ISSN 2181-9408



Scientific and technical journal



Sustainable Agriculture

Nº2(18).2023







Chief Editor

Salohiddinov Abdulkhakim
Vice-rector for international cooperation
Professor at "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers"
National Research University, Doctor of technical sciences

Scientific Editor

Yunusov Iskandar

PhD, "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers" National Research University

Editor

Hodjaev Saidakram

Associate professor at "Tashkent Institute of Irrigation and Agricultural Mechanization Engineers" National Research University, Doctor of technical sciences

Candidate of technical sciences

EDITORIAL TEAM:

S.Umurzakov, PhD, Deputy Prime-Minister for Investments and Foreign Economic Affairs - Minister of Investments and Foreign Trade of the Republic of Uzbekistan; **SH.Khamraev**, PhD, minister, Ministry of the Water Resources of the Republic of Uzbekistan; **H.Ishanov**, PhD, chief specialist, Cabinet Ministers of the Republic of Uzbekistan; **Dr.Prof.B.Mirzayev**, Rector of "TIIAME" NRU; **Dr.Prof.T.Sultanov**, Vice-rector for research and innovations, "TIIAME" NRU; **Dr.Prof.M.Khamidov**, "TIIAME" NRU; **Dr.Prof. A.Pulatov**, PhD, associate professor, "TIIAME" NRU; **B.Pulatov**, PhD, "TIIAME" NRU; **G.Bekmirzaev**, PhD, "TIIAME" NRU; **M.Amonov**, PhD, associate professor, "TIIAME" NRU; **Sh.Khasanov**, PhD, associate professor, "TIIAME" NRU; **M.Tursunov**, PhD, "TIIAME" NRU; **B.Sultanov**, PhD, "TIIAME" NRU; **Dr.Prof.N.Khushmatov**, Chief Scientific Secretary of the Agricultural and Food Supply Production Center; **Sh.Murodov**, PhD, "TIIAME" NRU; **Dr.Prof. O.Tursunov**, "TIIAME" NRU; **M.Juliev**, PhD, "TIIAME" NRU; **Dr.Prof. A.Karimov**, "TIIAME" NRU.

EDITORIAL COUNCIL:

