

«АККРЕДИТТЕУ ЖӘНЕ РЕЙТИНГТІҢ ТӘУЕЛСІЗ АГЕНТТІГІ» КЕМ

НУ «НЕЗАВИСИМОЕ АГЕНТСТВО АККРЕДИТАЦИИ И РЕЙТИНГА»

INDEPENDENT AGENCY FOR ACCREDITATION AND RATING

# REPORT

on the results of the work of the external expert commission for evaluation of compliance with the standards of specialized accreditation of the educational program

6B08102 Soil science and Agrochemistry (reaccreditation) 7M08102 Soil science and Agrochemistry (reaccreditation) 8D08102 Soil science and Agrochemistry (reaccreditation) 6B08103 Horticulture (reaccreditation) 7M08103 Horticulture (reaccreditation) 8D08103 Horticulture (reaccreditation)

KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY in the period from December 2 to December 4, 2020

# INDEPENDENT AGENCY FOR ACCREDITATION AND RATING External expert commission

Addressed to IAAR Accreditation Council



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# KAZAKH NATIONAL AGRARIAN RESEARCH UNIVERSITY

in the period from December 2 to December 4, 2020

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# (I) LIST OF SYMBOLS AND ABBREVIATIONS

GPA – Grade point average IAAR – Independent agency for accreditation and rating PhD - Doctor of Philosophy - Doctor of Philosophy **EEC - External Expert Commission** HEI - Higher Educational Institution **GIS - Geographic Information Systems** SI RSMC - State Institution of the Republican Scientific and Methodological Center SOSE - State obligatory standard of education SrpcLrlm - State Research and Production Center for Land Resources and Land Management **DET - Distance Educational Technologies** KazNAU - Kazakh National Agrarian University KazNARU - Kazakh National Agrarian Research University CED - Catalog of elective disciplines F - Farm MACA - Moscow Agricultural Academy MES RK - Ministry of Education and Science of the Republic of Kazakhstan MA RK - Ministry of Agriculture of the Republic of Kazakhstan MEP - Modular Educational Program IAAR - Independent agency of accreditation and rating NJSC - Non-Public Joint Stock Company NAS - National Academy of Sciences SRW - Scientific-Research work RWS - Research work of students SRI - Scientific Research Institute **GED** - General Educational Disciplines **EP** - Educational programs TS - Teaching staff **MD** - Major disciplines RK - Republic of Kazakhstan **RSE - Republican State Enterprise** WC - Working Curriculum RSE on REM - Republican State Enterprise on the right of economic management IWS - Independent work of the student IWSGT - Independent work of a student under the guidance of a teacher LLP - Limited Liability Partnership M - Media CAD - Computer Aided Design EL - Educational literature EMCD - Educational and methodological complex of the discipline FSEI HE - Federal State Budgetary Educational Institution of Higher Education FSSI - Federal State Budgetary Scientific Institution FSBEI HE - Federal State Budgetary Educational Institution of Higher Education

HUB - (Hub) translated from English means "branch, fork, knot"

#### (II) INTRODUCTION

According to order No. 121-20-OD of 10.11.2020. The independent agency of accreditation and rating from 02 to 04 December, 2020 the external commission of experts carried out the assessment of compliance of educational programs 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture of the Kazakh national agricultural research university (Almaty) standards of specialized accreditation of the IAAR (№10-17-OD dated February 24, 2017, fifth edition).

The report of the external expert commission (EEC) contains an assessment of the presented educational programs according to the criteria of the IAAR standards, recommendations of the EEC for the further improvement of educational programs and parameters of the profile of educational programs.

The composition of the EEC:

**1. Chairman of the IAAR Commission** - Svetlana Shlapakova, Vice-Rector for Educational Activities and Youth Policy, candidate of biological science., docent, Bryansk State University of Engineering and Technology (Russian Federation, Bryansk);

**2. Foreign expert IAAR** - Oleg Sozinov, Doctor of Biological Sciences, docent, Yanka Kupala Grodno State University (Republic of Belarus, Grodno);

**3. Foreign expert** IAAR - Leonid Volosciuc, doctorassciences (habilitat) inbiology, professor, Institute of Genetics, Physiology and Plant Protection of the Academy of Sciences of the Republic of Moldova (Laboratory manager of the Institute of Genetics, Physiology and Plant Protection of the Academy of Sciences of Moldova) (Republic of Moldova, Kishinev);

**4. Foreign expert** IAAR - Ishchenko Tatyana Leonidovna, candidate of technical science., Dean of the Forest Industry Faculty of the Federal State Forest Engineering University "Voronezh State Forestry University named after G.F. Morozova" (Russian Federation, Voronezh);

**5. IAAR expert** - Stybayev Gani Zhasymbekovich, candidate of agricultural science., Professor, Kazakh Agricultural Technical University named after S. Seifullina (Nur-Sultan);

**6. IAAR expert** - Nurgaliev Akylbek Muratovich, candidate of agricultural science., docent, West Kazakhstan Agrarian and Technical University named after Zhangir Khan (Uralsk);

**7. IAAR expert** - Aldungarova Aliya Kairatovna, PhD, Associate Professor, Toraigyrov University (Pavlodar);

**8. IAAR expert** - Baitelenova Aliya Askerovna, candidate of agricultural science., Kazakh Agricultural University named after S. Seifullina (Nur-Sultan);

**9. IAAR employer** - Ualkhanov Baizhan Nurbaevich, General Director of Pavlodar Agricultural Experimental Station LLP (Pavlodar);

**10. IAAR student** - Alibekova Kamilla Kanatovna, 2nd year doctoral student (PhD) EP 6702V004 - Research on international development (direction: Land use, degradation of saline lands), University of Palacki (Olomouc, Czech Republic);

**11. IAAR student** - Kakimova Madina Aitbaevna, 4th year student of EP «Ecology», L.Gumileva Eurasian National University, Representative of the Alliance of Students of Kazakhstan (Nur-Sultan);

**12. IAAR student** - Izbasar Altynai Khasenқyzy, 4th year student of EP «Forest Resources and Forestry» Kokshetau University named after S. Ualikhanov, Representative of the Alliance of Students of Kazakhstan (Kokshetau);

**13.** The observer for the Agency - Kanapyanov Timur Yerbolatovich, PhD, Head of International Projects and Public Relations of the IAAR (Nur-Sultan).

# (III) DESCRIPTION OF THE EDUCATIONAL ORGANIZATION

The Kazakh National Agrarian University was formed in 1996 on the basis of two institutes: the Almaty Veterinary Institute, which was founded in 1929 and the Kazakh Agricultural Institute (1930). In 2001, by a Decree of the President of the Republic of Kazakhstan, N.A. Nazarbayev was granted the status of a National University. In 2010, the university began to transform into the National Research University and was awarded the status of an innovative-oriented university. KazNARU has the state license №KZ42LAA00006720 of March 25, 2016 for the right of conducting educational activity in the sphere of the higher and postgraduate professional education. Non-profit joint stock company KazNARU underwent the procedure of institutional accreditation in the UIL of Kazakhstan Association of Engineering Education KAZSEE. Accreditation certificate №1920 KE 0025 (12.06.2019-12.06.2024).

Today, the university is the base of the Republican Educational and Methodological Center; Coordinator for the development of academic mobility (implemented through the Global Consortium, as well as projects and programs "Tempus," "Erasmus Mundus," "Bolashak," DAAD, FET and others); a member of the Global Consortium, which brings together more than 300 agricultural universities in the world; Member of 8 international consortia.

The university annually organizes International summer and winter schools, the participants of which are scientists from European partner universities, undergraduates from foreign and Kazakhstani universities. Evidence of an increase in the quality level is that in 2020 the university entered the top 600 world universities in the QS WUR rating. In the Green Metric world ranking, the university is the national coordinator and takes 96th place.

KazNARU operates the Agrotechnological HUB, the Kazakh-Japanese Innovation Center, the Innovative Scientific and Educational Center, which includes: the Kazakh-Korean Innovation Center, the Water Innovation Center (Water Hub), the Kazakh-Belarusian Innovation Center, the Center for Sustainable Agriculture, innovative greenhouse, educational-scientific-research laboratories for training specialists within the framework of the state program of industrial and innovative development, Innovation and Consulting Center named after Tamshybayeva Zlikha Zhanbolatovna, N. Nazarbayev Center for Education and Science, Situational Center.

According to the university's website, there are 5 faculties in the university's structure today: "Agrobiology", "Technology and bioresources, "Veterinary science", "Water, land and forest resources", "IT technologies, automation and mechanization of agro-industrial complex", the Higher school of "Business and the right", Institute of SGD, function Military department, at 5 faculties, 1 higher school and 1 institute 31 departments more than 8 thousand people, from them 1.2 thousand undergraduates and PhD student study.

Training is carried out by 848 teachers, of which 8 academicians of the NAS of the RK, 91 doctors of sciences, 260 candidates of sciences, 79 PhD and 260 masters. The share of teachers with degrees and ranks of the number of full-time teachers is 55%.

