

REPUBLIC OF AZERBAIJAN

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ABSTRACT

of the dissertation for the degree of Doctor of Philosophy

**INCREASING THE INVESTMENT ATTRACTIVENESS OF
THE LIBERATED TERRITORIES**

Speciality: 5308.01 – General economy

Field of science: Economic sciences

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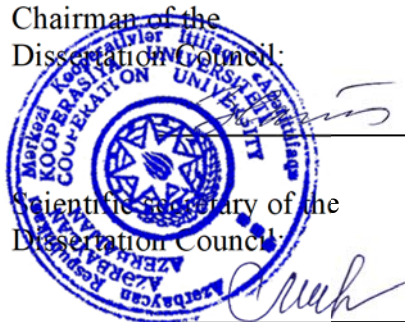
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GENERAL CHARACTERISTICS OF THE STUDY

Relevance and degree of development of the topic. The realization of the involvement of the economic potential of the territories liberated from occupation in the economic turnover of the Republic of Azerbaijan and ensuring their sustainable development are one of the priorities of the modern era. After these territories, which were occupied by Armenia for many years, were liberated as a result of the victory in the 44-day Patriotic War in 2020, the restoration of these territories has taken an important place in the implementation of the country's socio-economic development strategy and economic policy. As a result of the occupation, the Republic of Azerbaijan suffered a huge amount of damage. Speaking about the damage caused, Emil Tagiyev, Head of the Special Investigation Department of the Military Prosecutor's Office of Azerbaijan, said at the scientific-practical conference dedicated to the 100th anniversary of the Genocide of Azerbaijanis in 1918: *“The Working Group on the Assessment of Losses and Casualties as a Result of the Occupation of Azerbaijani Territories by the Armenian Armed Forces, has been entrusted with giving an opinion on this. According to preliminary estimates, the material damage caused amounts to 818.88 billion US dollars”*.¹

The restoration of economic infrastructure in the liberated territories, the reconstruction of economic and social spheres, and the creation of an attractive investment environment for the development of an innovation-oriented economy in the region constitute the basis of the state's socio-economic development strategy. One of the most important issues in this direction is the gradual formation of economic infrastructure in the Karabakh and East Zangezur economic regions.

To increase the investment attractiveness of the liberated territories, it is necessary to study the creation of a favorable investment environment for local and foreign investors. The diversification policy of the country's economy is also being implemented in the Karabakh and East Zangezur economic regions and in the process of forming

¹ <https://modern.az/az/aktual/159720/isalneticesinde-azerbaycana-deymis-ziyanciqlandi-818-milyard-880-milyon-dollar/>

sustainable economic development in these territories.

In order to increase the technological level and innovation environment of enterprises to be established in the Karabakh and East Zangezur economic regions and to promote their development, it is necessary to effectively use foreign investments, innovative technologies and domestic investment potential. At the stage after the liberation of the lands from occupation, technological investments in these regions can be increased through venture capital, state financing, efficient use and savings of existing financial resources. Since it is difficult to ensure that large-scale investments are directed to the liberated economic regions at the initial stage, attracting small and medium-sized investments will help attract larger investments in the future.

Factors such as tax breaks, foreign investment protection mechanisms, the formation of a transparent business environment, and the introduction of innovation-oriented technologies play an important role in increasing the investment attractiveness of the liberated territories. Studying investment opportunities in the liberated territories can contribute to accelerating innovation-oriented economic development.

One of the most important issues in increasing the investment attractiveness of the liberated territories is how to effectively use the resource potential of the agricultural sector based on economic development trends. The main area for achieving this goal is to increase the reliability of data analyzing the current state of the resource potential and development prospects. Therefore, in order to increase the investment attractiveness of the liberated territories, it is important to analyze and assess the development prospects of the reserve potential in terms of the development of the liberated territories in order to meet the requirements of systematic research in modern economic conditions. The development of agriculture in modern economic conditions is one of the main priorities of the economic policy on agriculture, and this will contribute to the implementation of strategic measures and the implementation of the State Program on Socio-Economic Development of the Regions of the

Republic of Azerbaijan in 2019-2023,² the Strategic Roadmap for the Production and Processing of Agricultural Products of the Republic of Azerbaijan,³ Azerbaijan 2030: National Priorities for Socio-Economic Development,⁴ the Strategy for Socio-Economic Development of the Republic of Azerbaijan in 2022-2026,⁵ and the “I State Program on the Great Return to the Liberated Territories of the Republic of Azerbaijan”.⁶ In addition, there is also the “Socio-economic Development Strategy of the Republic of Azerbaijan for 2027-2030” and the “Preparation of the II State Program on the Great Return to the Liberated Territories of the Republic of Azerbaijan” and the Order No. 611 of the President of the Republic of Azerbaijan dated May 30, 2025. All this demonstrates the practical importance of the topic of this dissertation and determines the direction of research. General legal, economic and social conditions regulating investment activity in Azerbaijan, as well as legal principles regulating foreign investments, have been formulated. On June 22, 2022, the Law of the Republic of Azerbaijan “On Investment Activity” was re-adopted.

There are problems such as the failure to eliminate the existing mine threat in the liberated territories, the lack of qualified personnel, and the incomplete restoration of economic and social infrastructure in some areas. To solve these problems, the dissertation used a

² Decree of the President of the Republic of Azerbaijan on approval of the “State Program for the Socio-Economic Development of the Regions of the Republic of Azerbaijan in 2019-2023”, Baku, January 29, 2019, No. 500

³ Decree of the President of the Republic of Azerbaijan “On approval of Strategic Roadmaps for the National Economy and Key Sectors of the Economy”. Baku, December 6, 2016, No. 1138

⁴ Decree of the President of the Republic of Azerbaijan dated February 2, 2021 on approval of “Azerbaijan 2030: National Priorities for Socio-Economic Development”. Azerbaijan State News Agency “Azertac”. URL: https://azertag.az/ru/xeber/Rasporyazhenie_Prezidenta_Azerbaidzhanskoi_Respubliki_Ob_utverzhdenii_quotNacionalnyh_prioritetov_socialno_ekonomicheskogo_razvitiya_Azerbaidzhan_2030_quot-1703259 (accessed: 22.04.2024)

⁵ Socio-economic development strategy of the Republic of Azerbaijan for 2022-2026. Baku, 2022, 83 pp. (<https://president.az/az/articles/5672>)

⁶ I State Program on the Great Return to the Liberated Territories of the Republic of Azerbaijan. Decree No. 3587 of the President of the Republic of Azerbaijan dated November 16, 2022.

comprehensive approach, including the application of the public-private partnership model and the mechanism of applying international experience. In this sense, new challenges in the field of increasing the investment attractiveness of the liberated territories determined the choice of the topic of the dissertation and conditioned its relevance.

