

# **REPUBLIC OF AZERBAIJAN**

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## **ABSTRACT**

of the dissertation for the degree of Doctor of Science

## **IMPROVING GOVERNMENT REGULATION IN THE AGRO-PROCESSING SECTOR**

Speciality: 5312.01 - "Field economy"

Field of science: 53 - Economic sciences

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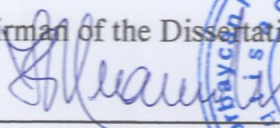
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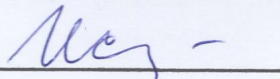
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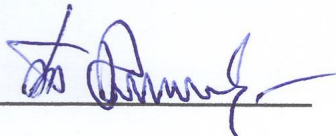
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## **CHARACTER OF THE RESEARCH WORK**

**Relevance of the topic and research degree:** The formation of a strong society and state in accordance with international standards in the globalized world is possible only in an environment with free competition and transparent management of an open economic system that is constantly undergoing positive changes. In other words, high development of the country's economy can be achieved, as a result of proper and transparent management of the economic system, including industry, agro-industrial complex and service sectors.

During the last half century, the processing of agricultural products through industrial technology has given impetus to the creation of a number of economic relations. At different stages of development of history, economic relations have undergone various changes, like the current production relations they reflect.

In Azerbaijan in the 1990s, a number of political-social and economic-social crises had a negative impact on the agricultural sector and other separate areas of the economy. During those years, the economy weakened, production decreased sharply, household incomes and living standards decreased, and purchasing power decreased, which led to a decrease in demand. At this point, the process of promoting the production of agro-processing products, the insufficient potential of the budget and the deterioration of the demand for food products of the agricultural sector and the deterioration of the economic indicators in agriculture have emerged as a necessity.

The transition to the market economy and the privatization of state enterprises are not enough for the development of the country's economy, including agriculture. Therefore, during the transition to the market economy, the state must intervene in market relations and it is necessary.

In every country, the regulation of the economy by the state is aimed at improving the standard of living of the population and ensuring food security. Against the background of the general economic reforms carried out in the country, the economy as a whole, and at the same time the agrarian and agro-processing sector,

as an important sector of the economy, is developing. The gradual improvement and further expansion of market relations in the country has come to the fore. As a result of the consistent implementation of state regulation in all directions in the economy, including in the field of agro-processing, the privatization of land and enterprises of various types has been completed, and the private sector has taken a decisive position in the economy as a whole. It is impossible to achieve a highly developed economy in developing countries without developing the agrarian economy and mainly the agro-processing sector that develops it. At the same time, in the world and in individual countries, this task is also related to the problem of efficient use of the environment and natural resources.

One of the main issues that determine the provision of food security and the significant reduction of import dependence in Azerbaijan, as well as the increase in the volume of local agro-processing products, is the prospect of rebuilding the economy in our territories freed from occupation in 2020, rejoining the economic cycle by creating or restoring infrastructure and economic entities. In increasing the quantity and quality of agro-processing products in the country, in reducing dependence on imports, in short, in ensuring food security, the resettlement of our territories freed from occupation, the restoration of existing agro-processing enterprises based on modern technology, and the creation of new ones will play a very important role.

The importance and necessity of the state's role in regulating the economy and economic processes has been the object of scientific research throughout history. In the works of F. Keene, J. Keynes, A. Smith, among the well-known classics of economic ideas and economic theories, M. Porter, I. Schumpeter, P. Drucker, S. Y. Glazev, V. A. Medvedev, E. G. Yasin, E. A. Karpov, among modern foreign economists, public and private regarding sector relations, the views accepted by world economists have been reflected.

Since the beginning of the XXI century, the conceptual problems of the development of the Azerbaijan economy, including the develop characteristics of the agro-industrial complex, are the object of constant research by Azerbaijan and foreign international experts.

In connection with the achievement of independence in the country, the development of the economy of the agrarian and agro-processing sector in Azerbaijan and the role of state regulation in this process have been widely studied. Famous scientists-economists of modern Azerbaijan Z. A. Samadzade, A. Kh. Nuriyev, I. H. Aliyev, A. I. Mammadov, V. H. Abbasov, I. H. Ibrahimov, I. S. Garayev, B. Kh. Atashov, H.B. Allahverdiyev, H.A. Khalilov, S.V. Salahov, T.H. Huseynov, R.K. Isgandarov, A.T. Ahmadov, A.A. Rustamov, M.C. Huseynov, R.A. Balayev, E.A. Guliyev, M.A. Ibrahimov, V.A. Gasimli and others conducted researches in various directions related to state regulation and studied the theoretical and practical aspects of the problem.

Without reducing the scientific and practical importance of the research, we should also note that the state regulation of agro-processing sphere needs to be constantly improved, and this process of improvement makes it necessary to conduct new research.

The agro-processing sphere is such a sensitive category of the agro-industrial complex due to a number of specific characteristics that this sphere is constantly in fierce competition with similar products imported into the country, and at the same time high moral and legal responsibility is required for the quality of the product. The market for products of the agro-processing sector has a high capacity and is characterized by stable demand, which makes the sector an attractive object not only for investment, but also for property redistribution. Therefore, this area is always considered one of the most important and priority areas for the state.

All this determines the relevance of the research work and its goals and objectives.

**The object and subject of the research:** The object of the research includes economic entities of the agro-processing sphere in the Republic of Azerbaijan, along with raw materials and markets, regardless of the form of ownership.

The subject of the research is the organizational-economic and social relations, new scientific approaches and regularities that arise in the process of state regulation of the development of the agro-processing sphere.

**The goals and objectives of the research:** Scientific-practical recommendations and suggestions to investigate the scientific and theoretical issues related to the formation, development and efficiency improvement of the agricultural processing industry, to analyze the current situation in this field and to determine the shortcomings related to the elimination of problems, at the same time, to determine the efficiency of the application of the state regulation of the development of the agro-processing sphere are given.

For the realization of this goal, the solution of the following tasks is envisaged:

- identification of specific reasons that determine the need for state regulation in the field of agro-processing;
- proving the necessity of regularly modernizing the state regulation in the development of the agro-processing sector in accordance with the market conjuncture;
- researching the modern state of production of agro-processing products in the international world and showing development trends;
- analyzing the current situation in the field of production and sale of agro-processing products in our country;
- assessment of the efficiency of the current situation of state regulation in the development of the agro-processing sphere and determination of its strategic directions in the future;
- indicating the goals of the agricultural products processing sphere in market conditions;
- making recommendations regarding the improvement of some financing mechanisms of the agro-processing sector;
- showing ways to improve the impact of investments in agriculture on the agro-processing sector;
- development of promising recommendations for the development of the agro-processing sphere in the direction of increasing the efficiency of state regulation;

**Research methods:** Logical generalizations, statistical analysis, survey, observation, comparative and systematic analysis, grouping, economic-mathematical analysis and mathematical measurements (regression, correlation) were used as research methods.

Actual materials and reports of the State Statistics Committee of Azerbaijan, the Ministry of Economic Development, the Ministry of Agriculture, the Customs Committee, the State Tax Service under the Ministry of Economy, the World Bank and the International Monetary Fund, the UN Food and Agriculture Organization (FAO) as an information base, and including statistical data, reports of management bodies of relevant fields and related scientific research institutions, and actual materials and internet data collected from the researched agro-processing field enterprises were used.

### **The principal theses of the defense:**

1. To ensure sustainable development of the agro-processing sphere, it is necessary to define the main strategic goals of the system of state regulation for the production of raw materials and products;
2. The high dependence of many food products on imports in the country reveals the need for the development of the agro-processing sector and the use of market protection tools;
3. Ensuring sustainable development of the agro-processing sector requires improvement of the entrepreneurial environment and competitiveness;
4. Since the subsidies allocated to agriculture are given according to quantitative indicators in the agricultural sector, they do not create an incentive to increase productivity and improve product quality. Therefore, subsidies should be given according to the final result, or rather, according to the commodity product, and this will create a strong incentive in the direction of increasing productivity and quality;
5. Eastern Zangezur and Karabakh economic regions liberated from occupation in 2020 have great potential in terms of developing agriculture and agro-processing. In order to stimulate entrepreneurship in the liberated areas, the government should take many incentive regulatory measures, including land reform. Land reform in the territories freed from occupation is one of the most urgent issues;
6. Creation of regional and sectoral clusters is one of the most important means for the development of agriculture and agro-processing in the country. Therefore, state programs related to the

development of clusters at the state level should be developed and implemented.

7. Azerbaijan should become a member of the World Trade Organization, and this membership will be a very strong impetus to the economic opening and trade liberalization to the country's economy in general, including the development of the agro-processing sector;

8. Proposals and recommendations for the development of the agro-processing sector in the country and further optimization of state regulations.

