



## Strategic Priorities in Agriculture

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### ABSTRACT

In this article the main strategic priorities in the sector of agriculture explained. Agriculture has been considered as a key to stabilize the economies in the context of coronavirus pandemic, especially in Central Asia. As well as, the role of agriculture in the economy of Uzbekistan analyzed. and the importance of approved Strategy for the Development of Agriculture of Uzbekistan for 2020-2030 explained.

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### Introduction

The development of the agricultural sector plays a key role in the development of the economy. Growth gains in India, China, Vietnam, Brazil and Chile were largely driven by rapid agricultural growth, while development difficulties in some African countries stem from their failure to achieve agricultural productivity growth.

This is primarily due to the key role of agriculture in the growth of the rest of the economy in the early stages of development, when the agricultural sector still has a significant share in employment and GDP. In this case, agriculture helps the growth of other sectors of the economy through strengthening the factors of production (provision of raw materials, labor, capital accumulation, attraction of foreign exchange).

Agriculture can stabilize the economies of Central Asia during the coronavirus pandemic. Thus, agricultural growth can have a large multiplier effect in stimulating industrial growth. Research shows that \$ 1 growth in agriculture leads to \$ 1 growth in the rest of the economy, while \$ 1 growth in the rest of the economy causes only \$ 0.18 growth in agriculture. These agricultural growth multipliers tend to be larger in low-income countries, as much of the industrial (agro-processing) and services (food

marketing) sectors are linked to agricultural performance.

On the other hand, increasing labor productivity in agriculture allows food to be provided to an increasing part of the population engaged in non-agricultural activities, thereby contributing to the growth of the urban population. Also, increased productivity in agriculture helps lower the price of food, which in turn lowers nominal wages in cities (the cost of labor for industry).

Another important factor is the direct link between agriculture and industry, through which agriculture makes raw materials available to the agro-processing industry. Also, the so-called financial surplus of agriculture, namely the cash flow from agriculture, can be invested in other sectors of the economy, supporting their growth.

Agriculture creates demand for goods produced by other sectors, as it requires industrial products for agricultural production (fertilizers, tools and machines), while the rural population needs consumer goods as incomes rise. Thus, the growth of income from agriculture stimulates industrialization. This factor formed the basis for land reform policies in India and China. In particular, China's policy of granting land ownership rights to its current users can be interpreted as an attempt to expand the domestic industrial market among 800 million rural households, while external demand will decline due to slow growth in OECD countries.

In addition, low-income countries have their comparative advantages, namely in agriculture, which makes agriculture a priority sector for growth in an open economy. As leading economic development scholars note, agriculture offers comparative advantages in the short term and through the agro-industrial complex a path to industrialization in the long term. For these countries, investment in agriculture may be the most cost-effective growth strategy towards industrialization and successful structural transformation.

Evidence also suggests that agricultural development has been a powerful source of poverty reduction in Asia.

At the same time, there are fundamental difficulties in the selection of priorities in pursuing an effective agricultural policy, in particular, it is necessary to determine the following issues:

- whether to promote lower prices for agricultural products to reduce the level of hunger and increase real incomes of the population, or increase these prices in order to stimulate farmers to invest more in agriculture;
- whether budgetary resources should be used to alleviate short-term food problems (for example, through food aid programs) or should they be used to invest in agriculture and solve long-term productivity problems;
- should the emphasis be placed on food security through greater internal self-sufficiency, or should the country trade in food using its comparative advantages;
- whether it is necessary to develop small farms that are likely to be more effective in reducing poverty, or large farms that are more efficient in terms of increasing productivity and access to complex markets through integrated value chains.
- Thus, the use of the potential of agriculture for the development of the economy and the growth of the welfare of the population, the choice of more effective approaches to using this potential and the development of tools for the effective use of agricultural resources for development is the main task of the state policy of countries with relatively low incomes, such as Uzbekistan.

**Agriculture in the economy of Uzbekistan.** In Uzbekistan, approximately 16.4 million people (49.4% of the total population) live in rural areas (2018). The country also has a high birth rate (23.3 pro mille), and, accordingly, there is a surplus of labor in rural areas. The population under the age of 25 is 45.5%, more than 55% of the population is under 30.

At the same time, the agri-food industry is the economic basis of many villages and small towns throughout the country, since there are few alternative sources of income besides agriculture. Consequently, a large number of people:

- live mainly on agriculture (including crop production, livestock production, forestry and fishing). They have access to natural capital (land, water, animals, trees) and use natural capital as the main asset of their existence;
- use mainly family labor in production, hence the meaning of “family farm”. Wage labor may be present, but to a limited extent compared to family labor;
- partially integrated into markets, while having a certain degree of self-sufficiency in consumption (production for household consumption) and resource use (family labor on the farm, domestic production resources such as seeds, organic fertilizers).

