

REPUBLIC OF AZERBAIJAN

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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

**DIRECTIONS OF IMPROVING THE
ORGANIZATIONAL AND ECONOMIC
MANAGEMENT SYSTEM IN AGRICULTURE**

Speciality: 5312.01 – Field economy

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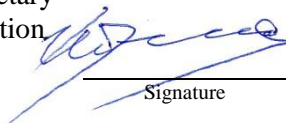
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GENERAL CHARACTERISTICS OF DISSERTATION

Actuality of the subject. The theoretical base of governance have been formed for centuries and agriculture stood out as a managed entity until the industrial revolution. The efficiency of management system of economic, legal and other processes in the agrarian sector implies that establishing the most optimal mechanism for using economic and institutional potential. In short, the effects of agricultural activities, which play a very crucial role in the existence of mankind, depend directly on the effectiveness of its management. Agricultural production management system is a system of necessary interventions that contribute to the efficient organization of labor by optimizing the use of materials, labor and financial resources currently in force. In addition, the organizational and economic system of agriculture provides the functionality of the organizational and economic structure of production and commercial activities. Thus, the organizational structure is based on the interaction of production units, units and subsidiary areas, reflecting the internal division of labor in agricultural enterprises.

The management system in agriculture envisages regulation of micro- and macro-level economic processes with the organizational structure of management as well as to management relationships. In the modern phase of the development of market relations, the role of innovative approaches in the formation of a progressive management system in agriculture is characteristic. Unity of the general principles of management and peculiarities of the managed object is the key to the efficient operation of agricultural enterprises. Therefore, scientists and specialists are interested in theoretical and practical issues of agricultural management. In addition, the processes of organizational-economic management systems in the agrarian sector should be monitored, information and organizational support of organizational and economic management in agriculture should be characterized, improvement opportunities should be evaluated and as a result, the establishment of an effective management system in line with the requirements of innovative development in the field should be resolved.

The history of agricultural management is as old as possible, but peculiarities of applying relevant experience between regions, countries

and domestic regions, differences in the degree of openness to innovation and many other factors remain the subject of comprehensive research. In addition, the formation of a management system that taking into account the requirements of global climate change and ecological agriculture and providing support for clustering initiatives, mapping food security and performance other tasks like this has become an objective necessity to increase agricultural productivity.

In Azerbaijan, systematic measures have been taken to adapt the agricultural management system to the needs of the market and to improve the institutional provision of the sector. At the same time, as in other areas of the national economy, in order to achieve sustainable and innovative - intensive development of the management system in agriculture, the scope of the work to be expanded and the scientific support for these activities should be strengthened.

Based on “7.8. Strategic Goals 8: Improving the efficiency of government regulations in the agrarian sector and improving the business environment” of Strategic Roadmap Action Plan for production and processing of agricultural products in Azerbaijan Republic, we can say that research focused on the improvement of the system in agriculture are of particular importance.

Status of the problem study. Azerbaijani economists have done important scientific and practical research on the problems of formation and development of the system of organizational and economic management system in agriculture. Theoretical-methodological and practical problems of improving the organizational-economic management environment in agriculture and the efficiency of the field management system have been thoroughly researched by Nadirov A.A., Samadzada Z.A., Mammadov G.S., Nuriyev A.Kh., Aliyev I.H., Aliyeva Y.A., Hajiyev G.B., Atashov B.Kh., Babayev A.H., Balayev R.A., Ahmadov I.V., Huseynov M.C., Khalilov H.A., Ibrahimov I.H., Isgandarov R.K., Israfilov H.A., Gasimov A.C., Guliyev E.A., Guliyev T.A., Sadigov M.M., Salahov S.V., Samadov A.H., Taghiyev N.F., Gafarov Sh.S., Javadov N.A., Ahmadov B.S., Novruzov V.T., Ahmadov F.S., Huseynova Kh.M and many other Azerbaijani scientists, as well as Bulent Tokat, Aaker D., Arkhipova N.I., Berdces D., Burkov V.N., Qribov V.D., Daft L.P., Kulov A.P., Michael T., Oqniytsev B.S., Popov N.A., Poptsov A.Q., Serova E.V., Teterin Y.N.,

Frederick Taylor, Bigman D., Hill C., Tompson A. and many scientists from other foreign countries.

The results of the research realized by national scientists on the problems of improving the organizational and economic management system of Azerbaijan's agricultural sector are remarkable in scientific and practical terms. At the same time, the above-mentioned researchers have not determined the objective of a comprehensive study on the development of the organizational and economic management system in agriculture. For these and other reasons, the joint researches of the organizational and economic aspects of agricultural management and the creation of a perfect management system in the field have not yet been resolved.

