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CURRENT TRENDS OF FOREIGN INVESTMENT IN AGRICULTURE OF TAJIKISTAN

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Abstract. For decades, the agricultural sector has not attracted much interest from investors. After the sharp rise in food prices over the past decade, which peaked in 2008, the situation has radically changed. In addition, the cultivation of crops for biofuel production has increased dramatically, and States heavily dependent on imports have attracted attention with large purchases of agricultural land.

Despite the rapid economic recovery of recent years, Tajikistan's economy is fragile, while the rural population continues to grow. These factors contribute to food insecurity and malnutrition, a major problem in poor families, especially away from cities and among children. In addition to poor pasture management and soil degradation, the climate crisis is affecting – extreme weather events such as droughts, mudslides, landslides, and floods are becoming more frequent.

Cattle breeding plays a key role in Tajikistan's agriculture and has great potential to combat hunger and nutrient deficiencies, especially for the poorer segments of the rural population, who often have access only to communal land.

The tense situation in the agricultural market of Tajikistan has led to the fact that private and public investors have begun to show increased interest in the agricultural sector. Every year Tajikistan attracts foreign countries, including foreign organizations, to invest in agriculture in Tajikistan.

The purpose of the article is to identify the role and volume of foreign investments in the agricultural sector of Tajikistan, as well as the position and support of the agricultural sector by the government of Tajikistan.

Keywords: foreign direct investment, Tajikistan, agricultural sector, investment, investment policy of GDP, IFAD, China.

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Научная статья

СОВРЕМЕННЫЕ ТЕНДЕНЦИИ ИНОСТРАННЫХ ИНВЕСТИЦИЙ В СЕЛЬСКОЕ ХОЗЯЙСТВО ТАДЖИКИСТАНА

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Аннотация. В течение десятилетий сельскохозяйственный сектор не вызывал особого интереса у инвесторов. После резкого роста цен на продукты питания за последнее десятилетие, достигшего пика в 2008 году, ситуация в корне изменилась. Кроме того, резко возросло выращивание сельскохозяйственных культур для производства биотоплива, и государства, в значительной степени зависящие от импорта, привлекли к себе внимание крупными покупками сельскохозяйственных земель.

Несмотря на стремительный экономический подъем последних лет, экономика Таджикистана хрупка, в то время как сельское население продолжает расти. Эти факторы способствуют отсутствию продовольственной безопасности и недоеданию – большой проблеме в бедных семьях, особенно вдали от городов и среди детей. В дополнение к плохому управлению пастбищами и деградации почв сказывается климатический кризис – экстремальные погодные явления, такие как засухи, сели, оползни и наводнения, становятся все более частыми.

Скотоводство играет ключевую роль в сельском хозяйстве Таджикистана и обладает большим потенциалом для борьбы с голодом и дефицитом питательных веществ, особенно для более бедных слоев сельского населения, которые часто имеют доступ только к общинным земельным участкам.

Напряженная ситуация на сельскохозяйственном рынке Таджикистана привела к тому, что частный и государственный инвесторы стали проявлять повышенный интерес к сельскохозяйственному сектору. Ежегодно Таджикистан привлекает зарубежные страны, в том числе иностранные организации, для инвестирования в сельское хозяйство Таджикистана.

Целью статьи является выявление роли и объема иностранных инвестиций в сельскохозяйственный сектор Таджикистана, а также положения и поддержки сельскохозяйственного сектора со стороны Таджикистана.

Ключевые слова: прямые иностранные инвестиции, Таджикистан, сельскохозяйственный сектор, инвестиция, инвестиционная политика ВВП, МФСР, Китай.

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Introduction

Tajikistan is among the lowest-income countries in Central Asia and the world, and agriculture plays an important role in providing rural employment.

Tajikistan's agricultural economy continues to be influenced by the effects of the collapse of the Soviet Union in 1991. Previous legal restrictions on individual agricultural production have been lifted. The collapse of collective farms into smaller private farms and the departure from basic crops such as cotton or wheat have significantly changed agricultural production processes and employment patterns in rural areas and, consequently, the organization of farm households [1].