Regarding the degree of development of the topic, it should be noted that individual aspects of increasing the investment attractiveness of the liberated territories have been studied in the works of Azerbaijani scientists such as Samadzade Z.A., Guliyev E.A., Atashov B.Kh., Nuriyev A.Kh., Guliyeva A.E., Bayramov V.I., Abbasov A.F., Javadov A.N., Huseynov M.J., Ibrahimov I.H., Ibrahimov E.A., Mammadova E.B., Imanov N.M., Isayev S.Z., Valiyeva S.I., Hasanova P.A., Huseynov M.M., Gasimli V.A., Asadov A.M., Ibrahimov F.M., Gafarov N.J., Manafov G.N., Ismayilov E.M., etc.

Research in the field of increasing the investment attractiveness of territories in foreign countries has been conducted by economists and scientists such as Bifov A.A., Valinurova, L.S., Yelsukov M.Y., Maevskiy A.V., Cheberko Y.F., Chuprov R.N., Yakovleva T.A., Kabanova I.Y., Moskvina V.A., Makshina V.N., Eldridge, M., Hawkins, R., Mitra-Majumdar, M., etc..

However, these studies have not comprehensively examined the formation of investment attractiveness and investment policy issues in liberated and devastated territories, taking into account the specific features of these issues. In my study, I have attempted to address this issue more specifically..

Object and subject of the study. The object of the research is the newly created economic regions in the liberated territories of Azerbaijan. The subject of the research is the economic relations, regularities, methods and means on the investment attractiveness potential of these economic regions and its improvement..

The purpose and tasks of the study. The goal of the dissertation is to identify ways to increase the investment attractiveness of the liberated territories of the Republic of Azerbaijan. To achieve this goal, the following tasks have been set in the dissertation:

- study of theoretical and methodological issues of investment attractiveness;
- clarification of methodological approaches to determining investment attractiveness;
- identification of opportunities for applying advanced foreign experience in ensuring investment attractiveness of liberated territories;
- identification of prospective directions of investments attracted to green energy in liberated territories;
- assessment of opportunities for attracting investments to the agricultural sector of liberated territories;
- analysis of attracting foreign investments to the tourism sector in liberated territories;
- creation of a development program to increase the investment attractiveness of liberated territories;
- identification of ways to effectively use cluster approaches in increasing the investment attractiveness of Karabakh and East Zangezur economic regions;
- study of issues of improving the activities of territorial municipalities by attracting investments.

Research methods are based on modern analytical methods and systematic approaches applied in research on investment attractiveness. The dissertation work used statistical analysis, logical generalization, forecasting, as well as grouping and comparative assessment methods.

The main provisions put forward for defense:

- The general investment attractiveness of business entities of the Karabakh and East Zangezur economic regions consists of the innovation attractiveness of the economic sector in which they carry out economic activity and the profitability of business entities separately;
- It is required to carry out a systematic analysis of the set of factors used to determine the current investment environment of the Karabakh and East Zangezur economic regions in general, its potential, and the level of risk;

- The following definition is proposed to explain the economic nature of the category under consideration: investment attractiveness is an economic characteristic that reflects the current and potential level of economic development of an enterprise and explains the possibility of capital investment;
- The purposeful policy of directing investment flows to the application of new technologies in the economic sectors of the liberated territories of Azerbaijan is distinguished by its high competitiveness;
- The Karabakh and East Zangezur economic regions of Azerbaijan have established priorities for the development of the tourism sector, which will allow realizing the tourism potential of these liberated territories to the maximum extent;
- Based on the results of the study of the investment potential of the agricultural sector in the Karabakh and East Zangezur economic regions, it is necessary to create a program of special measures to increase the investment attractiveness of these areas. "Smart Village" is one of such programs.
- The necessary structure of the tourism cluster in Karabakh and East Zangezur should include numerous companies (tourism operators) that produce or form various types of tourism products;

The scientific novelty of the study consists of the following:

- The main elements of the formation of the investment attractiveness of an entrepreneurial entity have been identified;
- The set of factors used to determine the investment climate, its potential, and risk level has been classified;
- A program for attracting local and foreign investments to agriculture in Karabakh and East Zangezur has been proposed (p. 108);
- The necessary structure of the tourism cluster in Karabakh and East Zangezur has been recommended;
- The attractiveness of the region for investors can be increased by introducing fixed tariffs for electricity from Karabakh and East Zangezur solar power plants in the green energy course of Azerbaijan;

- By launching 2-3 pilot solar power plants with a capacity of 50-100 MW in Zangezur, it is possible to produce 300-500 million kilowatt-hours of energy per year, as well as create 500 jobs;
- The study found that the introduction of subsidies (5-10 kW) for the installation of rooftop solar power plants for 5,000 households in Karabakh and East Zangezur could reduce the energy costs of those residents returning to their lands under the Great Return Program by 20%..

Theoretical and practical significance of the research. The theoretical significance of the dissertation work is that the specific proposals and recommendations put forward on increasing the investment attractiveness of the liberated territories in Azerbaijan, as well as the proposed methodological approaches, can be a reliable source for future research on this topic.

The provisions reflected in the dissertation can be used when developing relevant projects and programs, in the activities of government organizations, as well as in teaching the subject "Microeconomics" in higher education institutions, which determines the practical significance of the research.

