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# The process of training personnel in the field of agriculture: theory, practice and experience

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**Annotation.** Reforms in the field of education in the Republic of Uzbekistan, regulatory legal acts adopted by the government, requirements for personnel trained in the field of agriculture, the number of existing higher education institutions in the country, the proportion of professors and teachers, student contingent, agriculture Ensuring the competitiveness of personnel trained for the agricultural sector, in particular, the process of training personnel for the agricultural sector at the Andijan Institute of Agriculture and Agrotechnology. **Key words.** Law on Education, Concept, Action Strategy, Training Process, Regulatory Documents,

**Key words.** Law on Education, Concept, Action Strategy, Training Process, Regulatory Documents, Agriculture, Higher Education Institutions, Professors, Students, Conditions.

**Introduction.** Striving to join the modern industrial world requires the development of competitive personnel capable of rapidly adapting to the needs of the rapidly changing labor market, which in turn requires innovation in the higher education system. In the context of globalization, the future of our country cannot be imagined without a new generation of enterprising, strategic-minded, educated and qualified personnel. Therefore, in our country, special attention is paid to the development of all levels of education. In particular, in order to raise higher education to a qualitatively new level, the concept of development of the higher education system of the Republic of Uzbekistan until 2030 was adopted.

The concept envisages measures to ensure that specialists have highly qualified personnel who will be able to find their place in the labor market, which, in turn, is one of the most pressing tasks of today for the development of advanced, competitive personnel for the agricultural sector.

## Research methodology.

In this study, the study of all developed, competitive processes of training for agriculture, decrees and resolutions of the President of the Republic of Uzbekistan, government decisions on training, the results of research conducted by the researcher, statistical analysis of economic reforms in agriculture. Statistical analysis, comparison, and systematic approaches were used during the study.

# Analysis and result.

Since the world was created, there is education, there is upbringing. Education is a systematic process aimed at providing students with in-depth theoretical knowledge, skills and abilities, as well as the formation of their general and professional knowledge, skills and abilities, the development of the younger generation on the basis of purposeful and socio-historical experience. is a systemic process aimed at shaping their consciousness, spiritual and moral values and worldview.

We know that there are 8 types of education in the Republic of Uzbekistan, which are: Types of education: preschool education and upbringing; general secondary and secondary special education; professional education; higher education; postgraduate education; retraining and advanced training; extracurricular education [Law of the Republic of Uzbekistan "On Education". These types of education ensure uniformity and continuity.

Along with the ongoing socio-economic reforms in the country, the reforms in the education system are progressing at an unprecedented pace. In particular, the measures taken over the past 5 years are characterized by the fact that the adopted regulations are aimed at the development and modernization of higher education.

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These legal and normative documents define the priorities of the systemic reform of higher education in the Republic of Uzbekistan, raise the process of training highly qualified specialists with modern knowledge and high moral and ethical qualities, modernize higher education, social education based on advanced educational technologies and serve to address pressing issues such as the development of sectors of the economy, of course.

According to the State Statistics Committee, in the 2020-2021 academic year, the number was 127, while in the 2015-2016 academic year it increased by 69, or 84%. Including 20 foreign higher education institutions, this figure was 7 in the 2015-2016 academic year (an increase of 185.0%). In addition, the number of students studying in them amounted to 571.5 thousand people, an increase of 116.2% compared to the 2015-2016 academic year it was 263.9 thousand people received full-time education, while in the 2015-2016 academic year it was 263.9 thousand people, an increase of 67.6%. In the form of distance learning, 118.1 thousand people studied, while in the 2015-2016 academic year, 11.5 thousand people were enrolled in night education In the 2015-2016 school year, there was no night education form.

It was noted that today there are 159 higher education institutions in Uzbekistan, including 72 in Tashkent and 87 in the regions, including 28 universities, 47 institutes, 3 academies, 1 conservatory, 26 branches of higher education institutions. There are 30 foreign higher education institutions and their branches, and 24 non-governmental higher education institutions.

In addition, the number of professors and teachers working in higher education institutions of the Republic in the 2020-2021 academic year amounted to 32070 people, while in the 2015-2016 academic year - 24909 people. The share of professors and teachers working in higher education has increased by 28.7% over the past five years.

In the 2020/2021 academic year, 571,512 students were studying in existing higher education institutions, while in the 2015/2016 academic year, this figure was 264,291, an increase of 116%. In the 2020/2021 academic year, the number of graduates was 83,905, while in the 2015/2016 academic year it was 66,290, which is an increase of 26.5% compared to the 2015/2016 academic year. Today, the world practice is to create and introduce into production high-efficiency processing technologies and equipment based on reducing energy and resource consumption and maintaining soil fertility in the cultivation of agricultural products. Reforms in agriculture include the establishment of agro-clusters to reduce the cost of improving the quality of agricultural

Andijan region, this figure amounted 653.957 In in 2021 to tons. and in 2017 - 606,498 tons, an increase of 7.8%. In 2021, 3292.3 thousand tons of potatoes were grown in the country. In 2017, this figure amounted to 2,793.7 thousand tons, an increase of 17.8% compared to 2017. In Andijan region, the production of caterpillars in 2021 amounted to 396626.0 tons, in 2017 - 303399.0 tons. Compared to 2017, it increased by 30.7%.products.