To develop agriculture through investment accumulation, technology transfer and job creation, Tajikistan is pursuing a policy to attract foreign direct investment into its economy, including the agricultural sector. The economic base of the country is dominated by aluminum and cotton production, as well as remittances from migrants from Tajikistan working abroad, which accounts for 28 percent of GDP [2]. The agricultural sector accounts for almost 20 percent of national GDP and provides 61 percent of employment in the country.

Despite its critical importance, the agricultural resource base is characterized by limited arable land and a lack of investment in infrastructure, agricultural machinery, and agricultural equipment.

During the research, the author used the economic and statistical method as the main research method.

Foreign direct investment in the Republic of Tajikistan

Foreign direct investment (FDI) plays an important role in promoting economic growth, improving the country's technological level, and creating new jobs in developing countries [3]. FDI is also a means of integrating developing countries into the global market and increasing the capital available for investment, which leads to accelerated economic growth necessary to reduce poverty and improve living standards.

According to the World Bank, in 2013-2021, the volume of foreign direct investment in the Republic of Tajikistan amounted to 2115.4 million US dollars (Fig. 1). The big peak in attracting foreign direct investment occurred in 2015 (454 million US dollars).

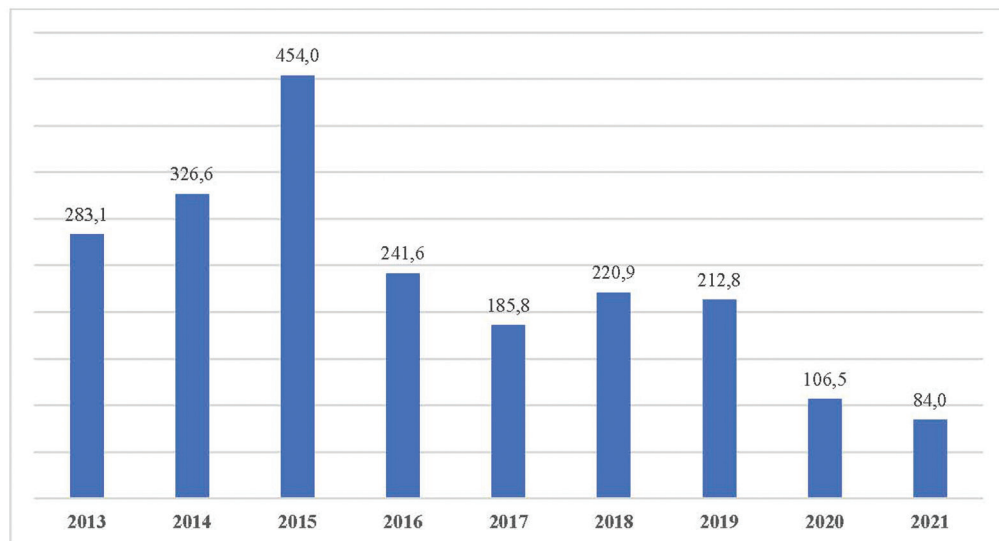


Figure 1. The volume of foreign direct investment in the Republic of Tajikistan for 2013-2021, million US dollars.

Source: compiled by the authors based on data of the World Bank [4].

The COVID-19 pandemic has greatly affected the volume of foreign investment in Tajikistan. In 2021, the share of foreign direct investment in Tajikistan's GDP was 1%, which is 5 times less than in 2015. On average, in 2013-2021, foreign direct investment accounted for about 3% of Tajikistan's GDP. (Fig. 2).

