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THE REPUBLIC OF AZERBAIJAN

**NATIONAL PATHWAY TO SUSTAINABLE FOOD SYSTEMS BY 2030**

**(This document can be subject to any changes and supplements)**

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# 1. Current situation in the food system of the country and main challenges

Azerbaijan ranked 55th among 165 countries in the UN Sustainable Development Report 2020, gaining 72.6 points out of a possible 100 on the "Sustainable Development Goals Index"[[1]](#footnote-1). During 2011-2020, the real growth of agricultural production in the country was 42%. During this period, the production of agricultural crops increased by 47.1%, livestock production by 38.7% and food production by 31.1%. Over the past 10 years, exports of agricultural and food products increased by about 23.4%, which was mainly due to an increase in exports of primary agricultural products. During this period, the volume of imports of agricultural and food products increased by 37%[[2]](#footnote-2). In 2020, the share of agriculture in Azerbaijan's GDP was 6.9%, which is close to that in middle-income countries, yet agriculture takes up much of the country’s labor.

Azerbaijan’s food system combines traditional and modern dynamics, with the former being dominant over the latter. As a result, Azerbaijan has an ‘informal and expanding’ type of food system[[3]](#footnote-3). More inclusive economic growth, particularly in the last ten years, may have led to steeper declines in food insecurity. According to World Bank data, the level of prevalence of undernourishment in the country remains stable at 2.5% for the last 14 years which was 17.1% in 2001.

The share of per capita monthly consumption expenditures for food is 43% in the country. It should be noted that this figure is gradually declining. Thus, the share of food products in monthly consumption expenditures has decreased by 25 percentage points over the past 20 years.[[4]](#footnote-4)

Modern trends in food production and distribution are rapidly gaining momentum, as evidenced by an increase in the market share of supermarkets, an intensification of agriculture and food production with improved varieties, and an increase in agricultural exports that meet stringent private and public quality standards in global value chains.

The level of self-sufficiency in most basic food products has improved thanks to the strengthening of local production capacity. At present, the level of self-sufficiency is 100% for fruits and vegetables, melons and eggs, 83.5% for meat and dairy products, and about 90% for potatoes.

Each person in Azerbaijan consumes most of the basic foodstuffs included in the minimum consumer basket above the annual consumption norms. The current level of consumption of potatoes, vegetables, melons, fruits and berries exceeds the standard level adopted in the country. The level of sugar consumption in the country is also above the norm. Consumption for only two products is below the norm. The first is fish and fish products, where the difference from the norm is very small. Another product is butter. Consumption of butter in the country is half the norm. In return, the consumption of vegetable oils is at the level of 164% of the norm. It seems that the population compensates for the demand for butter with vegetable oils. However, milk production, which is the main raw material for butter in the country, has a growing trend. It should be noted that the country's milk production for 2020 amounted to 2.2 million tons, which is 2.1 times more than in 2000.

Furthermore, the government of Azerbaijan is taking concrete measures to improve the breed composition of animals in the country to increase their meat and milk production. These include the import of high-yielding breeds (Holstein-Friesian, Simmental, Swiss, etc.) and their leasing to farmers at a 60% discount, the establishment of an artificial insemination system in the country and a subsidy of 100 manats per farmer for each healthy calf born by artificial insemination.

A new mechanism of state support for the agricultural sector has been introduced in Azerbaijan since 2020. The main purpose of the new mechanism is to ensure the efficient use of agricultural lands of the country, increase the competitiveness of farmers and expand the production of crops that have a high market potential and meet the natural and geographical characteristics of the country's regions. The new mechanism also takes into account the issue of encouraging farmers to unite in cooperatives. Thus, the subsidy paid to a farmer who is a member of the cooperative is increased by 10%.

In early 2020, the total sown area of agricultural crops in Azerbaijan amounted to 2.0 million hectares, which is equal to 43% of total agricultural land in the country. More than half of arable land falls on hayfields and pastures, and 5.5% on perennial crops. Up to 53% of the arable land in the country is occupied by cereals and legumes, 20% by fodder crops, 13% by fruits and berries, 7% by potatoes, vegetables and melons, and the remaining 7% by industrial crops. 94% of cereals and legumes are wheat and barley, 82% of industrial crops are cotton, 63% of vegetables are tomatoes, onions and cucumbers, 71% of fruits and berries are nuts, apples, pomegranates and persimmons, and 96% of fodder crops are perennial grasses (mainly alfalfa).

