

УДК 65.016:338.439:352

JEL Classification: M21, L66, R11

QOCAYEVA E.¹, FERHADI P.²

DEVELOPMENT OF THE NON-OIL SECTOR AS THE BASIS OF STATE ECONOMIC POLICY

DOI: <https://doi.org/10.32620/cher.2022.4.01>

Formulation of the problem. The article considers large-scale quantitative and qualitative changes in the socio-economic life of Azerbaijan, the creation of comprehensive conditions for the development of entrepreneurship, the effective use of rich natural resources and the potential of the regions, the development of the non-oil sector, directions for increasing the competitiveness of local products. *The purpose of the article* is to highlight aspects of the development of the oil sector as the basis of state economic policy. *Methods used in the research:* survey, quantification, ranking, scoring, etc. *The hypothesis of the study* was that the need to strengthen the country's oil potential, modernize its infrastructure, create and develop an industrial sector capable of producing competitive export products in accordance with international standards is related to the requirements of both the country's internal model of economic development and modern development, trends of the world economy. *Presenting main material.* The article raises the issue of creating modern industrial sectors in the country and improving the infrastructural support of industry, high evaluation of the trend of sustainable development of the oil sector of Azerbaijan, including the oil industry by international rating agencies. *The originality and practical significance of the research* lies in the forecasting and modeling of agricultural activity, "Smart Agriculture", "Green Future" and "Green Energy", technologies for the development of these areas, in particular, the protection of geothermal energy sources, the environment, the application of numerous initiatives to ensure a safe, healthy and green future, smart agriculture, digital technologies, improving the living conditions of the rural population. *Conclusions.* Technologies for the development of these directions "Smart Agriculture", "Green Future" and "Green Energy", especially the use of geothermal energy sources, environmental protection, numerous initiatives that ensure a safe, healthy and green future, smart agriculture, digital technologies, are defined ways to ease the living conditions of the rural population and increase their standard of living.

Key words:

modernization of the agricultural sector, competition, innovation, technology, smart village, smart agriculture, green future, green energy.

РОЗВИТОК НАФТОВОГО СЕКТОРУ ЯК ОСНОВА ДЕРЖАВНОЇ ЕКОНОМІЧНОЇ ПОЛІТИКИ

Постановка проблеми. У статті розглядаються масштабні кількісні та якісні зміни у соціально-економічному житті Азербайджану, створення всебічних умов для розвитку підприємництва, ефективне використання багатих природних ресурсів та потенціалу регіонів, розвиток ненафтового сектору, напрямки збільшення конкурентоспроможності місцевої продукції. *Метою статті* є висвітлення аспектів розвитку нафтового сектору як основи державної економічної політики. *Методи, використані в дослідженні:* опитування, квантифікація, рейтингування, бальна оцінка тощо. *Гіпотеза*

¹ Годжаєва Ельміра, д-р філософії з економіки, доцент кафедри прикладної економіки, Азербайджанський державний економічний університет, м. Баку, Азербайджан.

Qocayeva Elmira Magomed, Ph.D. of Economic, Associate Professor of the Applied Economics Department, Azerbaijan State University of Economics, Baku, Azerbaijan.

ORCID ID: <https://orcid.org/0000-0001-8413-4812>

e-mail: elmira_qocayeva@unec.edu.az

² Фархаді Пюстя Орудж, д-р філософії з економіки, доцент кафедри менеджмент та маркетинг, Бакинський університет бізнесу, м. Баку, Азербайджан.

Ferhadi Puste, Ph.D. of Economic, Associate Professor of the Management and Marketing Department, Baku University of Business, Baku, Azerbaijan.