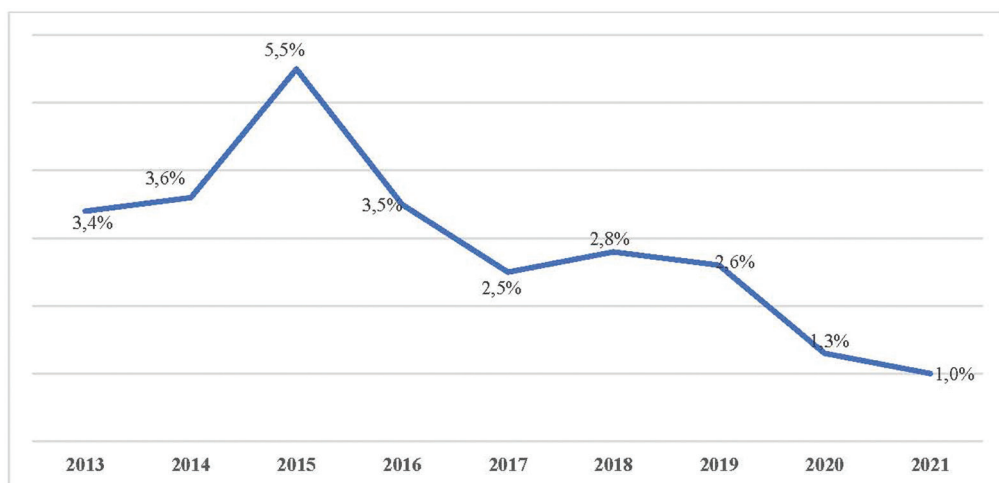


Figure 2. The share of foreign direct investment in Tajikistan's GDP for 2013-2021., %

Source: compiled by the authors based on data of the World Bank [4].

Economic development remains an urgent global need, and for rapid economic development, the central problem is the accumulation of capital not only in the industrial sector, but also in the agricultural sector [5]. FDI flows include capital provided by foreign investors directly or indirectly to enterprises in another economy with the expectation of making a profit from the participation of capital in the management of the enterprise in which they invest.

The main investor countries in the economy of Tajikistan

The number of countries and international organizations wishing to invest in Tajikistan is growing every year. According to the National Bank of Tajikistan, in 2010-2020, China invested about 1947 million US dollars in Tajikistan, 403.4 – Russia, 296.2 – Great Britain, 177.9 – Turkey, 133.7 – Switzerland, 123.8 – Iran, 79.8 – France, 60.1 – USA, 57.5 – Kazakhstan and 9.4 million US dollars – Luxembourg (tab. 1).

Table 1. Volume of foreign investments in Tajikistan for 2010-2020, by country, USD million.

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
China	43,0	65,7	116,3	221,6	135,3	334,1	223,0	150,6	256,7	258,6	142,1
Russia	41,3	65,5	54,9	14,8	46,9	34,5	35,0	63,5	0,0	33,1	13,9
Great Britain	13,1	19,2	18,5	23,6	91,4	62,8	23,7	7,4	20,9	14,3	1,3
Turkey	8,7	11,1	20,1	16,9	27,3	50,0	6,5	3,3	16,9	11,5	5,6
Switzerland	5,7	5,3	10,2	1,7	3,6	23,2	26,8	29,0	16,9	6,2	5,1
Iran	9,1	11,2	5,4	3,6	77,1	4,2	0,8	10,4	0,0	1,8	0,2
France	0,0	0,0	0,0	1,9	8,6	36,7	10,7	2,4	12,8	3,8	2,9
USA	10,4	5,0	5,1	4,9	2,0	0,0	0,2	9,8	13,2	4,5	5,0
Kazakhstan	8,8	0,5	6,3	3,2	12,5	3,7	9,7	2,9	3,1	5,5	1,3
Luxembourg	0,0	0,0	0,2	0,0	2,4	0,7	0,2	2,8	1,0	1,6	0,5

Source: compiled by the authors based on data from the National Bank of Tajikistan [6].

During this period, China accounted for about 55% of investments from the total volume of investments in Tajikistan. Russia is Tajikistan's main partner, and in 2010-2020, Russia's share of total investments in Tajikistan amounted to 11.4% (Fig. 3).

According to the National Bank of Tajikistan, about \$738.2 million US dollars were invested in the Tajik economy in 2021, of which \$342.2 million were direct investments and \$376 million were other types of investments (Fig. 4).