The purpose of the research is adapting the appropriate management structure to the requirements of innovative development and increasing efficiency by evaluating the possibilities of solving the organizational and economic problems of improving the agricultural management system.

The following **main objectives** of the study were identified according to the purpose:

- researching the conceptual basis for the formation of organizational-economic management systems in the agrarian sector;
- the rationale for the theoretical and methodological provisions of agricultural management and evaluation of progressive experience;
- providing an accurate description of the database of organizational-economic management system in the agricultural sector of Azerbaijan;
- analysis of the formation process of the organizational structure of management in agriculture;
- determination of applying economic methods and tools of management in agrarian sector;
- evaluating the possibilities of increasing the information security of organizational and economic management in agriculture;
- the rationale of priorities for adaptation of management structure to the requirements of innovative development in agriculture;
- development of recommendations and recommendations on increasing the efficiency of organizational and economic management in agriculture.

The object of the research is the network of production and service

subjects operating in the agricultural sector of the country.

The subject of the research is the factors, trends and regularities that contribute to the positive development environment in agriculture and the effectiveness of the organizational and economic management system.

Theoretical and methodological foundations of the research are the theoretical and practical researches of national and foreign scientists on the organization and management of agricultural production in economic production, legal and normative legal actions. In the research, methods of analysis and synthesis of systematic approach, systematic analysis of economic modeling, statistical-economic, objective-program, etc. methods were used.

Decrees and Orders of the President of the Republic of Azerbaijan, Government Decisions, Information of the State Statistical Committee of the Azerbaijan Republic, reports of Ministry of Agriculture of the Republic of Azerbaijan, normative reference and technological documentation of scientific-research institutes, internet resources and survey materials were used as a research database.

Scientific novelty of research. The scientific innovations of the result of the dissertation which is a comprehensive study of the organizational-economic management system as an important factor in agricultural development are as follows:

- Several theoretical and methodological provisions of agricultural management were justified and the possibilities for implementing best practices have been evaluated;
- an economic and mathematical model has been developed to develop innovative management decisions in the field. As a result of the model calculations, production expectations of some wheat varieties created in Azerbaijan were determined;
- the ways in which organizational and economic management in agriculture create excellent information support have been researched;
- innovative structural elements of the organizational and economic management system in the field were characterized and opportunities for realization of the advantages of the digital environment were assessed;
- crop production estimates of large farms of the economic regions of the country for 2025 years have been prepared with simulation

modeling and in total production, the preferred option for the share of vegetable production in the Absheron, Guba-Khachmaz, Ganja-Gazakh and Lankaran economic regions have been determined;

- proposals and recommendations have been developed to increase the economic efficiency of agricultural management.

Practical importance of research. Theoretical-methodological provisions, proposals and recommendations justified in the dissertation will accelerate Ensuring national food safety by making recommendations to improve the organizational and economic management system in agriculture and other duties related to the agriculture of the country.

Reasoned approaches aim to increase the speed of development of the field and to expand its scope by increasing the effectiveness of organizational and economic management system in agriculture. Proposals and recommendations can be used to improve the efficiency of agricultural production in the context of the formation of a perfect organizational and economic management system.

Applying research results. The main provisions, results and proposals of the dissertation had been discussed at international and national conferences held in 2012-2020.

The main provisions and results of the research were accepted by Guba Regional Agrarian Science Center of the Agrarian Science Center of the Ministry of Agriculture of the Republic of Azerbaijan (currently Guba Regional Agrarian Science and Innovation Center of the Agrarian Science and Innovation Center).

The subject of the dissertation during the research had been deemed appropriate for general direction of scientific research of Azerbaijan State University of Economics and had been reported at scientific seminars as a actual problem. In particular, the main provisions and results of the study had been reported international scientific-practical conference on "Actual problems of agrarian economy" (17.02.2012) and scientific seminars.

The author has published 11 scientific papers with a total volume of 4.5 pages, including 8 articles (2 of them abroad) and 3 thesis.

Structure and volume of dissertation. The dissertation is 146 pages (249.084 symbols), with an introduction (10288 symbols), 3 chapters (I chapt. – 70455, II chapt. -81693, III chapt. – 72162 symbols) result

(14486 symbols) and a list of 147 books used. The dissertation has 9 tables and 11 figures.

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BASIC CONTENT OF THE RESEARCH

The introduction reflects the relevance of the subject, the state of the problem, the aims and objectives of the research, the subject and the object, theoretical and methodological bases, sources of information, scientific innovation, the testing and use of research results.

In the first chapter of the dissertation “Theoretical and Methodological Characteristics of Organizational - Economic Management System in Agriculture”, the essence of organizational and economic management systems and its formation in the agrarian sector had been researched.

