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**EXPORT DIVERSIFICATION IN AZERBAIJAN: ASSESSMENT OF THE POTENTIAL FOR SUSTAINABLE DEVELOPMENT FOR AGRICULTURE**

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**Abstract**

*The purpose of the article is to analyze the development of the agriculture sector in Azerbaijan and access the potential for its sustainable development. In the research process, the following scientific methods have been used: empirical method (for the comprehensive assessment of the current state of the research object) along with abstract and logical methods. The assessment of diversification was conducted using Herfindahl-Hirschman Index (HHI).*

*Research results.* The results of scientific research on the development of the agriculture sector in Azerbaijan have been presented. The current state of the sector has been demonstrated and the potential for further development as a part of the diversification strategy has been applied.

*Elements of scientific novelty.* An overview of the sector as one of the major contributors to the appliance of diversification policy has been made. The aforementioned results lead to the conclusion that due to the high potential, the sector could further be considered as one of the significant contributors to the non-oil sector.

*Practical significance.* The dynamics and consistencies of the agriculture sector in terms of value-added have been presented.

*Conclusion.* To provide effective and efficient support to the sector's development, the government has to have an insight into the sector's current economic situation. As a result, a need for in-depth research in terms of expansion of the information base of the sector emerges. This policy includes data collection and analysis, monitoring, and evaluation in order to ensure the indication of business opportunities. Systematic analysis and assessment have to be applied to become a useful tool for identifying the needs of the sector. It is worth mentioning that the food supply chain organization in Azerbaijan is comparatively weak with poor collaboration among chain actors, including farmers, traders, and processors. Most sales of agricultural goods flow through the wholesale market network throughout the country. Taking into consideration the aforementioned, it becomes clear that the expansion of the agricultural export will broaden the links and network accelerating the process of globalization.

*Therefore, an analysis of the existing data on the agriculture sector in Azerbaijan illustrates that the country has great potential for the development of this sector which may contribute to the economy and integration into the global market.*

**Keywords:** Azerbaijan, diversification, agriculture, export, resources.

**ДИВЕРСИФІКАЦІЯ ЕКСПОРТУ В АЗЕРБАЙДЖАНІ: ОЦІНКА ПОТЕНЦІАЛУ СТАЛОГО РОЗВИТКУ СІЛЬСЬКОГО ГОСПОДАРСТВА**

**Анотація**

**Мета статті** – проаналізувати розвиток аграрного сектору в Азербайджані та оцінити потенціал його сталого розвитку. У процесі дослідження використовувалися наступні наукові методи: емпіричний метод (для всебічної оцінки сучасного стану об'єкта дослідження) поряд з абстрактними та логічними методами. Оцінка диверсифікації проводилася з використанням індексу Герфіндаля-Гіршмана (HHI).

**Результати досліджень.** Представлені результати наукових досліджень щодо розвитку сільського господарства в Азербайджані. Продемонстровано сучасний стан сектору та оцінено потенціал для подальшого розвитку в рамках стратегії диверсифікації.

**Елементи наукової новизни.** Зроблено огляд сектору як одного з основних факторів, що сприяють застосуванню політики диверсифікації. Вищезазначені результати приводять до висновку, що через високий потенціал сектор можна додатково розглядати як один із значних факторів, що сприяють розвитку ненафтового сектору.

