

## THEORETICAL AND METHODOLOGICAL ASPECTS OF RESOURCES OF LAND RESOURCES IN AGRICULTURE

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### ABSTRACT

*This article is devoted to the theoretical and methodological aspects of studying the use of land resources in agriculture, which focuses on theoretical and methodological issues and the scientific and practical significance of studies of the territorial organization of agriculture. At the same time, the location of agricultural sectors, the essence of the concept of land resources, theoretical issues of agrogeography, agricultural zoning, regional production systems and agro-industrial complexes, natural factors affecting the development and territorial organization of agro-economic sectors, traditional geography is widely used in agricultural research (retrospective), such methods, as geographical comparisons, mapping, mathematical-statistical and modeling, assessment of natural and agricultural potential.*

**KEYWORDS:** *Agriculture, Soil, Land Resources, Agroclimatic Resources, Historical Approach, Mapping, Geographical Comparison, Statistics And Modeling, Natural Agrarian Opportunity.*

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### INTRODUCTION

Enter. The specific characteristics of the use of land resources in agriculture, in particular, the fact that farming is based on irrigation, the production of more than 90 percent of agricultural products on irrigated lands, the limitation of water resources, the complexity of the ecological situation, the specificity of the demographic situation, require the continuous improvement of the efficiency of the use of land resources. That is why the rational placement of agricultural production by natural and economic regions is an important factor in increasing the volume of production and reducing its cost. At the same time, the rational placement of agricultural production leads to an increase in the efficiency of the use of land resources. The placement of crops by regions makes it possible to increase the level of specialization of production in separate economic regions. The deepening of production specialization leads to the implementation of the results of scientific and technical development in the industry. In turn, the development of specialization has a significant positive effect on the growth of production.

Goals and tasks of work. The theoretical and methodological basis of the geographical research of the use of land resources in agriculture is analyzed, and the use of methods in scientific research is based on this. To achieve this goal, the following tasks were defined in the research work:

- To carry out literature analysis as part of the research;
- Researching the mechanism of using traditional calculated methods for geography in the study of agriculture;
- The effective use of land resources in agriculture, the development of agricultural industries, the characteristics of territorial organization and the study of the problems that have arisen using various methods or methods, approaches.

The main part. The term "territorial organization" is often used in geographical studies. Agriculture (Akramov, 1974; Rakitnikov, 1970; Ivanov, 1975; Kryuchkov, 1978; Ro'ziev, 1986; Abdullaev, 1988; Ahmataliev, 2007), production (Kalashnikova, 1990), use of nature (Mints, 1972; Runova, 1993) ), focused on issues of territorial organization of society (Saushkin, 1973, 2001; Khorev, 1971; Chistobaev, 1990). A. Soliev (1999) tried to determine the similarities and differences between the concepts of "location", "location" and "territorial organization", which are often used in the science of geography [5, 6, 7, 10, 11].

The scientific ideas of direct production placement were first created in Germany. The German landowner Johann Heinrich Tünen expressed his scientific ideas on the placement of agricultural industries in his special works in the 1920s and 1930s. The main essence of the Tyunen idea is the territorial organization of agricultural production around a single city, that is, a consumption center. He implements this idea based on the distance between the farm and the city or market (in his case, Rostock in Mecklenburg), the price and value of agricultural products and land rent. The land rent is determined by the ratio of the income received with the amount invested in it [2].

The merit of I. Tyunen is that he was the first to raise the issues of land use and introduced the concept of "economic space" into the scientific literature. In his model, he pays great attention to the delivery of the product to the market - to the consumer at a low price and with intact quality. Thus, I. Tyunen became the creator of the initial scientific basis of the placement of agricultural sectors or agricultural geography [2, 6].

V.V. Dokuchaev gave the following definition of soil: "soil is a natural-historical product that appears as a result of the joint activity of factors such as climate, organisms, soil, local topography, and the age of the country" (Dokuchaev, 1951). This definition accurately describes the conditions of soil formation. And the land, as an active, genetically independent upper layer of the land, embodies its own climate, soil layer, topography and forms of individual areas, all the factors that create them. From this it can be seen that the concept of land is much wider than soil [1, 7].

The concept of "land resources" is revealed in a number of scientific literature [3, 11]. Summarizing these works, Yu. Akhmadaliev gave the following definition of land resources: Land resource is a component of the land fund, which is characterized by its own soil quality, climate, relief, and hydrogeological characteristics. used [11]. Based on this definition, it should be noted that the land is multi-functional, and at the same time, it is the main tool and subject of agricultural production, as well as the leader in territorial organization of population, industry, housing stock, recreation zones, etc.

The location and specialization of agricultural industries is largely determined by climatic conditions, temperature, underground and surface water, physical and chemical properties of the

soil. Climate potential, that is, climatic conditions and resources, is one of the important natural factors that determine the development of agriculture. P.I. Koloskov (1971) considers climate to be the meteorological component of the environment (geographic shell), and agroclimate is the meteorological component of the agronomic environment [7].