As of November 1, 2020, the contingent of accredited students of the EP is as follows:

- 6B08102 Soil science and agrochemistry - 68 people, of which: on the basis of a state educational grant - 66, on a commercial basis - 2 people, distance education - 1;

- 7M08102 Soil science and agrochemistry-13 people, on the basis of the state educational grant - 13;

- 8D08102 Soil science and agrochemistry - doctoral students - 22 people, of which 22 by state order.

- 6B08103 Horticulture- 182 students, including in a state language - 166, from them: on the basis of the state educational grant - 175 people, on a commercial basis - 7 students;

- 7M08103 Horticulture- 34 students, including in a state language - 34, from them: on the basis of the state educational grant - 34 people, on a commercial basis there are no students;

8D08103 Horticulture - 9 students, including in the state language - 9, of which: on the basis of a state educational grant - 9 people, on a commercial basis there are no students.

Now training of bachelors and masters on all EP is carried out on the basis of license № KZ42LAA00006720 of March 25, 2016 granted by Committee on control in sphere of formation and science of the Ministry of Education and Science of the Republic of Kazakhstan.

Information on the Department of «Soil Science and Agrochemistry»

*Qualitative and quantitative composition of teachers of the department:* 

In the department «Soil Science and Agrochemistry» in 2020-2021 there are 20 PPP, the percentage of ostepennostia is 85%, of which: doctors of sciences - 3, candidates of sciences. – 6, PhD – 8. The average age of TS in the department is 49 years.

Employment of graduates of the last three years in accreditation EPs of the cluster:

- 6B08102 Soil science and agrochemistry - 2017-2018 - 82%, 2018-2019 - 86%, 2019-2020 - 31%;

- 7M08102 Soil science and agrochemistry - 2017-2018 - 89%, 2018-2019 - 82%, 2019-2020-82%;

- 8D08102 Soil science and agrochemistry - 2017-2018 - 100%, 2018-2019 - 100%, 2019-2020 - 100%.

Information about the department «Fruit and vegetable production and nut growing» Qualitative and quantitative composition of teachers of the department:

In 2020-2021, 27 TSs work in the Department of «Fruit and Vegetable Production and Nut Growing», 70% of which are: doctors of sciences - 3, candidates of sciences - 10, PhD - 6. The average age of TS in the department is 43 years.

Employment of graduates of the last three years in accreditation EPs of the cluster:

- 6B08103 Fruit and vegetable production - 2017-2018 - 95%, 2018-2019 - 77%, 2019-2020 - 72%;

- 7M08103 Fruit and vegetable production - 2017-2018 - 100%, 2018-2019 - 95%, 2019-2020 - 93%;

- 8D08103 Fruit and vegetable production - 2017-2018 -100%, 2018-2019 -100%, 2019-2020 - 100%.

Academic mobility in accredited EP clusters for the period 2015-2020: outgoing mobility: EP «Soil Science and Agrochemistry» 6B08102- 7, EP «Soil Science and Agrochemistry» 7M08102 - 8, included mobility - 2; according to EP «Fruit and vegetable production» as academic mobility indicate data on the completion of internships and professional practice.

<u>Research, contractual projects in the context of accredited cluster EPs:</u>

Under EP «Soil Science and Agrochemistry» - 2 agreements with business entities; 5 projects SRW funded by MES RK.

1. «Development of technology for the integrated application of new biologics with mineral fertilizers on specialized crop rotations» (project leaders: Ramazanova R.K., Balgabaev A.M.).

2. «Development of a system for reproducing soil fertility and increasing the productivity of feed crop rotations» (head of Umbetov A.K.).

3. «Develop information system for monitoring and assessment of degraded pastures of Kazakhstan» (head of Kaldybayev S.K.)

4. «The study of phosphorus of organic compounds in soils and the transformation of their fraction in the systematic use of fertilizers on permanent crops of sugar beets» (head of the Balgabaev A.M.).

5. «Development of technology for the restoration of anthropogenic - degraded sandy soils of desert pastures of Kazakhstan» (head Kubenkulov K.K.)

6. "To study the dynamics of the water-salt regime of the meadow solonchaks of the sas strip of the foothill plain of the Ili Alatau with a long post-reclamation period and to develop scientifically based parameters for predicting their change" (head of Kaldybayev S.K.),

7. «To develop effective methods of using fertilizers containing sulfur for fodder crops» (head of Balgabaev A.M.)

Under the EP «Fruit and Vegetable Production» - 8 contracts with business entities for the testing of drugs; 3 SRW projects funded by MES RK.

1. «Effectiveness of application of new bio-organic fertilizers and plant growth stimulants on potatoes and vegetable crops in the south-east of Kazakhstan» 2018-2020. №0118RKI0562 (head - Professor T.E Aitbaev).

2. «Improving the planting material of potatoes from viral infection based on innovative methods and adapting to the introduction of more highly productive varieties of potatoes, vegetable and melon crops of foreign breeding for soil and climatic conditions of southeast Kazakhstan» No118RK01258 (head - Professor I.E. Aitbaev).

3. «Creation of competitive stress-resistant varieties of fruit, berry crops and grapes of the new generation for ecological-adaptive intensive horticulture, their recovery and reproduction using biotechnology and IT technologies» for 2018-2020 (head of G.N. Kayrova).

Under the leadership of professors of TE department Aitbaev and G.N. Kayrova research works are carried out on testing of new means of protection of potatoes and vegetable-melons, fruit and berry crops and grapes from harmful organisms at companies such as Astana-NAN LLP, Kazakhstan, «Arysta life science Great British Limited» The total amount of all contracts is more than 7 million tenge.

# (IV) **DESCRIPTION OF THE PREVIOUS ACCREDITATION PROCES**

In accordance with the order of the 26-15-OD of November 3, 2015 of the Independent Agency for Accreditation and Rating on October 12-14, 2015, an external expert commission assessed the conformity of educational programs at the LLP «Kazakh National Agrarian University» 5B080100 - Agronomy, 6M080100 - Agronomy, 6D080100 - Agronomy, 5B080800 - Soil science and agrochemistry, 6M080800 - Soil science and agrochemistry, 5B080900 - Horticulture, 5B080900 - Horticulture, 6D080900 - Horticulture according to the standards of specialized accreditation of the IAAR, by the decision of the Accreditation Council, educational programs were accredited for a period of 5 years.

Composition of the previous EEC:

The composition of the EEC:

1. Chairman of the commission - Bakushev Askar Asilgalievich, candidate of technical science, West Kazakhstan Agrarian and Technical University named after Zhangir Khan;

2. Foreign expert - Saljnikov Elmira, Ph.D, leading researcher at the Research Institute of Soil Science (Belgrade, Republic of Serbia);

3. Foreign expert - Levikh Alyona Yuryevna, candidate of biological science, docent, branch of FSBOU VPO Tyumen State University (Ishim, Russia);

4. Expert - Ibadullaeva Saltanat Zharylkasymovna, doctor of biological science., Professor, Kyzylorda State University named after Korkyt-Ata;

5. Expert - Stybayev Gani Zhasymbekovich, candidate of agricultural science., docent, Kazakh Agricultural Technical University named after S. Seifullin;

6. Expert - Sattybaeva Zeynigul Dzhumabekkyzy, docent, candidate of agricultural science., Kokshetau State University named after S. Ualikhanov;

7. Expert - Aryngazin Kapar Shakimovich, candidate of technical science., Professor, Pavlodar State University named after S. Toraigyrov;

8. Expert - Turebaeva Klara Zhamanbaevna, doctor of pedagogical science, Professor, Aktobe Regional University named after K. Zhubanova;

9. Expert - Yeszhanov Galikhan Serdalinovich, candidate of technical science., docent, Kokshetau State University named after S. Ualikhanov;

10. Expert - Ualkhanov Baizhan Nurbaevich, candidate of technical science., docent, Kazakh National Academy of Arts named after T.K Zhurgenova;

11. Employer - Saparov Galymzhan Abdullaevich, candidate of agricultural science, Head of the Agrochemistry Department of the Kazakh Research Institute of Soil Science and Agrochemistry named after U. U. Uspanov (Almaty);

12. Student - Mekesov Shamshinur Askaruly, 3rd year student of KazNU named after Al-Farabi;

13. The observer for the Agency is Timur Yerbolatovich Kanapyanov, Head of International Projects of the Agency (Astana).

Following the results of assessment of EEK the following recommendations about educational programs «5B080800 - Soil science and agrochemistry», «6M080800 - Soil science and agrochemistry», «5B080900 – Horticulture», «6M080900 - Horticulture », «6D080900 – Fruit and vegetable growing» were made:

According to the Standard «Educational Program Management»

1. To intensify the interaction of departments with large agricultural producers on the joint development of educational programs based on competent and modular approaches;

2. Improve the provision of the educational process with modern high-quality teaching and methodological literature, including in English; electronic textbooks, including through own developments.

According to the Standard «Specifics of the educational program»

3. If possible, considering the personnel potential of the university, open groups with multilingual education.

4. Develop joint educational programs with leading foreign universities.

According to the Standard «Faculty and Efficiency of Teaching»

5. Improve the work on the use of innovative and communication technologies in the educational process.

6. Intensify the participation of TS under the EP «Fruit and Vegetable Growing» in scientific research funded by the MES of the RK, the MAC of the RK and contractual works.