Dr.Prof.N.Vatin, Peter the Great St. Petersburg Polytechnic University, (Russia); Dr.Prof.Y.Ivanov, Russian State Agrarian University - Moscow Timiryazev Agricultural Academy, executive director of Engineering and Land Reclamation named after A.N. Kostyakov, (Russia); Dr.Prof.D.Kozlov, Moscow State University of Civil Engineering - Head of the Department Hydraulics and Hydraulic Engineering Construction of the Institute of Hydraulic Engineering and Hydropower Engineering, (Russia); D.Ziganshina, PhD, Scientific Information Center of Interstate Commission for Water Coordination in Central Asia; J.Lubos, associate professor at "Department of Water Recourses and Environmental Engineering" of Slovak University of Agriculture in Nitra, (Slovak); Acad.Dr.Prof.P.Kovalenko, National Academy of Agricultural Sciences of Ukraine, Advisor to the Director of the Research Institute of Melioration and Water Resources, (Ukraine); Prof.N.Xanov, Head of the Department of Hydraulic Structures RSAU - MAA named after K.A.Timiryazev, (Russia); Krishna Chandra Prasad Sah, PhD, M.E., B.E. (Civil Engineering), M.A. (Sociology) Irrigation and Water Resources Specialist. Director: Chandra Engineering Consultants, Mills Area, (Janakpur, Nepal); Dr. Prof. A. Ainabekov, Department Mechanics and mechanical engineering, South Kazakhstan State University named after M.Auezov, (Kazakhstan); Acad.Dr.Prof.T.Espolov, National academy of sciences of Kazakhstan, Vice-President of NAS RK, (Kazakhstan); I.Abdullaev, PhD, the Regional Environmental Center for Central Asia, Executive Director; Sh.Rakhmatullaev, PhD, Water Management Specialist at World Bank Group; A.Hamidov, PhD, Leibniz Centre for Agricultural Landscape Research ZALF, (Germany); A.Hamidov, PhD, Leibniz Centre for Agricultural Landscape Research ZALF, (Germany). A.Gafurov, PhD, Research scientist at the department of hydrology, GFZ Potsdam (Germany). Dr,Prof. Martin Petrick, Justus-Liebig-Universität Gießen JLU Institute of Agricultural Policy and Market Research; Eldiiar Duulatov, PhD, Research Fellow, Institute of Geology, National Academy of Sciences, Kyrgyzstan; Gisela Domej, University of Milan-Bikokka Professor of Earth and Environmental Sciences, Italy; Moldamuratov Jangazy Nurjanovich, PhD, Taraz Regional University named after M.Kh. Dulati, Head of the Department of "Materials Production and Construction", Associate Professor, Kazakhstan; Muminov Abulkosim Omankulovich, Candidate of Geographical Sciences, Senior Lecturer, Department of Meteorology and Climatology, Faculty of Physics, National University of Tajikistan. Tajikistan; Mirzoxonova Sitora Oltiboevna, Candidate of Technical Sciences, Senior Lecturer, Department of Meteorology and Climatology, Faculty of Physics. National University of Tajikistan: Tajikistan: Ismail Mondial, Professor of Foreign Doctoral Faculty, University of Calcutta, India; Isanova Gulnura Tolegenovna, PhD, Associate Professor of Soil Ecology, Research Institute of Soil Science and Agrochemistry named after UUUspanov, Leading Researcher, Kazakhstan; Komissarov Mixail, PhD, Ufa Institute of Biology, Senior Research Fellow, Soil Science Laboratory, Russia; Ayad M. Fadxil Al-Quraishi, PhD, Tishk International University, Faculty of Engineering, Professor of Civil Engineering, Iraq; Undrakh-Od Baatar, Head of the Central Asian Soil Science Society, Professor, Mongolia; N.Djanibekov, Dr, External Environment for Agriculture and Policy Analysis (Agricultural Policy), Leibniz Institute of Agricultural Development in Transition Economies (IAMO) Theodor-Lieser-Str. 2 06120 Halle (Saale) Germany; A.Karimov, Dr, Head of the ICBA Regional representative office for Central Asia and South Caucasus.;

Designer: Dilmurod Akbarov.

Note: Only the authors of the article are responsible for the content and materials of the article. The editorial board does not respond to the content of the article!

Founder: Tashkent Institute of Irrigation and Agricultural Mechanization Engineers **Our address:** 39, Kari-Niyaziy str., Tashkent 100000 Uzbekistan , www. sa.tiiame.uz

The journal "Sustainable Agriculture" is registered in the Press Agency of Uzbekistan on the 12th of February in 2018 (license № 0957).

In 2019, the journal is included in the list of recommended scientific publications by the Higher Attestation Commission of the Republic of Uzbekistan.