According to 2020 data, there are 0.47 hectares of agricultural land per capita in Azerbaijan. Around 70% of farms in the country have up to 2 hectares of arable land[[5]](#footnote-5). In order to eliminate the problems associated with the small size of farms, the state takes measures such as land consolidation, promoting cooperation and the formation of farmers' associations.

Thanks to large-scale state-funded projects over the past 10 years, water supply has been improved on 392 thousand hectares of land, and 188 thousand hectares are included in the group of newly irrigated lands. Moreover, the share of agricultural land equipped with modern irrigation equipment already exceeds 5%. It should be noted that the country depends on transboundary rivers for irrigation water supply.

There are various experiences in the application of innovations in the field of agriculture in the country. The Electronic Agricultural Information System (EKTIS) has been launched, subsystems for activities carried out by government agencies in many areas of agriculture have been established, electronic cabinets have been formed for farmers and since 2020, subsidies to farmers in the fields of crop and livestock production are provided only through EKTIS. Over the past years, “smart greenhouses” and “smart orchards” have been established, land and water sensors, "smart" irrigation systems, agro-drones, agrorobots, "precise" planting technologies have been applied by the scientific-research institutes of the Ministry of Agriculture for experimental purposes, and by private companies – for commercial purposes.

Comprehensive reforms have been carried out in the field of agrarian insurance, a new legal framework and a management system based on the public-private partnership mechanism have been established. The new insurance products on agriculture have already been applied as a pilot experiment in both crop and livestock production since 2020. Currently, reforms are underway to expand the provision of insurance services to the agricultural sector through the introduction of the new system.

The country has created appropriate storage facilities and a production base for storing and processing food products imported on more favorable terms that can’t be produced by local farmers in the required volume and quality, as well as at affordable prices due to limited natural resources. Which in general allows to minimize potential threats to the food security of the country. Over the recent years, the construction of cold storage facilities with a capacity of 400,000 tons, modern grain elevators with a capacity of 1.9 million tons and other logistics facilities, as well as the development of road infrastructure in the districts in order to improve the market infrastructure for food products is also important in terms of improving farmers' market access.

Despite all of the above positive developments, some challenges remain in food systems. As a result of application of intensive production methods without following agro-technical rules, more than 1 million hectares (more than 20%) of agricultural lands are in a state of varying degrees of salinity, salinization, erosion, swamping and other forms of degradation. Another primary challenge in agri-food sector is climate change and loss of biodiversity since it has a far-reaching negative effects. About 50-55% of farmers suffer from water shortages in Azerbaijan, which is located in an arid zone and has limited water resources. Technical knowledge and skills of small-scale farmers are relatively weak, coverage of the agricultural extension systems are limited across the country. There is little experience in the application of innovations and intensive technologies in agri-food sector. Food producers have limited access to financial resources as well as for some of the production resources. The process of developing the agricultural insurance system in the country has not yet been completed.

# 2. Future plans and the key priorities

Future plans regarding national food systems in the following decade include:

* achieve a future in which healthy and organic food is available, affordable and accessible to a growing population;
* guarantee the livelihoods of people in agriculture and the food chain;
* contribute to the sustainability of the environment.

To meet the expectations and transform the national food system, Azerbaijan will focus on six key priority areas.