7. The TS shall be rated separately for each TS category.

According to the Standard «Trainees»

8. The structure of the EP should include various activities, the content of which should contribute to the development of the professional competence of students considering their personal characteristics.

9. Graduate works of students in undergraduate specialties according to the regulatory requirements of the MES of the RK should be carried out through the anti-plagiarism system.

10. Consider introducing a discipline that enables trainees to appropriately represent the statistical processing of data obtained in accordance with international standards.

11. Strengthen student participation in research.

12. Introduce a combined system for assessing the knowledge of masters and doctoral students when passing the final control.

13. Consider the possibility of professional certification of students in the agricultural field. *According to the Standard «Resources available to educational programs»* 

14. It is more effective to advise students to use free access to the electronic resources of the world's leading scientific journals in order to improve and improve the quality of scientific publications of undergraduates and doctoral students.

According to the Standard «Standards in the context of individual specialties»

15. If possible, considering the personnel potential of the university, open groups with multilingual education.

16. Develop joint educational programs with leading foreign universities.

To implement the recommendations, the university developed an action plan, approved in 2015. Results of performance of the planned actions are reflected in Reports of experts of IAAR according to implementation of recommendations of EEC IAAR created by results of specialized accreditation 6B08102 Soil science and agrochemistry, 7M08102 Soil science and

agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture of the Kazakh national agrarian university (1 stage on December 4-5, 2017), the 2nd stage (January 2020), in the Report on the Implementation of the Recommendations of the EEC IAAR of the Kazakh National Agrarian University.

Post-accreditation monitoring of the activities of the Kazakh National Agrarian University was carried out within the framework of the action plan for the implementation of the recommendations of the EEC and was carried out in accordance with the requirements of the provision on post-accreditation monitoring from 26.12.11.

During the visit, EEC experts analyzed the recommendations implemented by the university.

#### Conclusions:

On 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture increased efficiency of interaction of departments with employers (Research institutes, large agricultural producers, etc.) for the joint development of educational programs based on competent and modular approaches (the departments actively cooperate with such organizations as KazNRI of Agriculture and Crop Production, KazNRI of Livestock and Feed Production, KazNRI of Soil Science and Agrochemistry named after U. Uspanov, KazNRI of Potato and Vegetable Production, GU RNMC of Agrochemical Service, etc.). Groups with multilingual studies in master's and doctoral studies are open. The use of innovative and communication technologies in the educational process is being improved. A differentiated rating assessment of TS activities is formed and works, carried out separately for each category of TS: minimum indicators in the set of rating points - for an assistant, a senior lecturer - 50 points, for a docent - 100 points, for a professor -150 points. The participation of TS under EP «Fruit and Vegetable» in scientific research funded by the Ministry of Education and Science, Ministry of Agriculture of Kazakhstan and contractual works has been intensified, regular TS of these EP submit research projects to the grant financing competition.

MEPs provide for various types of activities, the content of which contributes to the development of the professional competence of students taking into account their personal characteristics.

All graduate works of students in undergraduate specialties according to the regulatory requirements of the MES of the RK are carried out through the Antiplagiarism system - since 2016, the Antiplagiarism program has been introduced to verify diploma, master's and doctoral works in accordance with the regulatory requirements of the MES of the RK (Order No. 93 n/ $\kappa$  of 22.05.2016). The participation of students in the research work of the EP - the functioning of the circle "Soil scientist-Agrochemist," as well as participation in the republican conference held annually at KazNARU (in 2020, 18 people participated in SRWS, 7 students participated in KazNARU conferences, 3 student works were awarded with letters of appreciation.

A combined assessment system (written and oral response) of the knowledge of undergraduates and doctoral students during the final control was introduced. Disciplines have been introduced that give students the ability to appropriately represent the statistical processing of the obtained data in accordance with international standards: Fundamentals of scientific research, Experimental methodology, Agrochemical monitoring and mapping, Theory and methods of research.

Improved use of access to electronic resources of the world's leading scientific journals in order to improve and improve the quality of scientific publications of undergraduates and doctoral students: RMEB, Aknur press, Paragraph, Springer link, Thomson Reuters, Soil Science Society of America Journal, DOAJ.

Recommendations for the publication of UML in English, as well as for electronic textbooks, *have not been implemented*. The work in this direction is carried out by the staff of the departments, as well as foreign scientists collaborating with the EP, develop UML disciplines in English.

Joint educational programs with leading foreign universities *have not been developed*. It is recommended that the university review the implementation of this recommendation, considering the feasibility of solving this problem.

The possibility of preparing students for professional certification in the agricultural field is not fully realized.

3 14 recommendations from previous accreditation and post-monitoring have not been implemented or are under implementation.

# (V) DESCRIPTION OF THE EXTERNAL EXPERT COMMISSION VIZIT

The work of the EEC was carried out on the basis of the approved Program of the visit of the expert commission on specialized accreditation of educational programs to the Kazakh National Agrarian Research University from December 02 to 04, 2020.

In order to coordinate the work of the EEC in 01.12.2020, an installation meeting was held, during which powers were distributed among the members of the commission, the schedule of the visit was clarified, and agreement was reached on the selection of methods of expertise.

To obtain objective information on the quality of educational programs and the entire infrastructure of the university, to clarify the content of self-assessment reports, online meetings were held with acting rector, vice-rectors of the university in areas of activity, heads of structural divisions, deans of faculties, heads of departments, teachers, students, graduates, employers. A total of 81 representatives participated in the meetings (table 1).

Participant Category	Quantity
Acting Chairman of the Management Board - Rector	
Vice rectors	6
Heads of structural divisions	28
Heads of departments, heads of EP	2
Teachers *	12
Trainees *	18
Graduates *	9
Employers *	5
In total	81

Table 1 - Information on employees and trainees who took part in meetings with EEC IAAR:

During the online excursion, EEC members get acquainted with the state of the material and technical base, visited the faculty of «Agrobiology»: EP "Soil Science and Agrochemistry" and EP «Fruit and Vegetable Industry».

At the online meeting of the IAAR EEC with the target groups of KazNARU, the mechanisms for implementing the university's policy were clarified and individual data presented in the university's self-assessment report were specified.

For the accreditation period, video recordings of remote classes in the disciplines: soil chemistry, a systematic approach in soil research of the EP «Soil Science and Agrochemistry», and the management of productivity of fruit and berry crops and grapes, organic vegetables production, single fruit production for EP «Fruit and Vegetable» were presented, since it was not possible to attend online classes in connection with technical

While working as members of the EEC, online visits were carried out to the following practice bases: «Kazakh Research Institute of Soil Science and Agrochemistry named after U.U. Uspanov»; "Regional branch Kainar «LLP Kazakh Research Institute of Fruit Growing»; "Regional branch Talgar "LLP Kazakh Research Institute of Fruit Growing».

In accordance with the accreditation procedure, 46 people were online, including 13 teachers, 33 students, including junior and senior students. An online meeting was also held with the heads of structural divisions - 28 people; EP leaders - 2 people, students - 18 people; employers - 5 people; graduates - 9 people.

In order to confirm the information presented in the Self-Assessment Report by external experts, the working documentation of the university and the EP was requested and analyzed. Along with this, experts studied the Internet positioning of the university through the official website of the university https://www.kaznau.kz/.

Within the framework of the planned program, recommendations on improving accredited educational programs of KazNARU, developed by the EEC based on the results of the examination, were presented at an online meeting with the leadership of the university in 04.12.2020.

# 6.1. Standard "Management of Educational Program"

# The Evidence Part

KazNARU has a published quality assurance policy, which is reflected in the selfassessment report of educational programs and is available on the website of the university://www.kaznau.kz. At the same time, the policy of the university on quality assurance reflects the connection between scientific research, teaching and training (Development Strategy of KazNARU-2024, Development Program of the non-profit joint-stock company Kazakh National Agrarian University for 2020-2024).

The principles and goals of the university's policy are defined <u>https://www.kaznau.kz/page/strategiia/?link=smzh\_protcedurasy\_474&lang=ru</u>.

The university demonstrates and confirms the development of a quality assurance culture, including in the context of the EP. This is reflected in the Self-Assessment Report and in the Recommendations for Refining the Self-Assessment Report, in the Annexes to the Self-Assessment Report of Educational Programs, 2020, as well as in the University Development Strategies: the quality of faculty; the quality of curricula and learning tools; quality of applicants and students; quality of infrastructure; the quality of the moral and psychological atmosphere; the quality of relations with the external social environment; the quality of management of the university as a whole and its parts.

