

# Evaluation of opportunities for the cultivation of greek nuts in peasant and dekhkan farms of Uzbekistan

ABROR INOBATOV, IKRAM DAVLETOV

Faculty of Agro logistics and busyness  
Tashkent State Agrarian University (TSAU)  
Address (12pt Times New Roman, centered)  
University street, 2, Tashkent region  
UZBEKISTAN  
inobatov83@bk.ru, i.davletov@tdau.uz

*Abstract:* In our country, recommendations are made on the limited land resources, improving the provision of the population with food products and the culture of using dekhkan farms and household lands in achieving food security, organizing in the republic and conducting business in this area. Resource-saving technologies can be selected in terms of its cost-effectiveness. The authors in this article assess the possibilities of developing a nut business in the republic and expanding the legal consolidation of this process. Uzbekistan is one of the leading countries with its economic potential and opportunities among Asian countries. Emphasis is placed on modernizing and diversifying the country's economy, increasing the export potential of the agricultural sector and gaining a worthy and strong place in the world market. Walnut cultivation, development of the industry on the basis of modern technologies, the introduction of walnut varieties, economical and digital agro-technologies, which have the ability to produce products that meet the requirements of the world market, will improve product quality and increase labor productivity in the industry. They provide extensive analytical materials regarding the production and export of walnuts.

*Key-Words:* land resources, level of utility, redistribution, land market, organizational and economic mechanism, increasing efficiency, economics, nut processing, walnut, specialization, risk, selection, mountainous and foothill areas, biological opportunity.

## 1 Introduction

In the context of global climate change, global population growth and increasing competition in the agricultural market, economic protection of agricultural producers as an important part of the agricultural economy is an important task to stimulate the development of horticulture and improve family business support institutions. [1].

Currently, one of the key tasks in the development of the economy of Uzbekistan is the accelerated growth of domestic production. Under the current conditions, the expansion of food production from domestic raw materials plays an important role. Of particular interest at present is the commodity production of nuts and the expansion of their industrial processing. [2].

The increased interest in nut-bearing crops and the need for a real increase in their production are caused by steady growth trends in world nut consumption, a change in the world food culture in the direction of consumption of natural products. During the development of the market system, there is a significant entry into the domestic market of imported food, including nuts, the quality of which does not always meet the necessary requirements. At

present, the needs of the confectionery industry of Uzbekistan for nut kernels are met mainly through imports. The lack and high cost of hazelnut kernels becomes the reason for replacing it with peanuts, which leads to a change in the taste properties of confectionery. As is known, the southern regions of Uzbekistan are the only one within the Uzbekistan region in the commercial cultivation of hazelnut, chestnut, as well as one of the leading areas of culture walnut nut. [3].

Recently, there have been a number of unfavorable trends in the industrial production of nuts and their primary processing.

Modern business practice has allowed us to highlight a number of the most pressing issues in the conditions of a market management system. These include the selection of directions and the justification of the prerequisites for the effective development of new industries, the search for a rational distribution of the raw material base for industrial processing of nuts, an active investment policy in the development of the commodity market for nut products, as an integral part of the food and resource market for food industries. The above identified the relevance of the chosen research topic. In most countries of the world

the need for food supply, economic security and social stability is becoming increasingly important. Food security intends to solve the problems like providing the country's population with basic foodstuffs using domestic resources adequately, and to address issues such as reducing the dependence on imports. And the role of farms is increasing in improving food supply and achieving the food security due to the limited land resources. [4]

## 2. Literature Review

The degree to which the problem is developed. The problems of developing the processing industries of the food industry and increasing their economic efficiency were studied by a number of domestic scientists – Blazh I.D., Vinogradov.N.V., Voronin V.G., Deniskin V.V., Voronov A.A., Kerashev M. A., Tkhasushev I.A., Filippov A.N. et al. These works provide rich material for further research. However, it should be noted that in the domestic literature there are practically no developments made for the market stage of development of industrial production and processing of nuts. Resource-saving technologies in the cultivation of walnuts in terms of economic evaluation methodological approaches - Khushmatov N. S., Inobatov A. B. [5]

## 3. Materials and Methods

Uzbekistan is one of the leading countries with its economical potential and opportunities among Asian countries. Emphasis is placed on modernizing and diversifying the country's economy, increasing the export potential of the agricultural sector and gaining a worthy and strong place in the world market.

