

THE REPUBLIC OF AZERBAIJAN

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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

**DIRECTIONS FOR IMPROVING THE EFFICIENCY OF
USING THE PRODUCTION POTENTIAL IN THE
AGRICULTURAL SECTOR**

Specialty: 5312.01- Sectoral economy

Science field: Economic sciences

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Baku – 2024

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OVERALL CHARACTERICS OF THE DISSERTATION

The relevance of the topic and the degree of elaboration. The highly dynamic environment formed in the agricultural sector in recent years requires more modern and new approaches to the mechanism of economic development in this important sphere of the economy. Determining the internal potential related to economic growth in the indicated direction and revealing the resources that enable effective use of existing resources are among the most important issues. From this point of view, forming the production potential and increasing the efficiency of using that potential depending on the parameters of entrepreneurial farms and enterprises operating in the agrarian field is considered one of the priorities of agrarian development. It should be noted that it is especially important to have scientifically based economic mechanisms to study and assess the state of development of the agrarian economy, which has a special role in meeting the country's food products and raw material needs of a number of industries. The development of scientifically based more advanced development mechanisms will actually play an important role in the timely elimination of existing or potential problems in the field of formation and more efficient use of production resources of the agricultural sector.

Thus, the identification of new methods and models for the formation and evaluation of the production potential, which affects the economic situation and development of separate areas of agrarian production, especially agriculture, which is an important part of it, becomes more relevant. What has been mentioned shows that the priorities related to the development of resource potential and the mechanism of its effective use are focused on the development of the economic potential of the agricultural sector as a whole.

Therefore, the development of the agricultural sector depends significantly on the efficient use of its production resources. This requires taking into account not only the territorial and field components of the processes of formation and development of production potential in modern economic conditions, but also making more advanced decisions about increasing the efficiency of its use.

The logical result of the measures implemented in this direction is that, as shown in “Azerbaijan 2030: National Priorities for socio-economic development”, “*the socio-economic potential of the country has increased and the tolerance of the economy to external influences has improved*”.¹ Also, the liberation of our territories from the Armenian occupation and the provision of the territorial integrity of our country created the basis for the expansion of the production potential by creating the basis for serious qualitative and quantitative changes in the field structure of agriculture.

Under the current conditions created by globalization, measures related to the development of the agricultural area are prepared based on evaluating the current state of the elements of the reserve potential of the agricultural area and their prospects for intensive development. In this regard, the development of the resource potential of the agrarian field, which is an important element in ensuring the functioning of the socio-economic system, conditions the implementation of measures for its more efficient use.

One of the most important issues is the effective use of the resource potential of the agricultural sector in accordance with the development trend of economic processes. One of the main directions of fulfilling this condition is to increase the degree of consistency of analytical information about the state of resource potential and development prospects. Thus, in the current economic conditions, where the development of agriculture is a priority in the agrarian policy there is a great need to analyze and evaluate the “State program of socio-economic development of the regions of the Republic of Azerbaijan in 2019-2023”, which allows to implement strategic measures and meets the requirements of a systematic approach to the problem under study, “Strategic Road Map for the production and processing of agricultural products in the Republic of Azerbaijan”, “Azerbaijan 2030: National Priorities for socio-economic development”, “Socio-economic development strategy of the Republic of Azerbaijan in 2022-2026” and the reserve potential and determine the development prospects in terms of the development of the liberated territories. All this proves

¹ <https://president.az/az/articles/view/50474>

the relevance of the topic of the dissertation and determines the direction of the research.

Solving the problems of efficient use of reserve potential requires scientific and practical justification of its theoretical and methodological aspects and conducted research. The essence, structure, various factors of production potential in the agrarian field and the problems of its efficient use have always been in the attention of economists. Z.A. Samadzada, A.Kh. Nuriyev, E.A. Guliyev, B.Kh. Atashov, I.H. Aliyev, I.H. Ibrahimov, V.H. Abbasov, A.N. Valiyev, Sh.T. Aliyev, E.M. Hajizada, A.N. Hasanov, M.C. Huseynov, E.R. Ibrahimov, N.C. Gafarov and others are among the country's economists conducting research in the mentioned direction.

A.A.Shalmuyev, V.A.Svobodin, D.I.Konkurin, M.V.Melnik, S.N.Goncharova, S.G.Golovina, O.A.Lomovtseva, T.Y.Cherepukhin, E.V.Popov, F.M.Rusinov, O.N.Misko and others have conducted extensive research on various aspects of the use of potentials. However, although the works of these and other authors cover the problems related to efficiency in the context of resource use, they did not fully reflect the issues of increasing the efficiency of using the production potential of the agricultural sector.

The object and subject of the research. Agrarian field and agrarian economy subjects have been defined as the object of research. The subject of the research is the study of the problems of increasing the efficiency of using the production potential of the agricultural area.

Research goals and objectives. The purpose of the dissertation is to investigate the scientific-theoretical issues of using the production potential of the agrarian field, to analyze the current situation of the use of the production potential, to prepare scientific-methodical provisions and practical recommendations in the direction of promoting the use of the potential and increasing its efficiency.

