



## **ECONOMIC EFFICIENCY AND ITS GROWTH FACTORS IN COTTON GROWING IN UZBEKISTAN**

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### **ANNOTATION**

*The study of the essence and methodological foundations for determining the economic efficiency of agriculture and, in particular, cotton growing. In this regard, the task was to clarify the main indicators of the economic efficiency of the production of fine-staple cotton.*

**KEYWORDS.** *Cotton growing, economic efficiency, definitions.*

### **1. INTRODUCTION**

The independent development of independent Uzbekistan, the construction of a civilized market economy by it determines its new economic strategy, the most important direction of which is to increase the efficiency of production. One of the most important tasks of the agrarian economy at the present stage of development of Uzbekistan is to increase the economic efficiency of the production of all agricultural crops, which is the main condition for raising the material and cultural standard of living of the Uzbek people in difficult, modern conditions.

Economic efficiency means obtaining the maximum amount of agricultural products needed by society from each hectare of land at the lowest cost of social labor - living and materialized - for the production of a unit of output. The level of development of cotton growing determines the state of the entire agriculture of Uzbekistan, since the production of this industry accounts for half of the total gross agricultural output.

Cotton has been and remains the main agricultural crop of Uzbekistan.

This is due to the fact that 1 hectare of cotton allows you to get 15 tons of wheat, 300 kg of vegetable oil, 800 kg of meal and cake, etc. for the grown fiber. Therefore, in the context of the transition to a multi-sectoral integrated development of agricultural production. it is very important to increase the efficiency of cotton growing.

It should be noted that cotton growing should continue to develop not through the development of new lands and expansion of sown areas, but through better, intensive use of each hectare of land and other means of production, so that each amount invested in cotton production gives the greatest return.

The tasks of further increasing the efficiency of cotton growing require an economic justification for solving another important problem, which is to minimize the labor intensity of cotton production, to replace low-productive manual labor with highly productive machine labor, to create conditions for increasing cotton yields and increasing labor productivity in cotton growing, and to facilitate the work of cotton growers in every possible way.

### **2. PROBLEM STATEMENT**

The state of knowledge of the problem. The problems of economic efficiency of agriculture, both in general and cotton growing in particular, are devoted to a considerable number of works by such Russian, Uzbek, Azerbaijani, Turkmen and other foreign scientists as Agirbov Y.I. , Amirsaidov S., Arslanov N.G., Artykov A. ., Barbashin A.I., Gandzhiev G.A., Gataulin A.M., Dodobaev Yu.T., Ermatov I., Kadyrov D.K., Kayumov F.K., Kovalenko N.Ya., Kovel P.V. , Konstantinov S.A., Kotov Yu., Kudratov R., Kurbatov I.D., Pogosov Yu. ., Sergeev S.S., Toshboev A.Zh., Fudin A.F., Yanbykh R.G., Demba Këye , Deveze JC, Djouara H., Goreux L., Lamissa Diakite



, Manda Sadio KeTta , Nubukpo KK, Pierre Roux , and others. However, despite the large number of scientific and applied studies on the issues of increasing the economic efficiency of agriculture in the Republic of Uzbekistan , the main reserves and ways to increase the economic efficiency of cotton fiber production in significantly changed conditions remain insufficiently explored. economic conjuncture.

The issues of reducing cotton production costs by improving technologies, farming systems, organizational forms of production, cooperation with the processing industry, rationalizing intersectoral economic relations, in particular, improving pricing policy in intersectoral exchange require in-depth study.

The issues of territorial distribution of agricultural production, optimization of the combination of production of industrial crops for export with food self-sufficiency of the country require scientific justification. At the same time, it should be taken into account that organizational, economic, technical, technological and social issues should be considered and resolved in organic unity within the framework of a single systematic study.

### **3. THE METHOD OF THE RESEARCH**

The theoretical and methodological basis of the study was the works of theoretical economists and modern concepts of the transition of the Republic of Uzbekistan to the market. The works of Soviet and other scientists on the economics and organization of agricultural production were widely used, in private works devoted to efficiency and reserves for its increase, increase in labor productivity, efficiency of intensification and increase in the profitability of production. During the development process, statistical, monographic and experimental methods were used.