In particular, farmers are shifting from traditional approaches to crop placement to investing in profitable and export-oriented products. Using the land, water and material resources is one of the global problems in our country, as well as in other countries. The world's demand for food is increasing in proportion to its population. To solve this problem a new approach has been identified as a key issue. In the last decades, the areas of cotton have almost halved and grain, vegetables, melon crops and oilseeds have been planted in their place, and gardens and vineyards have been established. In the process of these structural changes, various forms of production came into being and their legal basis was created. The Law on Farming was adopted on April 30, 1998 and as of 2020, 90,000 farms and 4559966 agricultural farms are operating on arable lands. The farms set the price for their products independently basing on the ratio of supply and demand in the market. Agricultural economy also plays an

important role in solving the problem of employment in rural areas. The share of farm income in the total income of rural families (for per family member) is 26%. The share of sales of agricultural products and real profit in the structure of farms' income in the regions of the republic is 62.2-70.0%. [6]

The development of agriculture and horticulture should be based on agricultural production and efficient use of territorial features. In addition to the seasonality of the crop, it should be noted that even a single type of product ripens from early spring to late autumn (early ripening, summer and winter-autumn varieties of apples), as well as the fact that nuts (walnuts, almonds) are easy to store. These features play an important role in the organization of work in the process of marketing economy. Factors influencing the sustainable development of agricultural economy and horticulture vary depending on the location of the period of implementation of certain measures. All factors need to be taken into account in order to achieve high results based on the characteristics of farms, the purpose of their activities, the end result of production and other criteria (Konstantinova M, 2017). [7]

**Table 1 - The results of the activities of agricultural economy in agricultural sector**

Indicators	2020 year	Unit of measurement
Number of agricultural economies	4,559	Thousand
The share of agricultural economy in the gross agricultural output	64	%
Share of agricultural economy on agricultural lands	2	%
The share of farms in arable lands	11	%
In growing vegetables	66,5	%
In growing potatoes	83,4	%
In growing melon products	51,5	%
In growing fruit and berries	52,2	%
In growing grapes	46,4	%
In producing dairy products	96,7	%
In producing meat products	95	%
The share of agricultural economy income in the total income of rural families	26	%
The share of income from the sale of agricultural products and net profit in the structure of agricultural economy income by regions of the republic	62,2-70	%
Due to the high level of financial interest in	1, 4	Times

agricultural economy, the production per capita is higher than on farms		
High cost of production per hectare due to the high financial interest in agricultural economies	10-12,0	Times

Due to the high level of financial interest in agricultural economy, production per capita is 1.4 times higher than on farms, and the value of products per hectare is 10-12.0 times higher. Therefore, it is necessary to make full use of potential of farms and to create conditions for their sustainable development.

**Table 2 - The main indicators of Boymirzaev's agricultural economy, Zangiota district, Tashkent region**

Years	2013		2014		2016		2018	
Number of family members	6		6		6		6	
Able-bodied people	2		2		2		2	
Private garden plot (hectare)	0,2		0,2		0,2		0,2	
Main type of business	Agriculture, farming and maintenance		Agriculture, farming and maintenance		Agriculture, farming and maintenance		Agriculture, farming and maintenance	
	Thousand sum	%	Thousand sum	%	Thousand sum	%	Thousand sum	%
Total annual income	1050	100	2735	100	3237	100	3846,4	100
From agriculture	300	29	540	20	632	20	712,6	19
Service sector	240	23	345	13	445	14	524,8	14
Total annual expenses (%)	100		100		100		100	
Food	49,7		51,2		52,8		54,4	
Clothes	12,2		10,8		7,8		5,1	
Household service	9,8		10,1		11,5		13,4	
Various taxes and utility bills	12,7		13,8		15,1		17,8	
Others	15,6		14,1		12,8		9,3	

Today, agricultural economics have a unique advantage in the production and sale of goods. In recent years incomes of agricultural economics have been increasing.

It can be seen in the agricultural economy of Yukori Chirchik and Zangiota districts of Tashkent region. Therefore, farms not only increase the income and lifestyle of their families, but also indirectly serve the interests of society in achieving this goal.

In addition, services were added to the entrepreneurial activities of the farm, i.e. the head of the farm, in addition to working on his own farm, was engaged in assisting seedlings growers in other farms and providing transportation services.