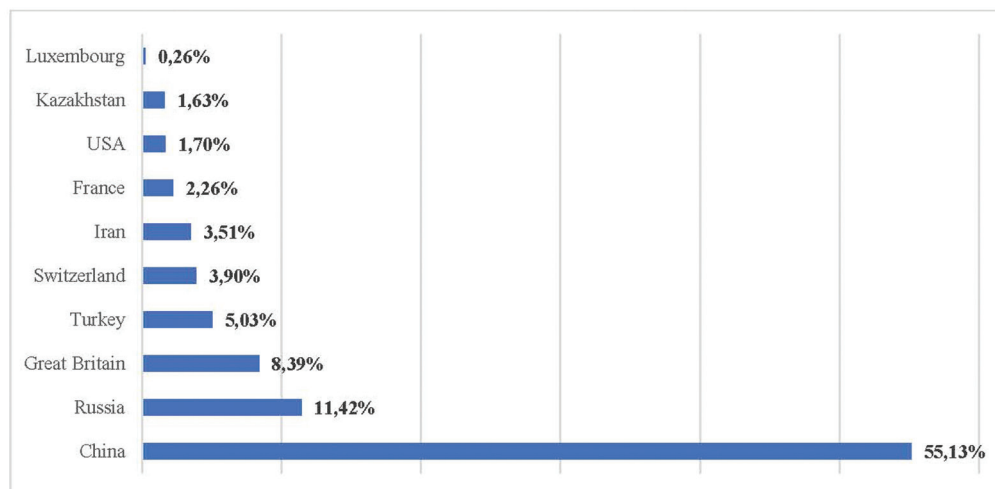


Figure 3. The share of investor countries from the total volume of investments in Tajikistan for 2010-2020, %

Source: compiled by the authors based on the tab. 1.

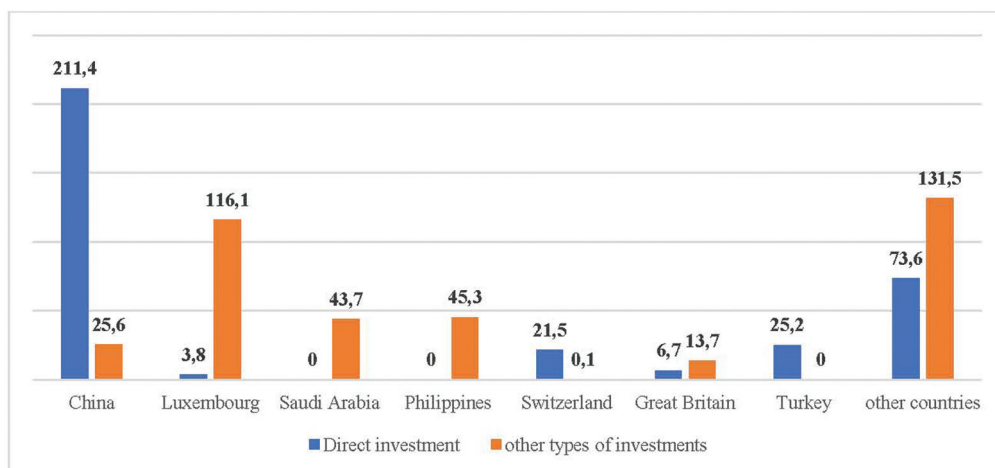


Figure 4. Inflow of foreign investments by country in 2021, USD million.

Source: compiled by the authors based on data from the National Bank of Tajikistan [6].

According to the Statistics Agency under the President of the Republic of Tajikistan, in 2021, foreign direct investments in the economy of the Republic of Tajikistan were carried out by such countries as China – 211.4 million US dollars (61.8% of the total investment), the Islamic Republic of Iran – 32.6 (9.5%), Turkey – 25.2 (7.4%), Switzerland – 21.6 (6.3%) and others (Fig. 4).

The impact of climate change on agriculture in Tajikistan

The most vulnerable to climate change is the agricultural sector, which ensures our food security [7]. Moreover, most of the population ensures their material well-being by receiving income from agriculture [8].

If we summarize the situation around agriculture in Tajikistan, we can identify 3 key reasons that make the industry the most vulnerable.

1. Climate change.

Climate change has a negative impact on crop production, causing droughts, floods, soil erosion, reduced yields, and product quality. This is a direct threat to biodiversity and plant health, increasing the risk of pests and diseases. To adapt to climate change, it is necessary to develop measures to increase plant resistance, efficient use of water and soil resources, and the introduction of new technologies and varieties [9].

2. Lack of financing and investments.

Financial support for the modernization of production, improvement of infrastructure, access to credit, insurance, and markets. Lack of financing and investment reduces the competitiveness of the industry and its potential for export [10].

3. Crop production

Crop production in Tajikistan is based mainly on outdated traditional methods that do not meet modern requirements for quality, safety, and efficiency. The low level of technical equipment and innovation, as well as the lack of qualified specialists, leads to losses of crops, resources, and income [11].