**Практичне значення.** Представлено динаміку та узгодженість сільського господарства з точки зору доданої вартості.

**Висновок.** Щоб забезпечити ефективну та дієву підтримку розвитку галузі, уряд повинен мати уявлення про поточну економічну ситуацію в секторі. В результаті виникає потреба у поглиблених дослідженнях з точки зору розширення інформаційної бази галузі. Ця політика включає збір та аналіз даних, моніторинг та оцінку з метою забезпечення вказівок на можливості бізнесу. Щоб стати корисним інструментом для визначення потреб сектора, необхідно застосувати систематичний аналіз та оцінку. Варто згадати, що організація ланцюга постачання продуктів харчування в Азербайджані є порівняно слабкою із поганою співпрацею між учасниками мережі, включаючи фермерів, торговців та переробників. Більшість продажів сільськогосподарських товарів проходить через мережу оптового ринку по всій країні. Беручи до уваги вищесказане, стає зрозумілим, що розширення сільськогосподарського експорту розширить зв'язки та мережу, прискорюючи процес глобалізації. Таким чином, аналіз наявних даних про сільськогосподарський сектор в Азербайджані показує, що країна має великий потенціал для розвитку цього сектору, що може сприяти економіці та інтеграції на світовий ринок.

**Ключові слова:** Азербайджан, диверсифікація, сільське господарство, експорт, ресурси.

**JEL classification:** Q00; Q01; Q10; R10; R20

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**Introduction**

The remarkable growth that had been observed in the Azerbaijani economy since the start of the new millennium was suppressed when international oil prices dropped in 2014. Right after this crucial moment, the government started to seek new sources of growth beyond natural resources. That is, diversification has become one of the main priorities for the government.

Even though the country had a comparatively quick recovery, the crisis identified the need to diversify exports and production [1]. In the context of clearly observed difficulties, the government adopted 12 Strategic Roadmaps in 2016. These Roadmaps were aimed at the development of the non-oil sectors of the economy and transition to a more diversified economy.

The topic of diversification was studied by [2]. It was revealed that the economy of Azerbaijan is vulnerable due to its dependency on natural resources and poor diversification strategy. Nevertheless, the potential for development is ranked as high.

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Taking into account that commodity-dependent countries may suffer from export instability arising from unstable global demand, export diversification emerges as the best option to facilitate the constraints. In order to succeed in export diversification, country's export has to be globally competitive to take advantage of leveraging world markets.

Agriculture is of great importance to Azerbaijan as it accounts for a large portion of employment, rural livelihood, food security, and rural development. Therefore, the state seeks to enhance the business climate for the development of a competitive agricultural and food sector so it may contribute to the diversification of a country's economy and boost its rural welfare.

It is no doubt that agriculture represents a raw material source for both directly consumed products (fruit, vegetables, etc.) and the processing industry. That is, following the climatic conditions and traditional employment habits of the population, the development of the agriculture sector as a sector of import-substitution and exportable products seem crucial [3].

Agriculture refers to the sector employing the largest percentage of the population in Azerbaijan and has a significant potential for diversification away from oil. In a meantime, it is increasingly a target for public and private investment [4]. From the perspective of gender balance, agriculture refers to a sector that involves a high percentage of women both as farmers and entrepreneurs.

According to the assessment made by several international organizations, Azerbaijan has agriculture with huge export potential, and the majority of agriculture products are highly competitive. Favorable climatic and soil conditions may maintain the procedure and provide more development opportunities. Even though agriculture is considered as one of the leading areas of exports and economic diversification at large, the share of this sector in value-added created in the economy and exports is not at a desirable level yet.

The paper will present the assessment of the export diversification potential focusing on the agricultural sector.

### **Patterns of Diversification**

Resource-rich countries are more inclined to diversify their economies to buffer themselves against commodity price volatility. The more a country depends on resources, the less likely it will have a diverse export profile.

The study of [5] has indicated that the experience of resource-dependent countries provides evidence that without economic and export diversification the aforementioned economies remain highly vulnerable to different external shocks. Usually, these countries lack appropriate policy guidelines or implementation on how to effectively diversify their economies and extend their export portfolios.

Export diversification refers to deliberate policies intended to change the shares of commodities in the existing export mix, introduce new goods in the export portfolio, and get involved in new geographical markets. It is worth mentioning that investment and trade freedom along with the measure of resource dependence determine the level of export diversification.