The purpose of management in the agrarian sector, including agriculture is to provide the population with high-quality and environmentally safe, affordable (reasonably priced) food products and the country's industry with agricultural raw materials, to regulate the impact of the main components of the environment, providing a multifunctional environment, to use resources economically and efficiently for ensuring recycling. Resources in agriculture cover a wide range from agro biological potential components to the results of gene engineering.

Promoting entrepreneurship in agriculture and related fields, supporting private-public partnership is one of the priority directions of development of modern agrarian economy. In the organizational-economic system of entrepreneurship management including the agrarian sector, first of all, the rationale of development objectives, identifying priority aspects, ensuring competitive resource allocation, in other words, achieving an allocation effect with certain conditions are covered. In this case, it is necessary to consider the impact of the external environment in detail.

Strategic analysis helps identify areas for effective implementation of capabilities and powers as an important component of the management system. strategic development directions are justified by determining the aims and objectives of the development of entrepreneurship in the near and far future and assessing current and potential opportunities. Generally, strengthening of specific market

segments, optimization of production costs, effective specialization and etc from those directions are getting to the fore.

Determining the position in the agri-food market, including the suitable conjuncture period should also be considered a function of the organizational and economic management system. Current management as an important function of the organizational and economic management system should consider the characteristics of both internal potential and exogenous effects of different nature for business subjects in the field.

The organizational-economic management measures of competitiveness of agricultural producers should be based on the characteristics of this area. In particular, the results of concentration of the same profile structures in a specific area should be described, the effect of intra-field competition level on effectiveness scale, scale to reduce production costs and technological and structural factors should be evaluated.

Modern management theory is not an eclectic combination of different positions and approaches, it is the product of discussions that form their mutual evidence and refinements that have been tested for years. The development of economic and social systems has resulted in the transformation of internal management into an independent field of activity and as a result, this has led to an increase in the role of the organizational structure in governance.

The characteristics of the activities of the agricultural enterprises, production, organization and management structure affects the nature and effectiveness of field management. Specific features of agricultural production - seasonality, direct dependence on the forces of nature, high sensitivity of the biochemical composition of the product to external factors, especially temperature, the high cost of transporting long distances is reflected in the structure of the field. In terms of minimizing transactional costs, organizational structure should be a key factor in determining the management structure.

The basis of economic relations is based on objective needs and human interests. Economic management methods play a leading role in defining indicators of economic programs and projects and in identifying ways to achieve them by supporting internal developmental

motivation. Transition to intellectual management is an important condition for supporting innovation activity. An analysis of the best practices in organizational-economic management of agriculture allows to summarize the following: - national economic and food security requirements promotes the formation of management models that are widely used in different countries and regions, in the form of concurrent interests (among managing subject and managed object, parties to specific activities, property manager and executor, etc.); - applying management systems where business interactions of people in labor collectives play a key role should be evaluated within a certain time and place; - the research of the experience of developed countries on organizational and economic management in agriculture shows that the characteristics of governance models is largely linked to the historical environment of the socio-economic system of the country to which it belongs; - preference for management models adequate to the agricultural development priorities is considered practically acceptable.

In the second chapter of the dissertation “Analysis of the effectiveness of the current organizational-economic management system in agriculture”, the current database of organizational-economic management in agriculture has been described, the organizational structure of management in the field, the process of its formation and efficiency has been analysed, applying economic methods and tools of agricultural management has been revealed. Information support of the mechanism of government support to the national agrarian sector is being improved taking into account the requirements of minimizing market distortions. Information in agriculture and agrarian markets is at the stage of formation (Figure 1).

