

PROSPECTS FOR THE RAPID DEVELOPMENT OF SECTORS AND REGIONS IN THE
ECONOMIC DEVELOPMENT OF THE NEW UZBEKISTAN

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***Annotation:** This article pays special attention to the development of the agro-industrial complex, identifies sources of raw materials for the food, processing industry and public services, and proposes effective ways to expand the stability of Uzbekistan's export potential in foreign trade processes*

In the context of increasing global competition, the importance of the processing industry and the agricultural sector, satisfying the needs of the population for agricultural raw materials and food products, is growing in the world. According to statistics, "today, global agriculture provides employment for 1 billion economically active people, about 5% of the total volume of products manufactured in the world falls to this industry. Forecast data show that by 2050 the world's population may reach 9.1 billion people. It is expected that the demand of the world's population for meat and dairy products will increase by 2.5-3.0 times compared to the current one" ¹. In this process, based on the experience of the European Union, the USA, Japan and Israel, the development of farms specializing in the industry, increasing their economic efficiency, introducing advanced innovations, ensuring the implementation of state programs adopted through economic and statistical research of the industry, their systematic formation is carried out, and economic management is carried out in modern forms, such as agricultural clusters. The development of strategies for the economic development of the agricultural sector, ensuring proportionality of population growth and needs with an increase in agricultural production volumes, sustainable development of the agricultural sector, specialization of production processes, increasing the level of economic efficiency of business entities through the use of modern innovative technologies and methods, ensuring competitiveness are among the priority areas for the development of this sector of the economy.

The agricultural sector is one of the most important sectors of the economy of Uzbekistan, which, being a source of raw materials for the food, processing industry and services of the population of our country, serves to ensure the stability of the export potential of Uzbekistan in foreign trade processes.

At the end of 2021, the total volume of products (services) produced by agriculture, forestry and fisheries amounted to 317,781.6 billion soums. If at the end of 2017, agriculture accounted for 19.7 percent of GDP, then in 2021 this figure was 26.9 percent, and the impact of GDP on absolute growth rates was 1.1 percentage points. In achieving such growth rates in the agricultural sector, the growth rates of mainly meat (104.8%), vegetables (104.1%), potatoes (104.7%), grapes (105.5%), and caught fish (120.7%) had a positive effect. The highest share was observed in the Jizzakh region (53.4%), and the lowest share was observed in the Navoi region (15.0%).

Table 1

Changes in production of products created in agriculture of the Republic of Uzbekistan and sown areas over the past years ¹

| Indicators | 2000 | 2005 | 2010 | 2015 | 2020 | 2021 |
|---|--------|--------|---------|---------|----------|----------|
| Sown area, thousand hectares | 3778,3 | 3647,5 | 3708,4 | 3694,2 | 3396,1 | 3260,7 |
| Agricultural product, at current price, billion soums | 1387,2 | 5978,3 | 30856,7 | 99604,6 | 250250,6 | 303415,5 |

According to the results of 2021, in the structure of the industry, small business and private entrepreneurship accounted for 96.7%, and in the context of these regions, one can see a high share in the Jizzakh region (99.1%), Kashkadarya region (99.1%), Bukhara region (98.1%) and Khorezm (98.1%) regions.

By the category of management, agricultural production in our country is distributed as the share of dehkan (personal subsidiary) farms (65.9%), the share of farms (29.3%), the share of organizations engaged in agricultural activities (4.8%).

Table 2

Dynamics of products grown in agriculture of the Republic of Uzbekistan, in thousand tons

| Вид продукции | 2000 | 2005 | 2010 | 2015 | 2020 | 2021 |
|--|----------|----------|----------|----------|----------|----------|
| Cereals and legumes | 4 101,4 | 6 540,9 | 7 504,3 | 8 173,5 | 7 636,0 | 7 634,6 |
| Potatoes | 731,1 | 924,2 | 1 694,8 | 2 586,8 | 3 143,8 | 3 285,6 |
| Vegetables - total | 2 644,7 | 3 517,5 | 6 262,4 | 9 390,0 | 10 431,4 | 10 850,2 |
| Melons | 451,4 | 615,3 | 1 182,4 | 1 853,6 | 2 134,4 | 2 285,3 |
| Fruits and berries | 790,9 | 949,3 | 1 676,3 | 2 467,9 | 2 812,6 | 2 852,6 |
| Grapes | 624,2 | 641,6 | 979,3 | 1 518,2 | 1 606,9 | 1 695,3 |
| Cattle and poultry for slaughter (live weight) | 841,8 | 1 061,5 | 1 461,4 | 2 033,4 | 2 519,6 | 2 635,1 |
| Milk | 3 632,5 | 4 554,9 | 6 169,0 | 9 027,8 | 10 976,9 | 11 274,2 |
| Eggs obtained, ml.pieces | 1 254,4 | 1 966,7 | 3 061,2 | 5 535,4 | 7 781,2 | 7 788,4 |
| Honey, ton | 2 685,0 | 2 115,7 | 3 171,9 | 10 157,0 | 13 357,8 | 14 066,9 |
| Cocoon, ton | 16 479,0 | 16 211,0 | 25 151,8 | 26 293,0 | 20 941,9 | 22 769,9 |