In accordance with the study of Ross [6], several factors are illustrating the lack of information about export diversification in oil-producing countries. First is unreliable data which makes it difficult to know the true level of diversification in the domestic economy. The second relates to the fact that export diversification is mainly measured in ways that are contaminated by price volatility.

It is no doubt that the reliable measurement of diversification is a challenging task due to the fact that measures of production and export shares in developing countries tend to be affected by movement in commodity prices.

Some scholars indicate the Herfindahl-Hirschman Index (HHI) is the most appropriate and effective indicator of diversification. Thus, the index is calculated as following:

$$HHI = \sum_{i=1}^N s_i^2 \quad (1)$$

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Here,  $s_i$  reflects the share of a specific economic sector or product group in the economy or total exports;  $i$  is a specific economic or export sector/product group,  $N$  is the number of economic or export sectors/product group in the country.

Bayramov and Orujova [7] studied the topic of diversification in Azerbaijan and made an assessment of the current state of export diversification in the country comparing its level with indicators of resource-rich Caspian Basin countries namely Kazakhstan and Turkmenistan.

Since a part of the produced commodities is exported and the ratio of total foreign trade to GDP might be considered as an indicator of openness of the economy, the matter of export diversification comes to the surface.

### **Current state of agricultural industry in Azerbaijan**

The agricultural sector of Azerbaijan has a wide range of products that include crops, cereals (wheat, barley, maize), different fruit (including melons, grapes, and berries), and vegetables. The production of milk, beef, lamb, and goat meat along with eggs and poultry meal prevail in livestock activities. Moreover, it is worth mentioning that Azerbaijan can be divided into four different agricultural zones following the spatial distribution of irrigation, agricultural lands, livestock density, and temperature [8].

Over the last 15 years, the livestock and the crop sector in Azerbaijan have significantly expanded. At the same time, a considerable increase was observed in the production of milk, poultry meat sector, and beef. In accordance with the data provided by the State Statistical Committee of the Republic of Azerbaijan [9] the index of the employed population involved in agriculture, forestry and fishing in 2019 was composed of 36.0%.

Moreover, there is a correlation between the size of the population and the economic potential demand for food. Therefore, growth in the aforementioned indexes may awaken a growth in the domestic food market potential. Although consumer preferences may change over time, yet, urban consumer preferences seem to slightly change towards comparatively convenience products – pre-packed, readymade – and to become more discerning on quality and taste.

Furthermore, efficient management of the interactions between the food supply chain segments is a crucial element for being competitive. That is, the establishment of strong linkages between input suppliers, farmers, traders, processors, and retail is an important constituent of the development [10].

Additionally, it has to be noted that since the beginning of 2020, new rules for subsidizing agricultural production have come into force. In accordance with the aforementioned, agricultural subsidies to farmers will be issued through Electronic Agriculture Information System (EAIS) platform. This system will allow suppliers to find and communicate with farmers registered in this platform, automatically turning them into their customers by offering an appropriate price, quality, and diversity of products.

As it was mentioned above, diversification of the economy has become one of the main targets for the government. That is, the volume of per capita GDP in the country is meant to be increased with growth derived from the non-oil sector, with agriculture being a major contributor in this regard. The goal might be achieved through the development of agro-industries based on local raw materials, support for agricultural production, simplified credit mechanisms for farmers, etc. [11].