### **4. MATERIALS AND RESULTS**

The problems of increasing the economic efficiency of agricultural production have always been and are in the focus of attention of agricultural economists abroad, in Uzbekistan.

The creation of the Commonwealth of Independent States gave rise to new prospects and problems for the further development of the productive forces in a significant part of the world space.

In the specific specific conditions of the Central Asian republics with limited land and water resources and overpopulation, the transition to the rails of market relations currently creates a number of important problems.

Two particularly large problems require theoretical and practical solutions for the specific conditions of the Central Asian region:

- the problem of choosing specific forms of ownership and management on the land, ensuring maximum economic efficiency;
- search for ways to increase the employment of the population and the interest of agricultural workers in increasing the production of food and raw materials for industry, which should ensure the economic independence of the new states.

It should be noted that the issues of increasing the economic efficiency of the production of fine-staple cotton, especially in modern conditions, have not been sufficiently studied and require further research.

At present, when Uzbekistan has become a sovereign state, it is possible to directly enter the world market. The demand for cotton is growing every day, and the resources that can be allocated for these purposes are limited by the capabilities of the economy of the republic and are subject to additional restrictions in each of the sectors involved in the development of the cotton industry.

In the 2021-22 agricultural year, China's cotton production was about 5.88 million metric tons. Cotton is a natural plant fiber that grows around cotton seeds. The fibers are used in the textile industry, where they are the starting point of the production chain. Cotton fiber is first obtained from a cotton mill and then spun into yarn.



From there, cotton yarn is woven or knitted into fabric. The use of cotton has a long tradition in the clothing industry due to its desirable characteristics. Fabrics made from this fiber absorb moisture well, drape well and are known for their durability. Consumers continue to buy cotton products in large quantities as they prefer the light and comfortable properties of cotton. Cotton products range from highly absorbent bath towels over bedding to basic clothing such as T-shirts, underwear or socks.

**Table 1. Leading cotton-producing countries in the world in 2021–2022 (in 1000 metric tons)**

A country	Production (in 1000 metric tons)
China	5879
India	5334
USA	3815
Brazil	2678
Pakistan	1306
Australia	1197
Türkiye	827
Uzbekistan	577
Argentina	327
Mali	311

The top cotton producing countries include China, India and the US, respectively. In the United States, the southern states traditionally harvest the most cotton. The region was formerly known as the "Cotton Belt" where cotton was the predominant cash crop from the 18th to the 20th century. Due to soil depletion and socio-economic changes, cotton production has declined, and acres in the region are now mainly used for crops such as corn, soybeans, and wheat.

Home to the largest population in the world, China is the largest producer, consumer and importer of cotton. An estimated 300 million people are involved in cotton production in China.

India is often referred to as the birthplace of cotton and the industry plays a significant role in the country's economy. Even though India's production was second in the last two years, the country has more area to grow cotton than China. It is possible that India will again appear at the top of the list if all available areas are processed. Most of the cotton produced in the US comes from the southern region of the country. American farmers are making full use of the tools available to pick and grow cotton. The US is a major importer of cotton due to high demand for clothing and textiles.

Brazil has more than doubled its cotton production in the last 4 years. Despite a slight decline in production due to the COVID-19 pandemic, they remain the second largest cotton exporter in the world. Approximately 92% of the cotton area in Brazil is not irrigated.

Cotton production in Pakistan has been stable in recent years, but the growth rate has become stagnant. The country's cotton production is expected to increase by only a modest 2% next year.

Nearly 66% of Australian cotton is grown in New South Wales, with the remaining 34% grown in Queensland. Australia produces enough cotton to clothe 500 million people a year.

There are currently 1,986 licensed cotton growers in Turkey. Cotton production is important for a country, but for a water-stressed country, an increase in the cotton harvest poses problems for farmers.

In 2021–2022, Vietnam imported about 1.48 million metric tons of cotton. Cotton is a natural plant fiber that grows around cotton seeds. The fibers are used in the textile industry, where they are the starting point of the production chain. Cotton fiber is first obtained from a cotton mill and then spun into yarn. From there, cotton yarn is woven or knitted into fabric.