ARCHITECTURE. LANDSCAPE ARCHITECTURE	
O.Rozikulova, N.Teshaev Determination of air temperature in agricultural land based on remote sensing and GIS data in the case of Jizzakh region.	5
A.Jumanov, Sh.Daminova Monitoring of soil erosion in the Yakkabog river basin and its impact on agricultural areas	.7
T.Shavazov, A.Ashurov, J.Yoqubov Analysis of the melting of glaciers in the territory of the republic of Tajikistan based on remote sensing technologies	11
A.Jumanov Global consequences of land use	13
M.Rajapboev, N.Teshaev, J.Yoqubov Programming of geodetic observations for sediments of engineering structures	18
M.Rajapboev, N.Teshaev Determination of the refractive index of air when measuring lines with light sensors in geodetic networks	21
POWER ENGINEERING, ELECTRICAL ENGINEERING, AUTOMATICS. COMPUTING TECHNOLOG	Υ.
P.I.Kalandarov, A.N.Khayitov Stages of automation of grain processing	24
D.Kuchkarova, B.Ismatov, Sh.Suyunov Algoritms for using geometric modelling methods in creating project drawings of hydrotechnical constructions.	27
M.Ismailov, E.Ozodov Development mathematic model of automatic control system of water purification process	31
D.Abdullaeva Method of automatic irrigation and control of the root system of growing hydroponic green forage	<i>35</i>
A.Sh.Arifjanov., A.A.Abdugʻaniyev., A.M.Nigʻmatov., R.F.Yunusov Intelligent system for monitoring the irrigation process based on the Internet	38
A.Nig'matov, D.Yulchiev Automatic monitoring and control of groundwater level	42
ENVIRONMENTAL PROTECTION. WATER MANAGEMENT, HYDROLOGY	
D.Nazaraliev, J.Hamroqulov, Mkhanna Aaed, Sh.Shoergashova, Sh.Ismoilov Uzbekistan on the territory flood flows and their causes it to come out	45
ECONOMY. ECONOMIC SCIENCE. OTHER BRANCHES OF THE ECONOMY.	
N.M.Abdurazakova, A.U.Estekov Logistics and its importance in improving the efficiency of Uzbekistan's foreign trade relations	47
A.Burkhanov New economic relations - increasing the efficiency of production in agriculture	<i>52</i>
I.Yunusov, U.Sadullaev, M.Yaxyayev The role of market infrastructures in the development of walnut production and its selling system	56

I.Yunusov Conceptual directions for the development of fisheries58
A.Suvanov Regional development of beekeeping62
N.Usarova Strategies for enhancing the marketing system in Uzbekistan's agriculture sector65
A.Suvanov, B.Sultanov The importance of a beekeeping to our food supply68
U. Khabibullaeva Foreign experiences in sphere of citrus production70
O'.Islomov, M.Inoyatova, N.Abdurazakova Economic efficiency of land use 73
M.Ismailov, O.Ismailov, S.Mirzakhalilov Remote monitoring of athlete's blood pressure during training or competition based on artificial intelligence algorithms
D. Abduvakhobova Study of Babur period in Pakistan (short historiographical analysis)7 9
Sh.A.Mirzaev, Sh.S. Gaziev Features of the islamic financial system and its importance in mitigating the acute political conflict of capitalism81
I.Kamoliddinov Strategic directions for increasing the efficiency of business activity in economic development86
S.S. Khodjaev, M.A.Malikova, K.S.Gerts Elements of "digital technology" in test-based knowledge assessment at higher education institutions of Uzbekistan88
U.Nulloev, G.Eshchanova Improvement of students oral speech through increasing the interest to the overseas culture91

LOGISTICS AND ITS IMPORTANCE IN IMPROVING THE EFFICIENCY OF UZBEKISTAN'S FOREIGN TRADE RELATIONS

Abdurazakova N.M. - Associate Professor, Estekov A.U. - PhD student of "Tashkent institute of irrigation and agricultural mechanization engineers "National Research University.

Abstract

The article discusses aspects of the development of export relations in Uzbekistan, balance indicators, circle of partners, geographical coverage of foreign economic activity. The issues of increasing the efficiency of foreign economic activity, enhancing the development of international transport corridors, digitalization of the logistics chain, reforms aimed at modernizing the country's transport and transit potential, increasing the capacity of roads and airports are also being considered.

Key words: Uzbekistan, export, countries, partners, logistics, foreign trade, fruits, vegetables, transportation, logistics functions, cars, railway, containers, multi-module.