**Scientific novelty of the study:**

- An analysis of the state of Azerbaijan agro-processing sector and enterprises was carried out, the reasons for the decrease in production volume in the country's agro-processing sector and the stagnation that still continues in some areas were determined, and scientific and practical directions for increasing the efficiency of local enterprises were formed and development prospects were determined;

- An analysis of the ways of development of the current state of the agro-processing sphere and the agro-industrial complex as a whole was carried out, its results made it possible to determine the sub-fields of the agricultural products processing industry that are in serious need of state support;

- Ensuring the competitiveness of agro-processing products domestically and at the same time in the world markets during export has been proved to be adequate for the current economic conjuncture, the ways and necessity of comprehensive solution of existing problems have been shown;

- Recommendations and proposals aimed at improving the modernization and development of the material and technical base of agro-processing enterprises based on new innovations were prepared. At the same time, solutions were shown in the direction of increasing the state's efforts in training highly qualified specialists to manage new technologies in the field of agro-processing, and eliminating obstacles to increasing labor force mobility.

- The strategy of directing the currently established raw material-export model for the development of Azerbaijan's agriculture to the



production and export of highly competitive products in line with the innovative-investment model of the country's agro-industrial sector has been proven to be appropriate.

- Problems and obstacles in the development of the competitiveness of the country's agro-processing enterprises were pointed out, strategic directions for the development of this area were defined, and justified proposals and recommendations were given for these directions.

- A mathematical and statistical model of the impact of agricultural production on indicators characterizing the sustainable activities of agri-food enterprises has been established.

- In the implementation of innovative and high-risk projects of agro-processing enterprises, the priority of using venture capital is put forward as a source that best provides the interests of owners and investors compared to other investment sources.

- In the field of regulation of light and food industry products markets, improvement of the tools and methods of state regulation of the agro-processing sphere, attraction of private capital to solve the problem of financing of agro-processing enterprises and other main directions were justified.

- The need to provide factoring services for strengthening the working capital of agro-processing enterprises was revealed and it was justified that factoring financing is the best source of resources for increasing sales volumes for a wide range of enterprises with weak financial resources.

- The role of clusters in the direction of increasing the efficiency and competitiveness of the country's agro-processing sector, the development perspectives and the necessity of its application have been substantiated.

- Azerbaijan's entry into the World Trade Organization (WTO) has been shown to be very important for the development of the country's economy, its integration into the world economy, attracting direct foreign investments, and the necessity of the country's entry into this organization has been proven at a scientific and practical speed.

**Theoretical and practical importance of the research:** In general, the theoretical and practical importance of the research

consists in the development of the main directions and specific recommendations that will allow for the improvement of the management mechanism, the financial-credit mechanism or other regulatory mechanisms of the state regulation of the agro-processing sphere. The theoretical significance of the study is the systematization of specific factors and economic environment conditions that necessitate the improvement of the state regulation of the development of the agro-processing sphere and the development of these improvement methods.

The practical significance is that the obtained results are used by scientific institutions as a methodological tool in the development of programs for the development of the agro-processing sector, in the preparation of decisions in which state regulatory mechanisms are applied, and at the same time, in the direction of increasing competitiveness, strengthening the activity in the direction of replacing imports with local production, and innovation in the development of the agro-processing sector can be used as a methodological tool for the transition to the investment model.

- It can be used as a perspective direction in developing conceptual models and programs of sectoral cluster subjects in the development strategies of the agro-processing sphere in Azerbaijan;

- It can be used to determine the perspectives and justified long-term scenarios of the development of the agro-processing sector in the context of WTO membership.

- proposals developed in the dissertation on the formation of the factoring credit and venture investment system can be used in practice by agro-industrial enterprises, banks and venture investment institutions.

The recommendations and conclusions contained in the dissertation can be used as a basis for further development in the process of improving the state regulatory mechanism in agro-processing.

**Approbation and application:** The main theoretical provisions, practical results and recommendations of the dissertation were presented to the following international and republican conferences and printed in the materials of those conferences:

Nationwide scientific-practical conference on land reform in Azerbaijan-20 "Achievements and perspectives" (Baku 2016)

Scientific-practical conference dedicated to the 100th anniversary of the Azerbaijan People's Republic on "Problems of ensuring food security of the independent Azerbaijan state and increasing the competitiveness of the agricultural sector" (Baku 2018)

Scientific conference on "Azerbaijani economy in the period of changes in the global world economy" (Baku 2019)

Republican scientific conference on "The role of innovations in the sustainable development of the economy of the Republic of Azerbaijan" (Nakhchivan 2020)

VII International scientific conference "Science and Global Studies" (Prague, Czech Republic 2020)

VIII International scientific conference "Science and Global Studies" (Prague, Czech Republic 2021)

"Modern directions of scientific research development" VII International scientific-practical conference (Chicago, USA 2021)

"International scientific innovations in human life" ("International scientific innovations in human life") (Manchester, Great Britain 2022)

"Current problems of modern natural and economic sciences" International Scientific Conference (Ganja 2022)

"Global challenges and perspectives in economic development" Republican scientific-practical conference (Baku, Western Caspian University 2022)

"Quality assurance as the main factor of competitive economic development" International scientific-practical conference (Baku, Baku Business University 2022)

A total of 16 articles were published in peer-reviewed scientific journals on the subject of the study, including 1 article in journals indexed in Scopus international bibliometric database, 1 article in Web of Science international bibliometric database (РИИ), as well as 1 individual and 1 collective monograph. Participation in international and republican scientific conferences with 10 speeches, articles and theses and publication in the conference materials.

**The name of the organization where the dissertation work was carried out:** Institute of Economics of the Ministry of Science and Education of Azerbaijan

**The volume of the structural sections and work of the dissertation:** In accordance with the logic of the research, the volume of the dissertation work is a total of 428304 signs, excluding tables, pictures, diagrams and the list of used literature, appendices, abbreviations and conventional signs. According to the structure, introduction (20387 marks), four chapters (Chapter 1 57764 marks, Chapter 2 120625 marks, Chapter 3 109967 marks, Chapter 4 91619 marks), conclusion (27942 marks), reference list, consists of a list of appendices, abbreviations, and conventional symbols. A total of 49 tables, 6 graphs and 25 pictures were compiled in the dissertation work.

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## MAIN SCIENTIFIC THESES FOR DEFENSE

**Thesis 1: The agro-processing sphere is one of the main links in the realization of "Azerbaijan 2030: National Priorities for socio-economic development". The main strategic priorities of the system of state regulation of the development of this field on product production and raw materials;**

The agro-processing division, which is the main sector of AIC, is one of the leading sectors of Azerbaijan's economy, including agriculture. The agro-processing sector is capable of producing a wide variety of food products as well as raw materials for light industry. Sustainable development of the processing industry directly affects the development of agriculture.

The document "Azerbaijan 2030: National Priorities for socio-economic development" was approved by the Decree of the President of the Republic of Azerbaijan dated February 02, 2021.<sup>1</sup> Based on this order, five goals and sub-goals corresponding to these goals have been set for the socio-economic development of the country in the next decade (2021-2030). In accordance with these goals, it is planned to create a solid economic base to ensure sustainable and inclusive development of the country in the coming ten years. Development of a competitive economy, reduction of dependence on imports, increase of exports in the non-oil sector, revival of the economy in territories freed from occupation, and development of the green economy in the country are considered as the main goals. The agro-processing sector is considered one of the main links in the implementation of these goals, both due to its role in the development of agriculture and because of its high labor intensity.

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<sup>1</sup> Azerbaijan 2030: National priorities of socio-economic development: [Electronic resource ]/ President.az. - February 02, 2021. URL: <https://president.az/az/articles/view/50474>

**Table 1. Main directions of state regulations in the field of agro-processing**

The main processes in the operation of the enterprise	The main directions of improvement of state regulatory means
In the supply of raw materials	<ul style="list-style-type: none"> <li>- increasing the volume and quality of local agricultural production;</li> <li>- price stabilization and optimization policy in the local agricultural raw material market</li> </ul>
Production	<ul style="list-style-type: none"> <li>- stimulating the renewal of the main production funds of agro-processing enterprises;</li> <li>-stimulating the use of innovative technologies;</li> </ul>
Sale	<ul style="list-style-type: none"> <li>- upgrade: <ul style="list-style-type: none"> <li>• regulation of the local agro-processing products market;</li> <li>• antimonopoly regulation tools;</li> <li>• adjustment of the customs-tariff policy in order to protect the interests of local producers;</li> </ul> </li> <li>- creation of effective incentives for the production of export-oriented products</li> </ul>
Logistics	<ul style="list-style-type: none"> <li>- optimizing the prices of transport services by stabilizing fuel prices;</li> <li>- increasing the efficiency of storage warehouses by applying new logistics technologies;</li> <li>- development of transport infrastructure;</li> </ul>
Marketing	<ul style="list-style-type: none"> <li>- optimization and stabilization of prices in the market of agro-processing products;</li> </ul>
Financial security	<ul style="list-style-type: none"> <li>- ensuring availability of loans, including long-term loans;</li> <li>- creation and development of factoring service;</li> <li>- financial support to low-profitable and economically backward sub-sectors of the agro-processing sector;</li> <li>- more active involvement of private capital in the agro-processing sphere;</li> </ul>

Source: author's compilation

As can be seen from Table 1, subsidization, subvention and subsidy were not indicated as regulatory instruments. As we know,



all three instruments are non-market methods, which the countries of the world are gradually abandoning and giving way to market instruments of regulation.

