

Production of Organic Agricultural Products in Georgia: Challenges and Development Opportunities

Tamar Lazariashvili^{1*}, Nino Grigolaia² and Eter Narimanishvili³

¹Assistant Professor, Microeconomics Department, Ivane Javakhishvili Tbilisi State University, Georgia

²Professor, Business School, Alte University, Georgia

³Associate Professor, Samtskhe-Javakheti State University, Georgia

*Corresponding Author: Tamar lazariashvili, Ivane Javakhishvili Tbilisi State University, 2 University Street, Tbilisi, Georgia.

Received: February 12, 2024; Published: March 04, 2024

DOI: 10.55162/MCAES.06.163

Abstract

Introduction: The article substantiates the importance of production of organic agro-food products in Georgia. Based on the assessment of the natural-resource potential of the production of bio products, the opportunities for the production of Georgian bio products and the expansion of positions on the local and international markets have been studied.

Aim and tasks: The aim of the study is to reveal the challenges of production of organic agricultural products in Georgia and develop recommendations on development opportunities.

Research results: As the findings of the research as the main challenges are identified small amount of certified products, complex certification process, lack of knowledge and skills of farmers, low access to credit and finance, lack of information about both local and export bio products markets, etc.

Conclusions: Through bibliographic research and interviews with experts, conclusions are made on the main challenges of production of organic agricultural products in Georgia. As a result of the analysis, the ways to overcome them are proposed and relevant recommendations are made.

Keywords: Bio Economy; bio products; Georgia; bio production challenges; bio certificates; export expansion opportunities

Abbreviations

DCFTA - Deep and Comprehensive Free Trade Agreement.

EU - European Union.

Introduction

The demand for organic agro-food products is growing worldwide. If earlier the production of organic products was intended only for high-budget consumers, today the trend of interest in these products has already appeared for low-budget consumers, and competition has also increased among the companies operating in this sector.

Production of organic agro-food products is important for Georgia. Georgia is a small and mountainous country, therefore most farms are small - scale (Kharaishvili, E., Talikadze, N. 2022).

Based on the above, it is quite difficult to compete with other countries with low prices for agro-food products and the production of a large number of products on the international and local markets. On the other hand, Georgia has good climatic conditions for the production of diverse and high-quality organic agro-food products. For the sustainable development of the field, it will be necessary to develop bio-production, both for the local market and for absorbing the export potential of Georgian bio-products on international markets.

In today's world, the demand for organic agro-food products has increased dramatically, despite the fact that prices for these products are high. The number of farmers involved in this field and the number of areas occupied by organic products is increasing. It should also be noted that the structure of consumers of bio products is heterogeneous. Such products are bought by consumers with different types of readiness to pay: millionaires, pensioners, students. Such a consumer attitude affects the activities of companies producing and supplying organic products. The growth of the organic products market is also influenced by the fact that organic farms in EU countries receive support from the state budget. Almost all countries have various programs that provide for both primary bio product production and key support measures.

In Georgia, the production of organic products and, accordingly, the market for organic products is still underdeveloped, although the tendency to form a layer of consumers with demand for organic products has already been highlighted. Such a customer is ready to pay even a different price. Especially since the incomes of the population are growing in Georgia. Also, the growing buying attitude of the Georgian consumer towards healthy food is substantiated by various researches. In Georgia, there is mainly a demand for locally produced products - consumers believe that they contain less preservatives and other harmful substances (Kharaiashvili, E. 2021).

The level of competition in the international markets of organic products is quite high, however, the demand in this market still exceeds the supply. In the case of effective use of the natural resource potential of the production of organic products of Georgia, it is possible to expand the positions of Georgian organic products in the local market and gain a niche in the international organic markets.

In the future, it is expected that the trend of increasing demand for environmentally friendly food will continue. Therefore, issues of development of production of organic products do not lose their relevance, on the contrary, they become more important. In order to determine the prospects for the development of the production of organic products in Georgia, it will be necessary to identify the challenges in the field of production of these products and to develop recommendations for prospective directions of development.

Materials and Methods

The global market for bio-based products is growing. This is confirmed by the bio products market size, the volume of shares invested in this field, the revenues from bio production, the growth trends and rates of bio production as assessed by bio products Market Insights. A comprehensive report enables businesses to make informed decisions about future growth strategies (Bioproducts Market Research 2023-2030).

In the conditions of globalization, the decisions made about the bio economy acquire special importance. Such decisions mainly serve the interests of sustainable and circular development of the economy (IACGB. 2023). It should be taken into account that the global economy, technologies and social innovations are important driving forces of the bio economy, and with their complex use it is possible to achieve the goals of sustainable development. This concept is based on communiques adopted at the Global Bioeconomy Summits in 2020, 2018 and 2015 (IACGB. 2023).