In accordance with the research direction, the following tasks have been defined in order to achieve the set goal:

- determination of the main aspects of the formation and development of the production resources potential of the agrarian field;

- determination of the role of the use of production potential in the development of the agrarian field;
- determination of the current situation and direction of development of the production potential of the agricultural area (land, labor and material and technical);
- assessment of the level of use of production potential in the agricultural field;
- determination of the relationship and dependence between the level of use of production potential and product production;
- determination of directions for increasing the economic efficiency of the use of production potential in the agricultural field;
- on the basis of the analysis of the parameters of the formation of production potential in the agricultural field, preparation of proposals and recommendations in the direction of increasing the efficiency of the use of resources and improving the management mechanisms.

Research methods: The following methods and tools were used in the dissertation work: analysis, synthesis, economic-mathematical, economic-statistical, analytical analysis, comparative analysis, correlation-regression analysis.

The main propositions defended. The main propositions defended by the research on the economic relations that arise in the process of formation of the production potential of the agricultural sector and the improvement of the efficiency of the use of the existing production potential are as follows:

- there is a need to examine the theoretical and methodological provisions related to potentials in the agricultural field, their economic essence and the efficiency of their use, to look at the attitude of economists to the issue from a new perspective;
- there is a need to assess the current state of the production potential and the level of its use;
- in order to improve the use of production potentials, it is appropriate to determine new reserves for increasing production based on correlation and regression analysis;

- there is a need to define measures for providing land, labor and material and technical resources and increasing the economic efficiency of production;
- there is a need to specify and justify directions for improving efficient use of production potential in the agricultural sector and this process management;
- in order to further increase the efficiency of the use of production potential in the agrarian field, it is necessary to apply incentive measures and determine the directions of state support.

The scientific novelty of the research. The scientific novelty of the research is characterized by the following:

- the main features related to the optimal use of each component of the production potential, which is part of the concept of the production potential of the agricultural area, were determined, the development parameters of the production potential were evaluated;
- the main aspects of the formation, use and development of the production potential of the agrarian area are systematically determined;
- the current state of production potential in the agricultural field and development trends were analyzed and evaluated;
- the level of use of the production potential of the agricultural area was determined on the basis of correlation-regression analysis, the factors influencing the efficiency of the use of production resources were identified and systematized;
- based on the provision of land, labor and material and technical resources in the current development conditions, the conceptual directions of efficient use of the production potential are substantiated;
- in the context of the prospects for the development of the production potential, measures to promote the more efficient use of existing resources are justified;
- proposals and recommendations in the direction of effective management of the production potential of the agricultural sector, improvement of production efficiency have been

prepared, and their importance from a scientific and practical point of view has been substantiated.

Theoretical and practical importance of the research. The theoretical importance of the research consists of the economic justification of the theoretical and methodological approaches aimed at the effective use of the resource potential of the agrarian field, scientific and practical measures in this direction.

The practical importance of the dissertation work can be used to determine the approaches, recommendations and proposals for increasing production and economic efficiency in the agricultural sector, and to prepare a strategy for the development and efficient use of the resource potential of the agricultural sector. The main results of the research can also be used in the analysis and assessment of trends in the development of the reserve potential of the agrarian field, in the implementation of state support measures and for other purposes.

Approval and application. The main scientific-theoretical provisions, results and proposals of the dissertation are reflected in 9 articles (including 3 abroad) and 5 theses (including 2 abroad) published in prestigious journals and conference materials recommended by the Supreme Attestation Commission under the President of the Republic of Azerbaijan. Among the conference materials are “The current situation and development trends of the use of production resources in agriculture” (Ganja, 2018), “Complex analysis of the efficiency and improvement of the use of production potential in agriculture” (Ganja, 2019), “The role of agro - policy in efficient use of agricultural resource potential” (Birmingham, 2019), “Economic efficiency of using production potential in agricultural enterprises” (Ganja, 2021), “The impact of production potential usage in agricultural field on economic development” (Australia, 2021) can be cited.

In periodical scientific publications, the author's “Peculiarities of the effective use of production potential in the agricultural sector” (Kirov, 2017), “The direction of development in the effective organization of production potential in the agrarian sector” (Ganja, 2019), “The role of state aid in the agricultural sector in increasing the economic efficiency of agricultural production” (Ganja, 2020),

“Scientific and theoretical basis for determining production capacity and assessment of resource opportunities in the agricultural sector” (Prague, 2020), “Effect mechanism of state support in increasing the efficiency of agricultural production” (Ganja, 2021), “Directions of rational use of land, water and labor resources in agrarian production” (Ganja, 2022), “Methodological bases of the efficiency of using the production potential in the agrarian sphere” (Baku, 2022), “Assessment of the level of use of production potential in the agrarian sector” (Moscow, 2022), “The main directions of regional development of economic potential in the agrarian sphere” (Nakhchivan, 2022) articles were published.

The name of the institution where the dissertation work was performed. Dissertation work was performed at Ganja State University.

The volume of the dissertation’s structural sections separately and the general volume. The dissertation consists of 256,548 characters, consisting of an introduction, three chapters, a conclusion, and a list of references. Introduction 12877 marks, chapter I 81759 marks, chapter II 71193 marks, chapter III 59688 marks, conclusion 9466 marks, reference list 19748 marks. The volume of the dissertation is 231337 characters, excluding tables, pictures and the list of references. 11 tables and 3 pictures are given in the research work, and 147 names of sources are indicated in the list of used literature.