Cotton processing has a long tradition in the clothing industry due to its desirable characteristics. Fabrics made from this fiber absorb moisture well, drape well and are known for their durability. Consumers continue to buy large quantities of cotton products as they prefer lightweight and comfortable cotton. Cotton products range from highly absorbent bath towels and bedding to basic clothing such as T-shirts, underwear or socks.

The top cotton producing countries are China, India and the US, respectively. In the United States, the southern states traditionally produce the most cotton. The area was formerly known as the "Cotton Belt" where cotton was the predominant cash crop from the 18th to the 18th century.

**Table 2. Top cotton importing countries in 2021-2022 (in 1000 metric tons)**

A country	Quantity (in 1000 metric tons)
China	1785
Bangladesh	1742
Vietnam	1481
Türkiye	1208
Pakistan	980
Indonesia	555
Mexico	218
India	218
Thailand	158
Egypt	131

The United States was the world's leading cotton exporter in 2021-2022. During that period, the US cotton industry exported about 3.2 million metric tons.

**Table 3. Top cotton exporting countries in 2021-22 (in 1000 metric tons)**

A country	Quantity (in 1000 metric tons)
USA	3211
Brazil	1720
India	871
Australia	871
Greece	305
Benin	305
Mali	239
Burkina	174
Argentina	163

Benin is the largest cotton producer in West Africa. Cotton production increased sharply by 13.4% between 2017 and 2019. The increase in cotton production contributed to the stable growth of the Benin economy as a whole.

Greece mainly exports its cotton to other countries, with Turkey being its main recipient. The soil in Greece is ideal for growing cotton and using modern equipment to speed up the planting process.

Approximately 5.08 million metric tons of cottonseed oil were produced worldwide in 2021/2022.

Dynamics of cotton prices . The World Bank A-Cotton Price Index is projected to achieve modest growth in 2020 after a projected 4% decline in 2019 to US\$1.7/kg.

In the long term, prices are expected to rise gradually to US\$2.2/kg in 2030. Weak price growth will be due to the fact that production will increase only by 4% to 26.8 million tons in the 2019-2020 season. At the same time, production is expected to rise in major producing countries, including India, the United States and some West African countries.



**Figure 1. Price Index Forecast for Grade “A” Cotton in long term (USD per kg)**



According to government plans, cotton planting will be reduced in areas with high salinity and in mountainous areas where cotton yields are lower than the national average. In these areas, the cultivation of other crops, including fruits, vegetables, potatoes, as well as grains, is being stimulated. It is envisaged that a total of 185,000 hectares of land will be taken from cotton and allocated to other crops. Gradual reduction of cotton sown areas will reduce the target domestic production of raw cotton to about 3 million tons.

In order to deepen market relations in agriculture, state orders for cotton have been canceled since 2020 and purchases are made at a market price. A further reduction in the forecast indicators for cotton production is part of the "Strategy for the Development of Agriculture until 2030". In general, it becomes possible for farms to independently make decisions on sowing certain crops, depending on the current price environment for agricultural products.

Growth in domestic consumption. The most important trend of recent years in Uzbekistan is the rapid and continuing growth of domestic cotton consumption. According to industry sources, about 60% of locally produced cotton is consumed domestically. According to the State Committee on Statistics, currently about 500 enterprises are engaged in textile production in Uzbekistan.

According to Uztekstilprom, in 2018-2021, the industry is implementing a diversification and modernization program worth \$2.5 billion. It is planned to increase the production of textile products by 2.6 times, and the volume of exports by 2025 - by 4.7 times, up to 7.1 million US dollars.

Cotton export. Until 2019, Uzbek cotton was under sanctions due to the use of forced labor. Although a number of countries, such as China and Iran, ignored these sanctions. After the abolition of forced labor in the cotton harvest and the lifting of sanctions from 2019, Uzbek cotton can be freely traded on the world commodity market. At the end of 2019, total cotton exports accounted for about 2% (or \$260.8 million) of all merchandise exports, while in 2017 this figure reached 4.7% (or \$477.1 million). USD).

If we consider the structure of cotton exports from Uzbekistan by country, then the main recipients are China, Iran and Bangladesh. As of 2018, the total export rate to these countries was over 90%.