Climate change has led to frequent natural anomalies, which is why some types of traditional trees have stopped responding to seasonal changes. Earlier, intensive orchards were widely tried in Tajikistan, but some regions did not take this into account, fearing low yields, as in previous years [12].

Table 1. Comparative acreage of agricultural crops for 1991-2021, %

	1991	2021
Cotton	36,4	22
Grain crops	28,2	45,8
Forage crops	27,6	13,2
Potato	1,6	6,6
Melon crops	1,3	2,6
Vegetables and other crops	4,9	11,6

Source: compiled by authors based on Asia Plus data [13].

As can be seen in the table, cotton production in 1991-2021 decreased by 40%, while the planting of grain crops increased by over 60%. Dr. Kaysar Saddik, a lecturer at the Potsdam Institute for the Study of Climate Change (PIK), explains this situation as follows: *"In Tajikistan, the change in hydrometeorological conditions caused by climate change creates problems for the agricultural sector. 50-70% of Tajikistan's permanent arable lands depend on irrigation, which makes them sensitive to the*

expected reduction in river flow because of accelerated melting of glaciers. This situation is especially relevant for crops that are heavily dependent on irrigation, such as cotton” [13].

In general, there are about 500 varieties of agricultural crops in Tajikistan, the total area suitable for agricultural activities is 7.2 million hectares, while most of it is used for pastures for livestock. The acreage for agricultural crops is only 675 thousand hectares, of which only 470 thousand hectares are irrigated, and 180 thousand hectares of these areas are cultivated for orchards and vineyards [13].

The impact of climate change on crop yields will depend on their type and location. It is important to note that the high-emission climate change scenario predicts a moderate increase in the amount of extreme precipitation and a significant increase in the number of hot days and tropical nights. This can lead to more intense and frequent droughts, which will affect the quality and quantity of crops.

Also, since many traditional trees have adapted and stopped responding to seasonality, they can be used to lay intensive gardens on high ground, in areas from 2000 to 2500 meters above sea level, before this such a practice was not possible.

Significant investments are needed to implement such initiatives, because innovative gardens are a set of practical solutions based on modern technologies, including interactive elements [14].

The role of foreign investment in agricultural sector of Tajikistan

Agriculture provides people with food, as well as raw materials for industry. Tajikistan's agriculture consists of two broad farming systems: mountainous areas characterized by the cultivation of wheat, potatoes, and horticulture along with rain-fed pastures, while irrigated cotton and wheat predominate in the lowlands [15]. Because mountainous terrain forces people to congregate in valleys, Tajikistan's population density is about 488 people per square kilometer of arable land – one of the highest ratios of people to arable land in the world [16].

In 2007-2021, Tajikistan's economy received foreign investments worth about 10.7 billion US dollars. During the same period, among the main sectors of Tajikistan in which the most was invested were financial services – 3556.3 million US dollars, geological exploration, and mining – 1657.2, industry - 1369.2 and energy – 1165 million US dollars (Fig. 5).

According to the Agency for Statistics under the President of the Republic of Tajikistan, in 2007-2021, the volume of foreign investments in the agricultural sector of Tajikistan amounted to 162.7 million US dollars, of which 106.1 million US dollars were received in the form of foreign direct investment and 56.6 in the form of other types of investments [17]. Overall, the impact of foreign investment has benefited rural communities through increased investment in production infrastructure and equipment, more efficient management of the resource base, increased viability of agricultural production, and improved animal health and productivity.

Among international organizations, the International Fund for Agricultural Development (IFAD) plays an important role in supporting agricultural production in Tajikistan. In 2009-2016, IFAD invested a total of USD 48 million in programs and projects in Tajikistan. The total volume of investments for the specified period amounted to 55 million US dollars, which benefited 80 thousand households. Also, in

Tajikistan, the annual incomes of IFAD project participants increased by 19 percent since all actions — from pasture management to the construction of reliable water sources — were focused on achieving a comprehensive goal [18].