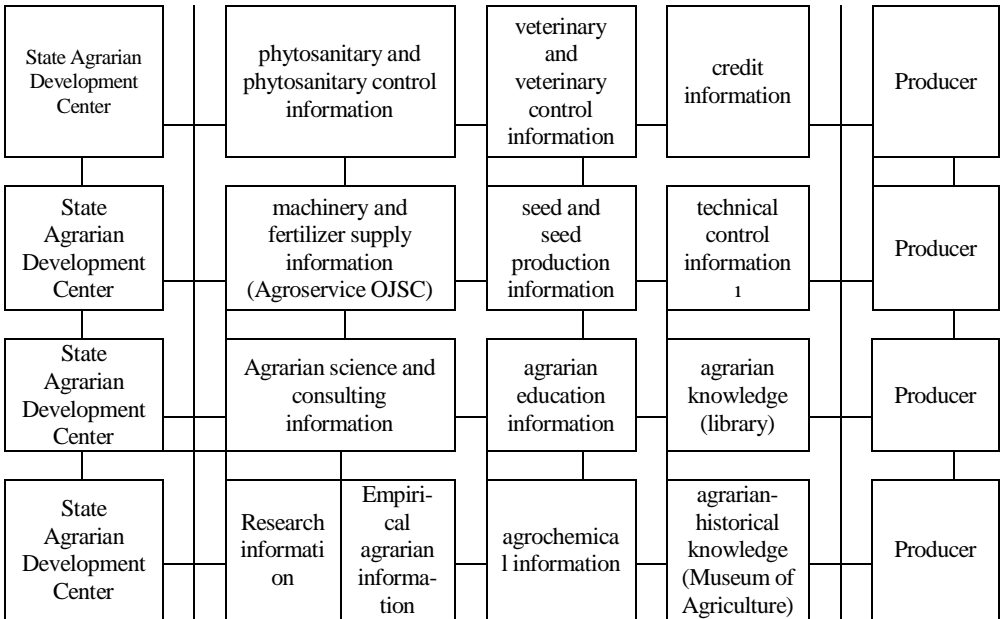


Figure 1. Information relations of organizational-economic management in agriculture

Source: Designed by author

Realization of the possibility of optimal management of information flows in agriculture depends on the excellence of the relevant infrastructure in terms of basic qualitative and quantitative parameters.

First of all, value of fixed assets for agricultural purposes, agricultural land on a farm, and the number of employees can be attributed to the indicators that have the greatest impact on the management environment among the economic characteristics of the country's agricultural enterprises. There is an urgent need to adapt enterprise revenue management system to the requirements of advanced information technology, to accelerate the process of aligning accounting with the principles of the international system in accordance with the aim of enhancing the export potential of the agrarian sector.

In various farming forms, including individual entrepreneurs and agricultural enterprises, the results of dynamics analysis of prime cost of a cent of plant products has important information in this regard (Table 1).

Table 1
Cost of a quintal of crop products in different forms of farming, in manats

| | 2005 | 2010 | 2015 | 2017 | 2018 | 2019 |
|--------------------------------|------------|------------|------------|-----------|-----------|-------------|
| Cereals * | 6,5/8,1 | 17,5/14,9 | 12,9/16,4 | 12,4/17,7 | 12,8/16,2 | 15,5/15,3 |
| Raw cotton | 13,3/21,6 | 23,5/36,5 | 39,0/37,0 | 34,8/51,1 | 43,5/45,2 | 31,5/52,8 |
| Sugar beet | -/3,0 | 1,6/3,5 | 2,1/1,7 | 4,4/4,5 | -/3,2 | 4/2,9 |
| Tobacco | 21,4/ 31,7 | 44,9/37,3 | 84,5/60,0 | 70,0/69,9 | 62,4/73,8 | 66,6/56 |
| Green tea leaves | -/25,6 | 128,1/75,3 | 100,0/69,3 | -/91,4 | -/61,1 | 129,9/185,1 |
| Potato | 9,0/11,1 | 15,1/30,3 | 27,4/21,6 | 35,8/17,2 | 31,1/21,4 | 65,2/24,8 |
| Vegetables (in the open field) | 3,5/4,7 | 9,7/15,3 | 15,3/12,8 | 16,9/8,5 | 15,8/9,2 | 18,7/13 |
| Melon products | 2,8/5,8 | 9,3/7,9 | 8,1/7,9 | 7,4/22,7 | 10,4/8,8 | 13,4/9,1 |
| Fruits and berries | 11,4/6,8 | 15,6/23,4 | 26,6/41,6 | 29,4/25,8 | 14,7/40,3 | 17,5/41,2 |
| Grape | 12,7/10,5 | 22,2/21,1 | 41,2/33,1 | 28,5/27,1 | 33,3/31,6 | 41,2/41,1 |

* It is indicated that the prime cost of products of individual entrepreneurial farms in the numerator, and the prime cost of products of agricultural enterprises in the denominator.

Prepared by the author. Source: Basic economic indicators of agricultural enterprises and individual entrepreneur farms. Baku, 2019, p. 22.27

A comparison of the prime cost of a cent raw cotton in individual entrepreneurs and agricultural enterprises allows us to say that the situation in the individual entrepreneurial farms is much better.

Feed supply indicators have a special weight in the formation of a cost management database in livestock. However, in the statistical collections, this information does not have the necessary details. Therefore, serious difficulties arise in the formation of a cost management database for livestock products.

Due to non-calculation of the salary for an individual entrepreneur and her family member engaged in livestock, the dynamic analysis of the value of livestock products can only be performed in

the categories of these farms. Attempts to explain the fact that the cost of livestock products in the individual entrepreneur farms has increased many times (2.6 times for milk, 2.1 times for weight gain of cattle, 3.8 times for wool) over the period 2005-2018 allows us to say that there are limited opportunities for multi-user access to a cost management database in those farms (Table 2).