Various policy tools are considered important for creating and strengthening the global bio economy, including:

- Capitalizing on the contribution of science and technology;
- Creating bio economy jobs through partnerships and innovation;
- Mobilization of finances;
- Increasing the involvement of industries and businesses;

- Promotion of creation of sustainable value chains;
- Development of partnership, shared responsibility and global platform, etc.

Over the past decade, advances in biotechnology have been widely used as a means of increasing food production. In particular, advances in genetic engineering have made it possible to manipulate crops to increase yields, thereby increasing the food supply for a growing world population (Estrada, A. C., Díaz, D. V., and Hernandez, C. A. M. 2017).

However, there is still uncertainty on the part of the public about their social benefits and possible negative effects on human health. In addition, it is worth noting that the benefits of agricultural modernization only benefit developed countries, while people living in developing and underdeveloped countries suffer from hunger, malnutrition and poverty. The agricultural sector plays an indispensable role in the food security of countries. In developing countries, this sector is an integral source of livelihood of the population. It should also be noted that in the future it will be necessary to meet the increased demand for healthier products (Kharashvili, et al. 2024). Therefore, it is necessary to create policies that guarantee that the advances in biotechnology will be translated into the possibility of qualitatively improved food supply for low-income populations. However, it is necessary that the process of modernization of agriculture should ensure sustainable development in the conditions of constantly growing demand for food.

Economic analysis shows that the demand for organic products is growing. However, the question arises as to when the market will become saturated with particular products? What changes are expected in the demand for organic products? What trends will bio production develop? Etc. To find answers to these questions, it is important to develop and evaluate bio economy growth strategies, analyze demand and supply factors (Eaton, L. 2017). In order to stimulate the growth of the bio-industry, it is necessary to form regulatory requirements (Bioproducts Industry Overview. 2021).

Production of bio products is often considered by scientists as one of the potential opportunities for agricultural development. Consumers should have information on bio-products that they are safe, environmentally friendly and affordable considering their income. The behavior of the main suppliers and consumers of organic products needs to be studied. Developing countries have resource potential for the production of bio products, however, it is necessary to identify the main problems in this field. Bringing bio production requirements into line with the requirements of developed countries. The market of organic products in Georgia is not highly developed, but the results of consumer preferences research show that consumers support healthy food and they are ready to pay a different (relatively high) price for organic products. There are also positive changes in the state's agrarian policy, in particular in the direction of establishing an adequate legislative base for organic production (Kharashvili, E., Lazariashvili, T., Natsvlshvili, I. 2019).

The results of the research on the development of bio products showed that consumer requirements may be similar across countries, however, some regional differences should also be taken into account (Sparling, D., and Laughland, P. 2006). In the production of bio products, it is important to analyze the level of competitiveness (Kharashvili, E. 2011).

The trend of increasing demand for organic products has been evaluated by various researchers. For example, for Georgia, bio production is considered as an alternative to the traditional system of agricultural production. By means of a comparative analysis with European countries, the ways of development of bio production in Georgia are identified, through the development of bio production, the possibilities of employment and income growth of the population, improvement of food quality and environment are substantiated (Natsvlshvili, I., Kharashvili, E., Lazariashvili, T. 2020).

As already highlighted above, the market of organic products is one of the most dynamically developing areas of the agricultural sector in the world. In the near future, its high growth rate (15-16%) will be maintained. The production of the mentioned products is currently considered the most important condition for maintaining the health of the ecosystem and the population of the individual country, the food security of the population and taking care of the environment. That is why the production of organic agricultural products can be unconditionally considered the most important factor for the sustainable development of any country, including the agricultural sector of Georgia, and therefore the entire economy (Okruashvili, N., Paresashvili, N. 2022).

In the conditions of structural changes, it is important to determine the impactful factors of economic growth. From this point of view, researchers consider the expansion of the bio economy and bio products market as the main factor, moreover, in many countries (for example, Finland) the national bio economy is considered a strategic direction for creating new jobs (Lilja, K. 2017). Today, researchers believe that the diversification of organic production will have a great impact on the development of agro-food production and food markets. Studies have concluded that organic production is the only agricultural system that can solve many problems, such as environmental protection, employment, income generation, improving the quality of food and others (Anastas/oS, V. Semos. 2002). In many European countries, the production of organic products is increasing, and in the global context, Europe continues to be the leader in the production of organic food products. The mentioned positive development is caused by a number of reasons, among them the growing consumer demand for organic food products, the requirements for the production and labeling of organic food products, the legal environment determined in accordance with the European Union and national legislation, the developed standards for organic food and others are important (Meredith, S., and Willer, H. 2014).