In EP, part of the functions of training and implementation of SRW is performed by thirdparty organizations. Some types of training are allocated for outsourcing. First of all, this is professional and pedagogical practice. The Department of Soil Science and Agrochemistry concluded tripartite contracts for the practice of students with the Kazakh Research Institute of Potato and Vegetable Production LLP, the Kazakh Research Institute of Soil Science and Agrochemistry named after U. Uspanov, LLP "Kazakh Research Institute of Agriculture and Crop Production", LLP "Kazakh Research Institute of Grain Economy named after A.I. Baraev," LLP "Kazakh Research Institute of Animal Husbandry and Veterinary Science," LLP "Kazakh Research Institute of Rice Breeding," experimental fields of the Department of UOS "Agro-University" in the village Saimasay, in the Almaty branch of ADGP SrpcLrlm. Agreements have been concluded with leading foreign organizations, where students can undergo various practices: Russian State Agrarian University - Moscow State Agricultural University K.A. Timiryazeva (Moscow), FSBNU Soil Institute named after V.V. Dokuchaeva (Moscow), FSBNU All-Russian Research Institute of Agricultural Chemistry named after D.N. Pryanishnikov (Moscow), Kyrgyz National Agrarian University Agrarian University. The same organizations belong to outsourcing, or external resources, from where expert practitioners are involved to review and advise graduate diplomas, dissertation papers of students, to conduct lectures. On the basis of organizations, students can also go through practice, developing the competencies of intercultural communication, business communication, leadership and organization of production. Representatives of employers, scientists and practitioners of specialized organizations are involved in the examination of the EP content (Report on selfassessment of educational programs, 2020).

EP development plans are synchronized with the University Strategy targets and indicators. At the same time, quantitative and qualitative data of development indicators are updated annually considering the results achieved. Realization of EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture are carried out according to the Development plan for EP for 2020-2024. Plans for the development of educational programs are transparent, consistent with the resources available at the university,

i.e. financial and information resources, personnel, material and technical base meets licensing requirements.

One of key positions of the strategic development plan for EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture positioning in all regions of Kazakhstan, including in questions of employment of graduates (Development plan for EP). The EP management ensures transparency in the development of the EP development plan to meet the needs of the region, employers, interested persons and students.

Management of EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture happens through the following processes: discussion on the working commissions of department (for example, on examination of OP 6B08104, 7M08104, 8D08104 - Soil science and agrochemistry), collegial bodies on monitoring of quality of education (educational and methodical council of faculty, Department on the academic questions of the University), experts (review of the maintenance of EP).

In management of the main processes (educational, methodical, scientific, educational) for implementation of the purposes of EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 the Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture are applied the following documents: decisions of collegiate management bodies (Academic Council of the Faculty, Academic Council, Rectory), orders of the rector and orders of vice-rectors in areas of activity, documents on students (orders on personnel, students, undergraduates, doctoral students), planning, analytical, reporting, financial and accounting documents.

The educational program is formed considering the wishes and proposals of employers, the administration, the TS and interested persons studying, the chairmen of the RAC based on the results of the final state certification. For each EP there is an expert opinion of the internal and external commission.

The competitive advantages of the EP implemented by the university include: the university at the proper level carries out quality assurance activities within the EP; transparent development of the EP to meet the needs of the region (country), employers, interested persons and students; The university has developed a mechanism for involving potential customers of personnel in the region in the process of developing and implementing accredited EPs: employers are involved in TS and studying for the development of EPs, an external examination is carried out for each accredited EPs, the opinion of employers and students on the inclusion of certain disciplines in MEPs and CED, etc.; providing the opportunity to continue studies in the magistracy and further, in doctoral studies, at the same university;

the presence of branches of departments at practice bases; participation of employers, administration, TS, students and other interested persons in the formation of educational programs; close cooperation of departments implementing accredited EPs with the bases of practice, which contributes to the maximum employment of EPs graduates and creating conditions for meeting the needs and interests of the region and the country as a whole; a high level of implementation of a continuous system of training of specialists at the levels: undergraduate - master's and doctoral studies; highly qualified personnel, including doctors, candidates of sciences, doctors of PhD and masters.

The EP management demonstrates the proof of openness and accessibility for students, TS, employers and other interested persons: free access to the https://www.kaznau.kz website supporting the mission, goals, policy of the university is provided. In accordance with the strategic goal of advanced training in modern management in higher education, the EP management periodically takes advanced training courses.

### Analytical part

In KazNARU, the management of EP is in accordance with the legislation of the Republic of Kazakhstan in the field of education and science, the focus of the mission, strategy and vision to meet the needs of the state, society and sectors of the real economy. The management of EP has demonstrated the efficiency of internal quality management system. In the course of communication and analysis of documents, the EEC made sure that responsible employees are appointed for the processes that regulate the implementation of the EP, job descriptions of the staff are distributed, and the functions of the collegial bodies are delineated. A culture of quality assurance for the EP was demonstrated. The quality of the educational process includes the quality of curricula and technologies, quality of facilities, teaching staff, the quality of new knowledge taught by teaching staff. EP management ensures the participation of employers in the processes of EP management and development, as revealed by interviews with faculty and employers, as well as familiarization with the EP Development Plan. But the analysis of the EP documents did not reveal the individuality and uniqueness of the EP Development Plan, and the methodology of analysis and implementation of innovative proposals within the EP was not presented. Management and teaching staff take professional development courses, have certificates of participation in various seminars, conferences and internships. No analysis of the achievement of goals since the last EP accreditation is presented. There is no effective achievement of the recommendation of the previous accreditation to create joint EPs with foreign universities.

The EEC Commission also notes that the Development Plans of accredited EPs do not contain sufficient information on the assessment and management of possible risks in the implementation of accredited EPs, on the possible consequences in case of failure to take timely response measures, as well as on the mechanisms and measures of risk management.

The departments have plans for the development of educational programs in the accredited specialties 2020-2024, but they need to be specified (specify measurable indicators) and made chronologically more accurate. The Development Plans are dominated by information about the achievements of the EP, while there is no specificity on the mechanisms of implementation, and there are only three references to the regulations of the Republic of Kazakhstan and the university.

In accordance with the IAAR experts' report (January, 2020), there is no plan to implement the recommendation "Develop joint educational programs with leading foreign universities" on EP "Soil Science and Agrochemistry", "Horticulture". The available plan for professional development of the teaching staff of "Horticulture" does not correspond to the level of "management of the manager".

During the online conversation employers noted the need for modern graduates to have competence in modern special software (knowledge of GIS programs and modern tools for statistical data processing), as well as potential employers noted the shortage of soil scientists-field scientists in the labor market in Kazakhstan.

Classes presented for the committee's review (in recordings) with master's and doctoral students showed little variety in the forms of teaching the disciplines.

The self-evaluation report indicated that not all master's and doctoral students are on time to defend their dissertations, and one of the reasons is the lack of the required number of scientific publications in English.

There are no international research projects with foreign partners (according to the Self-Assessment Report).

No documents have been submitted to implement the recommendation "Consider professional certification of agricultural students.

# Strengths/Best Practices for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- According to this standard, the EEC does not note any strengths.

# Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

-Ensure the revision (adjustment) of the EP development plan, including the indication of deadlines, target indicators, funding, responsible, and quantitative indicators.

-The management of the EP ensure a thorough monitoring of the labor market in order to predict the employment of graduates and, if necessary, make changes to the EP in accordance with the requirements of employers and changes in labor market conditions.

-It is recommended to involve scientists of the department, foreign partners, to write and implement the topics of scientific and educational projects, within the budget programs of public, private and international sources (at least 2 projects for each EP), which will accelerate the formation of joint EPs with other foreign educational institutions.

-To the management of EP in the plans of EP development to include an item aimed at the development of professional cooperation by foreign educational organizations on accredited EP for the harmonization of modules and development of joint EPs, to begin the development and implementation of joint educational programs.

-In accordance with the University Development Program 2020-2024 in the Development Plans of the accredited EPs include a section with assessment and management of possible risks in the implementation of the accredited EPs, indicating the possible consequences in case of failure to take timely response measures, as well as describing the mechanisms and measures of risk management.

-For undergraduates and doctoral students of "Soil science and agrochemistry" and "Horticulture" to organize semester reports of students in their final courses on the implementation of research work, organize master classes or elective courses on writing scientific articles, on preparation for scientific reports and implementation of the reports themselves (oral and poster), elective courses on modern complexes of statistical material processing (Data Base, R, Phyton, etc. etc.), elective course on scientific English writing in the field of soil science and agro-chemistry, fruit and vegetable growing, in time for the academic year 2022-2023.

-As part of the EP "Soil Science and Agrochemistry" and "Horticulture" requires active and appropriate introduction of innovation in the learning process through the analysis and implementation of innovative proposals (a set of methods, techniques and teaching tools). Management of EPs and teaching staff in EPs should discuss innovative proposals at the department level of accredited EPs, then analyze them and implement them according to the procedure (creation, development and application of innovations), while it is necessary to keep minutes of meetings of working committees and formalize proposals for university management (conduct a seminar of EP (or cluster) on learning innovations, at least once a academic year.

-It is recommended that modules be introduced into the discipline programs to prepare the student for professional certification in the 2021-2022 academic year.

#### **EEC Conclusions:**

According to the standard " Management of Educational Program " EPs have 11 satisfactory positions, 6 - suggest improvement.

## 6.2. Standard " Information Management and Reporting "

### The Evidence Part

In accordance with internal normative documents, in particular, PRO 008-17 "Analysis by management", the University collects and analyzes data to assess the performance, to determine

the degree of implementation of the mission, goals and objectives and opportunities for continuous improvement of the service - the implementation of the program "Soil Science and Agrochemistry", "Horticulture" at all three levels of training. Information from audits is used to analyze compliance with the quality system. Collection, analysis, use of information for management EP 6B08102, 7M08102, 8D08102 Soil Science and Agrochemistry and 6B08103, 7M08103, 8D08103 - Horticulture in terms of basic processes, audit results are automated.