Approval and application. The main essence of the dissertation work, theoretical-methodological and practical considerations put forward by the author, new scientific approaches, proposals and recommendations were reported at scientific and practical conferences of various levels. In total, 6 scientific articles (including 1 abroad) and 3 theses (including 1 abroad) were published by the author. The main provisions of the research were reflected in the theses “Investment activity in the liberated territories” (Baku, 2024), “The role of foreign investments in the liberated territories” (Ganja, 2024), “Some aspects of a comprehensive assessment of investment attractiveness” (Togliatti, 2025). Among the published scientific works, the following articles can be cited: “The category of investment attractiveness and its modern content” (Baku, 2024), “The potential for attracting foreign investments to the liberated territories” (Baku, 2024), “Clusters as an instrument of investment attractiveness of Karabakh and Eastern Zangezur” (Moscow, 2025).

Name of the organization where the dissertation was carried out. Azerbaijan Cooperative University.

Total volume of the dissertation with a mark indicating the volume of the structural sections separately. The dissertation consists of an introduction, 3 chapters, a conclusion and a list of references. The introduction is 12834 characters, the first chapter is 68807 characters, the second chapter is 84571 characters, the third chapter is 65925 characters, the conclusion is 7114 characters and the list of references is 24452 characters. The total text part of the dissertation is 239251 characters, excluding tables, graphs, appendices and the list of references.

MAIN CONTENT OF THE WORK

The introductory part of the dissertation explains the relevance of the topic, the state of study of the problem, the goals and objectives of the research, its object, subject, scientific novelty, practical significance and approval.

Chapter I of the dissertation entitled **“Theoretical and methodological issues of investment attractiveness”** examines issues such as the essence and economic content of investment attractiveness, methodological approaches to determining investment attractiveness, and the application of advanced foreign experience in ensuring the investment attractiveness of the liberated territories.

Economics considers various problems. One of the main research topics is investment and aspects of increasing its attractiveness. As in other sections, theoretical and practical issues are included here. They should be given special attention, since the socio-economic development of the liberated region depends on investments made in these territories.

The investment attractiveness of the liberated territories depends on the quality of capital invested in the regional economy. However, it should be noted that scientists have not been able to come to a common conclusion about their essence and economic content. The classical approach to the investment attractiveness of the liberated territories has been given various explanations in domestic and foreign economic

literature, therefore, due to the incompleteness of the set of assessment characteristics and elements, it is impossible to call its interpretation complete. Before proceeding to the disclosure of the essence of the category of “investment attractiveness”, it is necessary to identify the main components.

Investments are the acquisition of assets that will bring profit to the region or economic entity receiving the funds in the future, which can be invested in modernization or other industrial and social projects. Before investing free funds, investors should determine not only their size, but also the object of investment. It is also important to monitor the use of invested capital.

In the investment process, as a rule, two counterparties are involved. The owner of temporary free capital acts as an investor. When investing in an economic object, he hopes to receive a guaranteed income. The desire of the investment consumer is to obtain additional resources to expand his assets.

Investment attractiveness is a multifaceted concept consisting of various qualitative characteristics of an entity that make it possible to attract capital.

In general, investment attractiveness depends on several factors:

- geographical location and availability of natural resources, pollution level, ability to process industrial waste;
- labor resources such as employment level, availability of specialized labor force, number of economically active population;
- regional infrastructure, including development of energy, transport, housing, communications and finance;
- demand potential in the region, income level, development of the domestic market and purchasing power of the population;
- production potential, including performance results of companies, structure of economic sectors and existence of innovation sectors;
- institutional environment and social stability, including assessment of legislation, tax legislation and level of social tension;
- sustainability of regional budgets and companies, including

budget balancing, debt status of companies and analytical assessment of their financial condition.

In our opinion, investment attractiveness is the possibility of obtaining the expected effective economic results of temporarily free investment resources at a low risk level. In this case, investment attractiveness indicators are applied at different levels: company, industry, region, country.

The final stage of the organization is the assessment of the organization in which the project will be implemented. The attractiveness of the entire project depends on the attractiveness of the participating companies.

When allocating investment resources in the economy, the basis is the price, that is, the expected return on investment after investing free funds. In economic regions that offer a high price level for the product, their investment potential will be more profitable, since capital is divided among those who are able to use it efficiently. In other words, the greatest investment attractiveness will be in the region that is able to offer investors a high return. Based on this, an economic object that meets a number of characteristics can be considered attractive from an investment perspective. It is important that the invested funds are attractive to investors, in which case average profit and average risk play a major role.

In our opinion, when grouping a system of indicators for effective investment management, it is necessary to take into account various basic requirements. A logical connection should be established between these indicators and the investment object, objectivity and scientific justification should be ensured, calculations should be clear and to a certain extent simple. The possibility of double interpretation of the results should be eliminated.

Based on the research conducted, we can conclude that the investment attractiveness of each business entity includes three main elements: the general investment attractiveness of the economic sector in which it operates, the innovation attractiveness of the economic sector in which it carries out economic activities, and the profitability of the business entity separately (Figure 1.).

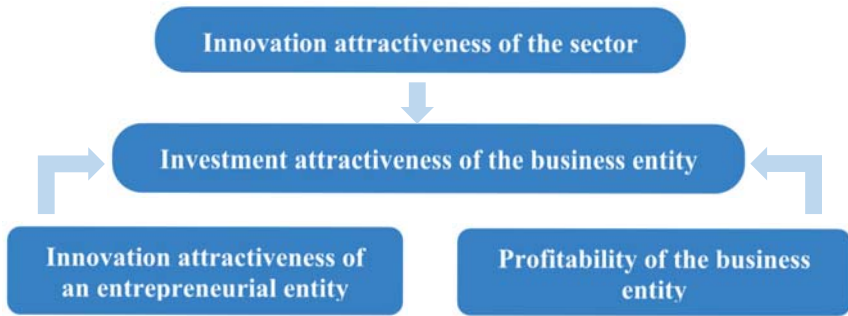


Figure 1. Formation of investment attractiveness of an entrepreneurial entity

Source: figure was compiled by the author.