Introduction. The priority direction of the development strategy of Uzbekistan is the creation of a diversified and competitive economy, the maximum use of national resources with the involvement of innovative technologies and modern methods of market management and organization of production. An important role in this process is played by the development of foreign economic activity, which directly affects the socio-economic standard of living of the population. The necessary resource base has been created in the republic in order to ensure the stable and uninterrupted operation of enterprises and sectors of the real economy. As a result of the increase in the production of products that replaced imported goods and the diversification of industrial production, significant changes have been achieved in the structure of exports. According to the results of January-September 2020, the foreign trade turnover of the republic reached 27,490.1 million US dollars, which, compared to the same period last year, decreased by 3,757.9 million US dollars. However, 1/3 of the volume of the WTO falls on the CIS countries. In recent years, this figure has changed slightly. Despite the measures taken to strengthen cooperation with the CIS countries and comprehensive support for foreign trade, the share of foreign trade turnover of the CIS countries decreased by 3.6 percent compared to the same period in 2019.

The largest volume of foreign trade turnover is associated with China - 18.1%, Russia - 15.7% and Kazakhstan - 8%. Among the 20 major partner countries in foreign economic activity, there is an active balance of foreign trade with five countries: Afghanistan - 424.2, Kyrgyzstan - 423.7, Tajikistan - 104, France -44 and Iran -6.1 (million dollars). the remaining 15 countries maintain a passive balance of foreign trade turnover. The balance between exports and imports is 6.4 billion dollars. Among the exported goods, more than 50% are raw materials, less than 20% are finished agricultural and textile products. The Republic has a huge potential in the export of finished products. (tab.1).

Dynamics of major partner countries in the foreign trade turnover of the Republic of Uzbekistan (January-September, million USD)

Countries	2018	2019	2020
China:	4446,7	5597,4	4610,4
Export	1958,7	1928,9	1371,5
Balance	-529,3	-1739,6	-1867,5
Russia	4180,4	4704,3	4057,7
Export	1536,3	1794,9	1055,1
Balance	-1107,8	-1114,4	-1947,5

			<u> </u>
Kazakhstan	2141,7	2526,6	2014,8
Export	1044,4	1044,0	646,2
Balance	-52,9	-438,6	-722,5
The Republic of Korea	1 289,0	2 080,6	1 599,6
Export	68,5	75,0	34,1
Balance	-1 151,9	-1 930,6	-1 531,5
Turkey	1 520,4	1 839,4	1 434,1
Export	619,7	619,7	650,9
Balance	-281,1	-84,3	-132,3
Kyrgyzstan	284,4	637,7	660,7
Export	184,7	530,1	561,1
Balance	84,9	422,6	461,5
Germany	524,5	743,7	574,0
Export	31,8	36,8	51,3
Balance	-460,9	-670,0	-471,5
Afghanistan	474,7	428,2	542,9
Export	473,3	426,4	541,3
Balance	471,9	424,6	539,6
Czech Republic	47,5	105,8	486,5
Export	3,7	6,8	28,3
Balance	-40,1	-92,2	-430,0
Tajikistan	285,5	353,0	358,8
Export	165,9	223,0	289,1
Balance	46,3	93,0	219,4
Lithuania	198,4	362,1	324,8
Export	7,3	17,0	21,1
Balance	-183,8	-328,1	-282,5
Turkmenistan	157,3	436,9	323,6
Export	31,6	104,9	97,8
Balance	-94,2	-227,1	-128,1
Ukraine	325,9	282,1	307,4
Export	74,4	94,0	83,5
Balance	-177,2	-94,0	-140,4

			.
Italy	206,5	321,0	264,7
Export	17,0	19,7	11,1
Balance	-172,4	-281,6	-242,4
Latvia	338,0	297,4	260,7
Export	31,2	37,9	25,5
Balance	-275,7	-221,6	-209,7
India	203,5	264,1	260,4
Export	17,7	17,4	9,0
Balance	-168,1	-229,4	-242,5
USA	331,8	514,1	213,2
Export	22,8	20,2	18,0
Balance	-286,2	-473,7	-177,2
Belarus	278,5	260,6	195,0
Export	27,4	33,7	30,2
Balance	-223,8	-193,2	-134,6
France	225,2	251,4	181,7
Export	136,2	144,9	85,2
Balance	47,2	38,3	-11,3
Iran	228,8	304,0	178,2
Export	136,2	155,0	108,3
Balance	43,6	6,0	38,3
Export Balance France Export Balance Iran Export	27,4 -223,8 225,2 136,2 47,2 228,8 136,2	33,7 -193,2 251,4 144,9 38,3 304,0 155,0	30,2 -134,6 181,7 85,2 -11,3 178,2 108,3