The agricultural sector, which is the real "driver" of the economy in our country, employs about 27% of the labor force employed in the economy (2020), and this sector accounts for 25% of the gross domestic product (2021). The volume of agricultural production in the republic in 2021, according to current estimates, is 303.4 trillion soums, the growth rate was 103.9 percent compared to 2020. If in 2010, 26.9% of GDP was created in agriculture, forestry and fisheries in Uzbekistan, then in 2021 this figure decreased by 1.9 percentage points and amounted to 25.0%. During this period, the volume of GDP increased by 1.91 times, while the gross value added (GVA) created in the agricultural sector increased by 1.62 times, or the GDP growth rate was 1.179 times or 117.9% (1.91: 1.62).

¹ Составлено автором на основе информации с официального веб-сайта Государственного комитета Республики Узбекистан по статистике.

The additional growth rate of the volume of products produced in the republic during 2010-2021 amounted to 61.9 percent in agriculture, forestry and fisheries and 62.3 percent in agriculture, the share of which in the production of the agricultural sector is 94.2-96.6 percent.

It should be noted that today the agricultural base is diversified through the cultivation of valuable fruit and vegetable crops. Although these crops are more beneficial, they are also a source of well-paid seasonal work.

The volume of agricultural exports in 2020 increased by 1.8 times compared to 2016 and amounted to \$ 1 billion. And the geography of exports has increased from 43 to 77 countries. In the agriculture of Uzbekistan, agro-industrial clusters are being introduced into practice: cotton-textile clusters, fruit and vegetable clusters, livestock clusters, grain clusters, rice clusters and cocoon clusters. In particular, today "in our country there are 97 cotton-textile, 149 fruit and vegetable, 65 grain, 35 rice and 7 clusters specializing in the cultivation of medicinal plants, and 11 cotton-textile cooperatives. Also, the cultivation of products by the cluster method has been established in 34 farms in the direction of cattle, 10 in the direction of poultry farming, 36 in the direction of fisheries, 15 in the direction of beekeeping. At the same time, in the next two years, 62 clusters in the field of sericulture have been launched in the republic, which produced about 600 billion soums.

We have scientifically studied the relationship between gross value added (I_{qp}) agriculture, forestry and fisheries, the index of physical volume of products created in agriculture, forestry and fisheries (I_q), and the general aggregate price index of products created in agriculture, forestry and fisheries (I_p). The relationship between them is expressed on the basis of the following formulas:

1. General index of gross added value created in agriculture, forestry and fisheries (I_{qp}):

$$I_{qp} = \frac{\sum q_1 p_1}{\sum q_0 p_0} \quad (1)$$

Where: q_1 and q_0 – volume of agricultural, forestry and fishery products in the current and base periods; p_1 and p_0 – price per unit of agricultural, forestry and fishery products in the current and base periods.

1. General index of physical volume of products created in agriculture, forestry and fishery (I_q):

$$I_q = \frac{\sum q_1 p_0}{\sum q_0 p_0} \quad (2)$$

The content of this index is the ratio of the volume of agricultural, forestry and fishery products at comparable prices in the current period to the cost of these products at basic prices in the previous period.

3. General aggregate price index for products created in agriculture, forestry and fishery (I_p):

$$I_p = \frac{\sum q_1 p_1}{\sum q_1 p_0} \quad (3)$$

The economic content of this index is that it represents the change in the volume of rural, forestry and fishery production, expressed in current prices in the current period, compared with the volume of rural, forestry and fishery production in comparable prices. Based on the above, the relationship between the general indices representing the activity of the rural, forestry and fishery sector is:

$$I_{qp} = I_q \times I_p$$

or

$$\frac{\sum q_1 p_1}{\sum q_1 p_0} = \frac{\sum q_1 p_0}{\sum q_0 p_0} \times \frac{\sum q_1 p_1}{\sum q_1 p_0} \quad (4)$$

The economic-mathematical problem of optimal placement of crops differs from other types of problems used in agriculture by its size. The size of the problem can be reduced by increasing the regions. In the primary studies, which used economic-mathematical models, the optimization issue

was solved on an economic scale. Block modeling allows for the optimal placement of inter-territorial or inter-farm agricultural production. When solving the problem of optimal placement of crop types in the republic in accordance with the model, it was found that a single matrix should be used, which includes individual blocks connected through a common single block.