SUMMARY OF THE RESEARCH WORK

In the introductory part of the thesis, the relevance of the topic is substantiated, the goals and tasks of the research, methods are characterized, the main propositions defended are explained, the scientific innovations, theoretical-practical significance and approval of the work are reflected.

In the first chapter of the dissertation entitled **“Scientific-theoretical approaches related to the economic nature of the production potential in the agricultural sector and the efficiency**

of its use”, theoretical views on the potentials in the agricultural sector, their economic nature and characteristics, methodological bases of the economic efficiency of using the production potential of the agricultural sector and the effects of the use of production potential in the agricultural field on economic development were explained.

The solution to the problem of determining the production potential in separate spheres and assessing the resource capabilities is considered one of the most urgent issues in modern conditions. In particular, the socio-economic development of rural areas, the provision of competitive and high-quality product creation, and the implementation of measures for the technical renewal and modernization of entrepreneurial farms and enterprises engaged in various production areas are conditioned by the need for the efficient use of production potential.

Efficiency, rationality and completeness of resource potential use in agriculture is considered an important quality indicator of production resource management. This is due to the fact that the socio-economic development of the village depends on the extent and efficiency of its production potential. The resources possessed by each production area, the lack of comparison and the diversity of production areas make it difficult to study the interaction between the availability of resources and the results of its economic development. It should be noted that in addition to determining the availability of resources, their characteristic features and quality, it is also important to determine the place and role of a specific production area in the general economic system.

Research shows that resource potential includes resource potential consisting of labor, natural, production, financial resources, as well as investment and centralized capital investments, i.e. resources involved. Also, this economic category ensures the implementation of economic activity in the process of mutual actions by characterizing natural, labor, materialized and non-materialized resources. The totality of mineral resources, as well as land, water, forest, and animal resources in a specific area is the manifestation of natural resource potential in the form of objects.

Based on the analysis, the following types can be distinguished in the structure of resource potential: natural-climate, information, entrepreneurial, scientific-technological, financial and labor potential. In order to more fully explain the essence of the concept of resource potential, it is appropriate to choose not only quantitative characteristics in its structure, but also characteristics that reflect the quality of structural elements of resource potential. Therefore, the resource potential is a set of quantitative and qualitative characteristics of the development base of any area.

Thus, the successful functioning and development of territories is determined to a significant extent by the availability of resources, their structure, the speed of their renewal, the efficiency of their use, the level of development and specialization. Therefore, the resource potential of a specific area, field, and enterprise determines the economic development opportunities, direction, and efficiency to a significant extent. This means that the economic development of a specific area, field, and enterprise is directly related to the availability of resources and the efficiency of their use.

In the dissertation, resource potential, economic potential, natural potential and production potential are investigated, various authors' approaches to the essence of those potentials are analyzed and systematized. The potential is considered as a set of opportunities of the area that can be used to achieve the strategic goals of economic development within a certain period of time.

Estimating the efficiency of using the production potential in the agricultural field requires an individual approach to each of its elements in terms of their specific characteristics. This is also due to the fact that the resource potential of agriculture is primarily measured by land resources, labor resources and the cost of fixed assets. It should be noted that increasing the efficiency of using the production potential is directly related to increasing the efficiency of using existing resources, at the same time improving the economic situation and determining more advanced ways of using those opportunities.

Undoubtedly, the production potential depends on the capabilities of each component, the interaction of resources in the production system, the structure and parameters of the products. It is argued that

the capacity of each component of resource potential consists of unused resources.

What has been mentioned shows that in order to achieve the efficiency of production resources usage in the agricultural field, it is important to take into account the resource capabilities of a specific production area, the development characteristics of that area and each area of economic activity. It is one of the main conditions for the development of various areas of the agrarian economy as a whole, and it manifests itself as a powerful tool that forms internal and external demand for the produced product.

In the dissertation, the directions of influence of the production potential usage on economic development are investigated. These directions include activation of areas with sufficient potential, realization of import substitution of exports, formation of demand for products within the country, promotion and diversification of creation of more efficient production areas, innovation-oriented development of agrarian economy, increase of production capacities taking into account the characteristics of production areas and formation of technological base, etc. issues. The effect of efficient use of production potentials on economic development is evident in various directions.

Thus, the development of the agricultural area and the growth of production are possible due to more efficient use of domestic resources. For the effective implementation of this policy, the most important priorities should be to create a purchasing power demand by the state and to ensure the continuation of the issue of sufficient financing of agricultural enterprises, as well as to expand the stimulation measures as a whole.

In the second chapter, the analysis of **“The current situation of production potential usage in the agricultural sector”** is given. Production potential in the agricultural field: the level of provision of land, labor and material and technical resources, the dependence between the use of production potential and the level of economic indicators is analyzed, the economic efficiency of production potential usage is evaluated.