In addition, in 2021, 10859.3 thousand tons of vegetables were grown in the country, in 2017 - 10219.9 thousand tons, an increase of 6.2% compared to 2017, and in 2021 in Andijan region amounted to 1645197.0

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tons. In 2017, it amounted to 1,478,128.0 tons. Compared to 2017, vegetables were grown by 11.3% more. In total, 2,852.5 thousand tons of fruits and berries were grown in the country in 2021, while in Andijan region this figure was 657,480.0 tons. In the republic, compared to 2017, it increased by 9.0%, and in Andijan region - by 15.6%.

In 2021, the country produced 2640.4 thousand tons of meat (in live weight), in 2017 - 2286.8 thousand tons, an increase of 15.4% compared to 2017. This figure is 178,349 tons in Andijan region in 2021 and 135,613 tons in 2017, an increase of 31.5%.

In terms of milk production in the republic in 2021, it amounted to 11286.9 thousand tons, in 2017 - 10047.9 thousand tons, an increase of 12.3%, in Andijan region in 2021 amounted to 990514, in 2017 - 899236 tons. Compared to 2017, it increased by 10.1%.





Over the past 5 years, Andijan region has been working to improve the efficiency of agricultural production, the use of high-performance equipment and the quality of the services they provide.

Over the past 5 years, the region has more than 100 high-performance tractors, more than 200 tractor-mowers, more than 300 different types of pre-sowing tillage (harrows, chisel cultivators, chisel softeners, milling cultivators, plow-planners), laser leveling machines), over 100 open fields, over 120 cotton planters under film, over 30 grain planters, over 200 inter-row cultivators, over 500 insecticide sprayers, over 120 combine harvesters, processing quality and performance.

According to a 5-year analysis of the use of high-performance tractors and agricultural machines: The sowing period is reduced from 30-35 days to 15-20 days, i.e. 10-15 days.

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Grain harvesting is achieved in 30-35 days to 20-25 days, which prevents crop losses.

A high-quality cotton harvest is achieved in a short 30-40 days.

In recent years, a number of measures have been taken to train highly qualified personnel, taking into account the prospects for regional development in the field of agriculture.

Decree of the President of the Republic of Uzbekistan No. PF-4947 dated February 7, 2017 "On the Action Strategy for the Further Development of the Republic of Uzbekistan" Decree PF-5847 "On approval of the Development Concept of the Republic of Uzbekistan for the Year of Formation" Decree of the Government of the Republic of Uzbekistan No. PP-3151 "On measures on further expanding the participation of industries and sectors of the economy in improving the quality of training of specialists with higher education "Resolution No. PQ-4795 dated July 30, 2020 "On measures to further improve the system of agricultural education" Comprehensive modernization of the higher education system, such as "integration of science and production into sphere, the introduction of modern information and digital technologies in the educational process, the improvement of the system of training personnel with advanced foreign experience and sufficient knowledge and skills in the field of agricultural technology, taking into account the prospects for regional development.

The Andijan Institute of Agriculture and Agrotechnologies, the only one in the Fergana Valley, is one of the largest higher educational institutions in the Republic of Uzbekistan, which trains highly qualified specialists for agriculture and water management.

Over the past period, the institute has trained more than 30 thousand highly qualified agronomists, mechanical engineers and hydro-reclamators for agricultural and water enterprises, organizations, advanced farms and agricultural clusters of the republic.

The skilled work experience that is being created today is not comparable to previous years. Because the education system 5 years ago is radically different from the education system today.

We can see that the legal and regulatory documents on the development of the education system of the republic, the appearance of educational institutions, material and technical base, the requirements for professors and teachers, the potential of trained personnel have changed significantly.

The institute has a wide range of opportunities for the organization of high-quality educational process that meets modern requirements, as well as the organization of research, spiritual and educational, international cooperation of faculty and students.

There are 16 specialized departments in the institute. The clusters have their own branches, and today the branches of the department are working effectively. In particular, KHANTEX AGRO SERVICE cotton and textile in Kurgantepa district, Sakhovat teks LLC in Shahrikhan district, SOHIB OMAD BARAKASI LLC in Izbaskan district, SAYYORA favvorasi plus - IZBOSKAN AGROEXPO LLC in Izbaskan district, Isakova Odinahon Fayzi, specializing in grain growing, Diyor Chikkeng clusters, IZBOSKAN AGROEXPO LLC in Izbaskan district, AGRO ASIA CLASTER LLC in Altynkul district, specializing in fruit and vegetable growing, Cooperation agreements of specialty departments have been concluded with more than 60 agroclusters, such as Mustafa Sara Vegetables in Shahrikhan district, New Opportunity agro cluster in Markhamat district.