## 2.1. Ensuring fully digitalization of agri-food system and promoting advanced technologies

The ways communities grow, process and consume food have been transformed while adopting smart technological solutions, be it crop spraying drones or food testing lab equipment. Indeed, new emerging technologies have a significant potential to improve efficiency, equity and environmental sustainability of the food system. Accelerating the growth in agri-food tech ecosystem is important direction to work, supporting agri-food tech startups will bring food innovation and on e-agriculture advancement. Expanding adoption of digital solutions in every part of the food value chain will offer a new way to produce and distribute food in sustainable manner. This will certainly change how farmers’ farm, processor`s produce and distribution occurs. Widening functionality areas of e-agriculture (EKTIS) will provide farmers all the necessary services with greater efficiencies. It is widely recognized that the use of biotech plants allows producing more food with less resources such as land, while reducing the risk of loss of outputs due to disease and pests. Thus, improving food production with supporting agricultural biotechnology sector can be important step towards sustainable food system adoption. In addition, improving farmers' access to high-speed internet services especially for these who live in remote rural areas and strengthening their capacity for technology development and adaptation of digital solutions is among the important directions to work in coming years, which in turn will contribute to food systems transformation both at the regional and national level.

## 2.2. Strengthening food safety and promoting healthy diets

Strengthening the capacity of national food safety legislation, institutional mechanisms and laboratories, and improving food safety management at various levels will increase the safety of food products and help in combatting fraud.

Another task in terms of achieving sustainable food safety and improving the health condition of population is to change the existing food consumption models in the country. In particular, promoting safe and healthy eating habits, while improving education in the field of food systems, facilitating access to information for consumers and producers, the organization of targeted awareness raising campaigns will improve people’s health by preventing chronic diseases associated with various diets, and contribute to ensuring the sustainability of the National Food System. Facilitating cooperation between stakeholders working in the field of food safety at the national and regional levels will also have a positive impact on ensuring food safety and healthy eating. Meanwhile, compliance with international food safety standards and efforts to increase resilience to potential risks and threats in the field of epizootics and plant health will play an important role in building a sustainable food system.

## 2.3. Strengthening the fight against climate change and disasters through sustainable use of natural resources

Food systems are a sizable contributor to climate change. On the other hand, climate change has multifaceted interfaces with food systems, leading to food insecurity while effecting food availability, access and utilization. Supporting food producers to use climate-friendly practices and clean technologies while maintaining or increasing the level of productivity will lead to transition towards sustainable and resilient food system. Particular attention is needed to devote to enhance responsible use of fertilizers and pesticides, reduce soil degradation through targeted agricultural policy measures. This, in turn, shall also preserve biodiversity, especially in rural areas. Supporting farmers’ access to smart irrigation systems and technologies, modern management systems will not only contribute to food availability, but also ensure efficient and sustainable use of water resources. It is widely recognized that the food waste harms climate, water, land and biodiversity. Reducing current level of food losses and food waste throughout the food value chain is vital towards sustainable food systems, since recent estimates suggest that 8-10% of global greenhouse gas emissions are associated with food that is not consumed (UNEP).[[6]](#footnote-6) Another field to work in the future is to empower organic agriculture as a climate change resilience farming system that can ensure green transformation of food system in the country. Disasters such as floods, drought and disease outbreak (like COVID-19) are the one-time shocks for the food systems and adopting preventing and mitigation measures are vital to reduce the risks of country-wide food insecurity.

## 2.4. Fostering food processing small and medium businesses and supporting cooperation activities among small-scale farmers

Small-scale farmers and food processing small and medium businesses are the heart of the national food system. To empower them to fully use their potential and expand for driving the transition to sustainable food system forward, it is essential to develop new financial solutions, facilitate their access to financial resources, remove existing administrative barriers to long-term investments, establish well-working risk-sharing mechanism and insurance schemas, improve access to productive resources, develop a unified infrastructure and internal logistics network for specialized agricultural supply chains, strengthen access to information and knowledge via extension services. This is especially important in post-COVID recovery period. To provide complementarity between rural and urban food systems it is central to take actions in the field of improving of food producers` access to both rural and urban markets. This will also contribute to rural urban disparities in the country. As woman and youth food producers can play an essential role in transforming the food system, particular attention shall be devoted to improve the prospects and living standards of the youth and woman population resided in rural areas. Despite the fact that over the last years several improvements have been recorded in the field of formulating and functioning of agricultural cooperatives, there are still a way to go; supporting cooperation, especially among the small-scale farmers is another direction to work in the future. This in turn will certainly contribute to sustainability and resiliency of the food systems. The diversification of export markets for agriculture and food products and the expansion of the structure of exports by countries, is one of the factors contributing to increasing food production and productivity along with the expansion of the application of international standards within the country.