**Production.** In 2018, the contribution of the agricultural sector to the GDP of Uzbekistan amounted to 28.8%. In 2019, 3.543 million people worked in the agricultural sector (26% of the total employed), of which 1.066 million were officially employed and 2.477 million were employed in the informal sector or self-employed. Sales of agricultural products abroad bring Uzbekistan up to 25% of total export revenues.

In the course of the analysis of the distribution of the shares of gross agricultural output by categories of farms, it was revealed that the highest rates in all regions are in dekhkan (private households) farms. So, in 2018, they produced 88.4% of the total volume of potatoes, 74.3% of vegetables, 60.8% of melons and gourds, 62.6% of fruits and berries, 55.0% of grapes, 92.3% of meat, 95.1% milk, 52.6% eggs, 7.4% fish. Farms produce 78.7% of grain and 96.2% of harvested raw cotton. Organizations carrying out agricultural activities mainly produce eggs (36%), fish (64.1%), vegetables (18%).

Farms, with 85.2% of the land allocated for crops, orchards and vineyards, produced 26% of agricultural products in 2018. Dekhkan farms accounted for 71.2% of the total volume of agricultural production, with only 11.3% of the land allocated for sown areas, orchards and vineyards. Organizations engaged in agricultural activities account for 2.8% of manufactured products.

**Consumption.** Household survey results show that among the main agricultural products, eggs and fish are consumed below the level recommended by the Ministry of Health. The situation looks even less favorable in low-income households, in which the level of consumption is below the norm not only for eggs and fish, but also for meat and meat products, fruits, milk and dairy products. The reason for this may be the factor of availability and high prices for these types of agricultural products.

Farm categories	2017	2018	2019
<b>Overall</b>			
Farms	23.9	26.0	26.9
Dekhkan (private households) farms	68.4	<b>71.2</b>	<b>70.2</b>
Organizations engaged in agricultural activities	2.3	2.8	3
<b>Crop production</b>			
Farms	49.2	45.3	48.7
Dekhkan (private households) farms	49.1	<b>52.2</b>	<b>48.4</b>
Organizations engaged in agricultural activities	1.7	2.5	2.9

<b>Animal husbandry</b>			
Farms	3.7	4.6	5.0
Dekhkan (private households) farms	93.1	92.3	91.9
Organizations engaged in agricultural activities	3.2	3.1	3.1

*Table 1. Structure of produced agriculture products*

**Sector Reform Strategy.** Uzbekistan is pursuing an active policy of reforming the agricultural sector. Refusal to export cotton and emphasis on food production, the formation of clusters instead of scattered farms, the unification of the agricultural sector with processing production are the main directions of agricultural policy during the reform period.

In October 2019, the President issued a decree approving the strategy for the development of agriculture in the republic for 2020-2030. The main objectives of this Strategy are:

- ensuring food security of the population;
- creation of a favorable agribusiness climate and value chains;
- reducing the role of the state in managing this area and increasing investment attractiveness;
- ensuring the rational use of natural resources and environmental protection;
- development of modern systems of public administration;
- gradual diversification of public spending to support the sector;
- development of science, education, systems of information and consulting services in agriculture;
- rural development;
- development of a transparent system of industry statistics.

Also, the President's resolution #PR-3777 “On the implementation of the program “Every family is an entrepreneur” dated 07.06.2018 was adopted, which provides for the creation of conditions for families to engage in entrepreneurship, mainly in rural areas, in order to obtain a stable source of income for the people of those area. In 2019, more than \$ 700 million were allocated to support entrepreneurial initiatives through commercial banks on preferential terms.

**Analysis of the effectiveness of countering the pandemic.** What measures are being taken in the field of economy and agriculture? The government pays special attention to the creation of clusters in agriculture as a more competitive form of organization of production and business, facilitating the exit of manufactured products to foreign markets. So, in 2019, the number of cotton and textile clusters was 73, while in 2018 there were only 15. In these clusters, 1.8 million tons of cotton were procured in 2019, which amounted to 66% of the total cotton harvest.

Among the positive effects of clusters, one can emphasize an increase in yields, the creation of new jobs, an increase in exports, cost savings, and much more. The average yield in clusters was 27 c / ha. The yield in the cotton fields of clusters is 4.1 c / ha higher than in the fields outside the clusters. In particular, in 2019, the growth in yield in clusters was 25%. In 40 regions of the country, crop yields were higher than in the last 10 years. The export volume of 53 clusters amounted to \$ 376 million. Another positive effect of the clusters is the cost savings, which amounted to \$ 1.1 trillion in 2019 soums. In 2019, the clusters created 11 thousand new jobs.