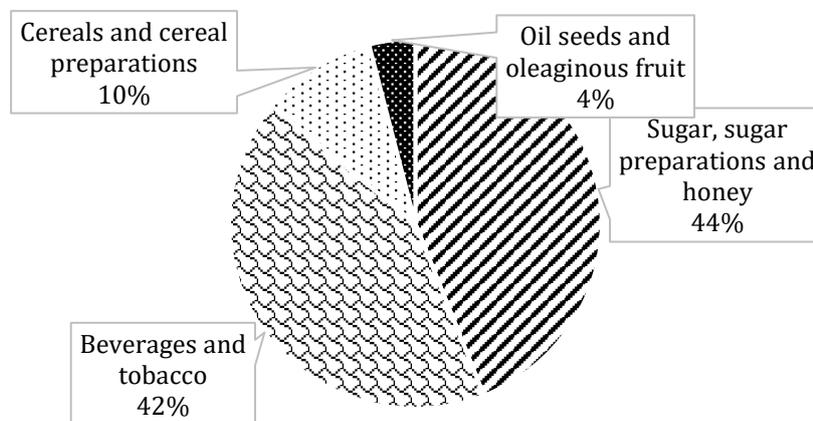
Thus, there emerges a necessity to mention a successful implementation in this regard, as since the beginning of 2020 Agrarian Credit & Development Agency (AKIA) has provided loans and micro-loans to Azerbaijani farmers in the amount of AZN 51 mln.

### **Trade position at agricultural markets**

The variety of climate conditions and topography holds a considerable share in agricultural biodiversity. There is a condition for the collection of a wide range of plants from the wild or grown [12]. Thereby, Azerbaijan is a net importer of food products, with main areas

occupied by the processing of meat and dairy products along with canning of fruit and vegetables.

In accordance with the indicators provided by the State Statistical Committee, the value of agricultural products exported in 2019 consisted of USD 760.3 mln. In comparison with last year's indicators, there was an increase of 12.2% in the volume of agricultural exports. As illustrated in Figure 1, sugar and sugar products along with beverages and tobacco indicated large shares in exports of goods in 2020.

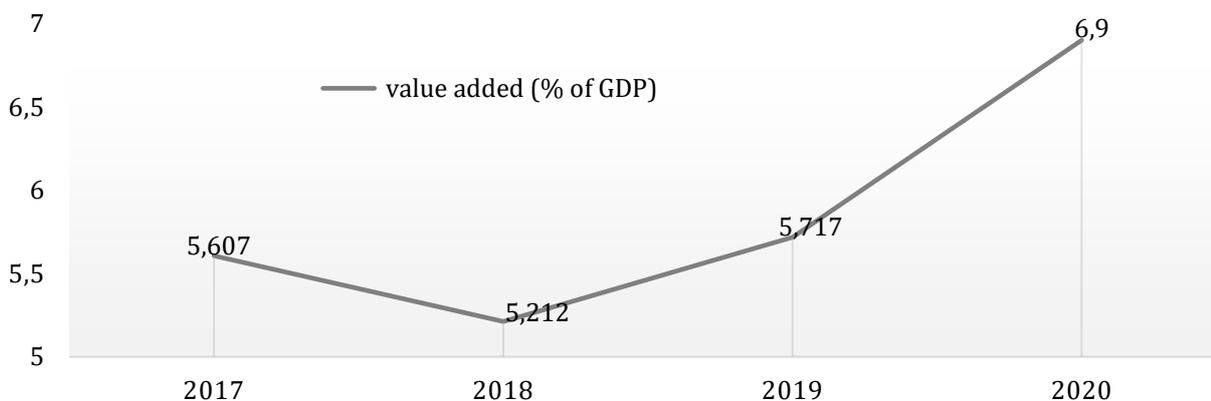


**Figure 1. Share of exported goods (%)**

Source: UNCOMTRADE, 2020

Value-added in agriculture, forestry and fishery accounted for 6.9% of GDP in 2020. Taking into account the pandemic and its impact on the economy of a country, the following indicators reflect a comparatively stable environment in this sector. The volume of agricultural exports increased by 0.3 % in comparison with the indicators fixed over the last year. The total value of agricultural products exports in 2020 was composed of USD 762.3 mln. The wholesale price of the most agricultural products remained stable, while the wholesale price of pomegranate, pear, apple, orange, date, cucumber, pea, onion, and garlic has increased by the end of 2020.

Figure 2 demonstrates the dynamics of agricultural exports in Azerbaijan over the period of four years. That is, a slight increase might be observed in terms of agricultural export which leads to the conclusion that further potential development of this sector may alleviate the process of transition to a more diversified economy in Azerbaijan.