Management analysis is carried out in the management system areas where decisions are made to change the Policy; to improve the performance of processes; to improve products in relation to customer requirements; needs and resource provision. The decisions made shall be documented in minutes. The protocol serves as the basis for the development of plans, measures, and further actions based on the results of the analysis.

In order to fulfill its public mission, the departments of Soil Science and Agrochemistry and Fruit and Nut Growing publicly, on the website, provide and regularly publish unbiased and objective information (quantitative and qualitative) about the educational programs 6B08102, 7M08102, 8D08102 - Soil Science and Agrochemistry and 6B08103, 7M08103, 8D08103 – Horticulture implemented in the departments. In all units of the University records management is conducted in accordance with the approved nomenclature of cases, preservation and archiving of documents is ensured.

The information resource of accredited EPs is the AIS "PLATONUS" <u>https://es.kaznau.kz/</u>, which can be accessed through the personal account of the student or employee. According to the work plan of the departments "Soil Science and Agrochemistry" and "Fruit and Nut Growing" during the academic year, teachers attend each other's classes to exchange experiences, the main results of the departments are reflected in the annual report.

The University uses modern information systems, information and communication technologies and software tools to adequately manage information. The University's information support includes the following software tools www.kaznau.kz, "KazNARU Repository" system http://repository.kaznau.kz, conference management system, scientific and social networks, scientific journal "Research. Searches" http://izdenister.kaznau.kz, PM management system -AIS http://es.kaznau.kz, faculty rating system http://reiting.kaznau.kz, distance learning system http://do.kaznau.kz, graduate employment system http://es.kaznau.kz, personnel management system "1C-cadres", "1C-enterprise" system, "IT service" system http://itserv.kaznau.kz/, electronic dormitory http://kaznau.kz/campus, corporate mail https://post.kaznau.kz, social networks <u>https://vk.com/kaznau1929</u> and <u>https://www.facebook.com/kaznau1929/</u>, electronic library http://kaznau.kz/library, http://lib.kaznau.kz, newspaper "Agrarian University" http://www.kaznau.kz/page/newspaper/, система electronic document management http://edoc.kaznau.kz/login, access control and accounting system http://skud.kaznau.kz. Through the official website https://www.kaznau.kz/, interested persons can obtain information on the processes of formation and implementation of the plan of EP 6B08102, 7M08102, 8D08102 Soil Science and Agrochemistry and 6B08103, 7M08103, 8D08103 - Horticulture.

The website has a blog of the rector <u>https://www.kaznau.kz/page/blog\_rector/</u>, to publish the rector's reports to the public, speeches, articles, as well as to provide feedback to the management, teaching staff and students of the university.

#### Analytical part

The EEC Commission believes that the information that forms a certain database is analyzed, used to effectively manage the EP at all levels.

The system, collection, analysis and use of information is carried out to improve accredited EPs. Job descriptions, Regulations, internal regulatory documents serve as a guarantee of legitimate collection and analysis of information, the regulations of officials' responsibility for the reliability of the information placed in the "PLATONUS" and ARTA Synergy system. During the interview, it was determined that consent to process personal data is consistent with the University's documented QMS procedures.

The results of the collection, analysis of the information on the matters of accredited Study Programmes 6B08102, 7M08102, 8D08102 - Soil science and agrochemistry 6B08103, 7M08103, 8D08103 - Horticulture examined at the department meetings, and the examined materials serve to ensure the quality management information of the Study Program realization process. A survey of students showed overall satisfaction with the quality of teaching and material and technical support of the educational process. For example, 75.0% of students surveyed were satisfied and 25.0% were partially satisfied with the level of availability of library resources; 26.7% of students were satisfied and 23.3% were partially satisfied with the available science labs.

Social and living conditions are satisfied with the majority of students surveyed during the survey: - 52.9% of students were satisfied, and 20.0% were partially satisfied with the recreation rooms for students, 71.7% of students were satisfied, and 16.7% of students were partially satisfied with the provision of dormitories.

Strengths/Best Practices in EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- by this standard, the EEC notes no strengths.

**Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:** 

- There are no recommendations for this standard.

### **EEC Conclusions:**

According to the standard " Information Management and Reporting" EPs have 17 satisfactory positions, 6 - suggest improvement.

6.3. Standard "Development and approval of the Educational Programme"

# The Evidence Part

Planning and implementation of EP is carried out in accordance with the state compulsory standards of higher education and is consistent with the University Strategic Development Plan, mission and vision, as well as the demands of the labor market, the objectives of training in these specialties to master all types of competencies and readiness to carry out productive professional and scientific activities.

Modular educational programs (hereinafter - MEP) assessed EP, developed on the basis of the SCES and the model curriculum. Planning the content of educational programs is based on the modular and competence-based approaches based on the results of the annual audit of educational programs, including: a comparative analysis with similar programs implemented by leading Kazakhstani universities, analysis of the domestic labor market, as well as the views of employers and students.

MEP is drawn up in Kazakh and Russian languages, indicating the forms of examinations, SCES credits, the language of instruction of disciplines, the designation of competencies for each discipline.

The university provides the development of learning outcomes through the planning of the educational process, the development of educational and methodological documentation, the scheduling of classes, all types of learning activities, and the organization of practices, conducting interim and final evaluations. Every year the university reviews documents that take into account the structure of the educational program: Passport of the educational program,

Standard curriculum of the specialty, Modular educational programs, the working curriculum for the specialty by forms and terms of training, Catalogue of elective modules of the specialty and the educational path of the student's choice, Map of competences of EP disciplines, Map of the educational program, Plan of development of the educational program.

The EP management involves employers (including EP alumni), students, leading EP professors, faculty leaders, and graduate departments in the development of MEPs: <u>https://www.kaznau.kz/page/facultet/?name=agrobiologiia\_zhane\_fitosanitariia&var=bilim\_beru\_bagdarlamasy\_156&lang=r</u>.

For each of the evaluated programs, competency models of graduates were defined, in the development of which participated teaching staff departments, employers and students.

The Commission notes that the high level of provision of teaching and research laboratories, qualification of teaching staff allows to form a high level of competence of students. During an online conversation with EP students and graduates, it was found that most graduates work in their specialty and are in demand in the labor market. Employers are satisfied with the level of professional competence of the graduates. The Department of Internships and Employment manages information about graduate employment across the university. On average, over the past five years, the employment rate of graduates of the program 6B08103 Horticulture is 88%, 6B08102 Soil Science and Agrochemistry - 73.3%; 7M08103 Horticulture and 8D08102 Soil Science and Agrochemistry - 87.36%; 8D08103 Horticulture and 8D08102 Soil Science and Agrochemistry - 100%.

Analysis of the evaluated programs indicates compliance with regulatory requirements of the content and sequence of implementation of the program.

In the presence of contacts and relations with Kazakhstani and foreign universities that implement similar EPs, the absence of joint educational programs with foreign universities was noted on the examined EPs.

# Analytical part

Analysis of the evaluated programs indicates compliance with regulatory requirements of the content and sequence of implementation of the program.

In the presence of contacts and relations with Kazakhstani and foreign universities that implement similar EPs, the Commission notes the absence of joint educational programs with foreign universities on the considered EPs.

The competitive advantages of the university's educational programs include:

- developed and documented the procedure for developing and evaluating the quality of the EP, approved by the protocol of the Academic Council of the University;

- all accredited programs have developed graduate models describing learning outcomes and personal qualities;

- The external examination of the EP is regularly carried out;

- The development of the program involves the participation of faculty, employers and students;

- Practice-oriented learning has been created and is functioning steadily with positive results.

Analysis of the documents studied, as well as the results of the interview with students, faculty, graduates and employers led to the conclusion that the possibility of professional certification of students has not been created.

The EEC Commission notes that in interviews the employers point to the need to introduce in the curriculum "Soil Science and Agrochemistry" courses on modern professional information technology, as well as the fact that the recommendation of the previous certification to publish textbooks in English and create electronic textbooks has not been implemented, indicating a lack of monitoring of the effectiveness of changes in the curriculum. Agreements signed with foreign partners are of the nature of intentions regarding the implementation of joint educational programs. Practice-oriented training is successfully implemented on the basis of practices and partner organizations, such as LLP "Kazakh Research Institute of Potato and Vegetable Growing", RSE on the REM "Institute of Plant Biology and Biotechnology", PE "Aidarbayev", LLP "Tore Zhailau", etc. for the "Fruit and vegetable growing", and LLP "KazNRI of soil science and agrochemistry named after U.U. D. students have the opportunity to conduct research on the basis of university laboratories - "Water problems and land reclamation", "Agroinnovation and Ecology", "Agrotechnological HUB", etc., "Soil science and agrochemistry". The available material base, equipped with the necessary equipment and consumables training laboratories at the departments of soil science and agrochemistry, fruit and vegetable and nut farming, research laboratories of research institutes, field base practices, qualified teaching staff and invited employees, create an integral logistic trajectory of professional growth students EP.