*Official website of the State Committee of the Republic of Uzbekistan on statistics

In Figure 1, the dynamics of large partner countries in the foreign trade turnover of the Republic of Uzbekistan is more clearly reflected.

The expansion of export deliveries is one of the priorities of both developed and developing countries, as it is one of the most important factors of socio-economic growth. The intensification of trade growing in the context of globalization creates certain problems, they must be solved in concert with different countries and improve partnerships, studying their approaches and methods for expanding export potential. The use of the most effective methods of export promotion used in different countries plays a key role in supporting innovative development and sustainable growth of the country's economy, acquiring competitive advantages in world markets.

DYNAMICS OF MAJOR PARTNER COUNTRIES IN THE FOREIGN TRADE TURNOVER OF THE REPUBLIC OF UZBEKISTAN

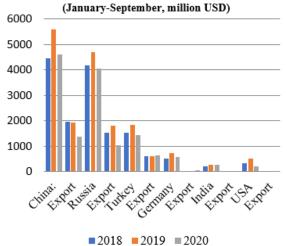


Figure 1. Dynamics of major partner countries in the foreign trade turnover of the Republic of Uzbekistan.

Results. As practice shows, the effectiveness of export activities increasingly depends on the development of logistics. Logistics ensures the formation of the process of commodity circulation, its effective functioning by establishing the necessary economic links between the individual stages and participants in the logistics process. Provides management of the movement of material, financial and information flows. The essence of the concept of logistics follows from its functions. According to one of the classifications, logistics functions can be divided into three groups: integrating, organizing, managing.

The integrating function of logistics allows you to manage material, financial and information flows, integrating the separate functions of individual enterprises into a single, global supply chain, providing direct and feedback in this chain.

The organizing function of logistics allows you to link the supply chain links into a single whole, to achieve a synergistic effect by consolidating supply chain participants into pools. The spread of container shipping perfectly demonstrates the importance of the organizing function of logistics. The container as a universal container has not only become widely used in transportation by all modes of transport and greatly facilitated the implementation of multi-modular transportation, but also had a significant impact on the logistics of warehousing, the choice of the type and dimensions of packaging, the organization and equipment of warehouses, affected the commercial component, and even in customs legislation highlights the specifics of container transportation.

The logistics management function combines a large number of participants in the distribution chain and is responsible for optimizing the supply chain, optimizing logistics costs, and for the economic efficiency of all stages of distribution and maintaining the established supply chain.

In the republic, close attention is paid to the development of transport security for exports. The fruit and vegetable sector in Uzbekistan is an important segment in ensuring both the country's food security and increasing its export potential. Therefore, in this area, all kinds of measures are being taken to accelerate the development of the production of competitive fruits and vegetables, which are yielding results. Thus, the volume of exports of fruits and vegetables in 2020 amounted to 1,088.7 thousand tons, in value terms, exceeded 696.1 million US dollars (the rate of decline, compared to the same period in 2019, respectively, amounted to 27.4%). Based on this, 581.5 thousand tons were exported. vegetables in the amount of 255.4 million US dollars, as well as 282.5 thousand tons. fruits and berries in the amount of USD 276.3 million (the rate of decrease in value terms, compared to the same period in 2019, amounted to 31.8% and 16.8%, respectively). In January-September 2020, the share of fruits and vegetables in total exports amounted to 5.6%. At the present stage, the process of innovative development of vegetable growing, horticulture and viticulture is being activated. At the same time, considerable attention is paid to deepening the industrial processing of fruits and vegetables, developing infrastructure and their storage. As can be seen from the analysis, the main export markets for fruit and vegetable products of the republic continue to remain with Kazakhstan, Russia, Kyrgyzstan and Afghanistan. (Fig. 2) The potential of the sector of production, processing and export of fruits and vegetables in Uzbekistan today is quite high. This is due