It mainly exports its products to Russia through various intermediaries. The head of the farm plans to export his products independently in the future. 2,700,000 sums were earned by planting poplars around the additional land. The farm also earned 1,500,000 sums from the cultivation and sale of high-yielding fruit seedlings. In addition, alfalfa and stalks were grown among the garden seedlings, and earned

more than 2,240,000 sums. This shows the growing prosperity and increasing amount of family income day by day. [8]

A similar analysis was conducted on the farm of Alisher Boymirzaev in Yangiabad village of Zangiota district.

The family owns 20 hundred square meters of private land and is mainly engaged in farming. The family members work in state-owned enterprises and are engaged in agricultural production on their land. In the field, the product is grown and profited in accordance with market demand. The family sells an average of 200 kg of honey and one head of cattle per year from livestock.

In 2018, the farm earned a total of 3846.6 thousand sums, including 712.6 thousand sums or 18.5% of total income from agriculture, 765 thousand sums or 20% from livestock, 524.8 thousand sums or 13.6% from services.

In the expenditure part of the family budget, the share of expenditures for food products was 54.4%, for clothing - 5.1%, for household services - 13.4%,

various taxes and utilities - 17.8%, other expenses - 9.3%.

The family prefers family business among other spheres. Because the income of family members working in a state-owned enterprise, i.e. in the non-agricultural sector, is much higher. [9]

#### 4. Results

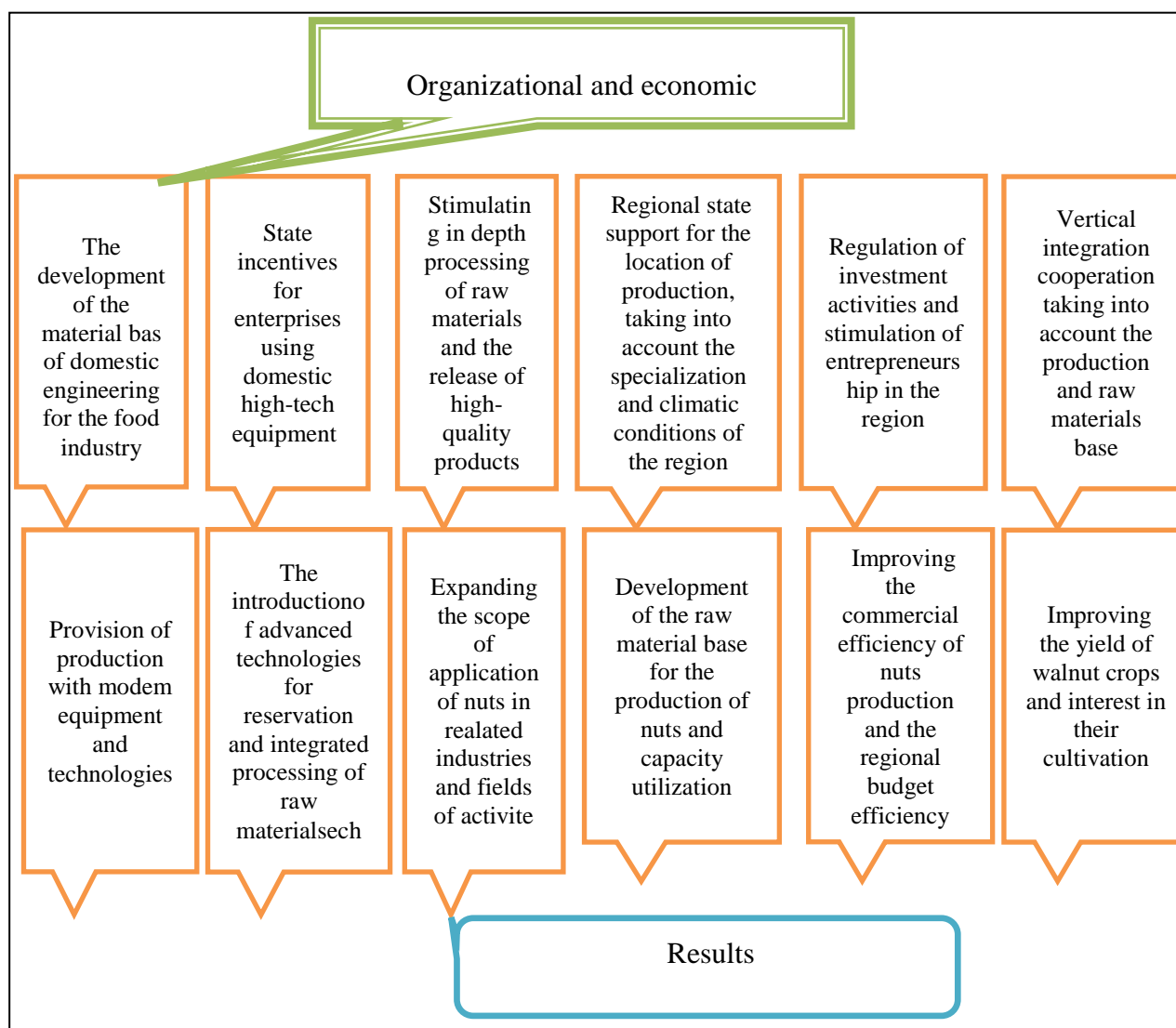
The investment policy in the field of production and processing of nuts can be represented in the form of the following scheme (Figure 2). The most important area of investment policy is the expansion of the raw material base of processing enterprises.