In our opinion, this is more correct, that is, the principle "don't give fish to the needy, teach them to fish" becomes more effective and more sustainable and competitive. Therefore, direct methods of state support should give way to market methods of economic regulation.

The main raw material base of the agro-processing sector is the agricultural sector. Throughout history, agriculture has been and remains one of the most important areas affecting the natural, economic, human and ethnic-cultural potential of every state. Except for the cities of Baku, Sumgayit, Ganja, Mingachevir, all other regions of Azerbaijan are agrarian in nature. There are still many unresolved problems in rural areas, and for this reason, the standard of living and quality of life of the rural population lags significantly behind the standard and quality of life in cities.

The total production volume of agriculture in Azerbaijan in 2022 at current prices will be 11.0 billion. (\$6.5 billion) manats. Agriculture ranks first in the country in terms of the number of employed people. Here, 1.75 mln. person works, which means 35.8% of employment, besides, agriculture accounts for 4.8% of GDP.

As can be seen from the production volume of agricultural products and the dynamics of per capita production in Azerbaijan during the period 1990-2022, the decrease in production volumes that occurred in the first years of independence was later replaced by the increase in production volumes of most types of products. In 2022 compared to 1990, grain production increased by 2.2 times, wheat production by 1.8 times, potato production by 5.8 times, meat production by 2.1 times, milk production by 2.3 times, and egg production by 2 times. Sugar beet has been grown in the country since 2005 as a new field, and in 2022 the annual production will reach 211 thousand tons. It should be noted, that in recent years, instability has been observed in the level of production growth of agricultural products. Grain production in 2022 decreased by 461 thousand tons compared to 2019, and wheat production decreased by

484 thousand tons. Sugar beet production in 2017 was higher at 410 thousand tons. In 2022, this product decreased by 1.9 times compared to 2017 and was 210.6 thousand tons.

The dynamics of growth in the production of livestock products is almost stable. After 1995, the production of these products increases every year. The main reason for this was both extensive development, i.e. increasing the number of livestock herds, and at the same time intensive development, i.e. changing the composition of the herd in favor of more productive breeds of cattle.

Unfortunately, the dynamics of growth in other areas of agriculture during the last 32-year period (1990-2022) cannot be applied to technical crops. Thus, in 2022, compared to 1990, cotton production decreased by 1.7 times, grape production by 5.6 times, tobacco production by 10.4 times, and tea production by 30.7 times. We should also note that the products we mentioned are more profitable, and from this point of view, their production should be increased and brought to the level of 1990.<sup>2</sup>

We should note that as a result of the measures taken, the production of these products has started to increase rapidly in the last 12 years. Compared to 2010, in 2022, cotton production increased 8.4 times, grape production 1.6 times, tobacco production 1.6 times, and tea production 1.8 times. The dynamics of the last 12 years suggest that the interest of both the state and entrepreneurs in this field has grown at a serious speed. However, these indicators are very little compared to the potential of the country.

**Thesis 2: The high dependence of many food products on imports in the country reveals the need for the development of the agro-processing sector and the use of market protection tools;**

In the food market of the country, in many other products, including in the milling industry, tea, vegetable oils, pasta, etc. imported products dominate the raw material market of its products, in other words, the dependence on imports is very high.

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<sup>2</sup> Azerbaijan in figures 1995 AR DSK - Baku: Sada Publishing House, - 1996. - s.259.

**Table 2. Import dependence on agro-processing products in 2022. thousand tons**

Indicators	Total consumption	Import	Import dependence in %
All types of meat and meat products	424,6	61,5*	14%
Butter	41,8	17,3	41%
Sugar raw material	545,3	322,2	59%
Sugar	275,8	48,4	17%
Wheat	1820,7	1293,0	71%
Tea	14,1**	14,4***	102%
Rice	60,4	50,2	83%
Pasta	35,3	21,4	64%
Vegetable oils	85,3	46,1	54%
Unrefined crude vegetable oils	x	96,4	X
Fish and fish products	76,5	17,2	22%

Source: [https://www.stat.gov.az/source/food\\_balances/](https://www.stat.gov.az/source/food_balances/) 2023 and <https://customs.gov.az/az/faydali/gomruk-statistikasi/en-cox-idxal-olunan-mallar> 2023 compiled by the author based on his data

\*In 2022, 49.8 thousand cattle were bought from other countries. 88% of these cattle (mainly 39,800 heads bought from Georgia) are kept for some time and slaughtered for meat. In previous years, this number was more than 2 times.

\*\* This includes exports.

\*\*\* This includes fermented and partially fermented black tea imported for processing.

As can be seen from Table 2, the dependence on food products in the country is quite high. This addiction is especially high in butter, raw sugar, food wheat, pasta, rice, tea, and vegetable oils. There is confusion in some data of the SSC, as the consumption of wheat products includes the production of flour and semolina together, and therefore it is not possible to distinguish the part spent on flour production in the volume of imported wheat. In fact, almost all of the imported food wheat is used for the production of flour. In 2022, 1365 thousand tons of flour was produced in the country. Considering that imported food wheat is used for flour production, our milling industry was 74% dependent on imports in that year. This figure varies from 70% to 85% in different years.

Dependence on vegetable oils is actually 100%, as 54% of directly consumed products are imported. At the same time, existing vegetable oil production plants owned by "Azersun" holding in the country work with imported unrefined crude vegetable oil raw materials.

Dependence on imports of food products also depends on the state's economy. In our country, there are very favorable conditions for getting rid of imports in the food industry, and because of this, state regulatory mechanisms should be activated, strict measures should be taken to protect the domestic market and increase local production.

The same situation applies to cigarette production. Cigarette factories in the country are abandoning Azerbaijan tobacco, which has gained a reputation for its quality, and prefer cheaper imported tobacco and industrial substitutes for tobacco. These factories operate almost entirely on the basis of imported raw materials.

One of the reasons for the dependence of agrochemical products on imports should be sought in the fact that products imported to the country are sold at very high prices in the domestic market. The table below shows the difference between import prices and retail prices of many food and non-food commodities in the agro-processing sector.

**Table 3. Import and sale prices of some agro-industrial products in 2022**

Indicators	Import price man.	Average retail price man.	comparison +-
Beef kg.	7,66	12,91	+ 1.69 times
Poultry kg.	2,67	5,54	+2,1times
Fresh and frozen fish kg.	4,09	7,75	+1,9times
Butter and other dairy fats kg.	9,91	19,07	+1,9times
Tea kg.	8,90	22,46	+2,5 times
Wheat flour kg.	0,60	1,43	+2,4 times
Vegetable oils 1 liter.	2,85	Olive oil- 14,14 Sunflower oil- 5.27 Corn oil - 6.79	With an average number +3.1 times
Cigarettes 1 box (20 pcs.)	0,71	2,55	+3,6 times
Cotton fabrics 1 sq.m.	0,66	3,75	+5,7 times
1 pair of shoes	4,72 (medium)	25,80	+5,5 times
Sausage	5,26 (medium)	14,75	+2,8 times

Source: Committee of statistics "Prices in Azerbaijan" 2023 p.39. and SSC "Customs Statistics" 2022  
<https://customs.gov.az/az/faydali/gomruk-statistikasi/en-cox-idxal-olunan-mallar> compiled by the author based on his data

As can be seen from Table 3, the difference between import prices and retail prices for many food and light industrial products is extremely large. In particular, the situation in the footwear industry should be more open. The leather sector, which is the main raw material for shoe production in the country, needs very strong government support. Except for export, 35% of slaughtered cattle hearts and 16% of sheep skins are processed in the country. Most of the processed hides and skins are exported as raw materials. There is no modern shoe factory in the country that can meet the needs of the

population. As a result, the country's footwear market has become completely, more precisely, 98% dependent on imports. In our opinion, the reason why the shoe industry has fallen into this situation should be sought in the huge difference between import and retail prices. Thus, it is known from the information of the DSK that in 2022, shoes worth 155.5 million manats were imported into the country and sold in the local market for about 826 million manats. As you can see, the difference is huge.

Another task of the state in the matter of import substitution is the transition to full supply of state purchases only with local food products. The volume of food products purchased by the state in the country is quite large and a certain amount of imported products are used.

The established trends for the development of the agro-processing sector in the country generally require the optimization of the mechanisms of state regulation of the development of the agro-industrial complex, which should be directed both to the formation of the optimal production structure and the balanced development of all forms of management.