Table 2

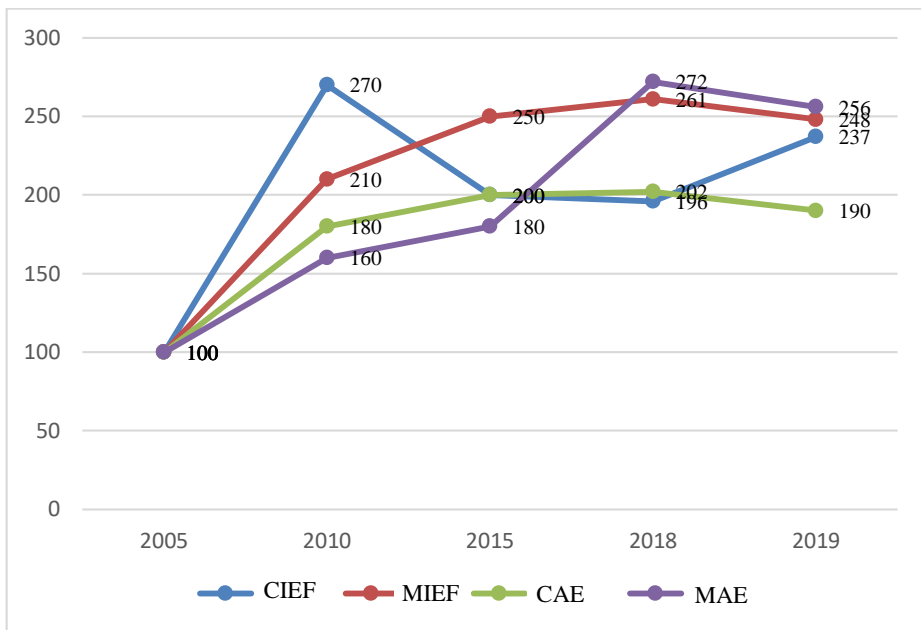
Cost of one quintal of livestock products in different forms of farming, in manats

| | 2005 | 2010 | 2015 | 2017 | 2018 | 2019 |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Milk* | 11,9/18,0 | 25,3/28,0 | 29,3/33,2 | 29,4/48,7 | 31,0/48,8 | 29,4/45,9 |
| Wool | 32,3/49,6 | 117,1/94,8 | 119,7/119,5 | 129,6/109,3 | 123,2/111,9 | 144,1/98,5 |
| Eggs, thousand pieces | 37,9/41,9 | 65,4/51,7 | 78,8/76,4 | 83,3/110,1 | 75,3/156,1 | 111,7/131,7 |
| Weight gain of cattle | 99,4/112,8 | 186,5/213,8 | 223,7/283,7 | 237,7/327,4 | 211,0/347,6 | 270,2/353,5 |
| Weight gain in sheep and goats | 67,5/98,2 | 186,7/186,4 | 226,2/245,6 | 266,3/273,7 | 256,2/299,4 | 351,8/331,8 |
| Weight gain of pigs | 90,3/110,2 | -/600,0 | -/2363,5 | -/3468,2 | -/1100,0 | -/295,2 |
| Weight gain of poultry | 100,1/127,1 | 214,1/192,4 | 229,9/169,8 | 234,3/203,6 | 228,4/228,2 | 247/233,7 |

* It is indicated that the prime cost of products of individual entrepreneurial farms in the numerator, and the prime cost of products of agricultural enterprises in the denominator.

Prepared by the author. Source: Basic economic indicators of agricultural enterprises and individual entrepreneur farms. Baku, 2019, p. 22.27

No significant difference was also observed in the dynamics of the prime cost of agricultural products varies by the level of government support. However, more detailed information sequences should be formed to clarify the reasons of the tendency of increasing the prime cost of cereals made in both individual entrepreneur farms and agricultural enterprises (Figure 2).



| | 2005 | 2010 | 2015 | 2018 | 2019 |
|------|------|------|------|------|------|
| CIEF | 100 | 270 | 200 | 196 | 237 |
| MIEF | 100 | 210 | 250 | 261 | 248 |
| CAE | 100 | 180 | 200 | 202 | 190 |
| MAE | 100 | 160 | 180 | 272 | 256 |

(CIEF) Cereals on Individual Entrepreneurial Farms and (MIEF) Milk in Individual Entrepreneurial Farms - in the individual entrepreneur farms, cereals and milk (respectively) (CAE) Cereals in Agricultural Enterprises and (MAE) Milk in Agricultural Enterprises - in agricultural enterprises, cereals and milk (respectively)

Figure 2. Dynamics of the prime cost of agricultural products varies by the support level in different forms of farming

Source: Basic economic indicators of agricultural enterprises and individual entrepreneur farms. Baku, 2017, p. 21.27; Baku, 2019, p. 22.27

The allocation effect which caused by optimum use of resources and provide significant economic benefits can only be achieved through the development of multivariate management decisions and the selection of the most effective among them. However, the current

database may not always allow the development and adoption of multivariate management decisions.