## 2.5. Improving quality of education and research, strengthening collaboration between science and policy making

Education and research in agriculture and food have a critical role in enabling access to sufficient quality and quantity of food for people. Against this background, upgrading higher as well as vocation education system within the country and facilitating farmers` and food producers’ access to quality education and training opportunities will aid to accomplish a sustainable food system. On the other hand, improving the quality of research in agriculture and food would mean better understanding of the challenges and opportunities related to transformation of the food system and outline critical areas to act. Strengthening evidence-based policy making using fundamental research outcomes shall improve the effectiveness of the policy decisions though providing policy makers with most suitable information. Intensifying the knowledge, innovation and technology transfer to agri-food value chain is also key in achieving sustainable and inclusive food system.

## 2.6. Developing food system in liberated territories and integrating into national food system

Developing sustainable food systems in liberated territories and integrating it into the national food system while adopting various support measures along the food value chain will contribute to national food system. Meanwhile, the liberated areas will be reconstructed based on the “Smart Village” and “Smart City” concepts. It should be noted that “Smart Agriculture” covers the cooperative management system, fields, gardens and farms built on the basis of modern technologies, management and control processes with the help of electronic devices. “Smart” farms will allow the production and processing of fruits, vegetables, meat and dairy products in rural areas to meet modern requirements. The first "Smart Village" project is already being implemented in Agali village of Zangilan district.

# 3. Stakeholder collaboration

The Ministry of Agriculture (MoA) shall collaborate with national counterparts, international development partners, civil society organizations, the private sector, international financial institutions, academic institutions, and other stakeholders to achieve a significant change in the above-mentioned priority areas. MoA will establish a national platform to support dialogue with these various stakeholders and advocate for and provide substantive guidance to this dialogue. Experience has shown that coordination mechanisms are most effective when stakeholders both at the strategic and operational levels fully engaged.

# 4. Pathway and other planning documents

Priority areas specified above embraces the cross-cutting elements of the 2030 Agenda of the United Nations connecting its 17 Sustainable Development Goals. The national pathway are also closely related to various state development programs and international cooperation frameworks such as “Azerbaijan 2030: National Priorities for Socio-Economic Development”, “State Program on providing food safety for 2019-2025  in the Republic of Azerbaijan”, “United Nations - Azerbaijan Sustainable Development Cooperation Framework 2021-2025”, “State Program on the socioeconomic development of regions of the Republic of Azerbaijan for 2019-2023”, and the “Action Plan for Ensuring the Effective Use of Water Resources in 2020-2022”. Implementation of these programs and documents will undoubtedly give impetus to the transformation of the food system in the country.

The detailed Action Plan for successful implementation of the National Pathway will be developed with close involvement of relevant stakeholders and governmental organizations and will constitute an integral part of this document.

# 5. Key milestones

The first milestone is to integrate all of the mentioned priority areas into "Socio-Economic Development Strategy for 2021-2025". This will include a detailed action plan for the following years and also an appropriate monitoring and evaluation mechanism. Actions can be built on each other to showcase results and lessons learned, stimulate collective leadership and secure high-level endorsement that can serve as the basis of accelerated and aligned efforts in the years leading to 2025.

1. https://unstats.un.org/sdgs/report/2020/ [↑](#footnote-ref-1)
2. Dövlət Statistika Komitəsi, Azərbaycanın Xarici Ticarət Əlaqələri, 2011-2020 [↑](#footnote-ref-2)
3. <https://foodsystemsdashboard.org/compareandanalyze> [↑](#footnote-ref-3)
4. <https://www.stat.gov.az/source/budget_households/> [↑](#footnote-ref-4)
5. Elektron Kənd Təsərrüfatı İnformasiya Sisteminin (EKTİS) məlumat bazası [↑](#footnote-ref-5)
6. <https://www.unep.org/resources/report/unep-food-waste-index-report-2021> [↑](#footnote-ref-6)