Table 3
Characteristics of the relationship between factors and the main indicators of the quality of the constructed factor model

| Variable | Coefficient | Std. Error | t-Statistic | Prob., |
|---|-------------|-----------------------|-------------|--------|
| Number of people employed in agriculture LnL | 3,12 | 0,79 | 3,95 | 0,00 |
| Volume of Investments in Agricultural Economy LnK | 0,67 | 0,16 | 4,26 | 0,00 |
| Agricultural crop area LnS | 2,42 | 1,14 | 2,13 | 0,05 |
| Value taking into account the influence of random factors Lns | -32,00 | 7,19 | -4,46 | 0,00 |
| R-squared | 0,97 | Mean dependent var | 19,11 | |
| Adjusted R-squared | 0,96 | S,D, dependent var | 0,54 | |
| S,E, of regression | 0,10 | Akaike info criterion | -1,47 | |
| Sum squared resid | 0,14 | Schwarz criterion | -1,27 | |
| Log likelihood | 16,49 | Hannan-Quinn criter, | -1,45 | |
| F-statistics | 139.27 | Durbin-Watson stat | 1,88 | |

Since the constructed model is compiled on the basis of time series data, the presence of first-order autocorrelation in the residuals of the model is tested using the Durbin-Watson (DW) criterion. The fact that the statistical value of the DW criterion is 1.88 indicates the absence of first-order autocorrelation from the residuals of the model. The influence of independent variables on agricultural, forestry and fishery production is determined on the basis of the production model. Since the t-Statistic value in the model is not in the range of critical values, the estimated coefficients of the model are determined as statistically significant. However, it was revealed that the influence of sown areas on agriculture is statistically significant at the 10% insignificance level. The results of checking the econometric model for statistical tests expressing the influence on agricultural, forestry and fishery production showed that the model can be applied to the real process. The model presented in Table 7 can be presented as a linear-logarithmic model.

$$Ln(Q) = 3,12 \cdot Ln(L) + 0,67 \cdot Ln(K) + 2,42 \cdot Ln(S) - 32,0 \quad (1)$$

It is possible to determine how much the value of the resulting factor changes due to one unit of added value of the factor. In particular, an increase in the number of people employed in agriculture by 1 percent will lead to a change in rural, forest and fish production by an average of 3.12 percent, an increase in investments attracted to the economy by 1 percent will lead to a change in rural, forest and fish production by an average of 0.67 percent, and a change in sown areas in agriculture by 1 percent will lead to a change in rural, forest and fish production by an average of 2.42 percent.

Table 4
Forecast values of agricultural, forestry and fishery products and production factors influencing them in the Republic of Uzbekistan

| Years | Volume of agricultural, forestry and | Volume of investments in agriculture, | Number of people employed in | Agricultural sown area, thousand hectares (S) |
|-------|--------------------------------------|---------------------------------------|------------------------------|---|
|-------|--------------------------------------|---------------------------------------|------------------------------|---|

| | fishery products, billion soums (Q) | billion soums (K) | agriculture, thousand people (L) | |
|----------------------|--|----------------------|--|------|
| 2021 actual value | 317782,0 | 18934.9 | 3420 | 3341 |
| 2022 | 339703,1 | 20070,4 | 3467 | 3244 |
| 2023 | 357196,6 | 22057,3 | 3514 | 3171 |
| 2024 | 372831,4 | 24241,0 | 3560 | 3092 |
| 2025 | 386814,2 | 26640,8 | 3607 | 3007 |
| 2026 | 398363,8 | 29278,2 | 3654 | 2916 |

The values of changes in the volume of rural, forest and fish products in the medium term, that is, in 2005-2026, using a multifactor econometric model, are expressed in the form of a graph (Fig. 3).