Within the framework of agricultural clusters, it is planned to implement 96 projects to organize the processing, storage and drying of products with a capacity of 430 thousand tons. Projects have also

been developed to create intensive orchards on 6 thousand hectares and vineyards on about 8 thousand hectares. Export of cluster products for \$ 410 million is planned for the current year.

**Agricultural development factors.** Based on the study of world experience, the following factors can be attributed to the development of agriculture.

- **Price incentives.** Best practice worldwide shows that farmers often respond to price incentives. Farmers in developing countries are poor because they have little land, few other assets, low-productivity traditional technologies, but they efficiently allocate the limited resources they manage in response to price signals. For this reason, securing “right” prices is one of the factors in agricultural growth.
- **Organization of integrated value chains.** Food markets are transforming into developed integrated value chains such as supermarkets. They bring farmers, processors, retailers and consumers together in complex relationships that enable the exchange of valuable information, provide funding when needed, define and enforce sanitary and phytosanitary standards, promote risk sharing, and fund research and innovation. It also facilitates collaboration with supporting industries such as financial services, telecommunications, transportation, and energy supply. There are significant economies of scale and product quality assurances are offered. On the other hand, supermarkets are causing the disappearance of traditional retail stores and the loss of jobs for many people. However, in general, everyone benefits from lower prices.
- **Choosing the right technology.** Due to the limited land resources, the further growth of agriculture depends on the efficiency of their use. In this respect, technology plays a major role. Technologies are of different types: labor-saving, land-saving, minimizing risks, improving product quality and environmentally friendly. In the context of limited financial resources, the priority in choosing technologies depends on the relative prices of production resources. If there is a shortage of land resources and an abundance of labor, then it will be economically rational to develop land-saving technologies (as in the case of Japan), and if vice versa, then labor-saving technologies (as in the case of the USA).

Farm categories	Farms	Dekhkan farms
Strategy	Labor saving	Land saving
Technologies used	Expensive technologies (heavy equipment)	Not complicated technologies (biological innovations)
Resource security	More land and less manpower resources	More manpower and less land resources
Economic policy	Allocation of resources to support farms and purchase labor-saving technologies	Allocation of resources to support dekhkan farms and purchase of land saving technologies
The expected result with the right policy	High labor productivity, low productivity, high capital intensity and high rural unemployment (high poverty rate) (USA)	High productivity, low labor productivity, low capital capacity. low rural unemployment (low poverty) (East and South Asia)
The result of irrational public policy	Low labor productivity, low yields and high prices for agricultural products	Low labor productivity, low yields and high prices for agricultural products (Sub-Saharan Africa)

*Table 2. Problems of choosing a strategy for the development of agriculture in conditions of limited production resources*



**Impact of the COVID-19 pandemic.** At the same time, the coronavirus pandemic is making significant adjustments to many aspects of public policy. The agricultural sector is no exception. Referring to international indicators, it can be said that in all countries the agricultural sector has suffered significantly due to the decrease in demand from residents as a result of a sharp decrease in their income and uncertainty. In the USA, Germany, Italy, seasonal workers of farms and livestock complexes (including immigrants), worried about the fear of contracting coronavirus, do not go to work. The agricultural sector in China from January to March fell by 3.2%, to 1.02 trillion. yuan (about \$ 42.82 billion). In America, the pandemic reduces the profitability of the corn growing business and its own by \$ 50-90 per acre. In India, prices for agricultural products fell by 20%. This alarming trend poses a major challenge to food security in many countries around the world.

However, in Uzbekistan, the pandemic did not result in significant disruptions to agricultural work. During the COVID-19 quarantine, the entire food production chain is classified as an “essential” activity, so agriculture continues to run smoothly. The government took all necessary measures to ensure that the spring work in the fields was successful, the new harvest of fruits and vegetables could reach consumers without hindrance, and industry workers could move relatively freely to complete production tasks. Moreover, the government has taken a wide range of measures to significantly increase the volume of food products, both to strengthen the country's food security and to increase exports in the face of possible disruptions in food supplies in the world.

Nevertheless, a certain impact of the pandemic on the agricultural sector of Uzbekistan still takes place. The closure of restaurants and cafes, restrictions on tourism reduce the demand for fresh products, which negatively affects manufacturers and suppliers. Smallholder farmers are especially vulnerable. Therefore, the moments associated with the new challenges of the outbreak of the pandemic should also be taken into account in the plans for the development of the agricultural sector for the next 2-3 years.

**Sector development measures.** Based on the long-term plans for the development of the agricultural sector, the existing risks from the pandemic, and the study of world experience, the following measures can be formulated aimed at its development.