Sustainable development of the agricultural sector and increasing efficiency are considered priorities of the state's economic policy. To restore the production potential of the agrarian field as a whole, creating an organizational-economic, regulatory environment and implementing continuous improvement measures in this direction is one of the main tasks of the structures that manage the agrarian field. At present, the production potential of enterprises and regions is determined by the current state and quality of land, technical and labor resources, which are the main conditions of socio-economic development.

Agrarian production, consisting of a set of land, labor, technical and technological resources, as an interconnected and interoperating complex system, directly depends on the potential of the enterprise. It is noted that increasing the volume of production in the agricultural sector is based on the efficient use of land, ensuring the unity of financing, equipment and technology, economy and ecology. In addition to the above, the role of potential elements such as information and innovation, organization and management has increased significantly in modern times. Full utilization of agricultural production potential means that available resources are efficiently distributed and utilized to the maximum extent and efficiency.

Based on the research, it can be noted that factors such as scientific-technical and technological progress, labor organization and cooperation, production intensity and concentration, infrastructure creation, development of processing industries operating with agricultural raw materials, and efficient management have a positive effect on the level of utilization of production potential in agriculture.

Land has a special, leading position in providing production resources in the agricultural field. Studies show that it is very difficult to achieve a significant increase in the scale of land suitable for agriculture. In this regard, there is a serious need to protect land suitable for agriculture. Effective use of land is considered to be one of the most important issues in terms of protecting useful land and transferring it to future generations.

From the analysis of statistical data, it is clear that the area of land suitable for agriculture in our republic increased by 0.02% in 2022

compared to 2018, perennial plantings increased by 7.3%, cultivated area by 0.2%, fallowed land by 2.2%, and the area of mowing and pasture decreased by 0.5% (table 1).

Table 1.

Composition of agricultural lands (thousand ha)

Indicators	2018	2019	2020	2021	2022	In 2022 compared to 2018, percentage
Land suitable for agriculture	4779,5	4 779,7	4 780,1	4 780,6	4 780,5	100,02
Cultivated area	2057,9	2 056,5	2 045,2	2 049,8	2052,8	99,8
Fallowed	40,0	39,5	39,2	39,2	39,1	97,8
Perennial plantings	255,0	260,3	272,7	274,1	273,6	107,3
Mowing and pasture land	2426,6	2 423,4	2 423,0	2 417,5	2415,0	99,5

The table was compiled by the author based on the data of the State Statistics Committee [9, p.53].

In addition to the above, the integration of the lands of the liberated territories into the national economy can give an additional impetus to the acceleration of general development, employment, and the creation of a production and export-oriented value chain.

It should be noted that the serious differences between the agricultural structures of the republic in providing the agricultural sector with resources require different approaches to evaluate the results of the production and economic activities of enterprises and to determine their potential. In this regard, the production of agricultural products plays a very important role in determining the market value of enterprises, attracting investments in the agricultural sector, creating objective prices, equalizing the production and economic conditions of agricultural enterprises, implementing economically

sound regulatory measures, and organizing the effective use of existing resource potential.

It is noted in the dissertation that in order to determine the efficiency of the level of utilization of production potential, it is important to look at the system of indicators reflecting the production potential, profitability, potential-profitability, structure, and quality of enterprises.

The analysis of the above on the basis of statistical data and calculations gives a reason to observe a different picture in the agriculture of the republic over the years. Taking into account that the level of utilization of the production potential is directly reflected in the production of the total product, it is considered important to look at the dynamics of the total product first.

Researches show that the total agricultural output in actual prices was 7,010.0 million manats in 2018, while in 2022 it increased by 56.7% and reached 10,984.2 million manats. The total output of the crop sector increased by 73.8% from 3,186.0 million manats to 5,538.0 million manats, and the total output of the livestock sector increased by 42.4% from 3,824.0 million manats to 5,446.2 million manats. The analysis of the structure of the total agricultural output shows that in 2018, 54.6% of the total agricultural output was accounted for by animal husbandry and 45.4% by crop production, while in 2022 the share of livestock production was 49.6%, and the share of crop production was 50.4% (diagram 1).

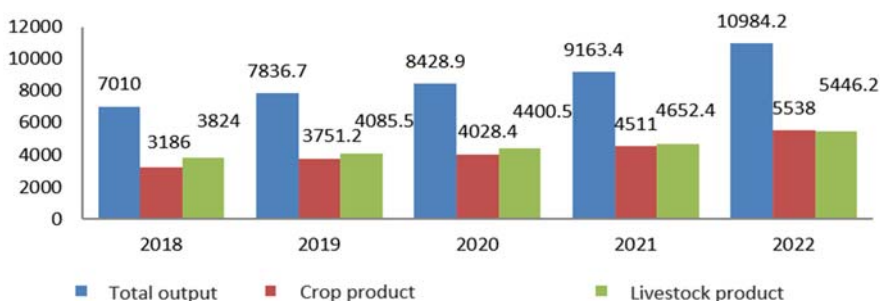


Diagram 1. Total agricultural output, in actual prices, million manats.

Determining the economic efficiency of the use of resources in the agricultural field is considered one of the most necessary issues in terms of the development of the agricultural field. The use of production potential can be determined through a system of indicators characterizing the activity of enterprises. The efficiency of using the production capacity is determined by the ratio of production results to the reserve unit, and the criterion of efficiency is the maximization of the production result at the expense of the minimum reserve costs. It is necessary to use a system of indicators to determine the economic efficiency of using the production potential. This is due both to the different nature of the measurement of the influence of factors, and to different production resources, which differ in their economic nature and are not always comparable.