One of the main objectives in land resource management is to restore and increase the productivity of actual and potential agricultural land. The objective approach to the indicators used in the management process is important both in theory and in practice. The parameters characterized numerous and various factors which conditioned the use of land resources by quantity and quality should be sorted by priority. In this context, salinity and erosion characteristics need to be specified as managed parameters.

Work is continuing in directions - supporting the transfer of technological innovations of agrarian and agro-industrial sector in order to regulate supply and demand ratio by emphasizing agricultural producers' interests in the relevant segment of the resource market; adapting the depreciation policy to innovative-intensive development priorities; reducing of customs duties on imported machinery and equipment and in some cases, temporary removing for technical modernization of the field.

The current subsidy management system in Azerbaijan's agricultural sector is in its development phase and is gradually adapted to advanced international models. In the near future, it is envisaged to establish an indication system for economic subjects that have necessary characteristics which qualify for a subsidy. This system has the ability to eliminate the personal contacts between the officer-producer in the process of implementing government support measures on agriculture. For the organization and management of innovative activities, human resources should be improved and at the same time, open agrarian education and information-advisory services should be developed. According to preliminary estimates, nine out of ten employees in agriculture sector have no qualifications. In addition, the farms providing information and consulting services do not constitute one-fifth of total farms. Research to assess the level of consideration of enterprise development of organizational structure of agricultural management allows summarizing the following: the correlation between the growth of the enterprise and the changes in the organizational structure of its management is in low level; changes in

the organizational structure of management may be required in the event of expanding of the enterprise's activity, increasing its market share and presence in the market.

In the organizational structures of agricultural management, cases of short-term interests over long-term interests should be identified and prevented in a timely manner. A significant portion of revenue of economic subjects engaged in the sale of finished products only after harvesting is appropriated by intermediaries. The level of losses in these farms is more than agribusiness-oriented businesses. The complex solution of problems arising in the organizational structure of agricultural management and in the process of its formation is in the focus of state leadership. In this regard, 2014 has been especially remarkable. Thus, according to the Decree of President of Azerbaijan Republic "On measures to improve management and accelerate institutional reforms in the agrarian sector" (№ 152 dated April 16, 2014), the establishment of district and city offices of the Ministry of Agriculture has begun in order to creation of effective cooperation with local structural units of central executive bodies.

Economic management in agriculture should ensure sustainable production growth, primarily based on the parity of the producer and consumer interests. The economic mechanism of enterprise management should provide external links to generate revenue, improve the internal production relations of the enterprise, and trigger an internal economic mechanism.

Economic methods of management are based on general rules of behavior that allow maneuvering resources. These rules encourage managers to develop alternative decisions based on executors' views and choose the one that best suits the team's interests. Depending on the wide of applying economic methods in management, more problems are solved in basic management circles close to the source of information source.

Organizational structure of management gives the desired effect if it provides optimal distribution of financial responsibility and profitability of the economy at all units and levels. In other words, efficient operation of the enterprise should consider applying price policies and price formation mechanisms, methods of increasing

product quality and competitiveness and other economic methods (models).

Motivation mechanism, creating by to take into account the structure and objectives of the enterprise includes mechanisms of motivation of high quality productive labor, mechanism of motivation of scientific and technical development of production, mechanism of entrepreneurial motivation.

The issues of targeted subsidizing of the priority areas of agriculture, improving innovation environment, creating and using intellectual property objects, attracting investors (including foreign investors) to innovation processes, managing financial flows to promote venture entrepreneurship are of particular relevance. Costs in agriculture as a management subject have the following characteristics: diversity in approaches (in the choice of methods, means and rules, modes of their application) to the management of costs and their elements in general; the importance of a dynamic view of costs; the complex and controversial nature of the impact of costs on economic outcomes; lack of absolute accuracy of current methods to measure costs.

Increasing the role of economic methods and tools in the management of Azerbaijan's agri-food industry creates potentially favorable conditions for mapping food security, which is the reality of the modern era. Adequate economic management with the requirements of innovative development in agriculture should be implemented, considering the foregoing, first of all: realization of scientific and technical policy, as well as improvement of technical maintenance of production, increase of fund transfer, development of advanced resource-saving technologies and expansion of their applying scope; improvement of the financial position of the farm in terms of innovative development of the sector, strengthening its position in the relevant market segment; expansion of competitive and export-oriented production, in short, ensuring innovative sustainable development.