For the evaluation criterion "To improve the provision of the educational process with modern high-quality educational and methodical literature, including in English" - the recommendation is not fully implemented. There is no data on the publication of EL in English for the curriculum "Soil Science and Agrochemistry", for the curriculum "Soil Science and Agrochemistry", there is no information about electronic textbooks.

# Strengths/best practices for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- EP "Soil Science and Agrochemistry" and "Fruit and Vegetable Production" include consecutive mastering of special disciplines - protection of fruit crops from diseases, the system of fertilizers, etc., with the implementation of theoretical knowledge in practice. The provision of teaching and research laboratories, qualification of teaching staff forms a high level of competence of students. Many doctoral students link their research activities to practical agricultural issues with the prospect of creating a job for themselves. In general, most graduates work in their specialty and are in demand in the labor market. Employers are satisfied with the level of graduates' professional competences. All of this was confirmed during an online conversation with EP students and alumni.

# **Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:**

-In order to improve the EP, conduct an annual analysis of the effectiveness of changes made to the EP. It is recommended to plan the preparation of material for the publication of electronic textbooks and educational and methodological literature in English, in time for the academic year 2022-2023.

-The EP management to include modules in the programs of disciplines to prepare students for professional certification in the 2021-2022 academic year, as well as additional training in related and related areas, including databases, geographic information systems, special programming, work with aerial and space imagery, virtual modeling.

-To the management of the "Soil science and agrochemistry", "Fruit and vegetable farming" to consider possible ways to obtain professional certification of students in the agricultural field, including the centers of independent certification (until 2023).

-To the management of EP in the plans for the development of EP to include an item aimed at the development of professional cooperation with foreign educational organizations on accredited EP for the harmonization of modules and development of joint EP, to begin the development and implementation of joint educational programs by the academic year 2022-2023.

#### Conclusions of the EEC:

According to the standard "Development and approval of the Educational Programme" EPs have 1 strong position, 9 satisfactory positions, 2 - require improvement.

6.4. Standard "On-Goig Monitoring and Periodic Review of Educational Programme"

#### The Evidence Part

The University guarantees the quality of educational programs through formal procedures of approval, monitoring, and periodic assessment of the quality of educational program content and competencies.

The policy reflects the link between research and learning, which involves conducting research and incorporating its results into education. The most important elements of the culture of quality assurance are the processes of forming and regularly reviewing the Strategy and Policy and monitoring their implementation. Discussion of the program takes place at meetings of the department, the Faculty Council and the Academic Council of the University, taking into account the views and suggestions of employers and students. In order to ensure effective implementation and create a supportive learning environment, the department monitors, evaluates and revises EPs. Each year there is an extended meeting of the department to review the EP for relevance with the participation of all stakeholders. Participation of learners, alumni provides an opportunity to identify the needs of learners who may also propose the inclusion of new learning outcomes/competencies. The participation of employers at the meeting provides an opportunity to identify new competencies, expectations of the professional community, also to update the content of existing courses/modules. The Department of Educational and Methodological Work and Quality of Educational Programs and the Center for Monitoring the Quality of Education conducts ongoing monitoring of the quality of teaching, favorable learning environment and other issues in the form of online questionnaires (http://survey.kaznau.kz).

The survey of students is conducted to find out the quality of educational services, twice a year on the resource (<u>http://survey.kaznau.kz</u> in Kazakh, Russian, English). The results are analyzed by the departments and taken into account. Also the department analyzes the progress of students, assesses the adequacy of disciplines, the results of which are introduced changes in the complexity of disciplines. All suggestions of students and other stakeholders are reflected in the minutes of the extended meeting, the changes made are reflected in the EP, CED and EMKD. Suggestions concerning the work of the support services are sent to the relevant structural units of the University.

The departments ensure the quality of the EP "Soil Science and Agrochemistry" and "Fruit and Vegetable Growing" using the tools of monitoring and periodic assessment of EP. Communication with employers is a prerequisite for monitoring, periodic evaluation and revision of the EP. In the reviews of employers of Almaty region, as well as business communities noted the good training of graduates, accredited EP, the rapid development of new methods of work, creative approach to work, the desire to study innovation and innovation, the application of existing skills and abilities in professional activities.

Soil Science and Agrochemistry" and "Fruit, Vegetable and Nut Growing" departments monitor, periodically evaluate and revise the EP strategy on an ongoing basis, taking into account the requirements and recommendations of the MES RK, accreditation agencies, as well as other stakeholders.

Internal assessment of the quality of education is provided through monitoring, periodic assessment and revision of the EP at the meeting of the department, the Faculty Council, the Methodological Council of the University, the Academic Council of the University.

External assessment of the quality of the program is made through the final state certification of students, institutional accreditation of the university, as well as participation in national ratings of EP. An important proof of the quality of educational programs are the results

of the rating conducted at the national level by independent agencies IAAR, IKAQAE, as well as the National Chamber of Entrepreneurs of Kazakhstan "Atameken" (<u>https://www.kaznau.kz/page/strategiia/?link=universitet\_reitingisi\_463&lang=ru</u>).

## Analytical part

Monitoring of progress and academic achievements of students is carried out through the system "PLATONUS", this system provides functions of registration of academic achievements of students through an electronic magazine. The analysis of students in the "Soil Science and Agrochemistry" and "Horticulture" showed that the progress of students is satisfactory. Analysis of graduates' employment rates shows that they are in demand in the labor market. In addition, graduates of these programs can continue their studies in master's and doctoral programs, respectively. Monitoring, periodic evaluation and revision of the EP is envisaged in order to improve it. Strategic partners (external stakeholders) of the Soil Science and Agrochemistry Department and the Horticultureand Nut Growing Department - various educational and scientific institutions, including state bodies, local government bodies, international organizations, etc. participate in providing these ESG recommendations.

On the pages of the EP (departments) on the website of the university not all information is current and complete, including with respect to changes in the EP. The EP self-evaluation reports do not contain sufficient information on the progress made or the presence of difficulties in implementing the recommendations from the previous accreditation procedure. During interviews with students, as well as based on the results of the questionnaire, there was a desire to increase the amount of professional practice in the EP.

# Strengths/best practices for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

-There are no strengths noted by the EEC for this standard.

# **Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:**

-It is recommended that a system be established for promptly informing about any actions planned or taken with respect to the EP on the EP page of the university's website. It is necessary to ensure that the information is updated at least once a year before the start of the new school year. In the self-evaluation documents, the EP management should reflect the description of the progress achieved or the presence of objective difficulties in implementing the recommendations received as a result of the previous accreditation procedure, taking into account the results of interim post-monitoring reports.

- It is recommended to provide practice-oriented accredited educational programs, taking into account the requirements of the labor market and professional associations of employers, by increasing the time allocated to industrial practice in enterprises in the field of training within the curriculum "Soil Science and Agrochemistry", to review the volume of the curriculum in relation to practice by the academic year 2021 - 2022.

### Conclusions of the EEC:

According to the standard "On-Goig Monitoring and Periodic Review of Educational Programme " EPs have 9 satisfactory positions, 1 - require improvement.

# 6.5. Standard "Student-Centered Learning, Teaching and Performance Evaluation"

#### The Evidence Part

At KazNARU, student-centered learning is implemented by implementing the following provisions:

1) The student, with the help of an adviser, forms his individual curriculum for each academic period, using the model curriculum and CED. The choice of an individual educational trajectory is based on the MEP, which in addition to general education, basic disciplines of the mandatory component include elective courses and practices that are aimed at providing professional competencies.

2) The student has the right to study on academic mobility in other universities both in the Republic of Kazakhstan and abroad, with subsequent re-crediting of the studied disciplines at the university and their inclusion in the transcript.

3) To meet the need for additional or repeated study of disciplines, the university holds an annual summer semester.

During the school year in the schedule fixed SIWT hours, the departments have schedules of consultations faculty, additional information is provided in the syllabus for the disciplines, the student can contact the teacher also by e-mail.

Distance learning is combined with internships, and departmental branches are used for classes.

To strengthen the practical orientation of the educational process, practitioners are invited to conduct classes. The heads of the department and the heads of the laboratories at the "Fruit and Vegetable Production" and "Soil Science and Agrochemistry" said that they were part-time supervisors of theses and dissertation projects.

Ensuring equal opportunities for students is achieved by the development of educational, organizational, methodological and informational support of the educational process in two languages of instruction: Kazakh and Russian. Information material for students on the university website is available in three languages.

The EEC experts, having studied the availability of literature in the state and Russian languages, confirm its sufficiency, but there is a lack of literature in English (Self-Assessment Report; Reference for recommendations to finalize the report on the EP self-assessment).

The main role in assisting in the formation and promotion of the educational trajectory is played by teachers - advisors. Edvisers for the formation of individual learning trajectories are appointed experienced teachers - Candidate of Sciences, PhD, and Masters.