ORCID ID: <https://orcid.org/0000-0003-3818-8443>

e-mail: emin.turant1@gmail.com



зою дослідження стало те, що необхідність зміцнення нафтового потенціалу країни, модернізації її інфраструктури, створення та розвитку промислового сектора, здатного виробляти конкурентоспроможну експортну продукцію відповідно до міжнародних стандартів, пов'язана з вимогами як внутрішньої моделі економічного розвитку країни, так і сучасного розвитку. тенденції світової економіки. *Виклад основного матеріалу.* У статті порушено питання створення сучасних промислових галузей у країні та вдосконалення інфраструктурного забезпечення промисловості, високої оцінки тенденції сталого розвитку нафтового сектору Азербайджану, у тому числі нафтової промисловості міжнародними рейтинговими агентствами. *Оригінальність та практична значимість дослідження* полягає у прогнозуванні та моделюванні сільськогосподарської діяльності, «Розумне сільське господарство», «Зелене майбутнє» та «Зелена енергія», технологій для розвитку цих областей, зокрема, охорони джерел геотермальної енергії, навколишнього середовища, застосування численних ініціатив щодо забезпечення безпечного, здорового та зеленого майбутнього, розумного сільського господарства, цифрових технологій, поліпшення умов життя сільського населення. *Висновки.* Технології розвитку цих напрямів «Розумне сільське господарство», «Зелене майбутнє» та «Зелена енергія», особливо застосування джерел геотермальної енергії, захист навколишнього середовища, численні ініціативи, що забезпечують безпечне, здорове та зелене майбутнє, розумне сільське господарство, цифрові технології, визначені шляхи полегшення умов життя сільського населення та підвищення його рівня життя.

Ключові слова:

модернізація аграрного сектора, конкуренція, інновація, технологія, розумне село, розумне сільське господарство, зелене майбутнє, зелена енергія.

Formulation of the problem. In a globalized world, those states that have a well-thought-out strategy aimed at the future are developing dynamically and steadily. During the period of large-scale quantitative and qualitative changes that have taken place in the socio-economic life of Azerbaijan over the past 10 years, the economic power of our country has increased even more. Measures taken to create comprehensive conditions for the development of entrepreneurship in the republic, the effective use of rich natural resources and the potential of the regions, the development of the non-primary sector, further improvement of the investment environment, and improvement of the competitiveness of local products, ensured the development of the country's economy in an upward trend. The implementation of numerous projects to create modern industrial territories and improve the infrastructure support of the industry in the country allowed it to move to a new stage of development. Trends in the sustainable development of the non-oil sector of Azerbaijan, including the non-oil industry, are highly valued by international rating agencies. As a result of the implementation of the strategy aimed at diversifying the economy and developing the non-oil sector, at the Davos Economic Forum, the Azerbaijani economy ranked 37th in terms of competitiveness and 1st in the CIS. The need to strengthen the country's non-oil potential, modernize its infrastructure, create and develop an industrial sector capable of producing competitive export products in accordance with international standards, is associated with the requirements of both

the country's internal model of economic development and modern development. global economic trends. "Azerbaijan 2020: a look into the future" The development concept was approved by the decree of the head of state on December 29, 2012 in order to modernize the economy and effectively implement the goals and objectives. The concept is based on an export-oriented economic model, increasing the competitiveness of the economy and improving its structure, increasing non-commodity exports, etc. developed.

Preparation of the Development Concept "Azerbaijan 2020: a look into the future" The reforms carried out in our country have created conditions for achieving positive results in all areas. That is why in the Development Concept "Azerbaijan 2020: a look into the future", as well as in the "Strategic road map of the national economy and the main sectors of the economy", the development of non-oil industrial sectors was mentioned. as priority areas and the need for its diversification.

The development of non-primary industries is considered important in terms of accelerating the socio-economic development of the regions, increasing state budget revenues and its formation from various sources, increasing export earnings, producing a wide range of industrial products that replace imports and are export-oriented. In addition, agriculture, tourism and information and communication technologies are considered the main priority areas for the development of the non-oil sector in the country.