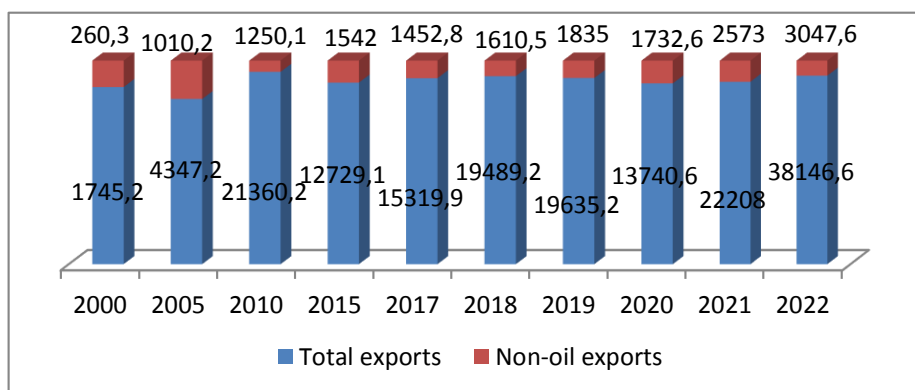
**Thesis 3: Ensuring the sustainable development of the agro-processing sector requires improving the entrepreneurial environment and competitiveness;**

The integration of Azerbaijan into the world economic system makes the security issues of the national economy particularly relevant. This safety is completely related to the competitiveness of domestic agri-food market products. The expected increase in the degree of openness of the national economy due to the perspective that Azerbaijan will soon join the WTO requires the formation of an effective mechanism to ensure the competitiveness of agro-processing products. Therefore, the enterprises producing agro-processing products of the country should not increase production at any cost, but should only try to produce products that are competitive.

It is known from practice that there are many difficulties and problems in the direction of increasing the competitiveness of agro-processing enterprises. One of the main reasons for this is the lack of

clear strategic plans of enterprises, lack of financial, economic and social goals, including reasons independent of the producer, that is, bureaucracy, monopolies and official entrepreneurship are still in operation. The manufactured product should be calculated not to increase the quantitative indicators, but to consumer satisfaction. It is the production enterprises focused on the satisfaction of global buyers that make them competitive. Therefore, the ability to introduce and present manufactured products and services to the world market plays an important role in the development of enterprises.

One of the main indicators of the competitiveness of agro-processing enterprises in the country is related to the ability to export these products. The export dynamics of the country in the last 22 years can clarify this idea.



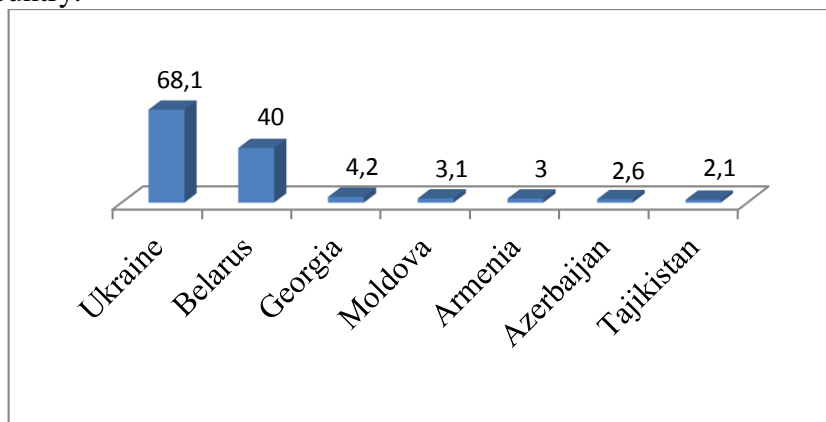
**Figure 1 Azerbaijan's export dynamics. million dollars**

Source: SSC Economy statistics "Trade" 2023  
<https://www.stat.gov.az/source/trade/> and DGK  
[https://customs.gov.az/uploads/foreign/2022/2022\\_12.pdf?v=1674644815](https://customs.gov.az/uploads/foreign/2022/2022_12.pdf?v=1674644815)  
 author's design based on his data

As can be seen from Figure 1, the commodity composition of products exported from the country mainly consists of crude oil. It is true that the export of non-oil products increased 11 times in 2020 compared to 2000, but if the specific weight of non-oil products exported 22 years ago, i.e. in 2000, was 15% of the total export, this figure will be 2022 decreased to 7.5%. In general, in front of the

potential opportunities of the country's non-oil sector, 3 billion dollars export is very low.

If we compare Azerbaijan's export of non-oil products with Georgia and the CIS countries, which do not have oil, the picture will be clearer to us. Because the volume of product exports of the non-oil sector, unlike the sale of resources, can be considered one of the main indicators of the competitiveness of national products in the country.



**Figure 2. Comparison of Azerbaijan's non-oil exports in 2021 with non-oil producing Georgia and CIS countries. billion dollars**

Source: SSC Economic statistics "Trade" 2023 16.

Compiled by the author based on <https://www.stat.gov.az/source/trade/> data

Figure 2 shows that the volume of export products of countries without crude oil production exceeds the export of the oil sector of Azerbaijan, with the exception of Tajikistan, where there are countries (Georgia, Armenia, Moldova) that, both by territory and they also have smaller indicators compared to our country due to the number of their population.

Agro-processing industry enterprises in Azerbaijan operate almost entirely in the private sector. The development of this sector has a positive effect on the competitiveness of manufactured products and simultaneously stimulates the export of competitive products.



**Table 4 Export dynamics of individual products in the field of agro-processing**

Indicators	2010	2015	2018	2019	2020	2021	2022	2022 2010 comparison
Tea. tons	8126	4287	1367	1506	1357	1116	1780	-4,6times
Vegetable oil. tons	27934	23469	10842	8219	14043	11889	7903	-3,5times
Sugar. thousand tons	204	221	44	62	61	59	55	-3,7times
Canned fruits and vegetables. thousand tons	4,7	2,9	6,7	6,9	7,2	8,5	8,5	181%
Fruit and vegetable juice. Thousand tons	18,7	6,7	7,5	9,9	11,9	12,7	11,2	-40%
Natural grape wine. thousand decalitres	224	195	658	532	227	263	301	134%
Dark alcoholic drinks. Thousand decalitres	323	370	142	299	160	259	289	-11%
Cigarette. million units	116	158	134	184	461	316	634	5,5times

Source: SSC Economic statistics "Trade" 2023 16. Compiled by the author based on <https://www.stat.gov.az/source/trade/> data

Table 4 shows the export dynamics of the main products of the agro-processing sector in the last 12 years. As it can be seen, some achievements have been made in the export of tea products between 2010 and 2015, but in recent years this indicator has been decreasing rapidly year by year. In 2022, tea exports decreased by 4.6 times compared to 2010, but increased by 1.6 times compared to the previous year. This product is mainly exported to Georgia, Ukraine and Russia.

The same situation exists in the export of sugar. As we know, sugar production is a new field in our country. Since 2006, the Imishli sugar factory has been operating, and sugar has also been exported to meet the needs of the country's population. Only in 2010, 204 thousand tons of sugar were exported, as a result 146 million dollars of currency arrived in the country in the same year. However, in recent years, sugar exports have started to decrease regularly. In 2022, the export decreased by 3.7 times compared to 2010 and reached 55 thousand tons.

In general, the export volume of the main agro-processing products in the country tends to decrease. This is mainly due to the reduction of production within the country and the non-competitiveness of the manufactured products against similar products available on the world market. Therefore, these products cannot find their place in the world market.

Therefore, for the normal functioning of Azerbaijani enterprises, the market conditions require new strategic approaches to solving the problem of their competitiveness. At the same time, the efficiency of enterprises in the market environment requires each of them to search for ways for their own development and to develop their own strategy to increase their competitiveness.

**Thesis 4: It is more appropriate to direct the subsidies allocated to agriculture according to commodity products, which will create a strong incentive in the direction of increasing productivity and quality, partially reduce dependence on imports; At the same time, factoring financing is the best resource for increasing sales volumes for a wide range of enterprises with weak financial resources;**

Studies show that there is a need to improve agricultural subsidies in Azerbaijan, because these subsidies do not stimulate productivity growth, product quality improvement, and competitiveness. Since the subsidies are given according to the cultivated area, interest is focused on the expansion of the cultivated area, that is, extensive development, and indicators such as productivity and quality have fallen into the background. This is proven by the fact that we still cannot produce good quality food wheat in the country against nearly one million hectares of grain cultivation, and the fact that the local food wheat market is dependent on imports and the productivity figures have been at a low level for many years. Only in 2022 a subsidy in the amount of 159.5 million manats was provided at the expense of the state budget.

It can be concluded that the subsidies allocated to agriculture have not created an incentive to increase productivity and improve the quality of crops, as they are given according to the cultivated area.

Providing subsidies to agriculture in Azerbaijan according to the final result, i.e. according to the obtained product, would both stimulate productivity and lead to more effective use of land. Therefore, in our opinion, the mechanism of granting subsidies in the country should be revised, it would be more appropriate to give them not according to the size of the arable land in crop cultivation, but not according to each head of calf purchased in animal husbandry, but according to the commercial product.

In the world experience, there is a tendency to reduce state support for agriculture and cancel subsidies for export products. In Canada, New Zealand, Australia, and Latin American countries, liberalization of agricultural trade is more preferred. Substitution of subsidies with market regulation makes farmers think about increasing productivity, lowering cost, improving quantity and quality indicators, and they have achieved this by eliminating subsidies in the countries we have mentioned.

Among the mechanisms of state regulation in the agro-processing sphere, state support remains the most effective tool. In general, enterprises that need state support can be divided into 3 groups.

1. enterprises that need state support and operate at a loss

2. enterprises that need working capital and work with small income;
3. enterprises that need investments to expand production and work with income.

If loss-making enterprises are of high socio-economic importance for the country or any economic region, then protective regulatory methods of the state should be activated, supporting measures should be taken to keep the enterprise afloat.

