived (Russian, French, German, Japanese, Polish, etc.). Most of them are artificially created based on Latin and Greek roots. The undoubted advantages of the FAO/UNESCO map, which is divided into 26 broadest units and 106 small units, are the agreed international nomenclature and diagnostic criteria, the relatively large scale of the map, and the saturation of information on the characteristics of cartographic units.

This is why the FAO/UNESCO map is the most detailed modern soil map of the world. It is also noteworthy that this map shows combinations of soils (dominant and accompanying soils) that describe the topography and soil cover conditions [6-10].

To date, the creation of an electronic database and the use of maps in electronic form has become one of the urgent issues. These works (Nyerrain Digital database) 1:1 000 000 scale (Sotyer project). In addition to the advantages, previously I.P. Gerasmov (1969) notes some shortcomings of the FAO/UNESCO map.

As a result of numerous international studies and consultations held at the XV International Congress of Soil Science held in Mexico in 1994, it was decided to develop a World Abstract Database of Soil Resources (WRB) based on the FAO/UNESCO map. At the same time, in order to distinguish soil categories (or groups) of the first level, according to the nature of the soil-forming process that separates the soil, according to

the signs that determine the most typical properties and characteristics of the soil, and at the second level, the scientific decision to separate the soil according to the nature of the accompanying soil-forming process accepted. The nomenclature in this map is based on the nomenclature of the FAO/UNESCO map.

In terms of the use of cards, it is appropriate to divide them into two large classes: 1. For production and several other areas, 2. For learning and implementation in the educational system. Among the works in this regard, M. A. Glazovskaya and V. M. Friedland (1978), among the first to study cards in the system of higher education, are very interesting from the point of view of the design and construction of the first soil map of the world for higher education. This map consists of two main maps (directions) and various table view applications.

1. In the "Soils" matrix (direction), nine soil water regimes are given horizontally, and three groups of soil temperature regimes vertically. Soil types mapped against the background of hydrothermal grouping are grouped into genetic groups according to leading soil processes. In total, the map combines 25 soil genetic groups with 110 soil unit types [11-17].

2. In the matrix "Soil Cover Structures", twelve genetic groups of soil cover mesostructure are given, and five complex and small contour compounds, which are components of mesostructures, are drawn horizontally. A special part of the map is notable for the distribution of parent rocks and their particle sizes.

RESEARCH RESULTS.

Current work, soil survey maps, compared to the initial ideas reflected in Dokuchayev and Glinka's first world maps, have shown how complex and diverse the world's soil cover is.

In addition to the latitudinal and vertical zonation laws of soils defined by V. V. Dokuchayev, modern soil maps reflect soil-climatic facies (units, regions) and other soil-bioclimatic and soil-geochemical laws manifested in the presence of soil. Including geochemical derivatives soil - geochemical fields. The first experiment was carried out to reflect the historical and genetic relationships of different types of soils on the world soil map, which indicate that hydromorphic conditions have changed in the automorphic states of soil formation in the history of development.

Soil - geographical zoning has developed significantly as one of the directions of soil geography, which allows not only to reflect the entire complexity of the structure of the soil cover in the most complete and systematic way at different levels of its organization, but also to understand it.

CONCLUSIONS.

Due to the growing problems of protection and use of natural resources, the scientific and practical importance of soils and soil photography cartography has increased dramatically in our time. Development of scientifically based estimates on the use and assessment of land resources, regional specialization of agriculture, forestry and

other sectors of the economy, development and implementation of large-scale land reclamation activities, protection of soil from destruction without considering sufficiently detailed and reliable world maps. not allowed. The recent experience of soil cartography shows that the further development of soil cartography is closely related to the development of the theory of soil genesis and geography and the increasing use of aerospace methods for soil cover studies.

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