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ABSTRACT

Of the dissertation for
The degree of Doctor of Philosophy

**IMPROVING THE MECHANISM OF STATE REGULATION
OF THE AGRICULTURAL SECTOR IN AZERBAIJAN**

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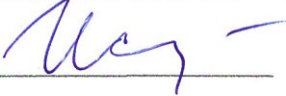
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GENERAL CHARACTERISTICS OF RESEARCH

Relevance and scope of the topic. The modern era is characterized as a period of expanding globalization and economic integration. During this period, the development of the national economy should include the progress of complex fields, so that the role of the state as a process is determined from a scientific and theoretical point of view. This role should be expressed as state regulation in all sectors of the economy.

Both global trends and domestic factors play a key role in the sustainable development of the agricultural sector, which is considered one of the main pillars of development and as a non-oil sector. Regardless of the level of this role, the state's care in this area has always been relevant.

Ensuring the comprehensive development of productive forces in the agricultural sector in the context of market relations and the elimination of socio-economic development differences in different regions is, being a topical issue facing both scientific and practical experience, one of the important components of state policy in this field. At the same time, the efficiency of the use of material and technical resources in the state regulation of the agricultural sector from the regional point of view, utilization rate of fixed assets in different farms, as well as considering differences in the production of individual agricultural entities are key components of the problem which we consider important.

In developed countries, the state acts as a supplier of the most important products of the agricultural market, and therefore its active participation in this process is important for the efficiency of public procurement. At the same time, for the sustainable development of the agricultural sector, it is necessary to ensure the sustainability of state orders at the level of economic regions. At the present stage, the sustainable development of the agricultural sector also depends on the use of the latest achievements of scientific and technological progress in agriculture and processing industry, the creation of an innovation market, as well as information, consulting and other

infrastructure and this can be achieved through the state's economic regulators and incentives.

Issues of state regulation of the agricultural sector have been and continue to be important both in the former administrative-command system and in the context of free market relations. However, in the new economic system, state regulation of the agricultural sector and approaches to it from a regional perspective are especially relevant. In general, the formation of the mechanism of state regulation in the agricultural sector, the improvement of the current situation and ways of development, determining regional features of this activity, as well as the formation of cooperation and integration relations, organizational and economic mechanisms in the development of agricultural entrepreneurship have become the subject of research of economists, especially scientists dealing with the problems of the agricultural sector.

It should be noted that these issues have been widely studied in Azerbaijan by A.K.Alasgarov, H.B.Allahverdiyev, A.Ch.Verdiyev, S.V.Salahov, I.V.Ahmadov, I.Sh.Garayev, A.T.Ahmadov, H.A.Khalilov, I.H.Aliyev, I.Abbasov, M.M.Farzaliyev, R.A.Balayev, I.H.Ibrahimov, B.Kh.Atashov, N.V.Alibayov, I.M.Kheyirkhabarov, A.F.Abbasov, V.H.Abbasov, S.M.Mikayilova and other scientists.

The regulation of the agricultural sector, its regional features have been studied in terms of both historical and socio-economic development in the scientific works of economists from Russia and other foreign countries, such as I.M.Albetova, V.NDemyanenko, D.Dolph, L.I.Kholod, A.Kurnosov, P.MLukichev, N.A.Popov, E.Serova, R. Goodhue, K.Janda and others. However, it should be noted that the problems associated with both the mechanism of state regulation and the development of the agricultural sector and their content elements have been studied separately by the listed scientists. Many of the studies conducted so far have shown that as the characteristics of state regulation of the agricultural sector in terms of economic regions, key points and cluster bases in improving competitiveness have not become the subject of research, this

necessity led to the choice of the topic of the dissertation, defined the goals and objectives that allow to achieve scientific innovations.

The object and subject of the research. The agricultural sector of the national economy was taken as the object of the research. The subject of the research is the study of the mechanism of state regulation in the agricultural sector and the economic relations arising in connection with it.

The purpose and objectives of the research. The main purpose of the research is to study the theoretical and methodological issues of the mechanism of state regulation in the agricultural sector, taking into account the features of globalization at the present stage and to develop scientifically sound proposals to identify the features and aspects of sustainable development in agriculture.

In order to achieve such a goal, it is planned to perform the following specific tasks:

- explanation of the essence and content elements of state regulation in the agricultural sector;
- study of its sustainable development and regional features by substantiating the need for state regulation in the agricultural sector;
- study of the current state of state regulation of the agricultural sector in terms of economic regions and economic assesment;
- study and analysis of the current state of general indicators in the agricultural sector;
- identification of cluster bases for increasing competitiveness in the agricultural sector;
- Proposing ways to improve state price regulation in the agricultural sector;
- substantiation of improvement of loan provision in financing agricultural activities.