Enterprises of the second group are enterprises that do not have working capital, but have a small level of profitability. The solution to the problem of lack of working capital for such enterprises can be provided through an effective credit system and factoring.

In order to increase the working capital of enterprises, the state can create a factoring program to support enterprises. For this purpose, there should be credit organizations established in the regions to provide factoring services only, and this work should be entrusted to them. It can also be entrusted to any bank that has branches and operates in all regions.

It should also be noted that at the end of the last century, factoring operations became very widespread in EU countries and even began to suppress commercial loans.

When providing factoring service to an enterprise, its future income, that is, its income after financing, is taken into account, while in the case of bank lending, the past income of the enterprise and the actual sound financial condition of the enterprise are taken into account.

This is very important for a wide range of medium and small economic entities operating in the field of agro-processing in Azerbaijan and having very weak financial resources, and financing for the growth of their production volume becomes easy and accessible. Factoring is also a targeted tool to increase sales volume, and the increase in sales volume, in turn, affects the cost reduction and ultimately makes the manufactured product more competitive in the market. In return for all this, the provision of financial resources on preferential terms during the factoring financing process should be transparent and regulated.

The third group of enterprises, which, as we mentioned, need investments to expand production and are operating with income. Such enterprises can achieve this goal through investments.

Entrepreneurs, businessmen, and investors will invest in the agro-processing field when the invested funds will soon bear fruit and return. The quick return of the investment can be ensured due to the correct financial and credit regulations of the state. Therefore, local private sector investments should be supported by the state at all stages, especially at the initial stage. Usually, initial investments are more risky and need more external support, i.e. government support. For this, first of all, a favorable investment environment should be created for the producers of the agro-processing sector, healthy competition should be supported, and bureaucratic entrepreneurship should be put an end to. A strong regulatory framework and optimal taxation are key elements in creating an attractive environment for investors. If the correct economic policy is not established in the country, even significant investments will not give the desired results. It is very important to reduce the risks faced by medium and small entrepreneurs, investors, farmers, which are typical for developing countries, including Azerbaijan.

In a situation where the existing banks in the country have shown that they are not very willing to give credit to the agricultural and processing sector, it is appropriate to create private investment funds that attract private investments supported by the state and as an innovative tool. Here, associations of small entrepreneurs can also be useful in raising funds for investment.

Venture investments can also be seen as the most important investments in the agro-processing field. This form of investment is directly related to innovation and is aimed at financing risky innovative high-profit projects to create added value in production or projects with an average duration of three to five, sometimes seven years in fast-growing industries.

The experience of developed countries shows that active state support is necessary for the successful development of venture business, especially at its initial stage. It is as a result of state support that venture investment can develop.

At the same time, financial sources should be explored to develop venture business in the country. In our opinion, one of the most important sources for venture capital would be the country's state pension fund. State institutions with large assets (for example, State Oil Company-Socar, State Oil Fund, etc.) can be attributed to possible sources of venture capital. These structures can become one of the priority sources of venture capital due to the availability of wide investment opportunities.

**Thesis 5: Eastern Zangezur and Karabakh economic regions liberated from occupation in 2020 have great potential in terms of developing agriculture and agro-processing. In order to stimulate entrepreneurship in the liberated areas, the government should take many incentive regulatory measures, including land reform.**

As it is known, in 1990-1993, as a result of the occupation of Nagorno-Karabakh and seven surrounding regions by the Armenian military units, 20% of our territories were occupied, and up to one million compatriots who lived in those territories became refugees and settled in other regions of the country. This occupation lasted for 30 years, as a result of which the infrastructure that was very important for the AIC of the country and built in those areas was completely destroyed, agro-processing enterprises were destroyed, 6 thousand industrial and agricultural enterprises, 160 bridges and other infrastructure facilities were destroyed, in addition, 104.3 a thousand yes. arable land, 280 thousand hectares of forest, nearly 1 million hectares of fertile lands, 1200 kilometers of irrigation system were disabled, 220 thousand head of cattle were taken away. This invasion hit the country's economy, especially the agriculture and processing sector, very hard.

Finally, in September 2020, the National Army of Azerbaijan repelled the next provocations of the Armenians, launched a counterattack and completely liberated our occupied lands.

From the point of view of the development of agro-processing sphere, the importance of our freed territories is very great. Suffice it to say that up to 6,000 agricultural and processing enterprises and industrial enterprises were destroyed during the occupation. The

restoration of these enterprises will play a great role in the development of agriculture and agro-processing, which is its locomotive, in the country.

*It was established that land suitable for occupied agriculture has a high weight compared to other regions of the republic in terms of quality and productivity. The land-climatic features of the territory contribute to the high and effective development of crop production and animal husbandry.<sup>3</sup>*

Currently, the process of rehabilitating our regions, which have been completely destroyed by the invaders, is going very fast. Among these regions, we consider it more appropriate for Aghdam and Fizuli regions to develop viticulture and winemaking fields and take a leading position in the economy, because the natural climatic conditions of this region are very favorable for growing wine grapes. The re-production of "Aghdam" port wine and its return to the former traditional markets would occupy an important place among the country's export products.

For this, it would be appropriate to re-establish traditional technical grape plantations in those areas and to soon build and put into use wineries equipped with modern technological equipment.

Sometimes there is an opinion among wine producers that Russian consumers' requirements for wine have changed and they are more inclined to natural wines rather than port wines. We do not agree with these ideas, so if the marketing work is set up correctly, it is possible to find a buyer for that product in the market. First of all, it is necessary to investigate and find the reasons for the popularity of "Aghdam" portfolio and modernize them. That product should be presented to its traditional consumers with its previous taste and modern brand. It is possible to create nostalgic feelings in people and market the product in a modern form with a traditional taste. Marketing skills are required here. It is possible to create demand if there is ability.

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<sup>3</sup> Valiev A.Kh. İşğaldan land and climatic factors of agricultural development in the liberated territories//Baku: Center for Agrarian Research Scientific and Practical Journal of Agricultural Economics - 2020. No. 4 (34), - p.38-44.

The city of Shusha, freed from occupation, was declared the cultural capital of the country. The perspective of this city as a tourism and resort economy is greater.

Liberation of Azerbaijani territories from occupation will also make a significant contribution to food security in our country. In particular, the level of self-sufficiency with food wheat and livestock products will improve, and it will give a serious impetus to the development of the agro-processing sector. On the eve of the occupation on the occupied areas there were 45 thousand hectares of grape plantations, dozens of wineries, cotton spinning plants and other processing enterprises. Their reconstruction and start of operation will lead to significant growth in the country's economy. 35-40% of Azerbaijan's mineral water resources are under occupation. It is also possible and necessary to return these water sources to production, to package them and deliver them to consumers, and to create resort-recreational zones in these areas.

At the same time, land reform, which has been completed in all areas of the republic but could not be implemented due to the occupation, should be carried out, as in other regions, arable land should be distributed to the residents.

**Thesis 6: Creation of regional and sectoral clusters is one of the most important means for the development of agriculture and agro-processing in the country. Therefore, state programs related to the development of clusters at the state level should be developed and implemented;**

The creation and development of clusters in the economic spheres of the country is mentioned as the main direction in the "Strategic Roadmap for the main sectors of the national economy and economy".

In the international world, clusters have been applied in the economy since the 90s of the last century. In developed countries, clusters are very relevant and this approach is given a lot of importance. Since 2000, national programs for the development of clusters have been developed in 26 EU countries. Some European countries (Norway, Denmark) operate special programs for training cluster managers.



*Already 38% of the employed population by EU countries work in enterprises and organizations included in clusters. This figure exceeds 50% in some regions. In the United States, 36% of the economically active population work in joint enterprises in this organization. In Italy, an industrial cluster accounts for 40% of industrial employment, in Great Britain 154 regional clusters account for 40% of regional employment, and in the Netherlands 12 clusters account for 30% of GDP by industry. The largest cluster in the world operates in Italy, which includes 9,000 enterprises and organizations<sup>4</sup>*

The main principle of clusters is the development of partnership relations between the state, economy and science. In addition, in the cluster, all processes from product development, initial production, processing to sales go through one chain. Innovative nature, communication and interaction between actors, existence of competition and cooperation are characteristic features of clusters. Responsibility and commitment to the final product shape the cooperation between them.