Recently, a set of measures implemented in the agro-industrial complex of our republic, strengthening state support for the development of this area, defining strategic goals and institutional changes in accordance with new challenges have become topical topics for researchers involved in the agrarian and socio-economic sphere. At the present stage of agrarian reforms, the basis of the strategic approach is state support. The main goal of agricultural researchers is to collect and analyze data related to this field, as well as to predict and model agricultural activities using the most advanced analytical tools. Currently, the focus is on more effective analysis of available data and rational decision-making through the use of digital technologies, modern methods of data analysis, including programming tools in the agricultural sector. The main activities of researchers are the collection, processing, analysis and preparation of final reports of statistical data related to agricultural activities, as well as forecasting certain aspects of the agricultural field, taking into account current trends. The researchers based their research on economic analysis, a comparative analysis of the forecasting of crop production, animal husbandry and agricultural processing.

Analysis of recent research and publications. At present, the growth of economic activity in the field of agriculture, great enthusiasm in this area and the creation of an abundance of products increase interest in this area. The situation is improving every day in terms of improving market conditions for farmers, assisting in the sale of their products and solving problems that arise during the sale.

Eliminating the dependence of the country's economy on oil, developing the non-oil sector and ensuring high growth rates form the basis of the state's economic policy. In the non-oil sector, the agricultural sector is of particular importance. Modernization of the agricultural sector, more flexible use of intensive development mechanisms, improvement of the financial well-being of farmers occupy an important place in state policy as the most reformed and state-supported direction. The development of the agricultural sector means a reliable supply of the country's population with food products, the opening of new jobs and foreign exchange from the export of agricultural products. This is the basis of the strategic approach at the present stage of agrarian reforms [1].

Decree of President Ilham Aliyev dated December 19, 2018 "On improving state support

for agriculture and leasing activities in the agricultural sector" is identified as an important component of ongoing agrarian reforms. According to the decree, the creation of relevant centers for the development of the agricultural sector will create the basis for the development of the agricultural sector. Agro-leasing services are one of the areas of state support for the agro-industrial complex. Agro-leasing farms were organized in response to the demand of the times, and the purpose of creating these farms was to carry out important work in the direction of improving the provision of agricultural producers with machines in the country, organizing the supply of agricultural producers - technical services for farmers on preferential terms, and also taking measures to improve the breed composition of livestock. Over the past 14 years, Agroleasing OJSC has brought to the country, leased or sold to manufacturers at a discount more than 42,000 pieces of equipment and more than 35,000 breeding animals [3].

The purpose of the research is to highlight aspects of the development of the oil sector as the basis of state economic policy.

Presentation of the main material. The development of the non-oil sector and ensuring high growth rates form the basis of the state's economic policy. It is necessary to upgrade equipment that is ending its service life, expand the possibilities of using innovative technologies to achieve high productivity goals, increase competition and the quality of agricultural services, and improve the mechanism of state support for agriculture. The Agency for Agricultural Credit and Development under the Ministry of Agriculture, in order to ensure competitive activity in the market of agricultural production, improve the mechanism for the preferential sale of equipment and breeding animals through leasing, expand private agricultural services, apply the principle of public-private partnership approved the rules for the use of funds. State agricultural development centers will play a special role in the development of agriculture on a scientific basis. Combining more than 70 services, these centers will provide support to farmers on the principle of "one stop shop", will always be close to farmers and will help to increase the efficiency of their work.

In general, the state provides ongoing support to improve the efficiency of farmers. To provide fuel and lubricants for equipment used in agricultural production, the state assumed half of the costs in this area. Agricultural machinery

and breeding animals are sold to farmers at big discounts. Agroleasing services are provided, fertilizers, medicines and pesticides are imported by the state and sold on preferential terms. The agricultural sector is exempt from all taxes except land tax. The export potential of our country is being promoted through the Azeksport portal, trading houses, trade representations. The Agricultural Services Agency was established to ensure transparency in the issuance of certificates and documents. All this, of course, encourages farmers to produce and sell higher quality products.