**Figure 2. Agriculture, forestry, and fishing, value-added (% of GDP)**

Source: World Bank, State Statistical Committee, 2021

The general assessment indicates that the main destination and the largest consumer of agricultural and food exports has been the CIS market. However, over recent years this market has expanded to include more countries in Europe, Asia, and America. Main export products

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include fresh vegetables and fruits, vegetable and animal oils, tea, sugar, beverages along with tobacco products, and cotton. In 2019, the main consumers of the aforementioned goods were Russian Federation, Georgia, and Ukraine [13].

It is worth mentioning that Azerbaijan also benefits from the generalized system of preferences (GSP) that is applied by the EU and the USA. The system implies an exemption from duties on imports to the EU of more than 7200 goods produced in Azerbaijan along with 3400 goods to the USA [14].

Azerbaijan has the potential to develop the export of organic products, although it is currently driven by the private sector. Different companies initiated organic production of pomegranate and some other fruit. From the perspective overview, Azerbaijan has a chance of improving its exports in organically produced goods, specifically to Russia. Taking into account that Russia is engaged in different restrictive and limiting issues in relation to the import of agricultural commodities, Azerbaijan's agricultural sector has some increasing perspectives within Russian markets.

Azerbaijan has unique opportunities for the development of its agricultural sector, taking into account its diverse terrain and geography along with climatic zones. Favorable location on the crossroads of Eurasia serves as a natural bridge between Europe and Asia. That is, its logistics hub may assist in terms of export opportunities and expansion of cross-border links.

Although processing industries operating on local agricultural products and raw materials have developed at a certain level, the absence of sufficiently modern reforms and management practices appears as an obstacle in the developmental path.

### **Conclusion**

In fact, the government has adopted several programs aimed at the development of the agriculture sector in Azerbaijan, a need for the expansion of the adopted measures remains. Transparent legislation and practical implementation of regulations in taxation of agricultural trade and customs rules will ensure the sustainable development of the sector.

There is a necessity to ensure the production of competitive goods and stimulate export activities of producers. Protection of domestic markets and development of mechanisms that will stimulate modern infrastructure and exports seems crucial. The role of entrepreneurs in terms of financial interests may maintain the development of the sector in its turn.

In accordance with the analysis, agriculture has to be developed for the following reasons: food security of the country, promotion of expanded competitive agriculture production, promotion of export activities of farmers engaged in this sector, improvement of living standards of rural area through regional economic development.

Favorable conditions for cattle-breeding and milk production along with the rich vegetation of Azerbaijan allow the production of profitable natural and traditional products of high quality. Although the CIS market is considered as the largest consumer of agricultural exports, the expansion, and inclusion of more European countries to the market over recent years reflect positive dynamics in terms of agricultural development.

On the other hand, it is hard not to notice that human capital plays a significant role in the process of the sector's development. Therefore, increasing human capital by training, extension and education seem crucial in this regard. Authorities should support initiatives of farmers to invest in efficient production methods, quality standards, and marketing of their products to improve their livelihood and strengthen their competitiveness in the value chain.

To provide effective and efficient support to the sector's development, the government has to have an insight into the sector's current economic situation. As a result, a need for in-depth research in terms of expansion of the information base of the sector emerges. This policy includes data collection and analysis, monitoring, and evaluation in order to ensure the indication of business opportunities. Systematic analysis and assessment have to be applied to become a useful tool for identifying the needs of the sector.

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It is worth mentioning that the food supply chain organization in Azerbaijan is comparatively weak with poor collaboration among chain actors, including farmers, traders, and processors. Most sales of agricultural goods flow through the wholesale market network throughout the country. Taking into consideration the aforementioned, it becomes clear that the expansion of the agricultural export will broaden the links and network accelerating the process of globalization.

Therefore, an analysis of the existing data on the agriculture sector in Azerbaijan illustrates that the country has great potential for the development of this sector which may contribute to the economy and integration into the global market.