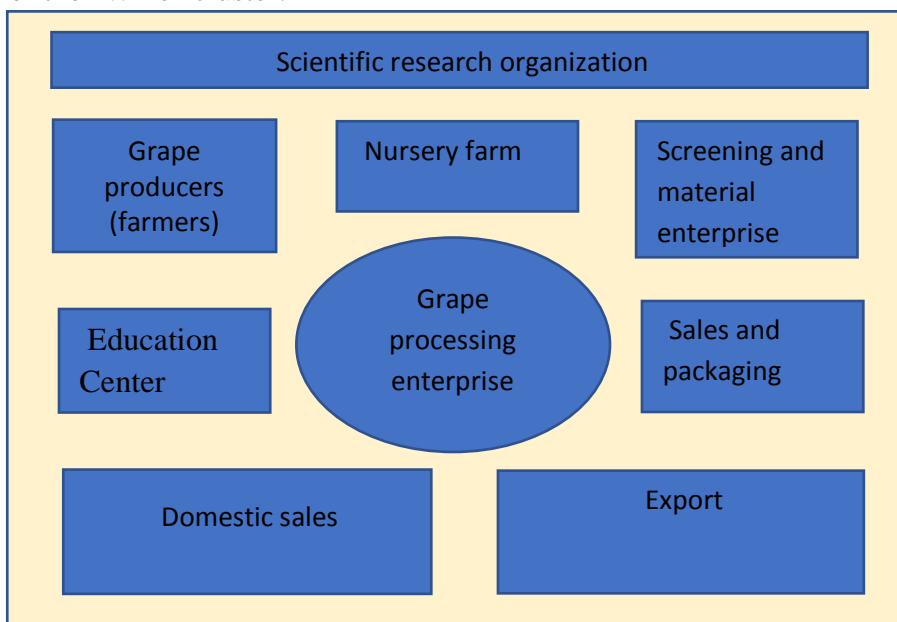
Taking into account the great importance of clusters in the country's economy, especially in the AIC sector, the state should prepare and start implementing a cluster-based development strategy for regions. In the absence of strategies and maps reflecting performance indicators, which allow to evaluate the main criteria, principles and results of clusters, it will be difficult for clusters to gain success and expand. For this, first of all, the cluster potential of all regions of the country should be analyzed and the regions with important cluster targets should be determined. Scientific research institutes, universities and other scientific centers of the country should be involved in these issues. Namely, taking advantage of international experience, developing national programs for clusters like EU countries would lead to more efficient results.

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<sup>4</sup> European Clusters alliance The common voice for european clusters / [Electronic resource] / URL: <https://clustersalliance.eu/>

We believe that in order to fully use the existing potential in the agro-processing sector in the conditions of Azerbaijan, in the regions "Grain", "Sugar", "Vegetable oil", "Meat", "Milk", "Cotton", "Tobacco", "Fruit", "Silk", "Wine" etc. it is possible to create such sectoral clusters. In these clusters, the "production-storage-processing-sale" process will be united under one umbrella, and as a result of their mutual activities, the cost will be reduced, and the problems of raw material supply and sales will be eliminated. Here, agro-processing enterprises play the role of the central actor of the above-mentioned clusters and can influence both production, logistics and consumption. Clusters can be organized both sectorally and geographically.

In the following figure, we have tried to give the optimal structure of the "Wine" cluster.



**Figure 3 Structure of "Wine" cluster**

Source: author's compilation

Figure 3 shows the structure of the "Wine" cluster compiled by the author as a sectoral cluster. Here, the processing enterprise plays the role of the central actor, at the same time, it regulates the activities of the entities within the cluster.

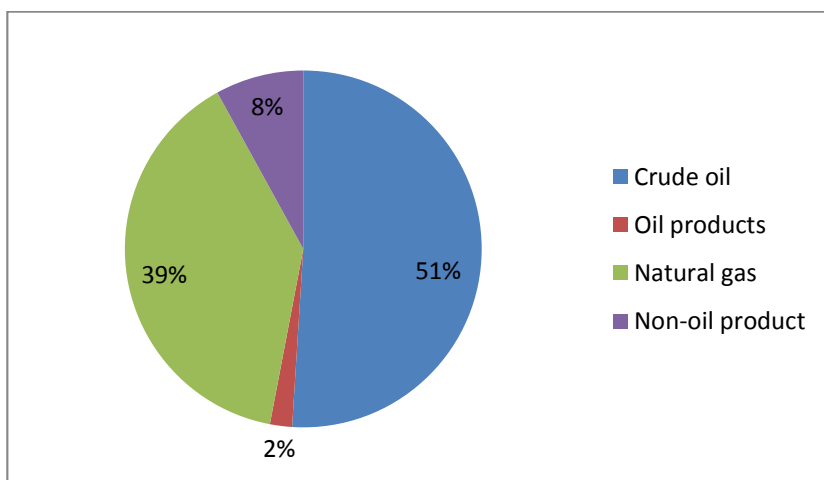
The organization of agro-processing clusters will lead to continuous and rapid development of the agro-processing sector in the country. Large production units will be created under one umbrella, which will increase the level of in-depth processing of agricultural products and raw materials, reduce cost and ultimately increase efficiency. The country's export potential will increase significantly, the position of imported products in the domestic food market will weaken, and the demand for basic products (bread and bakery products, meat, milk, sugar, vegetable oil, knitwear, shoes, clothing, etc.) will be mainly provided by local production.

**Thesis 7: Azerbaijan should become a member of the WTO, and this membership will be a very strong impetus to the economic opening and trade liberalization to the country's economy in general, including the development of the agro-processing sector;**

The country's entry into the WTO has caused disagreements in academic circles. Some scientists believe that joining this organization can put local producers in a difficult situation and it will be very difficult to compete with imported products in the market.

We do not consider this approach to be correct and believe that although certain difficulties are expected in the short term, they will disappear very quickly, and it should be taken into account that the vast majority of developed and developing countries of the world are benefiting from this membership at a significant speed. That's why we believe that our country's accession to the WTO is an urgent matter in terms of the benefits that our country will gain in the medium and long-term perspective, as well as the growth rates of the economy and the further improvement of well-being.

For those opposed to WTO accession and trade liberalization, the structure of a country's export products would be a more coherent answer.



**Figure 4 Commodity structure of the country's exports in 2022**

Source: SGC Statistical reports 2022 Based on

[https://customs.gov.az/uploads/foreign/2022/2022\\_12.pdf?v=1674644815](https://customs.gov.az/uploads/foreign/2022/2022_12.pdf?v=1674644815) author layout

As can be seen from Figure 4, the country's exports mainly consist of natural resources and oil products. Non-oil products account for only 8% of exports. It should also be noted that the exported non-oil sector mainly consists of raw materials (cotton, tobacco, silk, tanned leather and unprocessed hide, etc.) and unprocessed agricultural products for direct consumption (tomatoes, dates, cherries, hazelnuts, etc. .fruit and vegetable products), that is, fruit and vegetables 23%, cotton fiber 6%, cotton yarn 1%, electricity 4%, and others 66%. Therefore, entering the WTO does not create fear of export-oriented national products, on the contrary, it promises greater prospects for processing and export-oriented agricultural products.

It is known that WTO membership will not lead to sharp price changes due to the liberalization of the trade regime, on the contrary, the prices of some products will decrease. Because the prices of these products in the local market are higher than the world market prices.

Being a member of the WTO will not affect the development of the agro-processing sector like other sectors of the economy. First of all, we should note that the country's dependence on imports for knitwear, clothing, especially leather and footwear industry products is very high. The need for restructuring and reconstruction of this area is great, and the main source for this can be foreign direct investment. The obligation to protect investments made in WTO member states is carried out not only by that state, but also by this prestigious international organization.

*Azerbaijan's accession to the WTO is extremely important, since a certain stability arises in the domestic market, an abundance of products arises, a certain monopoly and monopoly are violated. Accession to the WTO could lead to complete liberalization of the country's economy<sup>5</sup>*

When Azerbaijan joins the WTO, it will be forced to agree to the reduction of subsidies from the state, because this organization prefers not to give subsidies to agricultural subjects, but to their more correct use of market instruments. This means that the country's producers should be more active in the direction of rapidly increasing labor productivity and improving product quality.

Taking into account all these analyzes and analyses, we can finally say that our membership in the WTO, the opening of the economy and the liberalization of trade will be a strong impetus to the country's economy in general, including the development of the agro-processing sector.

**Proposals and recommendations for the development of the agro-processing sector in the country and further optimization of state regulations.**

Analyzing different interpretations of definitions of state regulation, it can be concluded that the researches of foreign and national scientists clearly prove that the complete exclusion of the

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<sup>5</sup> Sadygov I.M. The place and role of the state in the development of public-private cooperation in the agrarian sphere// - Baku: Journal "Scientific Works" of the IEA Institute of İqtisadiyyat, - 2019. №5. - p. 222-230. (See the "List of Works" section in autoreferat)

state from the regulation of AIC leads to negative results, intensification and exacerbation of crisis events.

It is possible to clarify the definition given to it by summarizing the opinions of various scientific schools and individual scientists about the state regulation of the economy:

State regulation of the economy is a complex system of coordinated activities that influence the economic processes in various fields and realize the interaction between economic subjects by state bodies for the purpose of sustainable and comprehensive development of the economy.

1. The quick self-correction of the investments made in the field of agro-processing leads to the conclusion that it is possible and necessary to implement the innovation-investment model for the development of the agro-processing sphere. The restructuring of the food and light industry and the attraction of investments in this area are highly dependent on a fertile investment environment. We believe that it is necessary to apply many concessions during that period in order to protect and insure the investments, to reach the production capacity of the invested enterprises.

2. Since the subsidies allocated to agriculture in Azerbaijan are generally given according to quantitative indicators in the agricultural sector, they do not create an incentive to increase productivity and improve product quality. Therefore, in our opinion, the mechanism of providing subsidies to agriculture in the country should be improved, and it would be more appropriate to provide them not according to quantitative indicators, but according to commodity products. It would also create a strong incentive to increase productivity and quality.