The methods of the research. Historical, induction, economic analysis, comparison, economic-mathematical, statistical and cluster approaches have been used in the research work.

Main provisions for Defense:

1. The sustainable nature of economic development, as well as the achievement of growth trends in the agricultural sector is proportional to the effectiveness of state regulation.

2. One of the most important directions of state regulation in the agricultural sector in the post-oil conditions is the formation of agricultural market infrastructure with effective operational opportunities.

3. Implementation of subsidies in the agricultural sector for the export of processed agricultural products is an important aspect that serves economic development in this field.

4. Investments in fixed assets have a significant impact on the growth of gross agricultural output.

5. One of the main objects of state regulation for the agricultural sector is the acceleration of the organization of the cluster system.

6. State regulation of prices in the agricultural sector in Azerbaijan should be carried out taking into account international trends.

7. The creation of new economic entities in the agricultural sector and ensuring their effective operation as a whole requires fundamental structural changes, fundamental development and renewal of production.

The scientific novelty of the research.

- It was determined that the mechanism of state regulation of the agricultural sector for the conditions of a market economy has generally developed in terms of system-creating and system-protective functions.

- It was noted that the price parity between the products produced in the agricultural sector and the means of production required for this sector remains a serious problem and requires further strengthening of state regulation to address it.

- It is substantiated that the advantages of cluster activity in the agricultural sector should be applied more widely.

- The directions of price formation in the state regulation in the agricultural sector on the basis of the price policy “yellow box”, “green box” and “blue box” measures are indicated.

Theoretical and practical significance of the research.

Scientific significance of the research is opinions and works of national and foreign economists on the mechanism of state regulation in the agricultural sector, government regulations in the relevant field, materials of scientific-practical conferences and methodical works in this field, periodicals, internet materials and study of existing experience of foreign countries. The development of scientifically substantiated proposals on the development of theoretical issues and methodological bases of state regulation of the agricultural sector in a market economy, the determination of the system of indicators determining the current state of the problem by economic regions, the identification of key points of regulation in the agricultural sector, increasing economic efficiency in agriculture, emphasizing the basis of clusters in ensuring competitiveness, the improvement of state aid and loan provision in the financing system reflects the practical significance of the research.

Agrobation and application of the research. Separate provisions of the research, the results obtained and the suggestions and recommendations proposed in the work were discussed at conferences of national and international importance, 22 articles and theses with a total volume of 7,5 p.p were published.

The name of the organization where the dissertation work was carried out. The dissertation work was carried out at the Institute of Economics, the Azerbaijan National Academy of Sciences.

The total volume of the dissertation with characters, indicating the volume of the chapters of the dissertation separately. Chapter I of the dissertation consists of 77144 characters, Chapter II of 108163 characters, Chapter III of 58818 characters, the dissertation consists of 283532 characters including conclusion and references.

CONTENTS

INTRODUCTION

CHAPTER I. THEORETICAL AND METHODOLOGICAL BASES OF STATE REGULATION IN AGRICULTURAL SECTOR.

1.1. Necessity and economic bases of state regulation in the agricultural sector.

1.2. Formation, sustainability and regional features of state regulation in the agricultural sector.

CHAPTER II. CURRENT STATE OF USE OF MECHANISM OF STATE REGULATION IN AGRICULTURAL SECTOR.

2.1. Analysis and assessment of the current state of the agricultural sector in the regions.

2.2. The current state of state aid to the agricultural sector and its assessment.

2.3. Assessment and state regulation of gross agricultural output.

CHAPTER III. IMPROVEMENT OF MECHANISM OF STATE REGULATION IN AGRICULTURAL SECTOR.

3.1. Cluster bases of increasing competitiveness in the agricultural sector.

3.2. How to improve state price regulation in the agricultural sector.

3.3. Improving loan provision in financing the agricultural sector.

CONCLUSION.

REFERENCES.

MAIN PROVISIONS FOR DEFENSE

1. The sustainable nature of economic development, as well as the achievement of growth trends in the agricultural sector is proportional to the effectiveness of state regulation.