Modern studies of the global bio-products market evaluate production processes in this field, provide price analysis and develop key policy directions, consider structural changes in import/export of bio-products, describe consumption and supply ratios. In order to find a niche in the market of organic products, it is considered important by researchers to study the prices and carry out a comparative analysis of the prices of organic products of the countries participating in the market (Bitter, O., and Petryshyn, L. 2018). According to the analysis of organic food markets in the EU countries, both the number of areas occupied by organic products and the share of organic products in the food markets are increasing (Willer, H., and Schaaack, D. 2015), In some countries (e.g. Bulgaria, Croatia) there has been a boom in the production of these products (Buchurest, S., and Zagreb, Z. 2018).

Research methods

The aim set in the research process is to reveal the challenges in the field of production of bio products and to develop recommendations for development opportunities. General and specific methods have been used to achieve the stated aim: production and market indicators of organic products have been calculated using statistical methods; In order to determine regularities between analytical and statistical evaluations, existing research databases on the production of organic products, research institutes of Georgia and European countries, as well as researchers' publications, statistical data, etc. are used. In-depth interviews with experts have been conducted to determine quantitative and qualitative indicators.

Results and Discussion

Against the background of structural changes in the economy and nutrition, according to the forecast indicators of 2050, a special growing demand will be created for agricultural lands. The future of society will depend significantly on the global trends and challenges in this regard. Especially since the change in the food structure of the population in terms of food safety and sustainable development of agriculture requires a global change in the environment, including in terms of bio-production (FAO. 2017).

Due to its unique natural conditions, Georgia has a good perspective to become a significant producer of organic agro-food products and a competitive exporter to the EU countries. Increasing the efficiency of bio production will be a priority for the country's development. Developing, low-income countries often complain that the EU's protectionist policies in agriculture hinder their export growth. However, in reality, the main obstacle for developing countries is not trade barriers, but their insufficient ability to meet standards and product quality. This issue is of special importance for Georgia, which can successfully export bio products to international markets (Natsvlishvili, I., Kharashvili, E., Lazariashvili, T. 2019).

In accordance with the increase in demand for organic agro-food products in the world, the number of farmers involved in this field and the area occupied with organic products is also increasing. According to the data of recent years, the world market of bio-products will grow three times or more in 2020-2023 (Bioproducts. 2023). At the global level, African, Latin American and Eastern European countries have expressed a serious demand for organic products, and with the right export policy, these countries are also achieving

great success.

Demand for organic food products has increased dramatically in Europe, despite the fact that prices for these products are high. With the development of the bio economy, 2.7 million jobs have been created in the EU countries, and this area provides safe raw materials for the population and production (Farm Europe. 2017). In Europe, the organic market share is particularly high in Germany (almost 6%). Also, the results of the research indicate that the potential demand for this kind of products in Hungary is high, in particular, 62.9% of the population prefer local products, 48.1% consider that it is not important for them whether these products are of organic origin or not (Buday, Z., Szabio, M., Kardon, B., RCISD, Hunyadi, E., ÖMK, B. 2020). Researchers have identified both demand and supply hindering factors in the organic market, the most serious problem of which is the trust in products of this kind.

There is a corresponding natural resource potential for the production of organic products in Georgia. The problem is the low level of utilization of this potential and the challenges in production development. Therefore, it is important to identify the challenges in the production of organic products in Georgia.

In order to find out the main obstacles and opportunities in-depth interviews were conducted with the field experts operating in Georgia. Analysis of research materials and in-depth interviews with experts revealed that one of the main challenges in the production of organic products in Georgia today is the low level of access to bio certificates. It turned out that today 27 persons are the owners of the bio certificate, and 69 persons are in the process of conversion. Out of a total of 96 bio-operators, 14 are engaged only in the production of primary agricultural products, 73 - in the production of primary and secondary products at the same time, 6 - in the production of only secondary products, and 3 - in the production of biological means of production. In addition, it should be noted that not a single trade facility or company involved in trade in Georgia has been certified yet. In the field of horticulture, the situation is unfavorable, as only 18 operators have this product (not including vineyards of the wine variety), and among them only 6 have an organic certificate, and 12 are still in the conversion period.

Bio-certified products produced in Georgia are sold entirely in the export market nowadays, and there are reasons for this:

- Producers receive a biological certificate for the production of export products;
- There is no separate segment of biological products in the local market yet.