To select a specific business entity, the investor has the opportunity to apply the investment attractiveness assessment data published in specialized journals. Let us assume that the entrepreneur has selected the appropriate object for investment. In this case, its aggregate investment attractiveness includes the following indicators::

- Investment attractiveness of the area. This is an external factor that cannot have a significant impact on the investment object. It is important for investors to receive accurate information, because in order to increase the investment attractiveness of the investment object, information can be obtained about the positive and negative aspects of its activities and characteristics;

- Demand for sectoral products. When determining profitability in any sector, the need for certain goods and services of the economic sectors is studied as a basis. The presence of stable demand for products, services or goods means that they are necessary for the population, therefore, there is a guarantee of a certain level of income. If the demand for sectoral products is unstable, profitability will also be low;

- The possibility of product diversification. The most profitable areas are those that form new competitive products that have new consumer characteristics. Consumer demand is such that they can only pay for this manufacturer. They are even willing to pay a higher price.;

- The average level of costs required by the area. Production costs are directly related to the duration of the production process in the

area, the cost of resources consumed, and the characteristics of taxation. It should be borne in mind that a lower level of costs means higher profits.

Chapter II of the dissertation, entitled “**Analysis and Assessment of the Economic Potential and Investment Attractiveness of the Liberated Territories,**” analyzes issues such as investments in green energy and their prospects, assessment of opportunities for attracting investments in the agricultural sector, and analysis of attracting foreign investments in the tourism sector.

Currently, significant measures are being taken to implement a major turnaround in the development of the Karabakh and East Zangezur economic regions. The formation of a material and technical base for the creation of economic infrastructure, the implementation of projects in the social and production sectors, local, republican, regional and international levels, as well as the restoration of various types of transport, as well as the railway network, are being intensively implemented in the liberated territories. Fizuli International Airport has been put into operation, a similar airport has been opened in Zangilan, and Lachin International Airport has been put into operation on May 28, 2025. All this scale of work has required significant investments. First of all, investments should be directed to energy infrastructure in the liberated lands. In this regard, the “green energy” potential of the Karabakh and East Zangezur economic regions is quite large. We will consider the main directions of this potential in attracting investments in more detail below.

Azerbaijan's commitments under the Paris Agreement include a 35% reduction in greenhouse gas emissions by 2030 compared to 1990 levels. These measures have created the conditions for the formation of a low-carbon energy sector in the country (Table 1.).

Analysis of the table data shows that compared to 2005, greenhouse gas emissions in 2024 increased by 15.772 million tons. CO₂ eq./year. Per capita greenhouse gas emissions also increased by 681 tons CO₂ eq./person/year in 2024 compared to 2005. However, PPP greenhouse gas emissions per GDP decreased by 0.459 tons. The main reason for this is the dynamics of GDP growth.

Table 1.**Dynamics of CO₂ emissions in Azerbaijan.**

Years	Greenhouse gas emissions, million tons CO ₂ eq. /year	Greenhouse gas emissions per capita, tons CO ₂ eq. / person / year	İstixana qazlarının emissiyası ÜDM üzrə PPP, ton CO ₂ ekv. / ABŞ dolları /il	Population, million people
2005	46,459	5,441	0,779	8,539
2015	58,032	6,034	0,405	9,617
2022	68,877	6,718	0,45	10,252
2023	62,550	6,061	0,29	10,320
2024	62.231	6.122	0.32	10.342

Source: Statistical Review of World Energy 2024. 72nd edition. BP Energy Institute, 2024. URL: <https://www.energyinst.org/statistical-review/resources-and-data-downloads> (accessed 28.04.2025).

The transformation of environmental policy in Azerbaijan is conditioned by a complex of global and regional factors, including not only international climate agreements, but also critical environmental challenges on a national scale. The increase in long-term droughts, depletion of fresh water resources, and negative changes in the ecosystem of the Caspian Sea are of particular concern. Environmental risks require an urgent and systematic response from state institutions.

The strategic directions of the state's energy policy are formulated taking into account modern global trends and include a comprehensive modernization of the energy sector. The main focus is on the development of alternative energy, the consistent decarbonization of the hydrocarbon complex, and a radical increase in the energy efficiency of production processes.

Currently, the share of environmentally friendly energy sources in the national energy balance reaches 17%, which is planned to be increased to 30% by 2030.

Active discussions are underway with leading international energy corporations to implement large-scale investment projects of 700 megawatts in wind and solar power generation. The government is also considering public-private partnership mechanisms to accelerate ecological modernization processes.

Azerbaijan's energy landscape is undergoing dynamic transformations, demonstrating significant potential in the field of electricity generation and international energy cooperation. In 2022, the country not only fully ensured its internal energy balance, but also produced 27 billion kilowatt-hours of electricity, of which 1.6 billion kilowatt-hours were exported.

Azerbaijan's strategic partners - Turkey, Russia, Georgia and Iran - show continued interest in expanding energy relations. The main event of 2023 was the US-Azerbaijan Green Energy Forum in Baku, where innovative approaches to the development of alternative energy were discussed.

Nine American companies have expressed their readiness to support the transformation of Azerbaijan's energy sector, focusing on diversifying energy sources and maximizing the use of renewable potential. Projected energy capacities by 2040 significantly exceed the republic's domestic requirements.

Special attention is paid to the development of infrastructure projects. It is planned to create a new regional power transmission line connecting Azerbaijan, Nakhchivan, Turkey and Iran, which will open up additional opportunities for regional energy exchange.

The technical potential of solar energy is estimated at 115,200 megawatts, but its realization will require significant investments⁷. The Sumgayit Technopark is now producing solar panels with an annual capacity of 50 megawatts.

The most promising areas for wind energy are considered to be the Absheron Peninsula, the coastal zones of the Caspian Sea, and the Caspian Islands. A large-scale program is planned to study the 7.2 gigawatts of wind energy potential of the Caspian Sea by 2036⁸. The main document defining strategic development is the “State Program on the Use of Alternative and Renewable Energy Sources”, which was

⁷ Gulaliyev, M.G., Mustafayev, E.R. and Mehdiyeva, G.Y. 2020. Assessment of Solar Energy Potential and its Ecological-Economic Efficiency: Azerbaijan Case. Sustainability. 12(3). P. 1116. DOI: 10.3390/su12031116.