The necessary conditions are created for the student to choose an individual educational trajectory, which include:

- the opportunity to choose the language of instruction, form of instruction (full-time, distance learning), elective disciplines, and teachers;

- electronic registration for the disciplines of choice;

- formation of an individual curriculum;

- organization of additional semester for repeated or additional study of disciplines;

- the possibility of distance learning technologies;

- familiarization with the personal results of academic achievements;

- the opportunity to study within the framework of academic mobility;

- the opportunity to use the educational portal;

- the opportunity to use the electronic library of KazNARU, the Republican interuniversity electronic library;

- the possibility of off-site training practices;

- to conduct laboratory and practical work, students can use specialized classrooms, multimedia classes.

At the disposal of the EP "Soil Science and Agrochemistry" there are 4 educational laboratories and 1 educational-scientific laboratory. There are modern TME, as well as instruments and tools for laboratory and field research.

In the student-centered teaching of EP, students are assigned a load of independent work. The list of types of such work includes mandatory elements (preparation for all types of classes, independent study of certain topics of the program, preparation for the control activities), providing for the performance of various tasks (essays, term papers, etc.), a list of which is determined by the objectives and content of the discipline (IEC EP).

The University carries out systematic work on monitoring the academic performance of students. The mechanism of assessment of knowledge, skills and qualities acquired by students in the course of training is reflected in P KazNAU AQTS-294 "Rules of assessment of the quality of training sessions". (2018), P KazNAU CCP IFA-284 "Rules of current control of progress, interim and final attestation of KazNAU students" (2018).

The University continuously monitors the effectiveness of its educational services by systematically administering student surveys using various standardized questionnaires. The survey is conducted twice a year. The results of the survey are analyzed. A corrective action plan is drawn up to eliminate the negative indicators of the questionnaire.

KazNARU has established a system for handling student complaints by the university's management. Based on interviews with faculty, students and alumni of Cluster 2, it was found that the procedure for responding to complaints is functioning.

The main methods of periodic evaluation of educational activities include questionnaires, interviews and surveys; internal audits; analysis of the rector's blog, "boxes of complaints and suggestions"; content analysis of the media, etc. One important indicator of students' confidence in the university's management staff is the rector's blog.

In the process of learning is used generally accepted in the world practice of a scale of letters and numbers, reflecting the mechanism for the implementation of credit transfer, based on the system of ECTS credits. This scale is used to grade oral and written exams.

When implementing the student-centered approach, the feedback process takes into account the wishes and needs of students and decisions are made, which are taken into account when formulating the EP. Feedback to the student is carried out through the definition of an individual login and password, which creates the possibility of two-way communication between the subjects of the educational process. The necessary learning materials can also be accessed through the "Educational Portal" of the university website. Monitoring of progress along the educational trajectory is carried out through the AIS "Platonus" system, where the student can see his or her learning achievements through a personal account, which creates an opportunity to monitor his or her achievements.

An element of assessment of students' knowledge is a boundary control, which is used on the 7th and 15th week of the educational process and reflects the results of the current control with the marking of boundary results in the form. In the training documentation of the faculty records the results of milestone control for the past 7 weeks (1st milestone control) and for 15 weeks (2nd milestone control). The results are discussed at department meetings.

Topics of theses are assigned to students at the beginning of their senior year and are approved by order of the rector. The topics of diploma works on the educational program are reviewed annually and approved at meetings of the departments. Analysis of diploma projects for 2016/2020 shows a lack of repetition of topics in the EP. The topics of master's and doctoral dissertations are approved on the 1st year, with the possibility of its specification and adjustment in the process of research.

The State Attestation Commission (SAC) is created for each specialty for all forms of education to conduct the final attestation. The chairmen of the State Attestation Commission are scientists from universities of the republic, managers and leading specialists of enterprises.

At the open class must be the presence of the leading teachers of the relevant department and faculty, young teachers.

It is a prerequisite of the schedule that doctoral and postdoctoral students in the master's program hold open classes. The results are summarized, analyzed and discussed in the department, at a meeting of the councils of faculties, as well as the university's EMC. It is the job of department chairs to visit the classes of faculty and to organize peer-attendance in the departments.

Also, in the formation of commissions for thesis defense, master's and doctoral thesis invited representatives from among the most competent persons teaching staff of the department, with the involvement of outside persons (chairman of the SAC) with appropriate qualifications, scientific degree, work experience in the commissions of the SAC.

For successful mastering of educational programs by students, teaching staff of accredited departments, to increase the interest of students in learning and cognitive activities are introduced in the educational process such methods of teaching as problem-oriented, project methods, group discussion, presentations, group work.

The final element in assessing learning achievements is an interim certification, which is carried out after studying the discipline during the examination session. The duration of exam sessions and the number of examinations is determined in accordance with the academic calendar and the approved working curriculum of the specialty. Forms of examinations in the accredited EP: testing, written and oral exams.

# Analytical part

The Commission notes the presence in the EP elements of dual form of training, which aims to combine training at the institute with mandatory periods of vocational training in the enterprise. In this regard, when surveyed, employers positively assess the students' basic professional knowledge, skills and abilities, theoretical and practical preparedness. There are 4 educational paths in the bachelor's degree, 4 in the master's degree (scientific and pedagogical direction), 7 in the master's degree (profile direction), and 2 in the doctoral degree (Plan of development of EP "Soil Science and Agrochemistry"). But the possibility of organizing individual (flexible) educational trajectories for the accredited EP is not analyzed (Reference for Recommendations..., 2020).

The competitive advantages of the university's educational programs include:

- the management of EP provides equal opportunities for students regardless of the language of instruction;

- the leadership of EP strives to use a variety of forms and methods of teaching and learning

- in the implementation of EP a key component of training is the practice, which in master's and doctoral programs is carried out on the basis of industries.

According to the results of the interview, the EEC committee notes that students are not aware of the procedure for filing complaints, including appeals.

# Strengths/Best Practices in EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- by this standard, the EEC does not note any strengths.

# Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture

- It is recommended that by the beginning of the academic year the students of all levels of accredited EPs be familiarized with the complaints procedure, including appeals against the results of competency assessment in knowledge control.

#### **EEC Conclusions:**

According to the standard " Student-Centered Learning, Teaching and Performance Evaluation" EPs have 10 satisfactory positions, 1 - require improvement.

## 6.6. Standard "Students"

#### The Evidence Part

The internal regulatory documents defining the educational policy - the Charter, the University Development Strategy until 2021, the Quality Assurance Policy affect the established, published and applied rules of the student "life cycle".

The procedure for admission to a particular level of the University is determined by the University Admission Rules, approved at the UC. All information about the rules of registration and admission to all levels of EP is available on the University website in the "Applicants" section. The University accepts citizens of Kazakhstan, foreign nationals and stateless persons with general secondary (general secondary), technical and vocational (primary and secondary vocational) at all levels. Admission of foreign citizens to the University is carried out on the basis of the state educational order to international higher educational institutions established on the basis of interstate agreements, as well as on a fee basis.

To attract applicants, graduating departments annually conduct the following activities: open house at the faculties, at the university level, visits to schools in Almaty, presentations, distribution of advertising booklets of educational programs in schools of Almaty city, Almaty region and other cities of Kazakhstan. The number of students starting graduate and doctoral programs is increasing annually. This is due to an increase in the number of educational grants allocated by the Ministry of Education and Science to these EPs. To maintain the growth trend of these indicators, the departments plan to continue working in this direction.

Training is provided under the state educational grant and on a contractual basis.

The research work of students, included in the educational process, provides work on the in-depth study of certain sections of the curriculum with the preparation of essays; performance of tasks, laboratory work, term and graduation projects (works), containing elements of scientific research; performance of specific non-typical tasks of research nature during training, production and pre-diploma practice; study of theoretical foundations of methods, organization and implementation of scientific research, planning and design.

Grant topics have a fundamental and applied nature in the departments, for the implementation of which students, undergraduates, doctoral students of EP: "Soil science and agrochemistry", "Fruit and vegetable growing".

Academic mobility at the University is carried out through the implementation of the following mechanisms:- departure of students for theoretical and practical training abroad on educational programs;- organization of summer semester on selected educational programs with an invitation of teachers and students from other universities to provide mobility;- organization of training courses for teaching staff in other universities of Kazakhstan and abroad to expand academic exchange.

Students in the EP have the opportunity to study under the programs of academic mobility, which include: Erasmus+ Program, Academic Mobility Program within the framework of bilateral treaties and agreements of the University. Among the partners of the University are such countries as USA, UK, South Korea, Poland, Turkey, China.

One of the key positions in the strategic development plan of SP Soil Science and Agrochemistry and Horticulture is the positioning in all regions of Kazakhstan, including the employment of graduates.

One type of monitoring is an anonymous graduate survey on all points of educational services: the organization of the educational process, the quality of teaching, facilities, etc.

Educational work with students is carried out regularly and systematically, in accordance with the requirements for professional and socio-competent qualities of specialists in this profile.

## Analytical part

Transparency and objectivity of the system of evaluation of students' knowledge are due to the following factors: systematic control of knowledge; presence of an independent examiner at the exam; acceptance of reports on all types of practice by specially created and approved commissions; reception of state examinations and defense of graduate works is performed by the State Attestation Commission, whose Chairman is invited from an outside organization. During the conversation it was revealed that the following student collegiate bodies operate at the University: - Committee on Youth Affairs (hereinafter CYA); - Youth wing of the party "Zhasotan"; - Student Council; - Student Trade Union Committee; as well as Students are members of the Faculty Council and the Academic Council of the University. Also, the students said that they form an individual study plan (ISP) on their own, the educator only offers directions. Evaluation of the effectiveness of academic support services for students is carried out regularly through questionnaires and oral survey of students, as well as includes reports at the meeting of the department, the Faculty Council, the Academic Council of the University.