## **Literature**

1. OECD. Azerbaijan: Driving Diversification through Strengthened Entrepreneurship. 2019. URL: <https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Azerbaijan-Driving-Diversification-through-Strengthened-Entrepreneurship.pdf>
2. Bayramov V., Breban D. and Mukhtarov E. Economic effects estimation for the Eurasian Economic Union: Application of regional linear regression, *Communist and Post-Communist Studies*. 2019. № 52 (3), pp. 209–225. URL: <https://doi.org/10.1016/j.postcomstud.2019.07.001>
3. Aslanli Kanan et al. Assessment of economic and export diversification. *Public Association for Assistance and to Free Economy*. 2013. URL: [https://resourcegovernance.org/sites/default/files/documents/rwi\\_azerbaijanassessmentofeconomicexportdiversification.pdf](https://resourcegovernance.org/sites/default/files/documents/rwi_azerbaijanassessmentofeconomicexportdiversification.pdf)
4. USAID. Country Development Cooperation Strategy (CDCS). 2020. URL: <https://www.usaid.gov/sites/default/files/documents/CDCS-Azerbaijan-May-2025.pdf>
5. Esanov Akram. Economic Diversification: Dynamics, Determinants and Policy Implications. *Revenue Watch Institute*. 2012. URL: [https://www.resourcegovernance.org/sites/default/files/RWI\\_Economic\\_Diversification.pdf](https://www.resourcegovernance.org/sites/default/files/RWI_Economic_Diversification.pdf)
6. Ross Michael L. What do we know about export diversification in oil-producing countries? *The Extractive Industries and Society*. 2019. vol. 6 (2), pp. 792-806. URL: <https://doi.org/10.1016/j.exis.2019.06.004>
7. Bayramov Vugar, Abbas Gulnara. Oil shock in the Caspian Basin: Diversification policy and subsidized economies. *Resources Policy*. 2017. vol. 54, pp. 149-156. URL: <https://doi.org/10.1016/j.resourpol.2017.10.006>
8. World Bank. Climate Change and Agriculture Country Note. 2012. URL: <https://documents1.worldbank.org/curated/en/575751468014471558/pdf/954070WP0Azerb00Box391416B00PUBLIC0.pdf>
9. The State Statistical Committee of the Republic of Azerbaijan. URL: <https://www.stat.gov.az/source/agriculture/?lang=en>
10. Wageningen Economic Research. Market and competitiveness analysis of the Azerbaijan agricultural sector: an overview. 2017. URL: <https://edepot.wur.nl/450210>
11. FAO. Country Programming Framework for Azerbaijan. 2016. URL: <http://www.fao.org/3/bp566e/bp566e.pdf>
12. FAO. Organic Agriculture in Azerbaijan. 2018. URL: [https://azerbaijan.un.org/sites/default/files/2020-06/Book\\_organic\\_EN\\_press.compressed.pdf](https://azerbaijan.un.org/sites/default/files/2020-06/Book_organic_EN_press.compressed.pdf)
13. State Statistical Committee of the Republic of Azerbaijan. 2019. The foreign trade of Azerbaijan. URL: <https://www.stat.gov.az/source/trade/?lang=en>
14. AZPROMO. Azerbaijan: agriculture and food processing. URL: <http://www.azembassy.at/files/Azerbaijan%20agriculture%20and%20food%20processing%20brochure.pdf>
15. Vugar\_Bayramov, Laman\_Orujova. Volatility, Diversification and Oil Shock in Resource-Rich Turkic Countries: Avenues for Recovery. 2017. URL: <https://dergipark.org.tr/en/pub/bilig/issue/42612/519424>
16. Bayramov Vugar, Hasanov Rashad et al. A Comparative Study on Development of Small and Medium Enterprises (SMEs) in Azerbaijan. 2017. URL: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3485576](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3485576)