The main share of Georgia's bio products export comes to Germany, which is not surprising, because the German bio products market is one of the largest markets in Europe and at the same time one of the largest exporters, as already emphasized above.

The main prerequisite for diversification of exports in EU countries is certification. According to the organic standard, one of the most important certified and exported Georgian organic products are fruits and fruit juices, vegetables, tea, wine, nuts and others. Due to the increased popularity of organic products, the demand for these products is increasing, both in the local and international markets. Therefore, their production has significant development potential (see Table 1).

Certified Georgian products are not sold in the local market, however, imported and certified biological products from other countries are represented in the Georgian market. Such products are imported by leading supermarket chains in Georgia.

Product / Country	Germany	Czech Republic	Denmark	France	Italy	Sweden
Fruit						
Fruit juices						
Vegetables						
Tea						
Dried fruit						
Grain						
Berries						
Potatoes						
Processed fruits (jam, churckhela, etc.)						
Non-timber forest products						

Source: Table compiled by authors based on Caucascert data, <http://caucascert.ge/en/home>.

Table 1: Export Potential of Georgian Bio products according to Countries

Good prospects for organic agriculture in Georgia are facilitated by trade relations created by the Deep and Comprehensive Free Trade Agreement (DCFTA) between Georgia and the European Union. The majority of processors and traders of certified organic products in Georgia depend on exports, especially to EU countries. In this context, companies receive support from European programs and international development organizations, e.g. from Germany, Switzerland and Austria. The majority of Georgian farmers take their products to the local market. Georgia imports a large part of food from 256 foreign countries, but there is a very good potential for increasing local production. More than 50% of Georgian farmers still use chemicals with excess content for production. Due to its unique natural conditions, the country has good potential to become a producer and competitive exporter of bio-products for the EU countries. Another problem is that part of the farmers produce such products, which are in excess in the local market, therefore, the price of the product is low, or it is not sold at all. A certain part of farmers produces deficient products, which in turn increases the cost and cannot compete with imported products. Consequently, the farmer is forced to sell the products at a price lower than the cost price, due to which he suffers a loss.

Georgia is an attractive investment market in the South Caucasus. Through the free trade agreement with the European Union, Georgian producers and traders can export organic products to the European market. Good trends in sales of Georgian organic agro-food products are evident in Russia and Central Asian countries. A liberal environment and free trade with many countries will make Georgia an even more attractive investment location in the South Caucasus.

The study of the population’s attitude towards bio products, the analysis of the legislative environment in the country in the field of bio production showed us that the harmonization of Georgian legislation with the European legislative area, the implementation of state programs, etc., will make a significant contribution to the development of bio products production. The development of bio production will also contribute to the solution of food security problems. For the development of organic production in Georgia, it is necessary to create a specialized agro-credit system, because without free access to finance, such farms cannot develop (Kharaiashvili, E. 2018).

While discussing the main hindering factors revealed during the research there should be highlighted some of the main socio-economic factors that affect organic farming in Georgia. The period of transition from conventional farming to organic farming can last 2-3 years on average. During this time, before the farmers get the first harvest of organic products, no prohibited substances should be introduced into the soil. All of the above can lead to crop losses and high operating costs. In addition, during the transition period, farmers will not be able to make a high profit from selling organic products, as organic laws stipulate that they cannot use the organic quality mark until they have completed the transition stage. Unlike conventional farming, capital resources are more problematic for

producers of organic products, since in the transition period they have to make long-term investments without current income. Finding financial resources for small and medium-sized organic farmers is one of the most problematic. Also, in many cases, producers of organic products do not own land and have to rent or lease it. Land costs and its availability are a significant problem for them.

Raising the awareness of Georgian products will play an essential role in the development of the production of bio-products in Georgia. In-depth interviews revealed that the level of awareness of organic products in Georgia is low, the sales network of organic products is underdeveloped and the market of organic products in general is less accessible to the population. The majority of experts stated that three main factors affect farmers' income and sustainable development: market operations and price fluctuations, access to finance, insufficient knowledge and skills for production. The experts named the negative impact of government policies and laws, improper development of social services, the need to create cooperatives as factors hindering the development of bio production.

Conclusion

A variety of factors hindering the production of organic agro-food products and the development of the market for these products have been observed in Georgia. Among them, the following main problems were identified: small quantity and range of certified products, duration of the certification process (3 years) and high price, lack of knowledge of farmers, low access to credit, lack of information about both local and export bio products markets, etc.