⁸ Aliyev, R.A. Water security in the context of sustainable management of transboundary water resources in the Caspian region. // Bulletin of MGIMO-University. 16(5)., 2023, pp. 71–98. DOI: 10.24833/2071-8160-2023-5-92-77-104

adopted in 2004.

In the context of global climate challenges, Azerbaijan demonstrates a comprehensive approach to energy transformation. By actively investing in green technologies, the country not only ensures energy security, but also contributes to the sustainable development of the region. International experts highly appreciate Azerbaijan's potential and strategic initiatives in the field of alternative energy.

The government of the republic has developed a comprehensive program for the digitalization of the energy sector, which includes the application of intelligent management systems, modern monitoring and forecasting technologies for energy regimes. Special attention is paid to the development of Smart Grid technologies that allow optimizing energy consumption and increasing the efficiency of distribution networks.

One of the important aspects of the energy strategy is the ecological component. Azerbaijan is consistently reducing its carbon footprint, implementing innovative solutions in the field of carbon capture and storage, and developing projects for the restoration of natural ecosystems. Such a comprehensive approach allows the country not only to modernize the energy sector, but also to make a significant contribution to the global climate agenda.

Hydropower accounts for the bulk of green production in Azerbaijan. Over the past decade, electricity generation volumes at hydroelectric power plants have decreased slightly, partly due to the active exploitation of transboundary water resources by upstream countries⁹.

The first “renewable” kilowatts began to be produced in wind and solar power plants in 2013.

Since 2010, the main increase in renewable energy production has been achieved due to wind and solar power plants. According to IRENA, over the past decade, the installed capacity of renewable energy (including hydropower) has increased by 19% and reached 1,339 MW. At the same time, the share of renewable energy sources in electricity production has fluctuated between 5.5–8.8%.

The main directions of the transition to green energy sources are reflected in the strategy “Azerbaijan 2030: National Priorities of

⁹There again.

Socio-Economic Development”, where it is planned to increase the share of renewable energy sources in electricity production to 24% by 2026 and up to 30% by 2030. According to the Ministry of Energy of the Republic of Azerbaijan, it is planned to increase renewable energy production capacities: 440 MW in 2020–2022, 460 MW in 2023–2025, and 600 MW in 2026–2030¹⁰, where it is planned to increase the share of renewable energy sources in electricity production to 24% by 2026 and up to 30% by 2030. According to the Ministry of Energy of the Republic of Azerbaijan, it is planned to increase renewable energy production capacities: 440 MW in 2020–2022, 460 MW in 2023–2025, and 600 MW in 2026–2030¹¹. The development scenarios of the low-carbon energy segment of Azerbaijan show parallels with the restoration of the oil and gas complex after gaining independence. The “energy breakthrough” is mainly based on the construction of large state-owned power plants based on renewable energy sources with the involvement of foreign companies, the influx of foreign direct investment and the introduction of modern technologies. Significant progress is being made in the field of ecological energy through the implementation of large-scale infrastructure initiatives in the republic. The main direction of the transformation of the energy complex is the “Khizi-Absheron” wind energy cluster with an installed capacity of 245 megawatts, which was created in cooperation with the international energy consortium ACWA Power (Kingdom of Saudi Arabia).

Chapter III of the dissertation titled “**Main Ways of Attracting Investments to the Karabakh and East Zangezur Economic Regions**” examines issues such as the use of de-occupation Inquiry approaches and improving the performance of municipalities in attracting investments.

¹⁰ Decree of the President of the Republic of Azerbaijan dated February 2, 2021 on approval of “National priorities of socio-economic development: Azerbaijan 2030”. Azerbaijan State News Agency “Azertac”. URL: https://azertag.az/ru/xeber/Rasporyazhenie_Prezidenta_Azerbaidzhanskoi_Respubl_iki_Ob_utverzhdenii_quotNacionalnyh_prioritetov_socialno_ekonomicheskogo_r_azvitiya_Azerbaidzhan_2030_quot-1703259 (accessed: 22.04.2024).

¹¹ Use of renewable energy sources in Azerbaijan. Ministry of Energy of Azerbaijan. URL: <https://minenergy.gov.az/az/alternativ-ve-berpa-olunan-enerji/azerbaycanda-berpa-olunan-enerji-menbelerinden-istifade> (access date: 22.04.2024).

The program for the restoration of Karabakh and East Zangezur should be aimed at activating economic growth, attracting foreign investment and sustainable development. The key element of the initiative is the formation of specialized production areas such as the Agdam Industrial Complex and the “Araz Economic Valley” industrial zone, which will play a central role in the restoration of the region and contribute to its integration into the global economy.

To support the development of these facilities, the state provides incentives for a period of 10 years from the moment of their official registration. These measures include exemption from property, land and income taxes, as well as exemption from VAT on the import of equipment and tools. Thanks to these steps, favorable conditions are created for the expansion of the manufacturing sector, economic prosperity and attraction of investors.

This strategy is aimed not only at restoring the region, but also at transforming it into a prosperous economic center, strengthening Azerbaijan and contributing to the overall stability of the region. 17.6 billion manats were allocated from the state budget for reconstruction work during 2021-2024, and the private sector made a significant contribution to the restoration of Karabakh and East Zangezur. In the first quarter of 2025, 20.3% of the annual budget, or 812.3 million manats, was allocated for the reconstruction and development of the liberated territories¹². These funds were directed towards the development of key sectors such as agriculture, the tourism industry and industrial production, helping to create new jobs, stimulate economic growth and improve living standards..

There are wide opportunities for using solar energy as an alternative energy source in the Karabakh and East Zangezur economic regions. In this regard, the development plan for the use of solar energy in the liberated territories for 2025-2027 is given in Table 2.