---

## References

1. OECD. (2019). Azerbaijan: Driving Diversification through Strengthened Entrepreneurship. Available at: <https://www.oecd.org/eurasia/competitiveness-programme/eastern-partners/Azerbaijan-Driving-Diversification-through-Strengthened-Entrepreneurship.pdf>
2. Bayramov V., Breban D. and Mukhtarov E. (2019). Economic effects estimation for the Eurasian Economic Union: Application of regional linear regression, *Communist and Post-Communist Studies*. № 52 (3), pp. 209–225. Available at: <https://doi.org/10.1016/j.postcomstud.2019.07.001>
3. Aslanli Kanan et al. (2013). Assessment of economic and export diversification. *Public Association for Assistance and to Free Economy*. Available at: [https://resourcegovernance.org/sites/default/files/documents/rwi\\_azerbaijanassessmentofeconomicexportdiversification.pdf](https://resourcegovernance.org/sites/default/files/documents/rwi_azerbaijanassessmentofeconomicexportdiversification.pdf)
4. USAID. (2020). Country Development Cooperation Strategy (CDCS). Available at: <https://www.usaid.gov/sites/default/files/documents/CDCS-Azerbaijan-May-2025.pdf>
5. Esanov Akram. (2012). Economic Diversification: Dynamics, Determinants and Policy Implications. *Revenue Watch Institute*. Available at: [https://www.resourcegovernance.org/sites/default/files/RWI\\_Economic\\_Diversification.pdf](https://www.resourcegovernance.org/sites/default/files/RWI_Economic_Diversification.pdf)
6. Ross Michael L. (2019). What do we know about export diversification in oil-producing countries? *The Extractive Industries and Society*. vol. 6 (2), pp. 792-806. Available at: <https://doi.org/10.1016/j.exis.2019.06.004>
7. Bayramov Vugar, Abbas Gulnara. (2017). Oil shock in the Caspian Basin: Diversification policy and subsidized economies. *Resources Policy*. vol. 54, pp. 149-156. Available at: <https://doi.org/10.1016/j.resourpol.2017.10.006>
8. World Bank. (2012). Climate Change and Agriculture Country Note. Available at: <https://documents1.worldbank.org/curated/en/575751468014471558/pdf/954070WP0Azerb00Box391416B00PUBLIC0.pdf>
9. The State Statistical Committee of the Republic of Azerbaijan. Available at: <https://www.stat.gov.az/source/agriculture/?lang=en>
10. Wageningen Economic Research (2017). Market and competitiveness analysis of the Azerbaijan agricultural sector: an overview. Available at: <https://edepot.wur.nl/450210>
11. FAO. (2016). Country Programming Framework for Azerbaijan. Available at: <http://www.fao.org/3/bp566e/bp566e.pdf>
12. FAO. (2018). Organic Agriculture in Azerbaijan. Available at: [https://azerbaijan.un.org/sites/default/files/2020-06/Book\\_organic\\_EN\\_press.compressed.pdf](https://azerbaijan.un.org/sites/default/files/2020-06/Book_organic_EN_press.compressed.pdf)
13. State Statistical Committee of the Republic of Azerbaijan (2019). The foreign trade of Azerbaijan. Available at: <https://www.stat.gov.az/source/trade/?lang=en>
14. AZPROMO. Azerbaijan: agriculture and food processing. Available at: <http://www.azembassy.at/files/Azerbaijan%20agriculture%20and%20food%20processing%20brochure.pdf>
15. Vugar Bayramov, Laman Orujova. (2017). Volatility, Diversification and Oil Shock in Resource-Rich Turkic Countries: Avenues for Recovery. Available at: <https://dergipark.org.tr/en/pub/bilig/issue/42612/519424>
16. Bayramov Vugar, Hasanov Rashad et al. (2017). A Comparative Study on Development of Small and Medium Enterprises (SMEs) in Azerbaijan. Available at: [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3485576](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3485576)

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