It is necessary for the state to interfere in the management of economic processes, as well as to engage in regulatory activities, and this is due to the following factors: first of all, there are so many socio-economic problems in the society that cannot be solved by the market mechanism and it even create problems that the market itself cannot solve. For example, problems such as unemployment, income inequality, inflation, monopolies, crises, and so on; secondly, the emergence, expansion, deepening and emergence of new forms of foreign economic relations between countries require the close participation and regulation of states in these processes; thirdly, as a result of the application of scientific, technical and technological achievements to production, the scale of production has increased, its geography has expanded, and new feilds have emerged, as a result of which management processes have become much more complicated. All these processes are possible through the development, financing and implementation of long-term programs, which necessitates the participation of the state; fourthly, in order to solve the social problems that arise along with the growing role of the human factor in the economy, the expansion of social production and services, the development and implementation of social programs and, consequently, the strengthening of social protection are not achieved through market mechanisms, it is possible due to the active role of the state; fifth, despite the economic reforms carried out in the agricultural sector, the lack of development has increased opportunities for the state to directly influence the sector and made it necessary.

Substantiating the need for the state's participation in the regulation of economic processes does not mean that the state should solve all the problems. Of course, the state regulates economic

processes using market laws and mechanisms. On the other hand, today the private sector and entrepreneurs play an important role in solving socio-economic problems in our country.

In the current situation, no one and no economic school denies the need for state involvement in the regulation of economic processes. However, the main debate revolves around the degree and limits of state participation. At the same time, most economists are in favor of solving the problems through the effective use of the market mechanism and the state's regulatory mechanism. In our opinion, such an approach can be considered correct. The degree of state participation in the regulation of economic processes is not the same in all countries. It depends on many factors, including the traditions and economic strength of each country. In order for a state to be able to perform its functions effectively, it is important that state has the financial resources, the means of regulation and the regulatory system, as well as the necessary experience. At first glance, it may seem that the main purpose of state regulation of the economy is to eliminate the shortcomings of the market, to fill the gaps in the market mechanism and to help the market. In fact, the main purpose of regulation is to increase the normal functioning and efficiency of the economic system and ensure sustainable socio-economic development.

2. One of the most important directions of state regulation in the agricultural sector in the post-oil environment is the formation of agricultural market infrastructure with the ability to operate effectively.

Infrastructure has a significant impact on the effective functioning of the agricultural market, the sale, transportation and delivery of agricultural products by creating favorable environment for the formation of mutually beneficial relations between producers and consumers. From this point of view, the provision of organizational, technical and economic assistance by the state in the creation and development of specialized land, material and technical resource markets, taking into account the specifics of the agricultural sector, will be of particular importance in the long run. According to

research, the experience of the transition to a market economy in the country has shown that instead of establishing real and regular market relations, the development of entrepreneurship and expansion of commercial networks without focusing on production has slowed down the formation of the domestic market. Thus, Azerbaijan has low levels of essential food and agriculture compared to the neighboring Russian Federation, as well as developed countries, Britain, Germany and the United States. Therefore, the market structure of the economy should be formed in such a way that the emergence of a national market goes its own way. In other words, it is necessary to locate the elements of the production and socio-economic structure more quickly than the commercial structure, to build them on its own real economic basis. At present, very few products are produced locally, going through the entire production chain (from raw materials to the final product). Due to the slow formation of new economic conditions in the country, economic relations between economies are regularly disrupted. National products are produced less, prices are rising rapidly. Instead of using the existing economic potential for the formation of the agricultural market, it flows to foreign markets.

It should be noted that the following can be considered as priorities for the regulation of the grain market through state aid, which is one of the important elements of the agricultural market:

- establishment of state grain funds;
- assistance in the development of infrastructure in the grain market;
- expansion of antimonopoly policy;
- formation of scientific research and experimental design work and financially active role of the state in the implementation of this process;
- acceleration of innovation, personnel, technical policy;
- strengthening the quality control of products;
- improving the legal framework regarding regulating the grain market;

- formation and implementation of import-export policy on international agreements related to the sale of grain products.

In particular, it should be noted that the “principle of agricultural protectionism”, which is important as a key direction in the mechanism of state regulation of the agricultural sector, is one of the most important principles and conditions of agricultural protection policy. One of the highlights of the policy of agricultural protectionism is that the competent implementation of this measure provides a reliable guarantee for the prevention of food dependence and food security in the country. It should be noted that the effective application of the conditions of agricultural protectionism in the regulation of the agricultural sector occurs mainly through the implementation of complex measures by the state. The comprehensive implementation of agricultural protectionism creates favorable conditions for the effective functioning of the agricultural sector as a whole.