The thesis states that the efficiency of using production potential is determined by the ratio of production results to potential units (land, labor, equipment, finance, etc.). The criterion of efficiency is the maximization of production results at the expense of minimum resource costs. Meanwhile, a number of indicators are used, and their measurement differs with different economic characteristics.

The main indicators of the evaluation are the total product, total income, net income and profit from the sale of products, fixed assets and the profitability ratio related to the use of the total capital.

Looking at the indicators of economic efficiency of land use based on statistical data, it is known that in 2022, compared to 2018,

the arable land decreased by 0.2 percent, and the specific weight of the agricultural land area decreased from 43.1 percent to 43.0 percent. In the compared period, the total output of agriculture increased by 56.7 percent, including 73.8 percent in crop cultivation, 42.4 percent in animal husbandry, the total output per hectare of agricultural land increased by 37.5 percent, from 1,466.7 manats to 2,016.9 manats, and the total output per 1 ha of arable land increased 3.9 times from 1,377.5 manats to 5,350.8 manats (table 2).

There are certain problems related to the evaluation of the economic efficiency of the production potential usage of different types of potentials at different levels and directions. That is, the level

of use of labor resources, fixed assets, land and other resources is evaluated in different ways.

Table 2.

Soil usage level and economic efficiency indicators

Indicators	2018	2019	2020	2021	2022	In 2022 compared to 2018, percentage
Land suitable for agriculture, thousand ha	4,779.5	4,779.7	4,780.1	4,780.6	4,780.5	100.02
As well as: arable land, thousand ha	2,057.9	2,056.5	2,045.2	2,049.8	2,052.8	99.8
Total output of agri-culture, million manats	7,010	7,836.7	8,428.9	9,163.4	10,984.2	156.7
As well as: crop cultivation	3186	3751.2	4028.4	4511.0	5538.0	173.8
Animal husbandry	3 824.0	4 085.5	4 400.5	4 652.4	5446.2	142.4
The specific portion of the cultivated area in the area of agricultural land, percentage	43.1	43.0	42.8	42.9	43.0	x
Total yield per 1 ha of agricultural land, manats	1466.7	1639.6	1763.3	1916.8	2016.9	137.5
Total yield per 1 ha of cultivated land, manats	1377.5	3810.7	4121.3	4470.4	5350.8	3.9 times

The table was compiled by the author based on the data of the website www.stat.gov.az.

The economic efficiency of using the main means of production is determined by comparing the obtained production results and their cost. Meanwhile, a number of indicators (fund yield, fund capacity, profitability of the main means of production, etc.) are used.

It is noted that when looking at the economic efficiency indicators of the use of the main funds, it is known that in 2022, the value of the main funds in agriculture increased by 35.9 percent from 7441.1 million manats to 10118.4 million manats in 2022. The index of fund yield, which is considered as an indicator of the economic efficiency of the use of basic funds, which represents the total agricultural product per manat of the basic fund, increased by 4.5 percent, while the index of fund capacity, which is its opposite, decreased by 4.4 percent. The value of basic funds per worker increased by 28.4 percent from 4,494.2 manats to 5,771.7 manats in the compared period, and the indicator of provision of basic funds per hectare increased by 4.0 percent from 1,665.1 manats to 1,732.3 manats (table 3).

Table 3.

Economic efficiency indicators of main fund usage

Indicators	2018	2019	2020	2021	2022	In 2022 compared to 2018, %
Total output of agriculture, million manats	7,010.0	7,836.7	8,428.9	9,163.4	10,984.2	156.7
Value of main funds in agriculture, million manats	7,441.1	8,379.9	8,524.0	9,230.3	10,118.4	135.9
Land suitable for agriculture, thousand ha	4,779.5	4,779.7	4,780.1	4,780.6	4,780.5	100.02
Population engaged in agriculture, thousand people	1,769.3	1,720.4	1,696.5	1,732.9	1,753.1	99.1
Fund yield, manats	0.88	0.94	0.99	0.97	0.92	104.5
Fund capacity, manats	1.14	1.06	1.01	1.04	1.09	95.6
Funding of labor, man/person	4,494.2	4,678.7	4,810.7	5,245.7	5,771.7	128.4
Funding, man/ha	1,665.1	1,740.1	1,783.2	1,985.9	1,732.3	104.0

The table was compiled by the author based on the data of the website www.stat.gov.az.

The analysis of the economic efficiency indicators of labor resources consumption shows that the level of labor productivity for most products in agricultural enterprises has changed in different directions. Thus, compared to 2018, the labor cost per centner of product in 2022 decreased by 4.5 percent in cereal crops, 24.2 percent in cotton growing, 32.3 percent in sugar beet growing, 4.2 percent in tobacco growing, 37.3 percent in potato growing, 24.4 percent in fruits and berries, 3.8 percent in vegetable growing, increased by 0.6 percent in viticulture (table 4).

Table 4.