Forecast estimates of changes in the world cotton market

Short term perspective. Although the medium-term forecast estimates for the world cotton market remain stable, short-term fluctuations in demand, supply and prices are possible. The cotton market was affected by the spread of the coronavirus, which was immediately reflected in a sharp decline in spot (exchange) prices for cotton (below \$ 1 per kg).

As a rule, in force majeure conditions, markets are characterized by sharp jumps in prices, which then recover quite quickly. However, the effects of the virus outbreak have slowed down the Chinese economy and halted the development of key manufacturing sectors. In view of this, despite positive estimates of the growth in export



sales, cotton prices continue to fall. Under these conditions, world cotton consumption may drop significantly. Losses are currently estimated at around 500,000 bales.

## 5. DISCUSSION

Cotton innovative solution . Long-term perspective. Despite massive disruptions and a slowdown in the global economy in the short term, the outlook remains robust in the long term.

The world cotton crop will grow slowly as production gradually shifts from countries with relatively high yields, especially China, to countries with relatively low yields (India and the states of South Asia). Despite the intention of the governments of Vietnam, Bangladesh and India to increase cotton production, factors such as water scarcity and climate change are limiting their efforts in this direction. Chinese cotton policy is one of the main sources of uncertainty in the global cotton sector.

Cotton production is sensitive to pests and weather conditions, especially climate change, which can lead to droughts. However, as noted above, yield growth in some countries has been slow over the past decade. However, improved genetics (due in part to a better understanding of the cotton genome) and pest management could lead to greater yield increases. However, such innovations take time to develop and implement and, in the case of GM cotton, are sometimes controversial.

In high-income countries, there is an increasing preference for the consumption of natural fibers over synthetic ones, which implies an increase in the demand for cotton. However, according to experts, it is currently unclear how economic growth and urbanization in developing countries will affect consumer preferences and demand for cotton textiles.

Thus, experts' forecasts indicate that prices in the long term will reflect a moderate growth trend. This applies to both production and consumption in general.

## 6. CONCLUSIONS AND RECOMMENDATIONS

The economic and social assessment of the role and place of the cotton industry in the development of the national economy of the Republic of Uzbekistan is substantiated and the main directions for increasing the competitiveness of products in the world market are identified: increasing labor productivity, reducing production costs by switching from primitive farming systems to modern forms of production organization. The essence of the category of economic efficiency is revealed, the theoretical provisions and methodological approaches to assessing the economic efficiency of agricultural production in the specific conditions of transition from primitive technologies to modern technologies are substantiated; Based on the typification of peasant farms, a system of indicators for evaluating economic efficiency has been developed. To increase the efficiency of cotton production, it is necessary first of all to increase the yield.

The economic and social efficiency of the industry in the national economy has been assessed. It was revealed that the social effectiveness of the contribution of the cotton industry is manifested through the construction of schools, literacy centers, improving health care through medical examination of the population, developing infrastructure and eliminating the isolation of zones through the construction of rural roads, organizing drinking water supply, facilitating the work of women and their emancipation, etc. . The most significant factors that determine the current trends in the development of cotton growing are identified and assessed: increased competition in the world market due to the growth in the production of chemical fibers in the world, the strong dependence of the country's cotton growing on price fluctuations in the world market, the imbalance between production volumes and the capacities of processing plants, the underdevelopment of local spinning industry. Intersectoral price relations were studied along the entire technological chain, including all stages of raw cotton processing; substantiated proposals for the formation of effective production and economic relations between raw cotton producers, resource suppliers and cotton processing plants on the basis of mutually beneficial prices, improvement of contractual relations, joint formation of raw material zones; a methodology for substantiating prices for raw cotton is proposed. Underdevelopment of the local spinning industry (only 1-2% of gross production is used, the rest is exported).





Reserves are revealed and ways of increasing the competitiveness of the industry in the world market are substantiated. Taking into account the resource potential, the forecast indicators of the development of the industry with differentiation by natural and climatic zones are estimated.

It is shown that in order to overcome negative trends in the development of cotton growing, state support is needed in the consolidation of small farms and the development of cooperation, the introduction of modern technologies and production management methods, the creation of irrigation systems, the introduction of high-yielding varieties of cotton, modern technologies for cleaning cotton, increasing the capacity of cotton ginning plants, as well as assistance in agricultural education and infrastructure development.

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