both to the accumulation of skills in the production of competitive products among domestic producers, and to the strengthening of state support for exporters. Thus, the Export Promotion Agency will provide enterprises whose annual export volume exceeds \$20 million with one-time financial resources of up to \$5 million for loans for exportrelated trade operations and pre-export financing through banks. Such steps have a stimulating effect on the export potential of the republic.

The Republic of Uzbekistan in the next five years plans to increase economic growth by 1.5 times and bring the GDP to \$100 billion, and the volume of industrial production by 1.4 times. The export potential of the country will increase by 1.7 times and will reach \$30 billion in 2026. In the structure of exports, the share of raw materials will be reduced two times to 23%, and the volume of finished products will increase by 2.5 times.

EXPORT GEOGRAPHY OF FRUIT AND VEGETABLE PRODUCTS (January-September 2019)

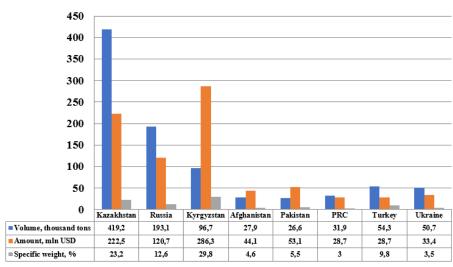


Figure 2. *Official website of the State Committee of the Republic of Uzbekistan on of the President of the Republic statistics.

Sustainable development of the economy and foreign trade, as well as an increase in the well-being of the population cannot be ensured without a systemic, advanced development of transport, infrastructure and logistics

In the strategy for increasing the export potential of Uzbekistan, priority is given to expanding international transport corridors, digitalizing the logistics chain, reducing physical and non-physical barriers to the movement of international cargo, optimizing transport and other costs in the cost of export products, and increasing the speed of delivery of goods. In order to improve the country's indicative indicators in the World Bank's Logistics Performance Index, a unified system of compensation from the state budget of the country for a part of exporters' transport costs has been introduced.

Concrete measures are being taken to increase the throughput capacity of the main transport routes, modernize the rolling stock and carriage of the country's railway transport, which accounts for the lion's share of the transportation of foreign trade goods. In this regard, it is planned to establish the activities of private logistics operators that have wagons and containers at their disposal. The state will regulate only issues related to railway infrastructure and locomotive services, and the provision of freight cars will be carried out on the basis of market principles. In this regard, benefits for private entrepreneurs when importing railway cars are extended until January 1, 2025. According to the Association of International Freight Carriers of Uzbekistan, as of September 1, 2021, compared to 2017, the number of vehicles participating in international freight traffic increased by 3.5 times. Due to the customs and other benefits provided in 2017, the cargo fleet was updated with Euro 4-6 truck tractors, and the volume of international freight traffic increased 1.5 times. Thus, 888 motor transport companies take part in international transportation of goods, 62% of the fleet of which consists of cars not lower than Euro 4 standard. Over the past five years, more than 50,000 new jobs have been created through the acquisition of trucks by the private sector involved in international transportation.

In accordance with the Decree of the President of the Republic of Uzbekistan No. PP-5225 dated August 19, 2021 "On additional measures to support cargo carriers by road",

> zero rates of customs duty, recycling fee and road transport fees for the purchase of vehicles with import to the Republic of Uzbekistan of the following vehicles intended for the carriage of goods, from the date of release of which no more than 7 years have passed: which allows foreign companies to fly from Uzbekistan not only to their country of registration.

> In 2017-2021 reforms were carried out aimed at developing the country's transport and transit modernizing potential, transport, as well as increasing the capacity of roads, airports, logistics centers, border, customs, sanitary, phytosanitary, veterinary transport control points.