In general, the provision of targeted state assistance for the integrated development of the agricultural sector is the most important aspect of protectionist activities. In our opinion, this should be due to the following factors:

- providing investment and innovation assistance to agricultural producers and processing enterprises operating in the agricultural sector;
- economic assistance to local producers in order to protect them from the harmful effects of foreign markets;
- establishment of specialized state regional funds for the supply and sale of agricultural products, etc.

3. The implementation of subsidies in the agricultural sector for the export of processed agricultural products is an important aspect that serves economic development in this field.

Table 1.**The main economic indicators in the agricultural sector (in mln.manats).**

Years	GDP in the agricultural sector, in actual prices	Investment in fixed capital in agriculture	Main production funds in agriculture	Gross agricultural output	Export of agricultural products	Share of processed agricultural products for export, in percent
2000	758,9	7,0	2634,4	1061	27	67,7
2005	1137,9	40,7	3004,6	1732	345	47,2
2010	2344,6	431,0	5099,8	3878	741	67,5
2015	3359,4	356,4	6355,2	5635	990	56,3
2016	3386,8	325,1	6891,2	5632	1158	28,2
2017	3944,1	617,8	7141,2	6580	1235	24,8
2018	4174,8	764,4	7441,1	7010	1406	26,1
2019	4664,2	769,5	8379,9	7836	1596	29,9

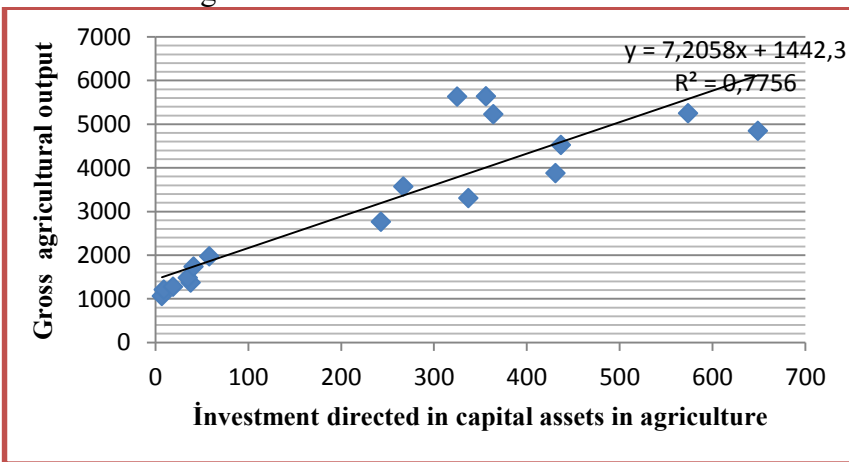
Source: Prepared by the author based on the materials of the State Statistical Committee of Azerbaijan Republic and the State Customs Committee

When we look at the GDP growth indicators in the agricultural sector over the years, it is clear that this growth was “stable”. In fact, given that the goal is to achieve sustainable economic development in Azerbaijan, a “stable” form of growth should be acceptable. Thus, the main conclusion in international trade theories and analysis is that the greater the share of agricultural products in the share of GDP, in fact, indicates a low level of economic development of the country. This can be seen in the reports on international ratings. However, looking at the experience of developed countries in this regard, it is clear that the large share of processed products in the export of agricultural products is more acceptable. In fact, although the table shows the share and dynamics of total product exports, the share of processed products in these products is very low (compared to the last 4 years). Therefore, it is expedient that the main goal in the development of the agricultural sector in terms of indicators should be to increase the share of processed agricultural products. It should be taken into account that according to the State Customs

Committee, the share of processed agricultural products in the structure of exports in 2000 was 67.7%, in 2005 - 47.2%, in 2010 - 67.5%, in 2015 - 56.3%. Beginning in 2016, exports of agricultural products as raw materials began to dominate. Thus, the share of processed agricultural products in the structure of exports in 2016 accounted for 28.2%, in 2017 - 24.8%, in 2018 - 26.1%, and in 2019 - 29.9%. It should be noted that in terms of agricultural subsidies as one of the requirements of WTO membership, export subsidies in this regard are considered more relevant today.

4. Investments in fixed assets have a significant impact on the growth of gross agricultural output.

This can be seen more clearly in the graph below showing the relationship between gross agricultural output and fixed capital investment in agriculture.



Graph 1. The relationship between gross agricultural output and investment in fixed capital in agriculture.