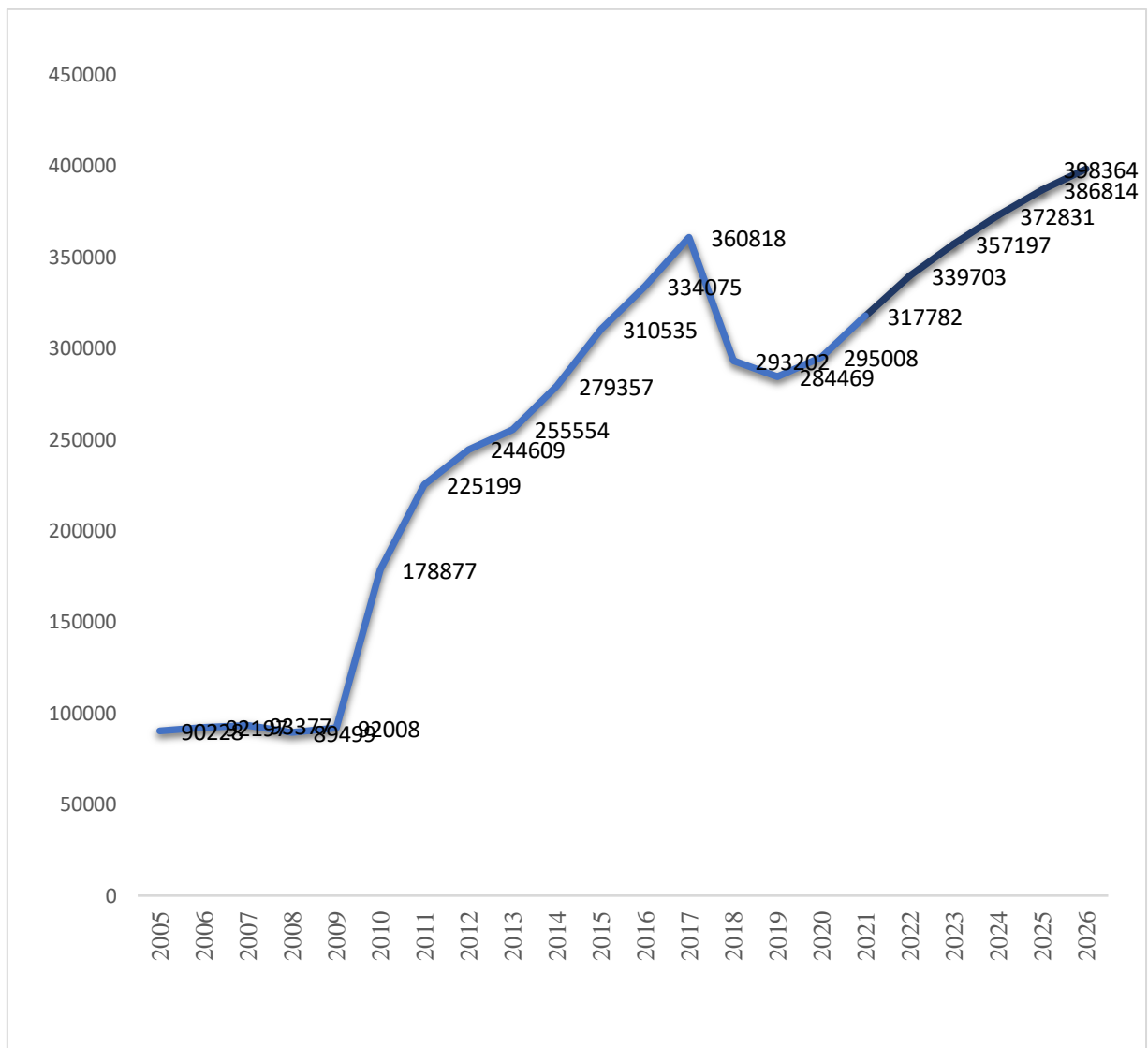


Figure 1. Changes in the volume of agricultural, forestry and fishery products of the Republic of Uzbekistan (forecast for 2022-2026), billion soums

In general, the use of trends identified in the process of strategic planning of economic development of the agricultural sector allows optimizing the effect obtained from a unit of resource, correctly distributing the volume of resources directed to agriculture.

References:

1. Boyquzieva G.A. Characteristics and development trends of the world food market. // World Bulletin of Management and Law (WBML), №15, 2022: ISSN: 2749-3601. 86-90 p.
2. Ismoilov, R. B., Mullabayev, B. B., Abdulxakimov, Z. T., & Bakhridino, J. R. O. (2020). The essence of small business and private entrepreneurship and the theoretical basis of its development. The American Journal of Applied sciences, 2(08), 45-50.
3. Ismoilov, R. B., Mullabayev, B. B., & Abdulxakimov, Z. T. (2020). Prospects For The Development Of A Tourist Route" Safed Broth Or Horn Jarir. The American Journal of Interdisciplinary Innovations and Research, 2(08), 38-44.
4. ИСМОИЛОВ, Р. Б., Маткаримов, К. Ж., Хайдаров, Х. Х., & Наботова, З. (2019). Роль преподавателя в учебном процессе. In АДРЕСНАЯ ПОДГОТОВКА СПЕЦИАЛИСТОВ СРЕДНЕГО ПРОФЕССИОНАЛЬНОГО ОБРАЗОВАНИЯ В ПРОЦЕССЕ СЕТЕВОГО ВЗАИМОДЕЙСТВИЯ (pp. 167-174).
5. Ismoilov, R. B., & Matkarimov, K. Zh., Khaidarov Kh. Kh., Nabotova Z. THE ROLE OF THE TEACHER IN THE EDUCATIONAL PROCESS: ADDRESSED TRAINING OF SPECIALISTS OF SECONDARY PROFESSIONAL EDUCATION IN THE PROCESS OF NETWORK INTERACTION. materials of the IV All-Russian scientific-practical conference with international participation. Institute for the Development of Territorial Systems of Professional Education, 167-174.
6. Bahridinov, J. (2024). Namangan viloyatida don va don mahsulotlari narxini shakllanishining bozor tadqiqoti.
7. Bulturbayevich, M. B. (2022). TAXES AND THEIR TRANSFER. LOSS OF" DEAD" CARGO WHEN TAXED. INTERNATIONAL JOURNAL OF SOCIAL SCIENCE & INTERDISCIPLINARY RESEARCH ISSN: 2277-3630 Impact factor: 7.429, 11(05), 22-31.
8. Bulturbayevich, M. B. (2022). IN PRIVATE ENTREPRENEURSHIP EMPLOYEE INCENTIVES ISSUES. ASIA PACIFIC JOURNAL OF MARKETING & MANAGEMENT REVIEW ISSN: 2319-2836 Impact Factor: 7.603, 11(04), 21-27.
9. Bulturbayevich, M. B. (2021). Challenges of Digital Educational Environment. Academic Journal of Digital Economics and Stability, 4, 54-60.
10. Bulturbayevich, M. B. (2021). Development Of Innovative Activities Of Enterprises On The Basis Of Vertical Integration Processes. Turkish Journal of Computer and Mathematics Education (TURCOMAT), 12(10), 5020-5031.
11. Bulturbayevich, M. B. (2021). CHALLENGES IN DEVELOPING A DIGITAL EDUCATIONAL ENVIRONMENT. Academic Journal of Digital Economics and Stability, 2, 1-9.
12. Bulturbayevich, M. B. (2021, February). IMPROVING THE MECHANISMS OF STRATEGIC MANAGEMENT OF INNOVATION PROCESSES IN ENTERPRISES. In Archive of Conferences (Vol. 15, No. 1, pp. 130-136).
13. Bulturbayevich, M. B. (2021). CHALLENGES IN DEVELOPING A DIGITAL EDUCATIONAL ENVIRONMENT. Academic Journal of Digital Economics and Stability, 2, 1-9.
14. Bulturbayevich, M. B. (2021, February). IMPROVING THE MECHANISMS OF STRATEGIC MANAGEMENT OF INNOVATION PROCESSES IN ENTERPRISES. In Archive of Conferences (Vol. 15, No. 1, pp. 130-136).

15. Bulturbayevich, M. B. (2021). CHALLENGES IN DEVELOPING A DIGITAL EDUCATIONAL ENVIRONMENT. Academic Journal of Digital Economics and Stability, 2, 1-9.
16. Mullabaev B.B. Improving the strategy of vertical integration in manufacturing enterprises // Business Expert Scientific and Practical Monthly Economic Journal. - T., 2015. No. 8. Pp. 46-49. (08.00.00. No. 3).
17. Mullabaev B.B. Analysis of scientific aspects of managing innovation activity of enterprises in the context of structural changes in the economy // Electronic scientific journal of economics and innovative technologies. - T., 2015. No. 6. Pages 1-8 (08.00.00 №10)
18. Mullabaev B.B. Analysis of innovative activities in the context of structural changes in the economy of the Republic of Uzbekistan // Business Expert Scientific and Practical Monthly Economic Journal. - T., 2016. No. 5. Pp. 30-32. (08.00.00. No. 3).
19. Mullabaev B.B. Introduction of vertical integration processes in the development of innovative activities in the production sectors // Electronic scientific journal of economics and innovative technologies. - T., 2016. No. 5. Pages 1-6 (08.00.00 No. 10).
20. Mullabaev B.B. Development of light industry branches in uzbekistan basedon vertical integration // Бюллетень науки и практики Научный журнал. №10 (23) 2017. <http://www.bulletennauki.com>. 178-184 стр. (GIF 0,454; DIIF 1,08; Infobase index 1,4;)