More innovation in the agricultural sector of Azerbaijan to be among the countries where it is applied, studying international experience related to the production of individual agricultural products in the field of crop production, identifying global trends, assessing the current situation in the local market, as well as analyzing the value chain for individual agricultural crops, assessing the level of use of fertilizers and pesticides, conducting analyzes in the direction of increasing the export potential of products, as well as regulating prices for agricultural products in the domestic market, etc. Undoubtedly, one of the most important areas is the wider application of innovations in the agro-industrial complex. As is known, recently Azerbaijan hosted for the first time the International Forum dedicated to agricultural technologies and green energy. The forum provided an opportunity for our farmers and agricultural workers to get acquainted with world experience and discuss with well-known experts ways to increase productivity through the use of innovations. Taking into account the great public interest in the forum, it can be noted that Azerbaijan will become one of the countries where innovations in the agricultural sector are more widely used.

The development of the regions of Azerbaijan is an important component of the strategy of sustainable socio-economic development, which is being successfully implemented in the country. The fulfillment of the obligations stipulated in the adopted and successfully implemented state programs in the field of regional development, as well as in presidential decrees on additional measures in this area, will contribute to the sustainable development of the non-oil sector in the country, improving the quality of public services and the provision of social infrastructure in the regions, further improving entrepreneurial environment, increased investment, the opening of new enterprises and jobs, as a result, increased

employment and reduced poverty. The 4th State Program for 2019-2023 has already been approved and goals for the near future have been identified. We all believe that the implementation of these tasks set by the head of state will open a new stage in the development of our country [4].

Agriculture in Azerbaijan is divided into about one million small farms, the average farm covers an area of 1.60 ha and is usually divided into 4-5 plots of 0.30 ha each. In 2017, the sector accounted for 37 percent of the workforce and contributed only about 5.6 percent to GDP. This sector has significant potential to meet growing domestic demand and expand export opportunities for fruits, vegetables and dairy products. The strategic roadmap for agriculture includes two digital actions. One calls for the creation of an online portal containing information about local products and producers to promote the Made in Azerbaijan brand. The other will use the Internet, social media and mobile phones to provide farmers with up-to-date agricultural information. Finally, digital technologies are included in the Strategic Roadmap for Agriculture, mainly in view of the potential of such tools to increase productivity and improve the well-being of rural areas. The Azerbaijani government intends to develop the use of e-agriculture, as well as large online public services for rural areas, incubation of agro-tech start-ups, digital literacy of farmers and e-commerce for rural areas. These principles will be taken into account in "small villages". These villages will be characterized by three components [5] (Figure 1):

1. An e-village that can be accessed via the Internet or a mobile phone, providing information on the economic opportunities of "precision digital farming" (weather data, soil quality and pest control data, educational materials, government services, health information and etc.) and an online farming platform;
2. online agribusiness platform for e-commerce, trade and supply chain management.
3. An e-learning platform for farmers and SMEs in the agricultural sector.

The resilience of such small villages is easier to achieve through collaboration involving the private sector, academia and international partners. In order to increase farm productivity and economies of scale, the government urgently needs to decide how to overcome the current challenges in land acquisition that impede efficiency and modernization of agricultural produc-





tion. Digital technologies will play an important role in land registration in rural areas. Food security is important for agricultural development and public confidence. Food safety evidence is also very much in demand for agricultural exports. Sensors will be used to track food and animals from farm to table, and a paperless system (tablets) will be implemented to record data throughout the supply chain. In addition, an online portal was created to integrate information from various institutions to track food production and food safety monitoring.

Digital technologies are considered essential to revitalize the agricultural sector and increase productivity, innovation and rural prosperity. In this regard, it would be useful to implement the following:

- support for the integrated development of the industry, including the development of market infrastructure for agricultural enterprises;

- financial accessibility in rural areas, availability of insurance for agricultural enterprises;

- the use of digital technologies (mobile money, electronic payments, data and precision farming) to improve the efficiency of agricultural production;

- modernization of agricultural science and research for better absorption and application of digital technologies;

- conceptualization of knowledge forums to share best practices in the application of digital technologies for food safety, as well as systems for integrating various data sources into a food safety analysis platform and an online food safety information portal aimed at various audiences.