The development of the production of bio-food products will contribute to the establishment of the country in the international market and the growth of export revenues. Georgia has the resource potential to become a real producer of organic products and also a competitive exporter for EU countries. For the development of organic production, it is necessary to implement the appropriate standard bio production law in Georgia, create and harmonize Georgian legislation in the field of bio production with European legislation, create a certification body, implement program or project support measures for bio production from the state and donors, reveal consumer preferences, create an effective bio consulting system, conduct research on local market consumer requirements and international market trends and develop recommendations. In perspective, bio production is the only agricultural system that can solve many problems, such as environmental protection, employment, income generation, improvement of food quality and others.

References

1. Anastasios V Semos. "Organic Production, Organic Food and the Role of Agricultural Policy". *New Medit* N. 4/2002 (2002).
2. Bitter O and Petryshyn L. "Comparison of price tendencies at domestic agro-food market of Ukraine and at global food market". *BIO Web of Conferences* 10 (2018): 01002.
3. Bucharest S and Zagreb Z. "Organic Farming Booms in Bulgaria and Croatia". *BalkanInsight* (2018).
4. Buday Z., et al. "National Bioeconomy Doisser: Hungary". *CELEBio* (2020).
5. Eaton L. "Economic Analysis of the Current and Future Bioeconomy". DOE Bioenergy Technologies Office (BETO) 2017 Project Peer Review, Denver, Colorado (2017).
6. Estrada AC, Díaz DV and Hernandez CAM. "The role of biotechnology in agricultural production and food supply". *Cien. Inv. Agr* 44.1 (2017): 1-11.
7. Kharashvili E. *Problems of Competition and Competitiveness in Agro-Food Products Sector in Georgia* (2011).
8. Kharashvili E. "Food Market Policy Priorities in Georgia". *ICEBI 2021: 15. International Conference on Economics and Business Innovation*. Greece, Athens (2021).
9. Kharashvili E. "The Impact of Preferential Agro Credit on the Development of Agribusiness in Georgia". *Ecoforum* 7.1 (2018).
10. Kharashvili E, Lazariashvili T and Natsvlshvili I. "Global experience of bio product market and its challenges in Georgia in the context of sustainable well-being". *B.S.LAB* (2019).
11. Kharashvili E, Lazariashvili T and Natsvlshvili I. "Agro Tourism for Economic Development of Related Sectors and Sustainable Well-being (Case of Georgia)". *The International Symposium Borders Without Borders: Systemic Frameworks And Their Appli-*

- cations For Sustainable Well-Being In The Global Era. Italy, Pavia: Business Systems Laboratory (2019).
12. Kharashvili E and Talikadze N. "Competitiveness characteristics of agri-food products – what does the consumer choose? (Case of Georgia)". *Innovative Marketing*, N18.1 (2022): 195-207.
 13. Eter Kharashvili., et al. "Digital Transformation in Small and Medium-Sized Enterprises: Approaches and Challenges (Focus: Agricultural Sector of Georgia)". *Medicon Agriculture & Environmental Sciences* 6.1 (2024): 16-26.
 14. Lilja K. "Wood-Based Bioeconomy Solving Global Challenges". Ministry of Economic Affairs and Employment (2017).
 15. Meredith S and Willer H. "Organic in Europe Prospects and Developments". IFOAM EU Group (2014).
 16. Natsvlshvili I, Kharashvili E and Lazariashvili T. "Bio-products market in Georgia: current challenges and development perspectives". *International Journal of Markets and Business Systems (IJMABS)* 4.1 (2020).
 17. Okruashvili N and Faresashvili N. "Modern state of organic agricultural products market development: - German experience and Georgian reality" (2022).
 18. Sparling D and Laughland P. "Agriculture's Role in the Bioproducts Industry". Catalogue no. 21-004-XIE (2006).
 19. Willer H and Schaack D. "Organic Farming and Market Development in Europe". Europe: Current Statistics (2015).
 20. Bioproducts (2023). "Bioproducts Market Size, Share, Trends, and Forecasted Growth for 2023-2030". 360 Research Report.
 21. Bioproducts Industry Overview (2021). Manitoba Analytics.
 22. Bioproducts Market Research 2023-2030. News Channel Nebraska Southeast.
 23. Caucascert (2023). Biostandart.
 24. FAO (2017). "The future of food and agriculture Trends and challenges". Food and Agriculture Organization of the United Nations Rome.
 25. Farm Europe (2017). "Agriculture as a Provider of Non-Food Products".
 26. The International Advisory Council on Global Bioeconomy (IACGB, 2023). "One Planet - Bioeconomy Solutions for Global Challenges". Statement from the Hannover Symposium organized by Volkswagen Foundation and the International Advisory Council for Global Bioeconomy (IACGB).

Volume 6 Issue 3 March 2024

© All rights are reserved by Tamar Lazariashvili., et al.