¹² Gojaeva E. M.; Babaeva S. J., Gutium T.G. Prospects for Development of Green Energy in Azerbaijan. In: Management of innovation and investment processes and changes in modern conditions: Collection of materials of the 7th international scientific and practical conference, October 24-25, 2024, part 3. St. Petersburg: SPbGEU Publishing House, 2024, pp. 175-180, <https://id-yug.com/images/id-yug/Bulatov/2024/2/PDF/2024-2-252-257.pdf>

Table 2.

Plan for the development of solar energy use in the Karabakh and East Zangezur economic regions in 2025-2027

Stage	Action	Deadline	Responsibility	Expected result
1. Development of the regulatory framework	Introduction of fixed tariffs for electricity from solar power plants (0.07-0.10 USD per kWh) and tax incentives (exemption from VAT and equipment fees).	Q1-Q2 2025	Ministry of Energy, Ministry of Finance	Increasing the attractiveness of the region for investors.
2. Creation of investment platforms	Organization of international forums and road shows to attract foreign investors (e.g. Turkey, China, EU).	Q3 2025 – Q4 2026	Azerbaijan Investment Company, “Azerenergy”	Attracting \$200-300 million in investment in solar power plants.
3. Construction of pilot solar power plants	Commissioning of 2-3 pilot solar power plants with a capacity of 50-100 MW in Zangilan.	Q4 2025 – Q3 2026	Azerenergy, private investors	Annual production of 300-500 million kilowatt-hours, creation of 500 jobs.
4. Development of infrastructure	Modernization of electricity networks and construction of bulk energy storage systems (BESS) with a capacity of 20-30 MW.	Q4 2026 – Q1 2027	Ministry of Energy, International Contractors	Ensuring stable energy supply.
5. Support for private solar power plants	Subsidies for the installation of rooftop solar power plants (with a capacity of 5-10 kW) for 5,000 households.	Q3 2026 – Q4 2027	State Committee for Refugee Affairs, private companies	Reducing energy costs for 20% of displaced people.
6. Environmental monitoring	Permanent assessment of CO ₂ emission reductions from renewable energy projects.	2025–2027	Ministry of Ecology and Natural Resources, international organizations	Reducing emissions by 300-500 thousand tons of CO ₂ by 2027.

Source: compiled by the author.

From the table data, it can be concluded that the implementation of the plan for the use of solar energy in the liberated territories by 2027 can make a significant contribution to the energy security of these regions. Partnership in the field of investment between state institutions and private business plays an important role in the transformation of these territories and in creating a solid foundation for their future development. The priority goal in the coming years will be to improve the economic infrastructure of Karabakh and East Zangezur, including the modernization of transport networks and energy systems. In this context, investments and their potential directions are of particular importance. One of the most promising directions for investments in the Karabakh and East Zangezur economic regions is the development of renewable “green” energy, which is in line with global environmental trends.

Based on the analysis of scientific sources¹³, We propose specific directions for the state program for the development of green energy in these regions. Karabakh and East Zangezur are distinguished by a high level of solar radiation, which makes them ideal for the construction of solar power plants (SPPs). The average annual solar insolation level in these regions is 1600–1800 kWh/m², which is comparable to the indicators of leading countries in the field of solar energy, such as Spain or Turkey. This ensures high efficiency of photovoltaic systems and their economic attractiveness. According to the International Energy Agency (IEA), global investments in solar energy in 2023 reached \$480 billion, and in 2024 exceeded \$500 billion, which indicates growing interest in this sector¹⁴. Global energy investment will reach a record \$3.3 trillion in 2025, with more than \$2.2 trillion of that going to clean energy, including solar and wind technologies¹⁵.

In addition, given the windy weather conditions in the region, the development of wind energy can play a complementary role to solar energy investment projects. The integration of renewable energy

¹³ There again.

¹⁴ <https://www.iea.org/reports/world-energy-investment-2024>

¹⁵ <https://www.argusmedia.com/en/news-and-insights/latest-market-news/2695759-energy-spend-set-to-hit-3.3-trillion-in-2025-iaa>

sources with modern grid infrastructure will increase energy security and attract investors focused on environmental sustainability. The priority development of green energy will allow Azerbaijan to present the Karabakh and East Zangezur economic regions as leaders in sustainable development, align with global trends in decarbonization, and ensure long-term economic sustainability.

Azerbaijan is making significant efforts to diversify its economy, reducing its dependence on hydrocarbons and developing the renewable energy sector. Particular attention is paid to the restoration and development of the Karabakh and East Zangezur economic regions, which are priority zones for state investments. In 2024, 4 billion 828.5 million manats were allocated from the state budget of Azerbaijan for the reconstruction and rehabilitation of the liberated territories, which is 13.6% less than in 2023¹⁶. A significant portion of these funds is directed towards the creation of modern energy infrastructure, including renewable energy projects.

The development of solar energy in the Karabakh and East Zangezur economic regions can contribute not only to energy independence, but also to the creation of new jobs, attracting investments and improving the living standards of the population. State support, international cooperation and the use of advanced technologies create a solid foundation for the sustainable development of these regions within the framework of the transition to a global green economy.

The creation of tourism and recreation clusters in these regions should be an initiative of small and medium-sized businesses. The formation of such clusters will bring significant benefits to both individual enterprises and the regions as a whole. The main advantages for business during the development of a tourism cluster are presented in Table 3. The development of clusters can contribute to sustainable economic growth by increasing the competitiveness of the region, attracting investments and creating new jobs..

¹⁶ <https://aztv.az/ru/news/90019102/v-proslom-godu-na-vosstanovlenie-karabaha-i-vostocnogo-zangezura-potraceno-okolo-5-mlrd-manatov???history=0&pfid=1&sample=12&ref=2>

Table 3.

Possible consequences of the impact of the formation of tourism clusters in Karabakh and East Zangezur

Features of organizing tourism clusters	The possibility of reducing barriers to market entry by combining requirements within the cluster
	Increasing the efficiency of purchasing equipment, hardware and information technology products
	Simplifying and improving access to orders (customers)
	Transferring the positive reputation of the cluster to its members (brands)
	Emerging opportunities for adapting the region's vocational education systems (budget financing) to the needs of cluster enterprises.
	Regional innovations and other programs implemented in the region that take into account the interests of the cluster

Source: table compiled by the author.