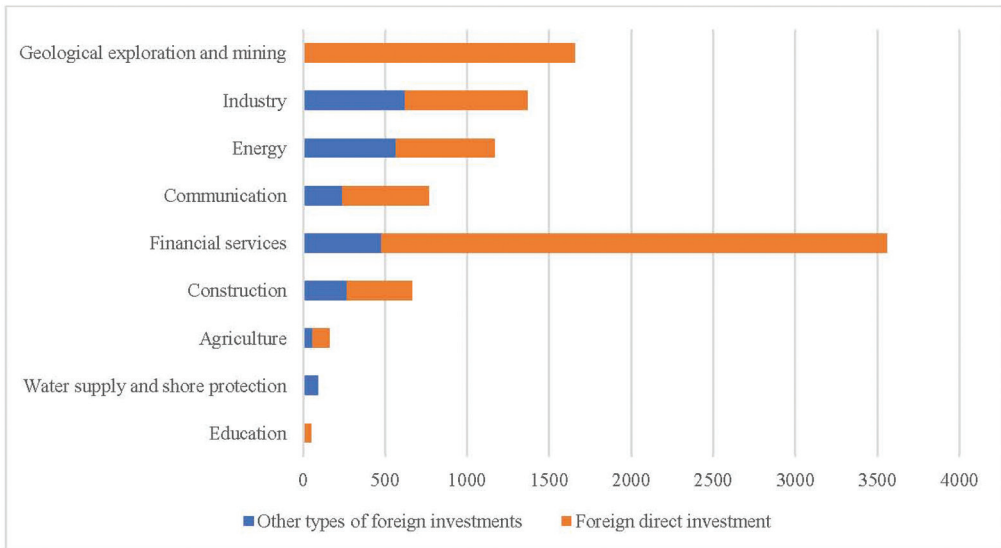


Figure 5. Attraction of direct and other types of foreign investments in various sectors of Tajikistan for 2007-2021, USD million

Source: compiled by the author based on data from the Agency for Statistics under the President of the Republic of Tajikistan [17].

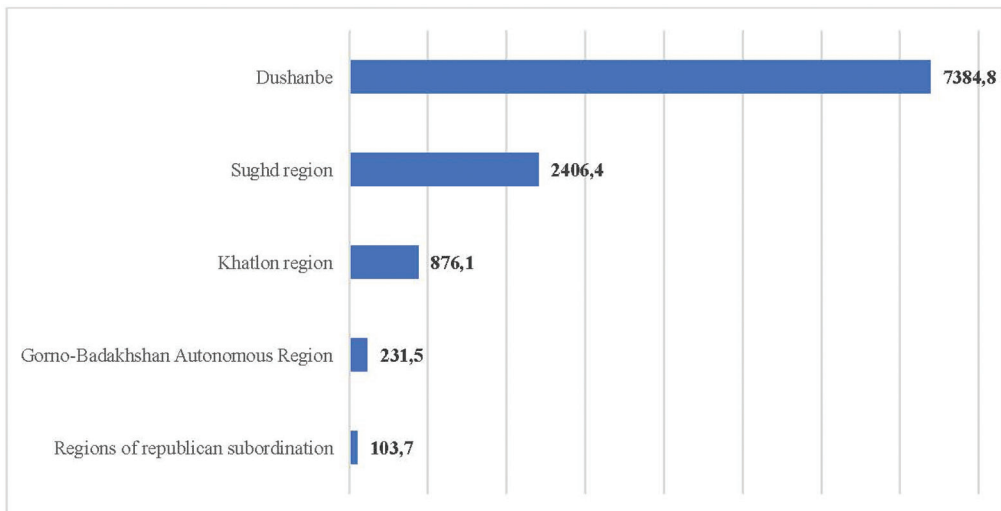


Figure 6. Inflow of foreign investments to the regions of the republic in 2007-2021, USD million

Source: compiled by the author based on data from the Agency for Statistics under the President of the Republic of Tajikistan [17].

In 2007-2021, the largest volume of foreign investments among the regions of Tajikistan came to Dushanbe – about 7.4 billion US dollars (68% of the total volume of foreign investments in Tajikistan), followed by the Sogdiya Region – 2.41 billion US dollars (21%), Khatlon Region - 876.1 (8.3%), Gorno-Badakhshan Autonomous Region - 231.5 (2.2%) and regions of republican subordination (RRP) - 103.7 million US dollars (1%) (Fig. 6).

The rural population of Tajikistan is increasing rather than decreasing. This reflects the higher birth rate in rural areas and the lack of employment opportunities in urban centers [19].