Figure 1 – Agritech startup incubation

Source: compiled by the authors

Technologies for the development of these areas "Smart Agriculture", "Green Future" and "Green Energy" are widely used around the world. A total of 50 percent of energy comes from these sources, especially geothermal energy sources. As citizens of Azerbaijan, each of us must take many initiatives to protect the environment and ensure a safe, healthy and green future. It should be noted that the "smart agriculture" project has been implemented in many countries of the world. The goal is to alleviate the living conditions of the rural population and improve their standard of living through the use of digital technologies [5].

Agriculture is developing rapidly in the country. The share of agriculture in the gross domestic product is increasing. The share of the non-oil sector in exports has increased, including the share of agricultural products." The agricultural sector is one of the priority sectors of the economy. The role of this sphere in ensuring food safety is great. In this area, it is considered expedient to use existing resources efficiently, increase productivity and ensure environmental protection. In general, the principles of work are based on correct and efficient management, proximity to peasants and farmers, and the application of innovations. It is gratifying that as a

result of the attention shown by the state, successful results have been achieved towards the implementation of the tasks set. The level of food self-sufficiency of the population of the country has increased. For 9 months of this year, the total volume of agricultural production increased by 4.3 percent compared to last year. Self-sufficiency in meat and dairy products has already reached 90 percent. This figure is more than 100 percent for all types of vegetables and fruits. With the use of modern innovations, it will be possible to further increase these figures.

Ensuring a reliable supply of food products and rational nutrition of the population in the country has in mind: Agriculture is an important sector of the economy. No matter how the agricultural sector develops, we must wait for environmental requirements, and the ecosystem must be protected. Today, the main task of agricultural policy is the effective harmonization of efficiency criteria and environmental requirements. Currently, the country is implementing systemic and comprehensive measures aimed at the development of agriculture. The strategic goals, objectives, principles and guidelines for the development of the agricultural sector have been determined. The agricultural sector has been declared a priority area in Azerbaijan. Because it plays a special role in ensuring sustainable development, diversifying the economy, reducing poverty, and most importantly, solving social problems and providing food. It is because of these factors that the head of the country is kind to the agricultural sector, he sees in the development of agriculture both an economic and a social problem [4].

Over the past half century, very serious technological innovations have taken place in agriculture. At present, modern agriculture has become a sphere of production based on complex and expensive technologies, and at the same time requiring large investments. The introduction of new varieties of plants, the use of advanced irrigation systems, the industrialization of agriculture are the main directions of the "green revolution". Important steps in this direction have been taken in our country. However, there is still a lot of work to be done. One of the main tasks of President Ilham Aliyev is the widespread use of new technologies in the agricultural sector, the introduction of an electronic agricultural system, and the widespread use of the capabilities of a satellite for observing the earth's surface for the purposes of both environmental policy and agrarian policy. politics. The

use of digital technologies in agriculture is not an end, but a means. This is a means of increasing labor productivity, improving agricultural management, and more effectively organizing state support for agriculture.

As in all areas of the country's economy, the reforms were carried out in accordance with world practice in the fields of agriculture and energy. The future of agriculture and energy, exchanging ideas on current topics such as the application of new technologies in agriculture, including green energy, is to consider best practices in this area and trends observed in the world. The role of high technologies and innovations in the development of the world economy is increasing every year. Azerbaijan also pays special attention to these issues. Information resources and systems in the field of agriculture have been created in our country, and this process continues. At the same time, the possibilities of using high technologies in agriculture are even wider. The Internet, drones, big data technologies are taking this sector to a new stage. In many countries, the "Internet" plays an important role in improving productivity and product quality. The use of drones allows farmers to control their fields from anywhere in the world. The Ministry of Transport, Communications and High Technologies can contribute to the application of these technologies. Through the Innovation Agency, entrepreneurs (farmers) working in the agro-industrial complex have broad prospects for cooperation in obtaining and implementing modern technologies, as well as financing innovative projects, including start-ups involving the use of high technologies in the agro-industrial complex. sector [3].

Thus, achieving innovative development of agriculture and energy in Azerbaijan, strengthening relationships between various stakeholders, building sustainable business models and relationships. The agricultural sector has been declared the leading sector of the country's non-oil sector. The ongoing agrarian reforms provide for the further development of agriculture, and for this purpose the state is implementing huge support measures. The decisions taken by the head of state, the decrees and orders signed by him create a real basis for the sustainable development of the country's economy, including the agricultural sector.