The dominance of economic associations, as opposed to isolated companies or sectors in the economic system, plays a decisive role in the development of territories with a high concentration of interconnected production and service structures. The creation of such associations creates conditions for sustainable economic growth. First, it contributes to an increase in employment; second, it attracts highly qualified personnel; third, it stimulates the development of related areas, such as logistics and innovative technologies. The main advantage of the formation of economic associations for the regional or municipal economy is the provision of stable employment for entrepreneurs, including in the field of high-tech production and related services. In addition, this leads to an increase in the share of employees in small and medium-sized businesses, strengthening the financial base of the region and reducing costs for social payments for unemployment.

It should be noted that the competitiveness of the final product in agro-industrial production will depend on the competence of professional management capable of bringing the product to the

market and the qualifications of specialists ensuring its production. In recent decades, the main competitive struggle in the world agro-industrial complex has shifted from price competition to innovation research. For the successful implementation of the strategy, it is necessary to organize work aimed at leadership in innovation areas. The strategy of leading in innovations differs from the approaches of previous years that prioritized reducing production costs. When developing decisions, it is advisable to first identify promising development directions, and then select products and technologies that will be in demand by consumers based on the analysis of market data. Then financial calculations should identify directions that provide maximum economic efficiency or contribute to the sustainable development of enterprises of the agro-industrial complex. Market needs are highly variable. When forming an agro-industrial complex, the market situation should be carefully monitored, for example, through the analysis of industry publications, business negotiations, long-term agreements and other methods. The most operational and accurate information is obtained in the process of realizing a specific product. It is appropriate to start the analysis of marketing data from this information. Within the framework of the development strategy of agro-industrial enterprises, management can be structured in accordance with the following directions (Figure 2):

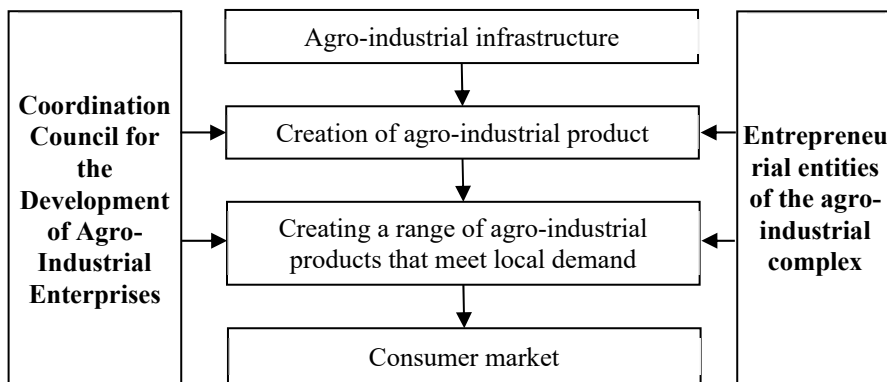


Figure 2. Directions for managing the development of the tourism sector within the tourism cluster in the Karabakh and East Zangezur economic regions

Source: image compiled by the author.

The proposed directions are mainly based on the fact that agro-industrial products are created at enterprises directly engaged in the agricultural sector. Enterprises that are part of the infrastructure of the agro-industrial complex and its related industries also participate in the formation of products. Thus, each component of the final product is produced at a specialized enterprise, which simplifies capital management, minimizes additional risks for business, and reduces the costs of introducing innovative technologies. A specialized institution can participate in the process of creating products, make strategic decisions aimed at increasing business efficiency, contribute to the development of the agro-industrial sector in the region, stimulate the activities of enterprises, and participate in the development of products, logistics chains, and the introduction of products to the markets. The proposed model of strategic development of the agro-industrial complex, in our opinion, contributes not only to reducing the number of potential competitors (for example, other regions) that do not meet the selected standards, but also to optimizing production costs, which provides an advantage in price competition. The presence of legal entities specializing in specific types of activities within the framework of the association strategy allows for more efficient collection of information, the formation of partnerships for the provision of services, the performance of work, and the creation of conditions for access to new markets.

CONCLUSION

Summing up the research, the following main scientific results were obtained in the dissertation work, and scientifically and practically significant proposals and recommendations were put forward:

1. The program for the restoration of Karabakh and East Zangezur should be aimed at activating economic growth, attracting foreign investment and sustainable development. The formation of specialized production areas, such as the Agdam Industrial Complex and the “Araz Economic Valley” industrial zone, is central to the restoration of the region and will contribute to its integration into the global economy.

2. The development of investment partnerships between state institutions and the private business sector will play a key role in transforming these territories and creating a solid foundation for their future development. Improving the economic infrastructure of Karabakh and East Zangezur, including the modernization of transport networks and energy systems, should be a high priority goal.

3. The integration of renewable energy sources with modern grid infrastructure in the Karabakh and East Zangezur economic regions should be ensured. This will increase energy security in the liberated territories and attract investors focused on environmental sustainability. The priority development of green energy will allow Azerbaijan to present Karabakh and East Zangezur as a leader in sustainable development, align with global trends in decarbonization, and ensure long-term economic sustainability.

4. Distributed solar systems such as solar panels on the roofs of houses and businesses should be implemented as a promising direction for the rural areas of the Karabakh and East Zangezur economic regions.

5. An innovation policy in agriculture, including animal husbandry, should be implemented in the Karabakh and East Zangezur economic regions. On this basis, it is possible to increase investment attractiveness, which ensures the country's food security and is due to the significant agrarian potential in the Karabakh and East Zangezur economic regions.

6. Having analyzed the opinions of domestic and foreign economists, we have determined that the investment attractiveness of the regional economy depends on the efficiency of the use of personal and attracted resources of the region, sector and enterprise. On this basis, it is possible to determine the opportunities for self-development, competitiveness and increasing the profitability of personal or debt capital. Investment attractiveness consists of a system of political, socio-economic, financial and managerial relations arising from the expediency of investments in a particular economic entity.