An economic-mathematical model for forecasting in 2021-2025 in the process of developing innovative activity management decisions in the agrarian sector has been developed and analyzed in order to

determine the perspectives of wheat varieties formed by Azerbaijan Scientific Research Institute on 0.5-hectare area at the Guba Regional Agrarian Science and Information Center. As a result of the research, it has been reported that the potential productivity of wheat varieties "Gobustan" and "Sheki-1" is higher than other varieties, and it has been recommended that these varieties be planted in larger areas in the future.

In the third chapter of the dissertation “Improving the efficiency of the organizational-economic management system in the field and developing the information support”, methods and tools of improving the information support of organizational-economic management in agriculture have been defined, possibilities of adapting the management structure of the industry to the requirements of innovative development have been evaluated, directions of increasing the efficiency of organizational-economic management in agriculture have been justified. Management information support should be an informative base that aims to improve current and prospective production-commercial relations by characterizing the functional aspects of organizational and economic activities in this field. In this regard, the organizational and economic management system of agriculture is no exception. The rationale of organizational and economic managerial decisions depends not only on the content, but also composition and structure of inter-sectoral information resources at different levels of information requirements.

The main aspects of the modernization of the organizational-economic management database as a whole in agriculture and in the agrarian sector should include: determining the optimal level of detail for the rationale of indicators that reflect the purpose of management in terms of time and place; increasing the capacity of reflecting the requirements of one or another segment of the agrarian market in basic management criteria; expanding the database for identifying perspective parameters. Objective functions and limitation conditions established to optimize information flows that reflect the activities of a controlled object cannot comprehensively describe the regulatory effects when they are not accompanied by numerous imitation experiments. Furthermore, the operating environment, formed by

directives, instructions and recommendations may reduce the chances of adequate reaction capacity to the uncertainty inherent in agriculture. Therefore, creation of a database that provides comprehensive justification for regulatory impacts should be a priority for improvement of information support of organizational and economic management in agriculture.

The basic directives of improvement of information support of organizational and economic management in agriculture should be: increasing the adequacy of the reality by considering the requirements of the reproduction process; formation of a block of information sequences that directly reflects the information requirements of agricultural producers; optimization of information flows by key features; knowledge transfer, adaptation to the requirements of self-learning systems; providing the advantage of functionality components and relationships; determining the level of suboptimal aggregation that minimizes duplication and loss in information sequences; the generation of information sequences that characterize factors that slow down cooperation in the field; eliminating gaps in the relevant database, including key indicators used to assess and realize export potential; increasing the level of information services for the formation of more favorable investment environment in innovative-intensive and multifunctional agriculture; creation of a more ultimate information-analytical system for optimal investment decisions.

One of the important aspects of adapting the management structure of the field to the requirements of innovative development is solving problems of specialization and restoration of biodiversity in a single aspect. Traditional approaches to specialization in plant breeding are seriously damaging to biodiversity in the absence of optimum sowing system. Agro-industrial clusters, which are intended to be the most promising direction of specialization and integration have great potential for biodiversity restoration. Integration of scientific, production, processing and service activities in leading industries is important as the test area for innovative management. The objectives of innovative agricultural development should include biodiversity restoration, combating or adapting to global climate change, eco-friendly manufacturing, transition from a growth

economy to a green economy, implementation of food safety action maps, enhancing resource efficiency and resource conservation, creating and using alternative and renewable energy sources.

Initially, indicators of species numbers and relative abundance of species can be used to consider the actual level of biodiversity in an innovative agricultural management structure. Desertification, greenhouse effect, increased flooding and other consequences of global climate change have increased awareness of almost all types of activities, not only in modern plantation but also in livestock. Therefore, it is necessary to make adequate changes to the innovative development in the management of these areas. One of the first stages in considering the transition from a growth economy to a green economy in innovative management should be replacing economic performance criteria with economic and environmental efficiency criteria. At present, more realistic and successful efforts are being made to improve resource efficiency and resource conservation and create alternative and renewable energy sources, as the goal of innovative development in the field. Requirements to be taken into account in the agricultural management structure of innovative development include: training of creative thoughtful, highly qualified management personnel; ensuring openness of agrarian education to innovations; making the technology transfer management mechanism an essential component of the agricultural management structure; improving information support mode for innovations.