Conclusions and prospects for further research. Application of innovations, study of international experience related to the production of agricultural products, identification of global





trends, assessment of the current situation in the local market, as well as analysis of the value chain for individual crops, assessment of the level of use of fertilizers and pesticides, analysis in the direction of increasing the export potential of products, as well as the regulation of prices for agricultural products in the domestic market and other problems are identified.

In addition, technologies for the development of these areas "Smart Agriculture", "Green Future" and "Green Energy", especially the use of geothermal energy sources, environmental protection, numerous initiatives to ensure a safe, healthy and green future, smart agriculture, digital technologies, ways to alleviate the living conditions of the rural population and improve their standard of living are identified.

Therefore, it should be noted the mastering factors necessary for the development of the non-oil sector, such as:

- implementation of innovative projects and provision of grants in this area;
- to achieve material support for scientists, innovative scientists, as well as to create an opportunity for scientists to test their inventions and create modern laboratory conditions;
- achieving mutual cooperation with the university and the scientific and innovative center as a long-term strategic achievement;
- develop and implement a mechanism for agricultural insurance related to the production of agricultural products.

Thus, as a result of the comprehensive measures implemented in the agrarian sector of our republic, the strengthening of state support for the development of this sphere, the definition of strategic goals and institutional changes in accordance with new challenges, the attention of researchers involved in the agrarian and socio-economic fields to topical issues, and the main goal of agricultural researchers in this field is to collect and analyze relevant data, and to predict and model agricultural activities using the most advanced analytical tools. The focus is on more efficient analysis of available data and rational decision-making through the use of digital technologies, modern methods of analysis, including programming tools in the agricultural

sector. The main activities of researchers are the collection, processing, analysis and preparation of summary reports of statistical data related to agricultural activities, as well as current trends, taking into account the forecasting of certain aspects of the agricultural sector. The researchers based their research on economic analysis, comparative analysis of crop production, livestock production and agricultural processing forecasting.

References

1. Gasimov, F.H., Najaf, Z.M. (2009). *Innovations: emergence, spread and development prospects*. Baku: Vyaz, 416.
2. Gasimov, F.H., Najaf, Z.M. (2011). Complex program of the national innovation system. *NANA news. "Science and Innovation" series*, 1(5), 3-9.
3. Akimov, A.A., Hamidov, G.S. (2002). *System-logical foundations of innovation*. St. Petersburg.
4. Vergiler. Sosial-iqtisadi online newspaper. Retrieved from: <https://vergiler.az/>
5. Alikhanov, A. (2020). Testing long-run relationship between. GDP and FDI in Azerbaijan. *Journal of Baku Engineering University. Economics and administration*, 4 (1), 3-17.

Література

1. Гасимов Ф.Х., Наджаф З.М. *Інновації: виникнення, поширення та перспективи розвитку*. Баку: В'яз, 2009. 416 с.
2. Гасимов Ф.Х., Наджаф З.М. Комплексна програма національної інноваційної системи. *Вісті НАНА. Серія "Наука та інновації"*. 2011. № 1(5). С. 3-9.
3. Акімов А.А., Гамідов Г.С. *Систематичні підстави інноватики*. С. Петербург, 2002.
4. Vergilər. Sosial-iqtisadi onlayn qəzet. URL: <https://vergiler.az/>
5. Alikhanov A. Testing long-run relationship between. Gdp and fdi in azerbaijan. *Journal of Baku Engineering University. Economics and administration*. 2020. Vol. 4 (1). P. 3-17.

Стаття надійшла

до редакції : 12.11.2022 р.

Стаття прийнята

до друку: 29.12.2022 р.

Бібліографічний опис для цитування :

Qocayeva E. Ferhadi P. Development of the non-oil sector as the basis of state economic policy. *Часопис економічних реформ*. 2022. № 4(48). С. 6–12.