> In accordance with the Decree of Uzbekistan dated January 28, 2019 No. UP-5643 "On measures to

improve the management system in the field of investment and foreign trade", the priority tasks of the Ministry of Investment and Foreign Trade are:

- -creation of favorable conditions for access of local goods and services to foreign markets;
 - formation of efficient transport corridors;
- -diversification of the geography of deliveries of export products to foreign markets;
 - -development of modern logistics networks.

In accordance with the approved programs, over the past period, a multi-module transport corridor "China - Central Asia - South Caucasus - Turkey" has been created, which connects the Republic of Uzbekistan with the countries of the Pacific region. Regular cargo transportation has been launched along new alternative transport corridors, such

- "Uzbekistan Kazakhstan Russia Georgia Turkey";
- "Uzbekistan Kazakhstan Azerbaijan Georgia -Turkey ";
- "Uzbekistan Turkmenistan Azerbaijan Georgia -Turkey ";
 - "Uzbekistan Afghanistan Pakistan", etc.

The analysis shows that these transport corridors can significantly catalyze international trade, increase foreign investment and improve people's living conditions.

The development of corridors is directly related to the use of the seaports of Latvia, Lithuania, the Russian Federation, Ukraine, Kazakhstan, Azerbaijan, Georgia, Pakistan, Turkey, Iran and China for the transfer of goods from Uzbekistan.

These steps are synchronized with the introduction of One Window, Green Corridor, One Stop, Green Card, E-TIR, E-Freight, GLONASS, GSM, RFID and etc. for the transportation of foreign trade goods, especially agricultural products to foreign markets.

The steady growth of foreign trade is partly an indicator of the success of Uzbekistan's foreign policy.

Due to the high taste qualities, fruit and vegetable products of Uzbekistan are in high demand in the world market. There is a need to transport it over considerable distances while maintaining maximum quality. Vehicles are widely used to transport fruits and vegetables. Vehicles not only participate in the delivery of cargo to the base station, but also take part in international transportation. The implementation of national programs to improve roads, bringing them to the quality parameters of international standards contribute to the accelerated development of the transportation of fruits and vegetables by modern refrigerated vehicles and stimulates the efficiency of these transportations.

Transportation of fruits and vegetables is mainly carried out by road and rail. Despite the fact that fruits and vegetables are classified as perishable goods, air transport is used unnecessarily less. In this case, this is due to the high cost of transporting goods by this mode of transport.

Rail transport occupies a special place in the transport of fruits and vegetables, which account for up to 90% of the export volume of this cargo. Transportation of fruits and vegetables by this mode of transport is carried out in refrigerated and covered railway wagons, in universal containers. Covered railway wagons and universal containers are used for a limited period - a transitional period - from summer to autumn and from winter to spring. During this period, the ambient temperature in the northern regions of Kazakhstan and in the South of Russia differs from the temperature in Uzbekistan, therefore, in the cargo room of the train car by 7-8 degrees.

Most of the stations of the Uzbek railway are engaged in the transportation of fruits and vegetables. Stations may have differences in the structure of shipped cargo, which depends on the development of the production of a particular crop in the regions of the republic. The following cargo transportation scheme is predominantly in force: a vehicle is a cargo operation associated with the movement of cargo from one mode of transport to another - a refrigerated wagon or a universal container on a special railway lane. Then the container is placed on the platform and placed on the receiving-unloading lane together with the train car, forming a train. Loaded train cars remain there until a full train is formed, and only after that the trip begins. At interstate docking stations, trains are waiting for customs control, the duration of which often exceeds the norms.

Preparation for transportation occupies a special place in maintaining the quality of shipped products. Scientific studies have proven that the product must be sorted, calibrated and pre-cooled. All these measures significantly improve the preservation and transportability of the product. However, it occurs when the goods are sent for transportation insufficiently sorted, calibrated and not pre-chilled. No signs of illness, mechanical damage, etc. on

fruits and vegetables is a sufficient requirement to load a vehicle with product. Biochemical analysis and verification of the microbiological content of the surface of the fruit are practically not carried out.