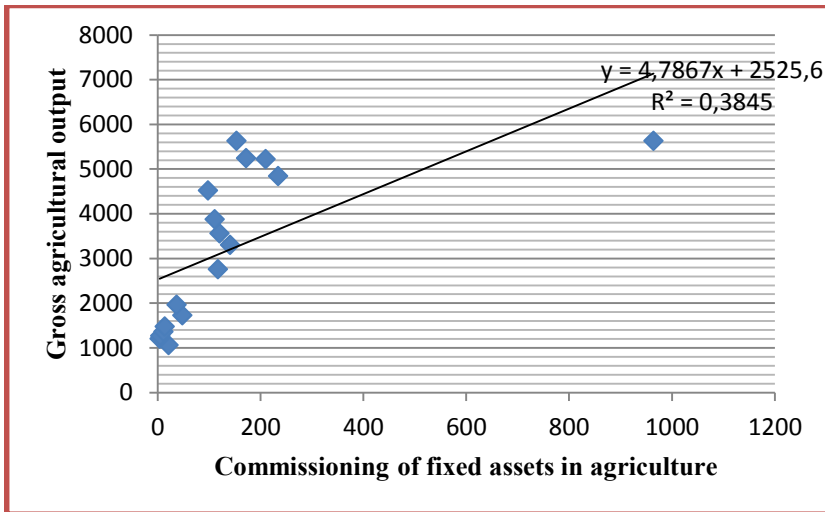
As can be seen from the graph, there is a high correlation (0.7-0.9) on the Chedoke scale between gross agricultural output and investment in fixed capital in agriculture. ($R^2 = 0.7756$; $D = 0.88$)

If we calculate the coefficient of elasticity, we get the following result.

$$E_{inv.} = \frac{7,2058 * 246.4706}{3218,294} = 0,551851$$

This means that when the volume of investments in fixed capital in agriculture increases by 1%, the volume of gross agricultural output will increase by 0.55%.

Based on the relationship between gross agricultural output and the commissioning of fixed assets in agriculture, it is possible to assess the dependence of gross agricultural output on this indicator. This dependence can be seen more clearly in the graph below in EXCEL



Graph 2. The relationship between gross agricultural output and the commissioning of fixed assets in agriculture.

As can be seen from the graph, there is a moderate correlation between gross agricultural output and fixed assets used in agriculture ($R^2 = 0.3845$; $D = 0.62$). Elasticity coefficient based on these indicators will be as below:

$$E_{\text{osas fond.}} = \frac{4,7867 \times 144,7059}{3218,294} = 0,215227$$

This means that when the fixed assets put to use in agriculture increase by 1%, the volume of gross agricultural output increases by 0.21%.

It is known that the main goal of the State Program on Socio-Economic Development of the Regions of the Republic of Azerbaijan in 2014-2018 is to develop the non-oil sector, diversify the economy, continue to accelerate the development of regions, in particular, further strengthening of infrastructure projects related to rural development. In order to achieve the goal set in the State Program, important tasks are envisaged, such as accelerating the provision of infrastructure in the regions and the development of entrepreneurship for the production of export-oriented and competitive products, increasing the level of employment of the rural population and continuing measures to reduce poverty.

Maintaining macroeconomic stability in the country is important for achieving the goals set in the State Program, as well as fulfilling the above-mentioned tasks. Taking into account macroeconomic stability, the state budget policy will prioritize the modernization of priority sectors of the economy and the creation of environment to ensure its efficiency and long-term sustainability, as well as further improvement of the investment climate. As the main source of economic growth, employment, budget and foreign exchange earnings, the non-oil sector will continue to play a strategic role in achieving balanced and sustainable economic growth and the formation of a high-income economy. In this regard, one of the main conditions for the development of the economy as a whole in 2014-2018, including individual sectors in the regions, is the continuation of measures to stimulate agricultural producers and the development of the agricultural sector to ensure food security. In ensuring this development, legal entities engaged in the production of agricultural products (including industrial methods) are exempt from paying corporate profit tax, value added tax, simplified system tax and property tax on facilities used in the process of activity, and

individuals are exempted from paying value added tax and property tax on facilities used in the process, as defined by the Tax Code. It is also important to determine this sector's ability to develop independently on the account of the increase in investment in fixed assets in agriculture.

5. One of the main objects of state regulation for the agricultural sector is the acceleration of the organization of the cluster system.