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At present, 1157 students of 3-4 course of 29 educational directions are being trained in the joint agricultural enterprises and organizations.

Also, in order to ensure the implementation of the meeting of the President of the Republic of Uzbekistan on June 16, 2021 "Further development of higher education" and to ensure the integration of science, education and industry, to apply theoretical knowledge, to form knowledge, skills and abilities. Starting from February, on the basis of the 3 + 3 project, practical, laboratory classes on specialty subjects for students of 3-4 levels are being held in large industrial enterprises and organizations of the region.



In particular, at the Faculty of Agribusiness and Digital Economy in 2 educational directions 6 subjects in 9 organizations, in the Faculty of Agrobiology in 3 educational directions in 6 subjects in 8 organizations, in the Faculty of Agro engineering and Hydro Melioration in 5 educational directions in 8 subjects in 6 organizations, storage of agricultural products and 8 organizations in 5 fields of study at the Faculty of Processing and 4 organizations in 3 educational directions in 4 fields of study at the Faculty of Plant Protection.

Specialists trained at our institute have developed a seasonal training schedule for internships in large industrial enterprises, agricultural clusters and advanced farms, which defines the duration of internships depending on the planting, wheat and cotton harvest seasons. Future professionals will have the opportunity to further consolidate their theoretical knowledge in practice in qualified production practices.

### Conclusion.

At the heart of the ongoing educational reforms are the highest goals, such as achieving quality and efficiency in the training of specialists who can work in various sectors of agriculture, achieving high goals and improving the quality of the educational process, filling it with innovative content. creating opportunities and increasing the efficiency of training.

### Used literature

- 1. 1. Law of the Republic of Uzbekistan "On Education". September 23, 2020. O'RQ-637 https://lex.uz/docs/5013007
- 2. 2. Law of the Republic of Uzbekistan "On Innovative Activities". O'RQ-630 number. https://lex.uz/
- 3. 3. Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No. PF-4947 "On the Strategy of Actions for Further Development of the Republic of Uzbekistan". https://lex.uz/docs/3107036
- 4. Decree of the President of the Republic of Uzbekistan "On approval of the concept of development of the higher education system of the Republic of Uzbekistan until 2030" No. PF-5847. <u>https://lex.uz/</u>
- 5. Decision PQ-2909 of the President of the Republic of Uzbekistan "On measures to further develop the higher education system". <u>https://lex.uz/</u>
- 6. Decision PQ-3151 of the President of the Republic of Uzbekistan "On measures to further expand the participation of economic sectors and sectors in improving the quality of training of highly educated specialists". <u>https://lex.uz/</u>

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- 7. Decision PQ-3775 of the President of the Republic of Uzbekistan "On additional measures to improve the quality of education in higher education institutions and ensure their active participation in comprehensive reforms implemented in the country". <u>https://lex.uz/</u>
- 8. Decision PQ-4795 of the President of the Republic of Uzbekistan "On measures to further improve the agricultural education system". <u>https://lex.uz/</u>
- Mamajanov I. Current issues of using innovative and information communication technologies in economic education. // Economy and innovative technologies. Scientific electronic magazine. 2020. - #4. -B. 230-242.
- 10. Mamajanov I. Innovation and innovative activity in education. // Economy and innovative technologies. Scientific electronic magazine. 2020. #6. B. 119-124. <u>http://iqtisodiyot.tsue.uz/</u>
- 11. I. Mamajonov. Ensuring the integration of continuous education, science and production in the training of personnel for the agricultural sector. A collection of articles of the international scientific and technical conference on the topic "Effective use of resource-saving innovative technologies in the prospective development of the agricultural sector" Andijan, 2019, p. 310-314.
- 12. I. Mamajonov. Legal-normative basis of training of economists: analysis, opinion. //Economy and innovative technologies. Scientific electronic magazine, issue 3 of 2020. 138–146 p.
- 13. Mamajanov I.G. The process of training future economists of Uzbekistan. Scientific electronic journal "Uzbekistan statistics bulletin" of the Institute of personnel training and statistical research under the State Statistics Committee of the Republic of Uzbekistan. 2020, issue 3. <u>http://www.statmirror.uz</u>
- 14. Mamajanov I.G. Preparing students for innovative activities. // Scientific Journal of Psychology, 2020, No. 1., pp. 76-81.
- 15. Mamajanov I. Innovation and innovative activities in education. // CURRENT RESEARCH JOURNAL OF PEDAGOGICS. Journal CrossRef Doi (10.37547/crjp). Impact factor: SJIF 2021:5.714. https://masterjournals.com/