Sometimes different products are loaded into the same railway car, vehicle, despite the lack of results of a study of the compatibility of different varieties and types of fruits and vegetables.

Rail transport transports fruits and vegetables only to Iletsk station (deliveries to the European part of the Russian Federation) or Mint (deliveries to the Urals and the Far East), where there is a terminal for processing this cargo. Further, the cargo is transported by vehicles of other countries. Mostly this niche is occupied by foreign cars of consumer firms or suppliers from Russia and Kazakhstan.

In the near future, Uzbek companies will open a transport and logistics center in the Baltic port of Liepaja with a daily storage capacity of 1.5 thousand tons, through which fresh fruits and vegetables will be delivered to consumers in Northern and Western Europe. To date, the construction and complete reconstruction of 274 modern refrigeration chambers and warehouses for fruits and vegetables with a total volume of more than 190 thousand tons has been completed.

Transportation over considerable distances can be carried out by various modes of transport, using combined, inter-modular and multi-module schemes for delivering cargo to a client.

Conclusions. To achieve a stable position in the global fruit and vegetable market, Uzbekistan should create:

- terminals for short-term storage and processing of fruit and vegetable products on the territory of the republic and beyond its borders;
- organizing the storage of fruits and vegetables in refrigerators with adjustable gas appliances, as well as the shipment of this product to the consumer, while maintaining the unity of the refrigeration and gas environment;
- acquisition and operation of refrigerated containers and organization of circulation of high-speed container trains cool between terminals;
- development of technology for transporting fruits and vegetables in refrigerated containers;
- further study of the quality parameters of fruits and vegetables and their changes during transportation;
- organization of transportation of products depending on their biochemical and microbiological composition, etc.

Areas for improving product promotion:

- -Application of a systematic approach, ranking agrifood products and markets according to their export potential;
- Development of quality standards to intensify competition between domestic producers and strengthen confidence in their products;
- -Improvement of the system of sanitary and phytosanitary measures (SPS) and the application of international standards, which plays an important role in gaining access to markets;
- Identification of key problems and barriers and overcoming obstacles through the formation of Export Promotion Funds;
- -. Encouragement and facilitation of cooperation between producers;
- -Launching a country reputation/national branding program to increase consumer interest and attract foreign investors:

ECONOMY, ECONOMIC SCIENCE, OTHER BRANCHES OF THE ECONOMY

- Cancellation of export restrictions and simplification of the procedure for regulating export operations and related bureaucratic procedures;
- Assistance in the study of the situation and assessment of the potential of foreign markets, providing access to market information;
 - Support for the participation of manufacturers in fairs and exhibitions abroad;
- Increasing the transparency of public spending and regular evaluation of the effectiveness of export promotion programs;
 - -. Promoting investment in trade infrastructure, logistics and transport;
 - -. Trade facilitation and facilitation of import and export procedures;
- Allocation of financial resources to research in the field of agriculture and market conditions in order to improve the technological base and strategic vision of the sector, including its export orientation.
 - expansion of financial opportunities for exporters (through lending, insurance and factoring).

References:

- 1. Law of the Republic of Uzbekistan "On foreign economic activity of the Republic of Uzbekistan", dated May 26, 2000 No. 77-II.
- 2. Decree of the President of the Republic of Uzbekistan "On additional measures to further develop the export and investment potential of the Republic", August 18, 2020 No. UP-6042.
- 3. Decree of the President of the Republic of Uzbekistan "On approval of the strategy for the development of agriculture of the Republic of Uzbekistan for 2020-2030", dated October 23, 2019 No. UP-5853
- 4. https://www.stat.uz/uz/ official website of the State Committee of the Republic of Uzbekistan on Statistics.
- 5. "Logistics in export activities" ANO DPO "School of export of JSC" Russian Export Center", 2021