Later, V. Chetirkin, Z. Akramov, K. Lapkin, A. Ro'ziev, K. Abirkulov, O. Abdullaev, M. Yusupov, A. Sodikov and others on theoretical issues of agrogeography, regionalization of agriculture, territorial systems of production and agro-industrial complexes conducted research. Issues of development of new lands, desert and mountain regions and development of agriculture based on this, use of land and water resources, construction of water reservoirs and formation of agriculture in forms of irrigated farming, ownership R.Hodiev, T.Egamberdiev, E.Umarov, S.Saidkarimov, S. Islamov, G'. Ashurov, Z. Hoshimov, Sh. Azimov, Kh. Zolotarev, K. Qurbanov, B. Shotursunov, T. Shoto'raev, M. Fayzullaev, F. Rajabov, J. Namozov [11, 12], 13, 14].

Evaluation of the productivity of land resource use in agriculture is carried out on the basis of specific principles based on today's demand. It is necessary to assess the effectiveness of the use of land and water resources through economic-ecological criteria in the conditions of market economy, where irrigated farming is carried out, especially in the conditions where special funds are spent on irrigation (for irrigation with the help of pumps).

First of all, natural factors have a strong influence on the development and territorial organization of agro-economic sectors. Natural factors (territory geology and lithology, topography, climate, land and water resources, soil types, etc.) influence the location and development of agricultural areas and can speed up or slow down this process. Soil is the main factor in agricultural specialization. When evaluating land from the economic point of view, it is evaluated in terms of the value of the product and the amount of input, rather than according to the gross output.

In general, agricultural studies use methods traditionally considered for geography. For example, any geographical research must necessarily be conducted on the basis of a historical (retrospective) approach. This method, in particular, gives good results for the analysis and assessment of the development and territorial organization of agriculture as a result of the development of desert areas, the previous and current state of the desert environment. The land development period is divided into certain stages. The most important thing is that each stage of the historical period must differ from other stages in terms of the scale of development, purpose, construction of irrigation infrastructure, settlement and migration of the population. In particular, development of Mirzachol, Karshi and Surkhan-Sherabad deserts was carried out in the stages of expansion of cotton fields based on the development of agriculture, construction of irrigation facilities serving to supply the region with water resources, organization of socio-economic infrastructures.

At the same time, the development of land in Kashkadarya region is compared with the work done in the republic and adjacent regions, and this represents the essence of the geographical comparison method. In this regard, it is important to study the experiences of the development of our own Mirzachol desert, the Vakhsh Valley of Tajikistan, and the Tajan-Murgob oasis of Turkmenistan, and on this basis, the specific geographical aspects of the development of the Karshi desert will be determined.

By mapping and analyzing data on the use of land resources in agriculture, it is possible to provide a sufficiently evidential visual description of the object under study. With their help, it is possible to collect and systematize information about existing agriculture by recording it on a map in a fixed territorial cross-section, which, in turn, allows to compare any description of agriculture with the natural conditions in the appropriate part of the territory, to compare the definition of agriculture with the types of natural environment. creates.

Southern Uzbekistan, in particular, Kashkadarya region's agricultural sectors - cotton growing, grain growing, vegetable growing, policing, viticulture, horticulture, along with the main specialized branches of animal husbandry. When drawing up large-scale series maps designed for intensive development of agriculture on the basis of effective use of land and water resources, the main attention should be paid to specific regional characteristics of this field.

Mathematical-statistical and modeling methods are also important in determining the economic indicators of agriculture. It is known that the natural indicators in the production of agricultural products are yield and gross product, and the efficiency of product production increases through the intensive use of land, and this situation is determined by the coefficient of agricultural land use.

By determining the share of irrigated land in the composition of arable land and land used for agriculture, the indicators of land use in regions with artificial irrigation (with the help of machine pumps) are analyzed, because the region differs from other regions in that the amount of expenses in artificial irrigation farming is high in exchange for the consumption of electricity. This makes the issues of improving the system of intensive irrigation farming and rational use of land resources urgent. The reason is that the organization of agricultural production without taking into account the state of land resources will have negative consequences.

In addition to the above, determining the natural-agrarian potential (TAI) of regions is also important in agrogeographic research. It is known that natural conditions and resources have a limiting effect on the development and location of agriculture. Some of these factors (water, physical and chemical properties of the soil) can be controlled or changed by anthropogenic means, while others (climate, topography) cannot be controlled. Also, the lack of a certain resource, not a shortage, but an excess, a high concentration (water, heat) also sometimes limits the development and settlement of agriculture. The reason is that favorable conditions for a certain branch of agriculture are naturally unfavorable for other branches, for example, favorable conditions for pastoralism or dry farming are clearly unsuitable for irrigated farming. Therefore, the assessment of natural-agrarian potential is considered a difficult and complex issue, and it is required to develop assessment indicators and methodology separately for each territorial object and agricultural network [11]. Yu.I.Ahmadaliev carried out this TAI assessment on the example of Fergana Valley. Such evaluation works can be used in the assessment of the natural-agrarian potential of land resources for agricultural sectors of Kashkadarya region.

Summary. Thus, the effective use of land resources in agriculture, the development of agricultural sectors, the characteristics of territorial organization and the study of the problems that have arisen are carried out using various methods or methods and approaches. Among them, historical comparison, mapping, regionalization, which are considered the most important for geography, have great theoretical and methodological importance. It is known that land is the natural basis of all wealth, socio-economic development of any country or region. But not only the land, but its upper fertile layer, or rather the soil, is of great importance for the settlement of

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the population and the development of economic sectors. It is the soil, along with water (moisture), that acts as an important agro-climatic resource. The availability of water reserves provides an opportunity for the development of irrigated agriculture in areas with fertile soil.

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