Labor consumption per centner of product in agricultural enterprises, person/hour

Products	2018	2019	2020	2021	2022	In 2022 compared to 2018, percentage
Cereals	8.8	9.5	8.5	9.4	8.4	95.5
Cotton	60.4	60.4	53.4	48.2	45.8	75.8
Sugar beet	15.5	12.4	11.1	10.0	10.5	67.7
Tobacco	370.1	349.9	354.7	343.2	354.6	95.8
Potato	25.5	23.0	15.7	15.8	16.0	62.7
Vegetables	21.3	21.4	22.5	22.4	22.1	103.8
Fruits and berries	22.5	23.2	17.0	23.2	17.0	75.6
Grape	31.5	34.2	37.2	32.4	31.7	100.6

The table was compiled by the author based on the data of the State Statistics Committee.

Thus, effective use of resources and their protection, being the main line of modern agrarian policy, requires a new approach at all stages of agricultural production. It is known that different regions are involved in agricultural production in our republic, and it is impossible to talk about measures that can bring positive results without knowing the characteristics of each region and the level of resource provision. In this direction, the state forms opportunities to accelerate the socio-economic development of the regions by directing the economic tools it uses to the efficient use of significant resource reserves.

Thus, the factors of production potential such as land, labor, equipment reflect the ability to produce products as a whole, the final result. This also makes it possible to determine the production potential in the agricultural sector and the possibilities of its realization, taking into account the objective economic conditions, to prepare measures to improve the level of supply of production resources in a specific area.

In the dissertation, the dependence between the use of production potential (land, labor and fixed assets) and the level of economic indicators is evaluated for the years 2018-2022. Correlation and regression analysis of dependence between these factors was conducted and the result was $R=0.99$, which means that there is a close relationship between the factors.

The third chapter is devoted to **“Directions for stimulating the use of production potential in the agricultural sector and improving its efficiency”**. In this chapter, the main directions of stimulating the use of production potential in agricultural enterprises and the main directions of state support, increasing the efficiency of using production potential, and improving the mechanism of managing production potential in the agrarian field are determined.

It is noted that ensuring the production of agricultural products in accordance with the country's needs, first of all, requires strengthening the resource potential of this important sphere of the economy and more efficient use of existing production resources. For this, providing financial support to the agricultural sector, stimulating the involvement of innovative resources in production and their wide use, promoting the formation of the connection between the social and production infrastructure of the village are considered to be among the priorities of the economic development strategy of agriculture. Based on research, it is noted that in this direction, it is important to strengthen the innovation and investment policy that ensures the competitiveness of agricultural products for the efficient use of production and reserve potential.

The research shows that it is possible to form a stable and developed structure of the existing potential by stimulating economic development in the agricultural sector. In this regard, policy aimed at

promoting innovation-oriented investments, efficient use of land, labor and technical potential and infrastructure development is extremely important. In terms of consistency in the listed directions, the progressive approach at the institutional level, increasing technological capabilities and supporting the development of relations between different owned agricultural enterprises can be considered the main directions.

It is noted that specific infrastructure in the agricultural field, including technical support, veterinary and plant protection services, information provision, product transportation, storage, cleaning, sorting, processing, packaging, marketing, communication, transportation, etc. services, should be directed to efficient use of production potential. and these processes must be supported by the state. The mechanisms for promoting the use of production potential and increasing its efficiency can include the introduction of tax incentives, providing assistance, preferential prices in insurance, cancellation of debts, etc. in order to promote the production of waste-free and environmentally friendly products.

Taking into account the above, in order to increase the reserve potential of the agrarian field and increase the efficiency of the use of production resources, it is considered appropriate to focus on areas such as the state's incentive policy to stimulate the innovative development of industrial areas used in the agrarian field, to develop the production and social infrastructure of the village, to strengthen the labor potential of the agrarian field, to improve the attractiveness of agricultural activity areas, etc. At the same time, the expansion of mechanization, improvement of technical service, improvement of production efficiency, identification of resource sources in the processing industry and promotion of their efficient use can be attributed to the main directions of the state policy for efficient use of the potential of the agricultural sector.

Thus, the effective use of the reserve potential makes it possible to solve almost most of the problems of the efficient development of agricultural production, and to achieve high results in production and economic activity. This is one of the most important issues in the current economic situation. Ensuring the efficient use of production

resources becomes one of the main directions of the activity of any agricultural production enterprise, it plays the role of a necessary factor for its successful development and long-term activity.

It should be noted that in order to increase the efficiency of the use of production potential, there is land, labor and technical potential suitable for wide and multi-directional use in any economic region, territory. The conditions and features for the realization of these potentials, ways of increasing the efficiency of use are justified. Then, the formation of mechanisms for the management of production potential in the agricultural field on scientific and innovative grounds, the dependence of management efficiency on internal and external factors are investigated. Effective management of land resources is associated with solving environmental and socio-economic problems. The management of labor and technical potential is considered as an element of the concept of production management, the directions of their regulation and management are determined.