7. Azerbaijan is a country that uses modern approaches to increase its investment attractiveness. However, not all approaches are systemic, their application is not carried out everywhere, and the pace

of development is not high enough. This is a serious risk factor in the realities of modern geopolitics and economics. The formation of regional policy by the authorities, which should increase investment attractiveness, should take into account the interests of investors and the criteria that are important to them. Positive results can be achieved only through dialogue and joint activities.

8. Azerbaijan's energy strategy is paving the way for the country to become a stronger energy hub in the future. Clean energy production supports Azerbaijan's goal of achieving a zero carbon footprint by 2050. This process is helping Azerbaijan become a more important player regionally and globally, while also helping it become a country that is ready for the demands of the modern energy era.

9. Modernizing agriculture in the Karabakh and East Zangezur economic regions will ensure the long-term success of this sector. This comprehensive approach, which addresses environmental issues, economic well-being, and social development in the Karabakh and East Zangezur economic regions, is essential to achieving equitable development in the relevant sector. Successful integration of these elements can pave the way for a prosperous and sustainable future for the region, built on the foundation of a thriving agricultural sector.

10. The combination of natural resources, cultural heritage, state support, and active promotion creates a solid foundation for the Kalbajar-Lachin and Upper Karabakh regions to become popular tourist centers. These areas have all the necessary factors to attract travelers seeking unique tourist experiences, from historical discoveries to active recreation in picturesque nature.

11. To further enhance the investment attractiveness of the Karabakh and East Zangezur economic regions, administrative barriers that may hinder investors' activities should be minimized. Simplification of procedures related to company registration, obtaining construction permits, and other regulatory processes accelerates the implementation of projects. In addition, infrastructure investments financed through state programs or attracting foreign capital, for example, through bond issuance or loans, can create a basis for the efficient operation of enterprises and optimization of their operating costs.

12. When grouping a system of indicators for effective investment management in the Karabakh and East Zangezur economic regions, it is necessary to take into account various basic requirements. A logical connection should be established between these indicators and the investment object, objectivity and scientific justification should be ensured, calculations should be clear and to a certain extent simple. The possibility of double interpretation of the results should be eliminated.

13. The Karabakh and East Zangezur economic regions can become one of the leading tourism destinations in Azerbaijan. To do this, the modernization of the transport network should be continued, the hotel sector should be developed, and the personnel should be trained in accordance with international service standards. Strengthening international cooperation and participation in global tourism exhibitions will help attract more foreign guests.

14. When preparing the development policy of the Karabakh and East Zangezur agro-industrial association, it should be directed towards international consumers and the domestic market, taking into account the wave-like nature of investment activity and the entry of large international companies into the regional market.

15. In the future, possible disproportionalities in the distribution of investments between the municipalities of Karabakh and East Zangezur can be eliminated by more efficient work of enterprises in the field of attracting investments and redistributing budget funds in these economic regions. In addition, it is necessary to more actively use the potential for the development of organic production and processing capacities in Karabakh and East Zangezur.

16. To successfully stimulate investment activity in municipalities, attention should be paid to creating favorable conditions and increasing their attractiveness for capital investments. In studying investment attractiveness, the main attention should be paid to the following aspects:

- Determinants that determine the investment environment, including economic, environmental, infrastructure, demographic and resource factors;
- Characteristics of investment objects, including their financial

indicators, technological equipment, as well as the development of management processes, marketing approaches and infrastructure base.

17. The use of rating methodologies to assess the investment attractiveness of Karabakh and East Zangezur municipalities allows for an efficient analysis of key indicators, taking into account their interrelationships. For a more in-depth analysis, it is recommended to improve analytical tools that take into account external conditions and the dynamics of factors. One of the priority strategies is the preparation of an investment portfolio that provides comprehensive information about the region's resources, infrastructure, personnel and risks. Such a document can increase the transparency of the investment process and strengthen investor confidence by helping to attract capital.

The main content of the dissertation work is reflected in the following scientific works:

1. Mahmudov P.A. The category of investment attractiveness and its modern content // – Baku: “Cooperation” scientific and practical journal, – 2024, No. 1 (72). – pp. 71-77.

2. Mahmudov P.A. The potential for attracting foreign investments to the liberated territories // – Baku: “Construction Economics and Management” scientific and practical journal, – 2024, No. 3. – pp. 167-174.

3. Mahmudov P.A. Theoretical views on investment attractiveness // – Baku: Western Caspian University, Scientific News: Social and Technical Sciences Series, – 2024. No. 3 (14). – pp. 141-150.

4. Mahmudov P.A. The role of foreign investments in the liberated territories // – Ganja: Republican scientific and practical conference on the topic “The role of universities in the development of innovative ecosystems” dedicated to Victory Day, – November 5-6, 2024. – pp. 267-269.

5. Mahmudov P.A. Analysis of investments in the field of green energy in the liberated territories and their development potential // – Baku: “Cooperation” scientific and practical journal, – 2025. No. 2 (77). – pp. 36-45.

6. Makhmudov P.A. Clusters as a tool for investment

attractiveness of Karabakh and Eastern Zangezur // – Moscow: Competitiveness in the global world: economics, science, technology, – 2025. No. 7 (1). – pp. 78-81.

7. Makhmudov P.A. Some aspects of a comprehensive assessment of investment attractiveness // - Togliatti: Development of the innovation ecosystem of the Russian Federation based on import advancement processes in technological innovations for economic sectors, a collection of scientific articles from the international scientific and practical conference, - 04/17/2025. - pp. 314-318.

8. Mahmudov P.A. Investment activity in the territories liberated from occupation // – Baku: Republican scientific-practical conference on the topic “The role of the National Leader Heydar Aliyev in improving the environment in Azerbaijan” dedicated to the 101st anniversary of the birth of the National Leader Heydar Aliyev, – May 15, 2024. – pp. 221-225.

9. Mahmudov P.A. Investment activity in the territories liberated from occupation // – Baku: Republican scientific-practical conference on the topic “The role of the National Leader Heydar Aliyev in improving the environment in Azerbaijan” dedicated to the 101st anniversary of the birth of the National Leader Heydar Aliyev, – May 15, 2024. – pp. 221-225.



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