- Develop territorial programs for the production of liquid and export-oriented types of fruit and vegetable products with high added value on the basis of cooperation of local communities with large foreign trade intermediary and processing enterprises on the principle of “one village - one product”.
- To study the advantages and risks of specialization of villages, make proposals to eliminate the negative consequences of specialization of villages, as well as to eliminate barriers to effective specialization.
- To develop and distribute free of charge manuals, brochures and other practical manuals on the technology of growing fruits and vegetables and other liquid and export-oriented types of crops with high added value and their processing together with large enterprises on the principle of “one village - one product”.
- Recommend the allocation of microcredits by commercial banks at an interest rate not higher than the refinancing rate of the Central Bank of the Republic of Uzbekistan for dekhkan and private household farms with and without a legal entity for growing and expanding fruit and vegetable and other liquid and export-oriented types of crops and their processing.

- Also consider the possibility of allocating additional land plots to dekhkan and private household farms for growing and expanding the cultivation of fruits and vegetables and other liquid and export-oriented types of crops and their processing.
- Recommend large foreign trade intermediary and processing enterprises to provide technical assistance to dekhkan and private household farms on the quality and standards of growing fruits and vegetables, other liquid and export-oriented types of crops and their processing, to provide advances with the condition of the subsequent purchase of manufactured products at negotiated prices in consultation with local authorities / structures self-government (SSG and mahalla committees).
- Develop guidelines on global experience in neutralizing production volatility, negotiating with customers, meeting market requirements, and making the necessary information on technology and finance available.
- When betting on cluster development, it is necessary to take into account the likelihood of the effect of blocking companies, i.e. the possibility is not ruled out that single companies may be more competitive than cluster companies. Subjects of the cluster risk losing not only independence, but also, in the event of leaving the cluster, reliable economic counterparties. From this point of view, a separate program for the development of the cluster approach should be developed with a clear definition of the role of supermarkets as the main links in integrated production chains.

	Vegetables	Meat	Milk	Egg	Fish
Farms	11,9	3,3	4,0	11,4	28,5
Dekhkan (private households) farms	69,5	92,3	95,1	52,6	7,4
Organizations engaged in agricultural activities	18,6	4,4	0,9	36,0	64,1

Table 3. Production of the main types of agricultural and fishery products in January-March 2020

**The agriculture sector in the context of COVID-19.** The COVID-19 outbreak and government mitigation measures have already significantly impacted the food system. Bans and quarantines restrict food supply chains, increase consumer spending, and reduce purchasing power.

FAO's calculations show that food supplies in the low-income group of food-insecure countries that are not self-sufficient to produce food have been severely impacted by virtually any type of economic slowdown. The results show that, on average, one percentage point reduction in GDP growth, food supply in these countries fell by 0.31%.<sup>1</sup>

Referring to international indicators, it can be said that in all countries, the agricultural sector has suffered significantly due to the decrease in demand from residents as a result of a sharp decrease in income and uncertainty. The amount of time, energy and money spent on food is likely to increase in the future. Lack of labor is also becoming a common problem for global agricultural production. In the USA, Germany, Italy, seasonal workers of farms and livestock complexes (including immigrants), worried about the fear of contracting coronavirus, do not go to work.

The supply may also fail to cope with the existing demand in the context of the impact of barriers to imports of seeds, fuels and lubricants and fertilizers, the necessary technology and other necessary components. Lack of fertilizers, veterinary drugs and other resources can negatively affect agricultural production. Thus, production systems can be disrupted.

Consequently, food prices are expected to rise, again affecting the most vulnerable as they already spend a significant portion of their income on food. Poor performance in many countries since the

<sup>1</sup><http://www.fao.org/resources/infographics/en>

2008-2009 global economic downturn has been one of the key factors undermining efforts to eradicate hunger and malnutrition (FAO, IFAD, UNICEF, WFP and WHO, 2019).

As a result, the agricultural sector in China from January to March contracted by 3.2%, to 1.02 trillion. yuan (about \$ 42.82 billion), industry - by 9.6%, to 7.36 trillion. yuan (\$ 1.04 trillion), the service sector - by 5.2%, to 12.27 trillion. yuan (\$ 1.73 trillion). In India, prices for agricultural products fell by 20%. The poultry industry has been particularly affected by rumors that birds are carrying the virus. In America, the pandemic reduces the profitability of the corn growing business and its own by \$ 50-90 per acre.

Thus, in the current environment, the economic stimulus must revolve around not only the health sector, but also the agriculture and food sectors. Health targets will be unattainable without access to food for the most vulnerable as they are forced to return to negative coping strategies such as selling productive assets, switching to less varied diets to compensate for limited incomes. If, during COVID-19, economic incentive measures do not ensure that all people have physical, social and economic access to adequate, safe and nutritious food at all times, then a pandemic could lead to death and serious health problems due to hunger.

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