The implementation of investment policy requires the concentration of material and financial flows, ensuring sustainable relations with partners along the

entire technological chain. The study substantiates a model of an integrated structure in the production and processing of nuts. The key link of this model is the raw material processor – the producer of products that determines the volumes of production and services of all participants in this structure. The main task of integration is to form complete structural chains that ensure the production of goods, bringing it to specific markets, as well as the redistribution of risks. [10]

At the same time, the necessary cash flows should be launched, which, as far as real structured, can be replaced by mutual obligations.

Since a processing enterprise producing competitive products should become a structure-forming enterprise, this enterprise should be a leader in its field.



## Figure 1 – Organizational – economic prerequisites for the development of production and processing nuts in Uzbekistan

### 5. Discussions

Thus, the measures for the intensive development and modernization of agriculture contained in the “Strategy of Action for Five Priority Development Fields of the Republic of Uzbekistan in 2017-2021” will ensure the sustainable development of the agricultural sector, strengthen the country food security, increase export potential and improve the quality of life of the population of the republic. [11]

### 6. Conclusions

As a result of a comprehensive study of the problem, the following conclusions are formulated:

- Industrial processing of nuts brings significant commercial income and an increase in budget revenues; nutbearing crops are in great demand and are a constant object of import.
- The high interest in the confectionery and baking industries in supplying products from nuts domestic production, not inferior in quality imported, but more cheap.
- Uzbekistan has considerable power for the primary processing of hazelnut, however, the degree of capacity utilization is low due to lack of raw resources.
- Uzbekistan has a significant potential resource base, taking into account the favorable climatic conditions for the cultivation of hazelnuts, walnuts, which creates the prerequisites for the development of walnut production and increase its efficiency.
- The implementation of the investment policy in the field of production and industrial processing of nuts requires the concentration of material and financial sources, which is achieved through the integration of participants in the cultivation and processing of nuts. The key element of the integrated structure is the organization - the processor of raw materials, which determines the volumes of production and services of all participants and the mechanism of their interaction.
- The restoration and development of commodity production of nuts in the southern region of Uzbekistan should be carried out in two stages. At the first stage, the processing enterprise, at the expense of its own financial resources, makes the laying of new plantations of hazelnuts and ensures the creation of its own raw material base. In the proposed mechanism of interaction between the processor and farm farms. The high economic efficiency of expanding our own raw material base lies in changing the structure of raw materials: increasing the share of

processing cheaper and higher-quality raw materials and reducing imports at higher prices. The second stage covers the development of a project for the restoration and development of walnut crops in the territory of the Krasnodar Territory and the Republic of Uzbekistan. The revival of the nut growing industry requires an integrated approach and state support, the use of effective technology for growing nut crops and industrial processing of nuts. [12]

- The economic efficiency of expanding the resource base is confirmed both for participants in the integrated structure and for the region.

- An additional economic effect is achieved through the use of non-waste technologies, including the use of walnut shells - hazelnuts for heating offices and residential premises in rural areas.