In general, according to the Statistics Agency under the President of the Republic of Tajikistan, the share of foreign investments in agriculture and industry in Tajikistan from the GDP of the republic for 2007-2021 amounted to about 1.5% (1.5 billion US dollars) [17].

Tajikistan's investment policy in support of the agricultural sector

In addition to other countries and international organizations, the Government of Tajikistan itself is also interested in investing in the agricultural sector of the republic. Since most of the population of Tajikistan lives in rural areas. For example, according to the Agency for Statistics under the President of the Republic of Tajikistan, in 2015-2022, an average of about 6.7 million Tajik citizens lived in rural areas (Fig. 7).

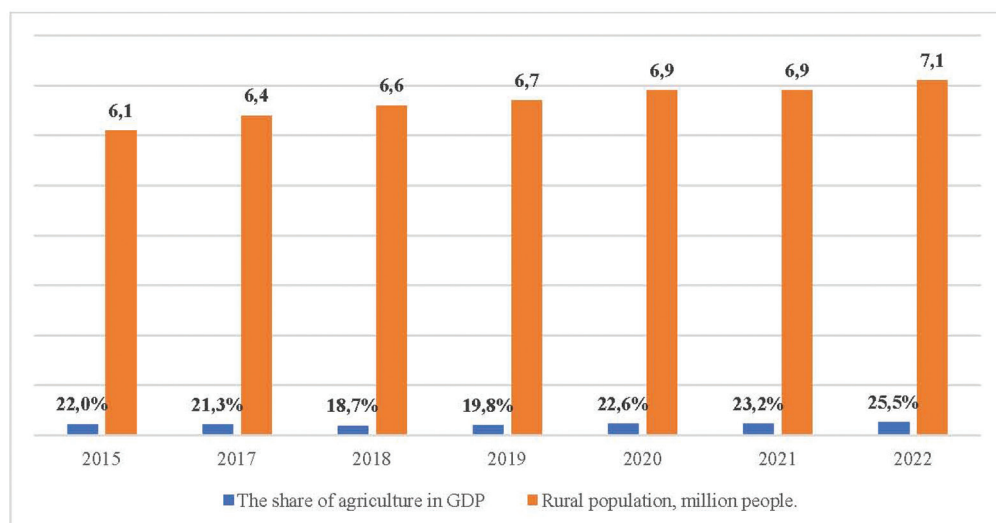


Figure 7. The number of rural population and the share of agriculture in Tajikistan's GDP for 2015-2022, million people., %

Source: compiled by the author based on data from the Agency for Statistics under the President of the Republic of Tajikistan [17].

The share of agriculture in Tajikistan's GDP in 2015-2022 averaged 22% (Figure 7). During the same period, agriculture contributed about \$12.3 billion to the Tajik

economy. Annually, in the period 2015-2022, the economy of Tajikistan received an average of 1.8 billion US dollars from agriculture (Fig. 7). Agriculture is considered one of the main drivers of the economy of Tajikistan.

For the development and support of the agricultural sector, the Republic of Tajikistan annually provides all kinds of assistance. For example, to develop the field of agriculture, support business and attract more investment in the agro-industrial complex of the Republic in 2019-2021, the Republic of Tajikistan allocated several tariff and tax benefits. Within the framework of this plan, 14 tax benefits were provided for the agricultural sector, which amounted to more than 13% of the total amount of state benefits. As a result of the measures taken, in 2020, the total inflow of foreign investments into agriculture in Tajikistan increased by \$16.9 million compared to 2019. In 2020, FDI in grain growing, vegetable growing, and horticulture amounted to \$11.3 million, and in poultry farming – \$ 285 thousand [20].

In Tajikistan, agricultural productivity is falling far below its potential, especially regarding basic foodstuffs for small farmers such as wheat, potatoes, and apples [21]. The main reason is the lack of access to modern technologies, especially agricultural equipment, and machinery. To solve the problems, in 2020-2021, about 7.3 million US dollars were allocated from the state budget of Tajikistan for the development of agriculture [22].

As part of improving the efficiency of agricultural production, a program for reforming agriculture in the Republic of Tajikistan for 2012-2020 was adopted [23]. This program gives farmers access to a larger area of arable land, thereby increasing production capacity, stabilizing the financial situation of dehkan farms and investment guarantees from the state budget. In 2012-2019, 20.1 million US dollars were allocated from the budget of Tajikistan to support and implement this program, and 81.5 million US dollars were allocated with the involvement of foreign investments [24]. Since most of Tajikistan's population lives in rural areas, Governments will pay more attention to supporting and developing the agricultural sector.