Taking into account the characteristic features of the regions of the republic, the production-type cluster in the agricultural sector should unite agricultural producers, refrigeration and storage networks, logistics-marketing system, enterprises operating in service industry. The main advantage of this type of cluster is that when organizing agricultural production, intra-farm relations become closer and faster. As a result, it makes the use of productive forces more effective. In general, a number of conditions are necessary for the successful operation of clusters in the agricultural sector:

- to organize the efficient deployment of productive forces, taking the existing land resources as a basis;
- to unite the efforts of a number of operating agricultural enterprises on competitive advantages based on common goals and interests;
- to train highly qualified personnel of the existing scientific and educational institutions in accordance with the relevant profile and to organize their application in production;
- to create a central cluster enterprise that will perform the function of coordination of governing bodies;
- to organize infrastructures at all levels, especially on the agricultural market;
- to develop cluster education programs at the state level and defend it through appropriate mechanisms;
- Transformation of financial and credit institutions (in the form of banks) into cluster participants by ensuring high order and on this basis to create conditions for operations such as leasing, insurance, etc.

It becomes clear when we look at the international experience that the state's support for cluster training programs has made a high efficiency in ensuring competitiveness in the agricultural sector. Here main chain is the selection of “Science (Education) - Production”.

The regional agricultural cluster means a combination of efforts to ensure the food security of the region and enterprises and organizations of the particular economic region. The connection between the enterprises and organizations of the regional agricultural cluster should be based on the functional principles. The basis that distinguishes other market entities from the forms of organizational combinations of the cluster, is definitely a demand for the protection of competition.

The existence of clusters (subcluster) in the agricultural sector will give impetus to the rise of efficiency of agricultural production. The subcluster (agricultural) means the united enterprises and organizations related to the production of specific types of agricultural product. The basis of the cluster means enterprises or organizations characterized by the maximum innovation potential. Innovative potential means a number of factors (organizational, management, labor, production) that allow the implementation of innovative projects (idea). According to international experience in the agricultural sector, cluster-pink is one of the most widespread clusters, which means the merger of enterprises and organizations playing the same functional role in the regional agricultural cluster.

Summarizing the above-mentioned aspects, we believe that state regulation in the agricultural sector should be divided into certain stages in terms of the creation of clusters, which include the following:

Stage I. Evaluation of initial steps for the formation according to the following criterias: availability of enterprises that are active in competitive, innovative activities; availability of competitive advantage for the development of the cluster; the extensive mass of geographical potential participants and limited mass availability;

opportunities for building a business relationship among the cluster participants.

Stage II. The substantiation of the optimal cluster structure, depending on strategic issues. The strategic issues of the regional agricultural cluster are: Activating and implementing the principles of sustainable development in the production of agricultural products and ensuring food security in the region. After determining the priority areas in the development of the agricultural sector of the economy, it is necessary to calculate the number of potential participants. We think that the most commonly used cluster analysis method (Euclidean distance) for these purposes can be used partly now, because this method is not intended for the formation of the agricultural cluster with the principle of completing each-other. The formula offered to calculate the number of potential participants in the subcluster (SSKPoten.) is as follows:

$$SSK_{poten} = (\sum_i^n \text{Ist} \cdot k_{inv}) + \text{Ş}_{emal} \quad (1)$$

$$k_{inv} = \text{Ş}_{inv} / \text{Ş}_{üm} \quad (2)$$

Here, n - the number of regions included in the subcluster, Ist. - the number of agricultural producers, their compliance with the relevant specialization, k_{inv} - the factor of innovative activity, Ş_{emal} -the number of companies specializing in the processing of relevant agricultural products, Ş_{inv} – the number of companies using or preparing to use innovative technologies in production, $\text{Ş}_{üm}$ -total number of companies.

Stage III. Concentration of leading cluster-pinks with the specification of priority directions. In order to implement this stage the purpose and mission of organization of the regional agricultural cluster should be determined, and the enterprise's innovative technologies and agricultural business management should be systematized. It will be possible to implement all this, after passing the period based on the legal and scientific base.

It should be noted that every economic region we research has its own production potential. For example, despite there is a potential for cotton production in the Aran economic region, production

cannot be carried out at the level and volume of existing requirements. Therefore, we believe that the most exemplary economic region in accordance with the establishment of the cluster system is considered to be Aran economic region for cotton production.

The scheme of creating clusters in agriculture should be in the following structure:

1. Establishment of structures and staff of cluster workers.
2. Improving the marketing potential of consumer goods and substantiation of tasks.
3. Development of policies and strategy of management of the quality of products produced by enterprises to be included in the cluster.
4. Organizational structure of agricultural clusters and improving the training of its employees.
5. Self-assessment of business processes (inspection of the work process and the production analysis of the organization).
6. General work procedures within the enterprise, facilitating access to agricultural clusters.
7. Development of internal standards and quality management system.
8. Approval of the main indicators of the quality management system, creating system for and the measurement of working process characteristics for enterprises included in the cluster.