The study concerning the mechanism of formation and development of the production potential of the agricultural area, the examination of the efficiency in utilizing existing production potential, and the analysis of trends in production potential utilization enable the formulation of the following results:

1. The development of the production potential in the agricultural sector of the economy requires adaptation to new approaches encompassing tools, methods, and development mechanisms that align with the establishment of this potential in various countries worldwide. A systematic approach to the research of the scientific-theoretical foundations of the agricultural sector's production potential and the economic efficiency of its utilization demonstrates that the utilization of production resources relies on a complex and continuous mechanism, based on the functional relationships of its components.

2. The study of current trends in the development of agrarian economy in the conditions of agro-industrial integration not only confirms the relationship between production and resources, but also determines the relationship between the efficient use of production potential. This becomes one of the main factors that increase the efficiency of the realization of the priorities of the agrarian policy.

3. Availability of reserves characterizes potential production possibilities. In this regard, the main factors of increasing production and profitability include increasing investment in the use of production resources, strengthening the material and technical base in the background of increased production, improving the quality of the land, providing skilled labor, total output per unit of land, total income and profit, and so on.

4. The realization of a strategy for the efficient utilization of production potential in the agricultural sector plays a significant role in ensuring sustainable economic development. This is characterized by its impact on promoting production, fostering resource-efficient and high-tech product manufacturing through innovative development. The fundamental aspects of this strategy encompass the elevation of the level of utilization from soil and labor reserves, improvement in the quality of produced goods, and the application and expansion of innovative technologies in production.

5. In the context of the distinctive features of the agricultural sector, ensuring the economic efficiency of utilizing production reserves is contingent upon identifying the developmental trends of reserve potential. To achieve this, there is a need for an analysis of both the current level and the dynamics of reserve utilization. In the subsequent stage, it is possible to comprehensively investigate the level of economic efficiency of utilizing production reserves and the factors influencing it.

6. The enhancement of the efficiency of utilizing production potential requires the formulation of strategies based on analytical results. This approach, alongside statistical calculations, allows for considering the dynamics of economic processes related to the utilization of reserves in agricultural practices. Therefore, the use of econometric methods, reflecting the condition and developmental trends of reserve components, holds special significance in increasing the objectivity of assessing the level of utilization of production potential.

7. One of the important conditions for the prospective development of the production potential is the implementation of state support and the determination of target indicators and

parameters in the development of necessary programs. This, in turn, requires regular and systematic analysis to prepare appropriate development measures in response to various external and internal influences. The implementation of the prepared measures is directly related to the development of land use in agriculture, the effective use of labor resources, and the formation of a mechanism for the active involvement of technical and technological innovations in production. In recent years, it is important to note the importance of various state programs, orders and other support measures that serve to promote the development of the agrarian sector in the mentioned directions.

8. Summarizing the aspects of the formation and development of the production potential of the agrarian field, as well as the current state of the use and efficiency of production resources, reveals the importance of increasing the reliability of decisions made in the management system of individual production areas. This determines the role of analytical and econometric methods in obtaining relevant information about the agricultural sector in terms of resource use. Therefore, it is important to develop organizational and methodological approaches to the improvement of existing mechanisms for more efficient management of agricultural production potential, to ensure the active nature of management decisions through the mentioned methods, and to provide information support for the formation of a more advanced management mechanism.

Generalizing the mentioned points, we can note the relevance of implementing the following measures in the direction of developing the agricultural sector's production potential and increasing the efficiency of utilizing existing potential:

1. The fundamental condition for the continuous development of the agricultural sector is the preservation, restoration, and efficient utilization of fertile soils, as well as the cultivation of previously liberated lands for agricultural use. In this regard, it is necessary to create the necessary economic environment for the effective use and protection of agricultural lands, including the determination of responsibility for not using them as intended and for reducing soil fertility (various fines, sanctions, prohibitions, etc.). Also,

consideration of quality and territorial characteristics in determining subsidies can have a positive effect on more efficient use of land.

2. Provision of various production areas in the agricultural field with qualified specialists, especially workers with the profile of plant protection, veterinary service, management of techniques and technologies, is currently showing its relevance. In order to improve the provision of agricultural production with qualified labor force, there is a need to develop the system of professional education and scientific research.

3. Increasing the efficiency of agricultural production is closely related to the system of economic mechanisms that stimulate the social activity of workers. Studies show that the high rate of economic growth is ensured by the interest of producers in labor. At the same time, despite the increase in the number of the employed population, the low level of wages of agricultural workers compared to most sectors of the economy has a negative impact on production results. In this regard, by improving the wage system, it is necessary to develop its incentive role.

4. Looking at the level of supply with production resources, it is known that the area of land suitable for agricultural activity has increased in the comparable period. The data suggest that this increase is mainly due to mowing and grazing land. This is the most serious factor that negatively affects the development of animal husbandry. Therefore, there is a need to implement necessary measures by the state to prevent the use of land outside of its intended purpose.

5. It is known that there are certain problems at the level of meeting the demand for machinery in the agricultural sector. Thus, even though positive trends have occurred in the dynamics of this indicator over the years with the support of “Agroservis” OJSC, the demand for technical resources has not been fully met. Therefore, it is necessary to create new technical supply structures to ensure competition in this field. In addition to the expansion of the use of innovative resources, this will have a positive effect on determining the prices of works and services performed by technical means in accordance with the interests of producers.