Adaptation of the agricultural management structure to the requirements of innovative development requires adequate infrastructure provision. For this purpose, an infrastructure including the following components should be created: a system of dynamic interaction between research and experience-constructor centers, manufacturing, processing and sales agencies; flexible employees team to develop technical policy; specialized units providing financial security, venture structures; new product design teams; labs for mastering new technologies; special funds that stimulate innovation activity; institutions that collectively assess the performance of the innovation infrastructure network.

Predictions for vegetable production in large farms in the

Absheron, Guba-Khachmaz, Ganja-Gazakh and Lankaran economic regions in 2025 have given by simulation modeling.

The proposed simulation model has been implemented to develop a decision on the management of plant-growing in suburban areas.

Table 3

Predictions for vegetable production in large farms in the Absheron, Guba-Khachmaz, Ganja-Gazakh and Lankaran economic regions in 2025 (as a percentage)

| Economic regions | I | II | III | IV |
|-------------------------|----------|-----------|------------|-----------|
| Absheron | 4,0 | 3,5 | 3,5 | 3,0 |
| Guba-Khachmaz | 29,0 | 30,5 | 30,5 | 30,0 |
| Lankaran | 25,0 | 27,0 | 27,0 | 28,5 |
| Ganja-Gazakh | 42,0 | 39,0 | 39,0 | 38,5 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 |

Source: Designed by author

Option 4 was more preferred among the calculated options. This is because the potential of the Guba-Khachmaz and Lankaran economic regions is well exploited. Other areas will be developed as part of the program of plant-growing diversification in the economic zone of Ganja-Gazakh.

Innovation priorities of management structure in agriculture should be based on considering the required tools to achieve the goals of innovative development in the field; the adaptation process of the management structure in the field to the requirements of innovative development should include the place and time parameters of innovative activities; system of supporting innovative character of management structure and innovation management should be based on unified methods and procedures; management structure activity should be adapted to the principles of scientifically coordinated management; management structure should be provided with creative thoughtful, highly qualified management personnel; the degree of openness of agricultural education to innovation should be increased; the mechanism of technological innovation transfer management should be improved.

The methodology evaluating the effectiveness of the management system itself with specific indicators is complex and in

some cases, it cannot be enabled to consider the quality changes in the results. This may cause to inability to achieve the desired results, especially in terms of the efficiency of agrarian management. Distinction of factors affecting management efficiency on controlled and managed subsystems, as well as quantitative and qualitative characterization of management objectives has an important role in formation of appropriate system of indicators. A distinct and sufficiently exact statement of the objective and productivity criteria of organizational-economic management in agriculture is an important condition for assessing the effectiveness of field management.

The efficiency of investment process management, though cumulative indicator, should be assessed in relation to a particular project. Therefore, it is necessary to balance the components that make it effective by the degree of importance. In this regard, indicators such as the dynamics of internal savings of enterprises, the rate of transformation of savings into investments, the share of profit on re-investment should be considered.

The role of the technological factor on evaluation of the results of organizational-economic management decisions in agriculture, as well as in the agro-food industry, may not always be considered. This is due to the underestimation of the importance of technological innovation in the practice of antitrust management in the post-Soviet area. Whereas, in the best international practice, tech-innovations are being accentuated in the implementation of diagnostic measures for the symptoms of the crisis in agriculture and in the food industry. It is recommended to prioritize the following areas that increase the effectiveness of organizational and economic management in agriculture: optimization of organizational structure level with criteria arising from functional assignment; a suitable environment for the implementation of stimulating opportunities should be established for minimizing transactional costs in logistics management systems and removing any bureaucratic obstacle in agriculture and in the agro-industrial complex in general.

In order to increase the efficiency of the management mechanism of logistics systems as an important part of organizational and economic management in agriculture:

- Motives of production and sales policy should be formalized;
- The basic parameters of the wholesale strategy should be substantiated;
- Directions for regulating the impact of commodity specialization on the cost structure should be identified;
- The recommended modes of organization of logistics activities should be substantiated in general;
- Improvements should be made based on the criteria for the completion of adequate organizational support of quality control in the raw imports management system, and for the promotion of the interests of local consumers and producers in the import regime of agricultural raw materials;
- In order to address the issues of establishing a system adequate to the requirements of WTO (World Trade Organization) membership: import duties should be defined and a compromise option should be found in the protectionist approach to the field, the introduction of domestic aid and export subsidies;
- Improvements should be made based on quality, price and loss minimization criteria in product production and distribution.

The main provisions of the dissertation are reflected in the following publications of the author:

1. S.F.Kərimova. Kənd təsərrüfatının idarə edilməsinin nəzəri məsələləri. Az.ETKTİ və Tİ, Elmi əsərləri. Bakı, 2012, №2, səh 149-153
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