6. State regulation of prices in the agricultural sector in Azerbaijan should be carried out taking into account international trends.

It should be noted, one of the main priorities of discussions and negotiations that our country made to join the WTO is undoubtedly a state price policy in the agricultural sector. It should be noted that in the WTO Agreements, the state's protectionism policy is divided into three main groups of measurements by following the name of "Yellow Box", which affects the improved competitive environment and the foreign trade regime negatively (preventing) and "Green Box" and "Blue Box" which do not have such an effect .

It can be noted that the “Green and Blue Box” measures do not directly affect the existing prices in the agricultural sector, and these measures are considered expedient to be implemented in the country.

The main features of “Green Box” measures and relevant programs of state in the agricultural sector, are to be financed from state budget, tax and to support prices. However, there are some shortcomings related to the price issue in “Green Box” measures which are the factor that the prices of the agricultural products are not always been able to be regulated by the state.

It should be noted that the “Blue Box” measures are a systematic policy pursued to prevent agricultural prices from decreasing as a result of the excess of the supply in many countries. Otherwise, we can say that these measures are directly based on the support of producer prices in the agricultural sector. “The Yellow Box” system includes direct financial assistance (subsidies) on the agricultural sector. However, “Yellow Box” also has its specific aspects in the price regulation, which are:

a) Insurance of price differences which may arise in the market on the purchase and sale of agricultural products.

b) When required to offer agricultural producers lower prices rather than market prices (to render services).

c) When required purchase of agricultural products and services from producers at higher prices rather than the market prices.

d) Implementation of measures such as use on budget funds in price regulation, financial assistance to producers, debt cancellation and extension of maturity date.

e) Discounts for transportation, storage and implementation of agricultural products which are important factors in price regulation.

The analysis carried out showed that the state regulation in the agricultural sector is carried out using various methods actively. Liberalization of the price carried out in a sense, has been completed in the national economy. It should be noted that the agricultural sector cannot be based on liberal prices in full form in the market conditions, and in this regard, it cannot be competitive on equal

terms in other fields. Therefore, it should be considered that although the liberalization of the economic system and its separate sectors is considered as a positive case in the international level, when taken in its entirety the agricultural sector has always needed state intervention. In this regard, one of the main problems of state regulation of the agricultural sector is undoubtedly to find a balance between liberal prices and regulated prices. Finding such a ratio has made the state intervention in the agricultural sector to be in a new quality in terms of existing demands.

The state should not undermine the tendency to liberalize, which is an internal market principle in regulating prices, and should meet its specific criteria in terms of positive assessment.

There are specific methods for assessing the impact of economic policy in the country and the resulting market situation on the agricultural sector and its competitiveness. This assessment method was first proposed and developed by Eric A. Monke and Scott R. (1989).

Table 2

Existing method of improvement in pricing policy

	Revenue	Costs		Porfit
		Tradable Products	Internal resources	
Private prices	A	B	C	D
Social prices	E	F	G	H
Deviations	I	J	K	L
The impact of market failures	M	N	O	P
The impact of distortive policies	Q	R	S	T
Impact of effective policies	U	V	W	X

Source: Eric A. Monke and Scott R. Pearson. 1989. the policy analysis matrix for agricultural development.

<http://www.stanford.edu/group/FRI/indonesia/documents/pambook/Output/pamtoc/html>

The assessment of the impact of economic policy using the PAM method is based on the study of the differences between private and social indicators of revenue, costs and profit (rules for calculating private and social values are given in more detail above in the DRC ratio calculation methodology). In other words, these differences, ie deviations, are the main object of policy analysis. These deviations are found by subtracting the indicators in the first line from the indicators in the second line ($A-E = I$, $B-F = J$, $C-G = K$ and $D-H = L$).

Differences in any of the indicators of revenue, costs and profit indicate the existence of deviations from the laws of the free market in the economic system. Deviations are influenced by three groups of factors: market deficiencies (line 4 of the matrix - MNOP), distortive policy (line 5 of the matrix - QRST) and effective policy (line 6 of the matrix - UVWX).