3. Direct subsidies and tax concessions are not given to agro-processing enterprises in Azerbaijan, which plays the most important role in the development of agriculture, and at the same time, its role in the country's food security is irreplaceable.

In our opinion, the state should provide one-time support for a certain part of the costs incurred in many sectors of the agro-processing field, which are as follows:

- in the purchase of high-tech machines and equipment for the modernization of bread, fat, meat, milk, leather, wine industry enterprises, grain, potato, vegetable and fruit processing and storage enterprises;

- construction of treatment plants, disposal of biological waste, including purchase of equipment for biogas plants;

- purchase of special means of transport for organizing the purchase and transportation of livestock and poultry biological waste;

- for the sale of commodity products to enterprises producing environmentally friendly products;

4. There is a group of agro-processing enterprises that have very little working capital and therefore have a low level of profitability. It is known that the high interest and short-term loans offered by the country's banks exclude the solution of this problem through loans. Therefore, such enterprises are practically deprived of these opportunities, because bank interest rates are higher than the level of profitability of the enterprise.

It is more appropriate to solve this problem through the factoring service, which is an example of an effective credit system. Factoring service is very important for a wide range of medium and small business entities operating in the field of agro-processing and with very weak financial resources, and as a result of this service, financing for the growth of their production volume is easy and accessible.

In our opinion, it would be appropriate to create a factoring program for the purpose of support in order to solve these problems. To provide factoring service, there should be credit organizations established in the regions and this work should be entrusted to them. Also, any bank that has branches and operates in all regions can be entrusted with this work.

5. Venture capital is one of the most important investments in agro-processing. This form of investment is directly related to innovation and is aimed at financing risky, innovative, high-profit projects to create added value in production or projects with an

average duration of 3-5, sometimes up to 7 years in fast-growing industries.

The experience of developed countries shows that active state support is necessary for the successful development of venture business, especially at its initial stage. It is as a result of state support that venture investment will develop better and the level of risk can decrease.

For this, first of all, a normative-legal framework regulating venture activity should be created in the country. In our opinion, one of the most important sources for venture capital would be the country's pension fund. State institutions with large assets (for example, State Oil Company-Socar, State Oil Fund, etc.) can also be considered as possible sources for the application of venture capital. These structures, especially the State Oil Fund, have wide investment opportunities and therefore can become one of the main sources of venture capital.

6. Nagorno-Karabakh and its surrounding regions, liberated from occupation in 2020, have great potential in terms of developing agriculture. While restoring the production structures of AIC in these areas, first of all, agro-processing enterprises should be created according to the structure and production potential of the agricultural products of the regions. Because agro-processing enterprises are the main central link in the production-consumption chain of agricultural products. In these regions, the construction of cotton factories, yarn and sewing factories, knitting factories, meat and dairy factories, wineries, wool processing factories, industrial carpet factories, leather factories, shoe factories, grinding and feed mills can be considered the most important areas for the development perspective. It would be very appropriate to restore and put into operation the shoe factory in the city of Khankendi.

Taking these measures will not only stimulate the local population of the liberated areas, as well as businessmen living in other areas of the republic, entrepreneurship in this region, as well as a lot of wealthy people originally from this zone will be interested in moving their businesses to the liberated areas.



7. At the same time, land reform, which has been completed in all areas of the republic but could not be implemented due to the occupation, should be carried out, as in other regions, arable land should be distributed to the residents. Of course, the plots of land that will be distributed to the residents of the regions freed from occupation will not remain empty, they will be used by their owners, agricultural products will be produced, and this will be a very strong impetus for the faster settlement of those areas.

8. Azerbaijan's entry into the World Trade Organization (WTO) is very important for the development of the country's economy, its integration into the world economy, and the attraction of direct foreign investments. Accession to the WTO is very necessary for the development of the country's economy, including the agro-processing sector.

In our view, accession to the WTO:

- It will prevent the existing prices in the domestic market from being higher than the foreign market prices;
- Import of contraband (evasion of goods from customs duty, non-documentation of a certain part of goods volumes, price distortions of goods, etc.) will be prevented;
- The very low purchase prices of local agricultural products with processing facilities will be prevented to a certain extent;
- Price distortions of some imported goods will be eliminated, there will be transparency in border-customs services;
- Monopolization of imports, that is, lobbying activities for individual goods and groups of goods will disappear to a certain extent;
- The volume of direct foreign investments in the country will increase;

9. The formation and development of clusters in Azerbaijan is of great importance for increasing the country's economic reputation and improving its position in the world market. We believe that in order to expand local agricultural production and processing in Azerbaijan, to use resource potential more effectively, to increase competitiveness, to strengthen export potential it is appropriate to create "Grain", "Sugar", "Vegetable oil", "Meat", "Milk", "Cotton",

"Tobacco", "Fruit", "Silk", "Wine" and other regional and sectoral clusters. In these clusters, the "production-processing-storage-sale" process will be united under a single umbrella. Here, agro-processing enterprises play the role of the central actor of the above-mentioned clusters and can influence both production, logistics and consumption. These clusters that we offer can be organized both on sectoral and geographical areas.

At the same time, we believe that taking into account the great importance of clusters in the country's economy, especially in the AIC sector, the state should prepare a strategy for the development of regions based on clusters, and specifically, a state program related to the development of clusters, as in developed countries, should be adopted.

10. In state regulations, strict taxation policy should be changed to moderate conditions, and there is no other alternative to this solution of the problem. In particular, a transition to moderate taxation in the food industry is necessary, taking into account the importance of this sector for the nutrition of the population.

11. Tax incentives should be applied in agro-processing enterprises in the following cases.

- removal from the full taxation base of the part of the enterprise's income spent on investments for the introduction of new innovations and technological development, that is, on new developments and technically new equipment; Let's assume that any agro-processing enterprise had a profit of one million manats, and 300 thousand manats of this profit were spent on purchasing modern technological lines for the enterprise. Then it would be more expedient for the basic figure for income taxation to be not 1 million manats, but 700 thousand manats, which remained in place after the contribution to the development of the enterprise was made. This would stimulate entrepreneurs to expand their businesses and introduce innovations.

- if there is a decrease in production in the enterprise, in order to prevent it, for the sake of protecting and creating jobs, full, partial and certain period tax exemptions should be applied;

12. It would be appropriate and necessary to improve customs regulations in the field of agro-processing:

- it is necessary to protect the domestic market through customs for local producers who can fill the domestic market of the country with the products of Azerbaijan agro-processing sector on a qualitatively new basis. Customs protection should be applied to almost all products of the agro-processing sector;

- it would be appropriate to apply tariff quotas to individual agro-processing products, such as food and food products, as well as special tariffs, regardless of the producing country. The main purpose of applying special tariffs is to protect the domestic market and thereby achieve the development of local producers.

13. It is more expedient to increase the cultivation area of wine grape plantations in Azerbaijan to the level of 1985-1990, i.e. to 220 thousand ha. There is potential for the return of the former reputation of Azerbaijan wine in the country, and if this potential was launched, it would allow the country to annually introduce 2.5-3 million dollars from the export of wine and grape products according to estimates. In our opinion, the following recommendations can play an important role in restoring this area to the indicated level:

- To increase the cultivated area of wine grape plantations across the country to 220 thousand hectares. In our opinion, the expansion of grape plantations should be at the expense of grain fields, which have very little economic efficiency, as once grape plantations were destroyed and given under grain. The loss of grain due to the reduction of grain cultivation area can be recovered by bringing grain productivity closer to the level of developed countries.

- The number of modern wineries in the country is not enough. There is a serious need to increase the number of wineries with new technologies that meet modern requirements. Most of the wineries owners are satisfied with the local market, albeit limited. In order to restore the position of Azerbaijani wine in the traditional Russian market, where it was previously exported, state regulation should be developed in a systematic way. First of all, a competitive environment should be created in the country in this field, unfair competition and monopolies should be eliminated, and many encouraging factors should be used for entrepreneurs engaged in wine production. Proper establishment of the entrepreneurial and

competitive environment in wine production means the increase of wine processing plants, the increase of wineries means the growth of the market for wine grape raw materials, and the growth of the market will lead to the increase of wine grape plantations.

- It is of great importance to establish farms that grow regionalized new and productive technical grape seedlings with an innovative cultivation system in the traditional wine-growing regions of Azerbaijan. Regionalized productive, new technical varieties are a key factor in improving efficiency. Therefore, it is appropriate and necessary to reconstruct and develop the work of creating nursery farms that grow high-yielding grape seedlings in the republic under the auspices of the state.

- At present, there is a great demand for high-quality industrial production of table grapes, dried raisins and raisins, as well as abgora, vinegar, various juices, jams, non-alcoholic drinks made from grapes, which can be preserved for a long time. The use of table and technical varieties that are fully suitable for the production of individual products in accordance with world standards in the establishment of new vineyards with a modern type of innovative cultivation system in different regions will create conditions for the full supply of such products to the population of the republic and increase wine exports and as a result, it will allow to obtain high economic income.