6. The analysis of economic efficiency indicators of the use of production potential in agricultural field enterprises shows that positive results have been achieved in the use of land, labor and technical resources. However, as a result of the evaluation of the use of the production potential, it is possible to see that negative and positive changes have occurred in different years. Research shows that there is a close relationship between these factors. Therefore, there is a need to define justified measures based on the economic efficiency of using the production potential and the wide use of econometric methods in the evaluation of the production potential.

7. Measures to support the efficient use of production potential by the state should be based on the provision of normal economic conditions for the implementation of support measures with the mechanism of self-financing of agricultural producers. Because subsidies, allowances and other support tools should direct producers to more efficient management in terms of maintaining production potential, and they should be applied strictly and differently.

8. Each agrarian enterprise should pay special attention to management decisions in its economic development strategy. At this time, the evaluation of existing production resources should be a priority. Because, in the conditions of limited resources, ensuring the most efficient use of them should be based on the efficiency of management decisions.

The main provisions of the dissertation work, the obtained results and proposals are reflected in the following published works:

1. Gasanova Sh.K. "Peculiarities of the effective use of production potential in the agricultural sector" // - Russia Kirov: Competitiveness in the global world: economy, science, technologies, 2017, No. 12, part 6. - p. 662-664.

2. Hasanova Sh.K. "The current situation and development trends of the use of production resources in agriculture" // - Ganja: "Problems of modern natural and economic sciences", materials of the international scientific conference dedicated to the 95th anniversary of

the birth of national leader Heydar Aliyev, 2018. - p. 305-308.

3. Hasanova Sh.K., Ibrahimova R.R. "The direction of development in the effective organization of production potential in the agrarian sector". // – Ganja: ADAU's News Collection magazine, 2019, No. 2. – p. 175-177.

4. Hasanova Sh.K. "Complex analysis of the efficiency and improvement of the use of production potential in agriculture" // - Ganja: Proceedings of the international scientific conference "Problems of modern natural and economic sciences" dedicated to the 96th anniversary of the birth of national leader Heydar Aliyev, 2019. - p. 238-240.

5. Hasanova Sh.K., Hasanov A.N. "The role of agro-policy in efficient use of agricultural resource potential". // – United Kingdom, Birmingham: International Conference "Process Management and Developments", Novatel Birmingham Centre, 2019. – p. 8-13.

6. Hasanova Sh.K., Ibrahimova R.R. "The role of state aid in the agricultural sector in increasing the economic efficiency of agricultural production". // – Ganja: "News collection magazine" of ADAU, 2020, No. 1. – p. 77-80.

7. Hasanova Sh.K., Hasanov A.N. "Scientific and theoretical basis for determining production capacity and assessment of resource opportunities in the agricultural sector". // – Praha, Czech Republic: "Sciences of Europe" Vol 5, No. 53 – 2020. – page 3-6.

8. Hasanova Sh.K., Ibrahimova R.R. "Effect mechanism of state support in increasing the efficiency of agricultural production". // – Ganja: "News collection magazine" of ADAU, 2021, No. 1. - p. 72-74.

9. Hasanova Sh.K. "Economic efficiency of using production potential in agricultural enterprises". // – Ganja: Proceedings of the international scientific conference "Problems of Modern Natural and Economic Sciences" dedicated to the 98th anniversary of the birth of national leader Heydar Aliyev, 2021. – p. 287-293.

10. Hasanova Sh.K. "The impact of production potential usage in agricultural field on economic development". // – Melbourne, Australia: Science and innovations 2021: development directions and priorities, May 26, 2021. – p. 13-23.

11. Hasanova Sh.K. “Directions of rational use of land, water and labor resources in agrarian production”. // – Ganja: “Innovative Economy and Management” magazine, 2022, No. 1. – p. 142-148.

12. Hasanova Sh.K. “Methodological bases of the efficiency of using the production potential in the agrarian sphere”. // – Baku: “Cooperation scientific-practical” magazine. 2022, No. 3 (66). - p. 77-85.

13. Gasanova Sh.K. “Assessment of the level of use of production potential in the agrarian sector”. // – Moscow: “Finansovaya ekonomika” All-Russian Scientific and Analytical Journal. Russia, 125190, 2022, No. 11. – p.422-426.

14. Hasanova Sh.K., Ibrahimova R.R., Ramazanov S.I., “The main directions of regional development of economic potential in the agrarian sphere”. // – Nakhchivan: Journal of social sciences series “Scientific works” of Nakhchivan State University, 2022, No. 3 (112). - p. 68-74.



The defense of the dissertation will be held on 25 September 2024, at 14:00 at the meeting of the Dissertation Council ED 2.46 of Supreme Attestation Commission under the President of the Republic of Azerbaijan operating at Azerbaijan Cooperation University and Baku Business University.

Address: AZ1106, Baku city, Narimanov district, Najaf Narimanov street 93.

The dissertation is accessible at the library of Azerbaijan Cooperation University.

Electronic versions of the dissertation and abstract are available on the official website (www.aku.edu.az) of Azerbaijan Cooperation University.

The abstract was sent to the required addresses on 24 August 2024.

Signed for print: 21.08.2024

Paper format: 60x84 1/16

Volume: 43312 sign

Number of hard copies: 20 copies