One of the important factors in the state price regulation in the agricultural sector is the market failure, which in itself is reflected in the emergence of a monopoly. It should be noted that the main object of price regulation in the agricultural sector is the creation of a control system for the production of products that do not lead to monopolies. In particular, the prices of raw materials and their domestic prices for agricultural products and their processing are lower than international parity prices, as a result of which subsidies are applied in our country to regulate these prices.

7. The creation of new economic entities in the agricultural sector and ensuring their effective operation as a whole requires fundamental structural changes, fundamental development and renewal of production.

Creating the necessary credit reserves in the agricultural sector - can allow to provide loans for businesses based on various forms of ownership on favourable terms, to apply low interest rates on loans. It must be acknowledged that the percentage of loans issued does not adequately fulfill the economic regulatory role of farms. Also, the impact of loan on the interests of self-financing of farms is sometimes inexpedient and the stimulating effect on production

results is insufficient. In order to strengthen the role of manat control over interest rates, it is not enough to make small changes in its current practice. To this end, the system of setting and managing loan interest rates in the agricultural sector should be radically changed, and interest rates should be set in accordance with the requirements of the state's agricultural policy, as well as market relations. As noted, the main determinant of agro-loan interest rate should be an indicator of time, ie the loan term. The longer the term of the loan, the more conditions will be created for the creation of added value in production, the value of the loan and its stimulating effect on production in the agricultural system will increase. As for the bank's risk, it should be noted that as the term of the loan increases, the probability of adverse changes in the financial condition of borrowers increases and the guarantee of timely repayment of the loan weakens. One of the factors influencing the level of loan interest rates is the seasonality of agricultural production. Studies show that relatively high-interest loans issued to the seasonal agricultural sector create unequal conditions between these sectors and non-seasonal sectors, which breaks the economic link between price and interest rates. In our opinion, the introduction of a system of payment of state subsidies to encourage agricultural producers to cultivate high-labor and material-intensive crops, a number of essential food products, as well as products that are considered daily necessities for the country's population, but much cheaper than some imported products in the domestic market, will create conditions for the development of farms in the agricultural sector as a whole.

The system of measures to improve loan provision in the agricultural sector should be implemented in such a way that this process serves to stimulate economic development as a whole and create favorable conditions for the social protection of agricultural consumers by ensuring economic balance between different sectors of the economy. The main goal in improving and developing the loan mechanism in this sector is to achieve economic balance

between supply and demand in the market by increasing the impact of the components of the economic mechanism.

Along with the above, it should be highlighted that the establishment of a state company engaged in the purchase, storage and sale of agricultural products in our country is very important.

The following suggestions were proposed for the research conducted in the dissertation:

- As agriculture is a strategic sector of the national economy, due to the need for effective economic measures in this sector, in terms of eliminating factors that negatively affect the renewal and development of all subsectors of the agricultural sector and regulating the sector to meet most of the demand for consumer goods it is necessary to strengthen the role of the state.

- The state regulation of the agricultural sector is mainly reflected in the production, processing, sale of raw and finished agricultural products of the state, as well as in the logistics and financial and technical services provided to this sector. However, in addition to these general approaches adopted in the agricultural sector, it may be expedient to pay attention to the following areas: interconnection of the self-regulation of agricultural market and the real mechanism of state influence on it; taking into account the real role of the agricultural sector in the development of other sectors of the economy and assessing the impact of the formation of macroeconomic mechanisms on the agricultural market; Establishment of the State Reserve Fund for Strategic Agricultural Products to eliminate the mismatch between supply and demand in the agricultural market and use this fund to strengthen the agricultural sector.

- Implementation of effective state regulation and subsidization of exports (export of processed agricultural products) using tariff and non-tariff measures (quotas, licenses, bans, etc.) in the agricultural sector.

- The improvement of state aid to the agricultural sector should be based on the financing of scientific and technical achievements in

the agricultural sector, rather than on the program of state aid. It is necessary to use the method of shared assistance (advance allocations from the budget provided by certain programs and full compensation of budget expenditures, and the secondly, the compensation of actual production costs and certain subsidies on farms).

- Both state order and state control should play an important role in agriculture. From this point of view, it is important to take measures to regulate the agricultural market and develop infrastructure units. The system of measures includes the creation of a modern sales system and food market regulation system, which plays an important role in increasing the income of producers, increasing the number of leasing entities, expanding the range and nomenclature of products imported under leasing terms.

- First of all, the criteria for the formation of clusters should be determined in accordance with the existing conditions. That is why, it is important to ensure food security and fill the markets with local products. It should be noted that state regulation of the agricultural sector should be regional in nature, based on the creation of clusters.

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