To conclude, since the farms established on the basis of the labor of family members are the primary link of society, its highest interest and life is the highest goal of society. Achieving this goal is determined by the organization of abundant life of the people of our society through the rational use of existing opportunities in our country, where market relations are developing. The abundance of the family is determined by the greater production and consumption of material goods, in which the family income must be high. [13]

We offer the following recommendations in order to increase the efficiency of agricultural economy:

- Timely implementation of agro-technical measures in the production of agricultural products;
- modernization of production in the production of agricultural products;
- organization of agriculture on a scientific basis in the production of agricultural products;
- Involvement of scientific and technical achievements in the production of agricultural products;
- Improving the skills of workers in the production of agricultural products, etc.

#### References:

- [1] Constitution of the Republic of Uzbekistan. - Tashkent.: Uzbekistan, 2014.
- [2] PF of the President of the Republic of Uzbekistan dated October 9, 2017 "On measures to radically improve the system of protection of the rights and legitimate interests of farmers, dehqan farms and landowners, the efficient use of agricultural land" Decree No. 5199.
- [3] Resolution of the President of the Republic of Uzbekistan "On measures for the rational

placement of agricultural crops in 2018 and the forecast volumes of agricultural production." September 15, 2017 PQ-3281.

- [4] Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated March 4, 2017 No 119 "On additional measures for the efficient use of farmland and land, development of water-resistant, export-oriented tree plantations."
- [5] Mirziyoev Sh.M. *We will build our great future together with our brave and noble people*. NMIU "Uzbekistan", 2017. - 485 p.
- [6] Mirziyoev Sh.M. *Critical analysis, strict discipline and personal responsibility should be the daily rule of every leader's activity*. NMIU "Uzbekistan", 2017. - 103 p.
- [7] Konstantinova M. Diseases of the Greek orex and ix treatment. *Propozitsiya*, 5. 2017. pp. 126-129. <https://propozitsiya.com/bolezni-greckogo-oreha-i-ih-lechenie>.
- [8] Inobatov A. Organizational and economic mechanism of increasing efficiency of industrial processing of nuts in Uzbekistan. *International journal of research culture society*. Volume 3, Issue 11, pp. 124-128. DOI:10.2017/IJRCS.2456.6683/201911023
- [9] Khushmatov N.S., Inobatov A.B. Resource-saving technologies in the cultivation of walnuts in terms of conomic evaluation methodological approaches. *Journal of Contemporary Issues in Business and Government*. Vol. 27, No. 1, 2021 P-ISSN: 2204-1990; E-ISSN: 1323-6903 // <https://cibg.org.au/pdf> // pp. 957-968.
- [10] Inobatov A. B, Khushmatov N.S. Pricing Formation And Market Variability Characteristics In Walnut Cultivation And Its Delivery To Consumers. *Turkish Journal of Computer and Mathematics Education*. Vol.12 No.7, pp. 294-301 online: 16 April 2021.
- [11] Khushmatov N.S., Inobatov A.B. *Directions for increasing the economic efficiency of walnut cultivation on farms*. Innovative development publishing house, Tashkent, 2021.
- [12] Inobatov A.B. Foreign experience of farming (by the example of farming in Holland). *Modern trends of development of the agrarian complex*. p. Salt Zaymishche, May 11-13, 2016. pp. 1521-1523.
- [13] Inobatov A.B., Khamdamov Sh. Regulation of innovative development of agriculture. *Priority directions of development of modern science of young scientists agrarians materials of the v-th international scientific-practical conference of young scientists, dedicated to the 25 th anniversary of FSBSI "Caspian research institutes of arid agriculture"*. 11-13 may, 2016 pp. 1068-1070.
- [14] <http://9471824.ru/interesnye-fakty-gretckiy-orekh>.
- [15] <https://uzanalytics.com/iqtisodi%b5t/5056/>
- [16] <https://east-fruit.com/novosti/orekhovyy-biznes-itogi-2020-goda-dlya-gretskogo-orekha-mindalya-funduka-fistashki-i-drugikh-orekhov/>
- [17] <https://east-fruit.com/novosti/mirovoy-rynok-orekhov-rastet-takzhe-bystro-kak-i-rynok-yagod-ekspert/>
- [18] [https://opt.semushka.com/catalog/gretskiy\\_orekh/](https://opt.semushka.com/catalog/gretskiy_orekh/)
- [19] <https://alto-group.ru/otchot/rossija/1646-import-i-eksport-orehov-v-rossii-v-2019-g.html>