Findings

More than 70% of Tajikistan's population lives in rural areas, agriculture is the main employment opportunity for more than 50% of residents. Agricultural production on small and household plots continues to play a central role in providing markets.

Investment in agricultural sectors plays a key role, since disruptions in agricultural markets and spikes in world prices had a serious negative impact on the country [25]. In addition, the imposition of sanctions due to the Ukrainian crisis by the EU and the United States against Russia, Tajikistan's main partner, and the continuing negative effects of COVID-19 on jobs and incomes remain a constant threat that must be addressed through reforms and investments.

According to the World Bank, in 2013-2021, the volume of foreign direct investment in the Republic of Tajikistan amounted to 2115.4 million US dollars. In 2021, the share of foreign direct investment in Tajikistan's GDP was 1%, which is 5 times less than in 2015. On average, in 2013-2021, foreign direct investment accounted for about 3% of Tajikistan's GDP.

According to the National Bank of Tajikistan, in 2010-2020, China invested about 1947 million US dollars in Tajikistan, 403.4 – Russia, 296.2 – Great Britain, 177.9 – Turkey,

133.7 – Switzerland, 123.8 – Iran, 79.8 – France, 60.1 – USA, 57.5 – Kazakhstan and 9.4 million US dollars - Luxembourg.

Among the main sectors of Tajikistan in which the most was invested were financial services – \$3,556.3 million, geological exploration and mining – 1657.2, industry – 1369.2 and energy – \$1,165 million.

Annually, in the period 2015-2022, the economy of Tajikistan received an average of 1.8 billion US dollars from agriculture. Agriculture is considered one of the main drivers of Tajikistan's economy. To develop the sphere of agriculture, support business and attract more investments in the agro-industrial complex of the Republic in 2019-2021, the Republic of Tajikistan allocated several tariff and tax benefits. Within the framework of this plan, 14 tax benefits were provided for the agricultural sector, which amounted to more than 13% of the total amount of state benefits.

Conclusion

The agricultural sector is not only a key factor for ensuring food security, but also supplying raw materials to several industries, which means that the income of a huge number of representatives of medium and small businesses depends solely on agricultural productivity.

Every year, Tajikistan attracts foreign countries, as well as international organizations, to invest in the agricultural sector of the republic. In 2010-2020, the main investors in Tajikistan's economy were China, the United States, Russia, the United Kingdom, as well as Switzerland, Iran, Turkey, France, Kazakhstan, Luxembourg. During the same period, among the main sectors of Tajikistan in which the most funds were invested were financial services, exploration and mining, industry, and energy.

In addition to foreign investments, the Republic of Tajikistan also provides all kinds of assistance annually for the development and support of the agricultural sector. In 2019-2021, to develop the field of agriculture, support business and attract more investment in the agro-industrial complex of the Republic, the Republic of Tajikistan allocated several tariff and tax benefits.

Despite all the efforts of Tajikistan, as well as foreign investments to support the agricultural sector, the agricultural sector of the republic remains the most vulnerable, in need of investment and new technologies.

However, agriculture is not enough as the only source of income for most rural residents. The sluggish development of the Tajik agricultural economy has several reasons. As a result of the underdeveloped private sector for agricultural machinery, etc., farmers were often faced with a monopoly on demand for these necessary inputs. In addition, the rural population often simply «routinely» became farmers – namely, as former members of collective farms or state farms. As the hereditary burden of Soviet agriculture, many lacked an entrepreneurial spirit and agricultural knowledge of how to grow various crops on a larger scale, because they were accustomed only to the monocultures on the large-scale fields of planned economy. Finally, there is a very strong political and economic influencing factor. Although it is possible to obtain certificates of land use and, as a result, inheritance rights in Tajikistan, but the laws are ambiguous. The state elites also have an interest in income from agriculture, from cotton cultivation or export. Therefore, pressure continues to be exerted to cultivate cotton and the restructuring of the farms in the important agricultural regions of

the country, where the elites were striving to maintain control over the farms, has progressed only slowly.

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