- Viticulture enterprises should increase the production of other products obtained from grapes. In addition to wine, raisins, marinades, jams, behmez, oriental sweets, grape juices, and other non-alcoholic (non-alcoholic) drinks are obtained from grapes, and these products differ in their importance in people's diet. Large grape storage warehouses can also be built in Azerbaijan, and CIS countries, which are traditional sales markets, can be supplied with fresh grapes throughout the year. However, the grapes sold in the Azerbaijan market during the off-season are mainly imported from Turkey and Iran. Only in 2016, 20.6 thousand tons of grapes were imported.

14. In the research work, the field of tobacco farming was investigated in detail and it was considered appropriate to implement the following proposals for the development of this field.

- Raw materials markets of cigarette factories operating in the country should be regulated in such a way that local tobacco is more preferred. Currently, cigarette factories have almost no interest in local raw materials, and more preference is given to cheap imported raw materials and industrial substitutes for tobacco. Farmers engaged in tobacco production in the country suffer a lot from this, and thousands of tobacco-growing population are forced to turn to other types of activities.

- It would be reasonable to establish an institution and a relevant laboratory that controls the quality of tobacco products and raw materials imported from abroad. Restrictions should be imposed on the import of low-quality and cheap tobacco raw materials.

- Purchase prices of tobacco should be raised at least twice, cigarette factories should make concessions in the distribution of income in favor of peasants and farmers.

- It would be appropriate to restore and put into use modern tobacco drying facilities and sheds, as well as fermentation plants in tobacco-growing regions.

15. By doubling the cotton cultivation area, it is possible to increase it to 200 thousand hectares as an optimal option for the country, although it is not at the level of 1981-1985. The area of cotton crops should be at the expense of crops that were once planted with cotton and later changed to grain and other crops. The preference of farmers and other cotton producers for grain and other crops lies in the purchase price of cotton and irrigation problems. Therefore, the purchase prices of cotton should be raised at least 2 times, and cotton processing plants should show the principle of fairness in the distribution of income and make concessions in favor of cotton producers.

Irrigation works of cotton fields should be reorganized, "flooding" irrigation method, which causes a large amount of water loss and soil salinization, should be abandoned, modern and more economical irrigation (drip method) systems should be applied. At the same time,

manual labor should be completely eliminated in cotton growing, especially during cotton harvesting, and for this purpose, the number of cotton harvesters should be increased.

16. First of all, Azerbaijan should increase the area of tea plantations. In our opinion, the total area of tea plantations across the country can be increased to 6 thousand hectares. For this, the existing soil and climate conditions in the southern regions of the country fully meet the requirements for the cultivation of tea plants.

Taking into account the production of tea 7-8 years after planting, the state should pay compensation to the farmers in the amount of the minimum living wage, provide preferential loans, subsidies and other incentive measures during that period.

Azerbaijan tea is considered ecologically cleaner and more useful tea. At the same time, customs regulations and market protection policy should be implemented so that we can sell our tea in the local market.

In order to establish modern tea plantations, zoned planting materials should be selected correctly. For this purpose, a special nursery farm serving this area should be created at the expense of the state and provide farmers with regionalized and high-quality tea seedlings.

17. The import dependence of the milling industry in Azerbaijan is very high. The main reason for this is that the quality indicators of local wheat do not fully meet the requirements for bread production, and therefore less of it is used for food. The main part of local production is spent on livestock and poultry feed.

- First of all, it would be appropriate to create regionalized food wheat seed farms based on scientific research.

- At the same time, in order to achieve high productivity, the irrigation problems of food wheat fields should be solved.

18. The import dependence of pasta products in Azerbaijan can be significantly reduced, and the country has great opportunities in this direction. First of all, it is necessary to grow glassy, durum wheat varieties needed for pasta production, for which there is potential in the country. At the same time, the recommendations given to end

dependence on imports in flour production can also be applied to pasta production.

19. When examining the fruit and vegetable sector, it became clear that the biggest problem here is the dependence on imports of dried fruits, which have a wide consumption potential, and purees and concentrates, which are the main raw materials of this sector. In our opinion, the following measures should be taken to eliminate this dependency:

- the existing orchards in the country should be expanded, and in particular, encouraging and encouraging measures should be taken for the development of industrial (intensive) fruit growing.

- Subsidies should be introduced for commodity products sold by producers to fruit processing plants.

- Preferential loans should be given for the establishment of industrial fruit growing.

- It would be more appropriate to establish small-scale fruit processing plants in fruit-growing regions, and the government should provide preferential loans, etc. incentive measures should be directed in this direction.

20. Sugar raw materials needed for sugar production in Azerbaijan are dependent on imports. In order to eliminate the dependence of sugar raw material in the country, there is a great opportunity to increase the sugar beet cultivation area and the problem can be solved if the proper regulatory mechanism of the government is put in place:

- The sugar beet cultivation area should be expanded to 35 thousand ha. For this, the purchase price of this product should be revised and increased in order to create interest among farmers.

- Subsidies should be applied for the commercial product given by the farmers to the Imishli sugar factory.

- Irrigation, which is the biggest problem in sugar beet production, should be fully resolved with the support of the state.

- In order to eliminate manual labor in sugar beet production and to reduce the cost of the product, the number of beet harvesters should be increased.

21. Per capita consumption of meat and dairy products in Azerbaijan is much lower than the ration norm recommended by WHO. Azerbaijani people are not fed enough with these vital products. The country has opportunities to solve this problem:

- The existing cattle herd consists of low-yielding local animals. Changing the herd composition of the existing cattle in favor of productive breeds of cattle will lead to an increase in productivity and a significant increase in the provision of meat and dairy products to the country's population. Researches show that if the herd composition of the existing cattle in the country is completely changed in favor of purebred animals, then the number of the herd can be significantly reduced, and the production can be increased by about 2-2.5 times.

- Development of animal husbandry on the basis of intensive technologies, organization of animal husbandry complexes equipped with large and modern technologies, reorganization of the fodder base using the progressive practices available in the world, increasing the productivity of pastures, regulation of market prices, encouragement to change the composition of the herd in favor of high-yielding breeds of cattle and taking promotion measures and consequently increasing productivity should be considered as the main objectives ahead.

22. Fish and fish products are considered essential food for a human. The attitude of the state towards fishing as a whole should change.

- First of all, the work of raising baby fish and releasing them into water bodies should be strengthened, and the number should be brought to at least the level of 2000. Until 2000, 530 mln. baby fish were raised and released into natural water bodies and reservoirs.

- In Neftchala and other regions, the work of fish and fish breeding factories that operated during the Soviet period should be restored, a healthy competitive environment should be created for each entrepreneur to operate normally, and the monopoly in the fishing field should be eliminated.

23. The situation in leather processing in Azerbaijan is not encouraging. The opportunities to get rid of import dependence in the



footwear industry in the country are huge, and we consider the following recommendations appropriate to use this potential:

- First of all, small-scale leather processing factories working on the basis of modern equipment and technologies should be established and started operating in every region of the country. It would be more appropriate to have these small-scale plants in every district. For this, concessional loans, temporary tax concessions, etc. incentive regulation methods should be used.

- At the same time, commodity subsidies should be applied for supplying slaughtered animal skins to processing enterprises. These subsidies can prevent the skins of slaughtered animals from being diverted from processing.

- Implementation of the state's encouraging regulatory measures for the establishment of shoe factories based on modern innovative technologies would be a strong impetus for the revival of this sector, which is in a state of crisis. Reconstruction of the shoe factory in the city of Khankendi based on modern technologies would be a great contribution to the revival of this area.

- During the importation of shoes, appropriate regulations should be implemented in order to protect the market and benefit local producers.

24. Wool production and carpet weaving are one of the important sectors of the agro-processing sector. Although about 16,000 tons of wool are produced in the country, the local market for carpets and rugs is almost entirely dominated by imported products. The carpet industry in the country is in a state of crisis, but at the same time, the opportunities to get out of this situation are huge. For this, we consider it appropriate to implement the following recommendations:

- Due to the weak development of the carpet and knitting industry in the country, wool produced in sheep farms is not sold, and this valuable raw material is often thrown away as waste. The government should take responsibility for the purchase, processing and sale of wool. In any case, the stagnation in the country's carpet and knitwear industry is not the fault of sheep farmers and they should not suffer.

- In the existing sheep herds in the country, local sheep with coarse wool are the majority. The number of sheep breeds with fine wool should be increased. Fine wool is considered a valuable raw material both in the production of carpets and in the knitting and clothing industry. With the support of the state, it would be appropriate to establish fine-wool sheep breeding farms.

- In order to create an incentive to increase the production of fine wool, it would be appropriate to provide subsidies for commercial wool.

Regarding the production of ready-made meals, we should note that the market for the production of ready-made meals ("Food Tech") is growing very rapidly in the world. Factories producing ready-made food have started to operate in large cities of the USA, China and Europe.

In my opinion, Azerbaijan which is a small part of the global world, will not be bypassed by this development trend, and it would be appropriate for the government to establish mini-factories related to the production of ready meals in large cities such as Baku, Ganja and Sumgait, and to have a certain regulatory activity and program of the government in this direction.

**The main scientific articles, theses and monographs published in connection with the dissertation work include:**

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