In general, the University applies approved and published rules that cover all periods of the student "life cycle": conditions of admission; orientation for admission to the university; evaluation criteria and conditions for transfer from one course to another; tools for collecting, monitoring and managing information on the progress of students.

In talking with alumni, it turned out that they knew about the Alumni Association, but not all of them were aware of its work at the university, because there were no members of the Alumni Association among them.

Strengths/best practices in EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- According to this standard, the EEC does not note any strengths.

# **Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:**

- Activate the work of the University Alumni Association. Draw up a work plan for the Alumni Association, inform university alumni about the activities of the association. Position successful graduates of "Soil Science and Agrochemistry", "Fruit and Vegetable Growing" as an indicator of the effectiveness of the program. Regularly conduct career guidance activities, employment events (job fairs, etc.), with the publication of information about the activities on the website of the university and the media.

### EEC Conclusions:

According to the standard "Students" EPs have 11 satisfactory positions, 1 - require improvement.

## 6.7. Standard "Teaching Staff"

## The Evidence Part

Personnel policy is implemented in accordance with the main priorities of the university's strategy. The teaching staff of educational programs is staffed in accordance with the legislation of the Republic of Kazakhstan and the Rules of competitive placement of scientific and pedagogical staff at institutions of higher education. The teaching load is reflected in the individual plans of the teacher, where the educational, teaching and methodological, scientific

work is presented. The teaching load of the teacher is planned in accordance with the Regulations on the order of planning work of the teaching staff, the academic calendar, the student population for the academic year.

Teaching of basic and major disciplines is carried out by teachers of the Soil Science and Agrochemistry Department. The analysis of staffing of the departments shows that the implementation of the curriculum 6B08102 - Soil Science and Agrochemistry involves a sufficient number of tenured teachers, and in the implementation of the curriculum 7M08102, 8D08102 - Soil Science and Agrochemistry involves only teachers with a degree. Supervisors of undergraduates and doctoral candidates of EP 7M08102, 8D08102 - Soil Science and Agrochemistry and EP 7M08103, 8D08103 - Horticulture have h-index = 1-2, there are holders of title "Best teacher of HEI" (Kampitova G.A., Alexeeva M.A., holders of the title of Parasat, Bars academician of the National Academy of Sciences of RK, Professor Eleshev R.E., the holders of honorary title "Best teacher of HEIs" R.E., Bars R.A. R.E. Eleshev, A.M. Balgabaev, S.K. Kaldybaev; the holder of the title "The best manager of higher and higher postgraduate education" T.R. Ryspekov. In recent years, teachers have undergone internships in foreign universities. Also, in accordance with the strategy of the university faculty at a high level work on the recognition of EP - the distribution of advertising EP, Internet-openness (website, social networks, media, videos, presentations, etc.), at a high level prepare graduates (GPA), etc. (https://www.kaznau.kz).

Involving employees from the industry in the learning process, as part of the full-time faculty, allows you to integrate theory with practice and helps graduates quickly adapt to the professional environment. In the preparation of students participate teachers of "Soil Science and Agrochemistry" department, working and are leading researchers LLP "Kazakh Research Institute of Soil Science and Agrochemistry named after U.U. Uspanov" - Saparov A.S., Suleimenov B.U.; LLP "Kazakh Research Institute of Agriculture and Crop Production" - Ospanbaev J.O., RSE on the REM "Kazakh National University named after al-Farabi" - Balgysheva B.D.

The number of faculty members of accredited EPs who received advanced training in foreign universities is as follows: 2017-2018. - 5; 2018-2019. - 1; 2019-2020. - 1 person. Faculty members of the EP "Soil Science and Agrochemistry" and "Horticulture" for the last five years have published 45 articles indexed in the Scopus database. Faculty members of the graduate departments, including young professionals, participated in research activities on 8 projects funded by the MES RK (EP "Soil Science and Agrochemistry" - 5 projects, "Fruit and Vegetable Growing" - 3 projects).

The University has a Council of Young Scientists of the Kazakh National Agrarian University, which coordinates the scientific activities of young scientists and is created from among undergraduates, doctoral students and young faculty under the age of 35 years.

### Analytical part

The EEC Commission believes that the implementation of EP6B08102, 7M08102, 8D08102 - Soil Science and Agrochemistry and 6B08103, 7M08103, 8D08103 - Horticulture is accompanied by modern ICT, reading rooms are equipped with printers and multifunctional universal devices. In accordance with security requirements, the university created a video surveillance system based on 50 IP cameras, new managed switches were installed in the buildings. All IP cameras are installed at the entrance to educational buildings and student houses. An access electronic system has been installed in all buildings and student houses. According to this standard, the provision of educational resources and the student support system is at a satisfactory level. The results of the survey indicate the satisfaction of students with educational resources. However, in the self-report of the EP "Soil Science and Agrochemistry" noted "insufficient equipping of the classrooms of the department with technical means." As a result of a visual inspection of the EP laboratories and familiarization with the MEP, the commission noted insufficient professional software for the educational process.

commission also drew attention to the lack of special infrastructure in educational buildings for inclusive education.

# Strengths/best practice in EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- According to this standard, the WEC does not note strengths.

# Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- Include in the Development Plan of the EP "Soil Science and Agrochemistry" the stages of information modernization of the EP: soil process modeling systems, GIS, databases, modern data analysis programs, as well as updating the material and technical base of laboratories by the 2023-2024 academic year.

- Include in the development plans of the EP for the next 5 years (if necessary, after conducting a marketing research on the potential demand for inclusive education in the EP) a point on improving the infrastructure and educational and methodological support, taking into account the special needs of students - inclusive education (ramps, elevators, paths for the visually impaired, etc.).

## **EEC** conclusions:

According to the standard "Teaching Staff" EPs have 9 satisfactory positions, 1 - require improvement.

# 6.9. Standard " Public Information'

## The Evidence Part

Information about the activities of the university and the implementation of educational programs is posted on the official website https://www.kaznau.kz/ in accordance with the Regulations on the official website of the university. The official website of the University https://www.kaznau.kz operates in Kazakh, Russian and English. The site is hosted by the University, maintained and modernized by employees of the Institute of IT-Technologies.

The university has a variety of ways to disseminate information to inform the public and stakeholders. Information is available on the following media and materials:

- the official website of the university,

- monthly issue of the university newspaper "Agrarian University",

- quarterly issue of the scientific journal "Research, Results". Circulation of at least 500 copies. The publication has state registration. Account registration certificate No. 482-Zh dated November 25, 1998, subscription index 75718, ISSN 2304-3334. The journal meets the requirements for publications recommended by the Committee for Control in the Sphere of Education and Science of the Ministry of Education and Science of the Republic of Kazakhstan for the publication of the main results of scientific activity. The journal publishes scientific articles by domestic and foreign authors. The editorial board of the journal includes significant foreign scientists,

- the annual holding of the "Open Doors Day", a job fair on the basis of the university,

- registration of information stands, which contain information about the specialties of the university, excerpts from the rules for admission to the university in Russian and Kazakh languages;

- publication and distribution of an advertising and informational booklet, preparation of a video about the university, departments,

- production of image products with the logo of the university,

- Regular placement of information about the specialties of the university and the rules for admission to the media.

The means of supporting the educational process and the channel for the exchange of information are the web resources of the University. The official information posted on the websites relates to the main areas of activity of the University and is intended for both external and internal use.

All information supervised by the Department for Research and Innovation is placed in a specially created section "Science", where subsections such as "Research activities", "Scientific journal Research, results", "Dissertation Council", "Council of Young Scientists", "Conferences" are active. " etc.

The "Rating" section (http://kaznau.kz) demonstrates the participation of the University and educational programs in international and republican ratings.

The leadership of the University, the teaching staff of the department speak on central and local television, in newspapers and magazines, in the media on topical issues of the Agroindustrial complex and the role of the university in solving these problems. For these purposes, the resources and capabilities of the Public Relations Department are used. For example, the most recent editions include:

1. T.I. Espolov: "Modernization of the agro-industrial complex based on the transfer of new knowledge and digital technologies" // "Kazakhstanskaya Pravda": 08.12.2017. https://kazpravda.kz/articles/view/modernizatsiya-apk-na-osnove -transferta-novih-znanii--i-tsifrovih-tehnologii;

2. T.I.Espolov: "Educated youth - the intellectual potential of the country"// "Kazakhstanskaya Pravda": 27.02.2019. https://www.kazpravda.kz/fresh/view/obrazovannayamolodezh--intellektualnii-potentsial-strani

3. T.I. Espolov: "Effective management is the main factor in the success of the university", "Kazakhstanskaya Pravda": 06/18/2019. https://www.kazpravda. kz/fresh/view/effektivnii-management--glavnii-faktor-uspeha-universiteta

4. T.I.Espolov: "Kazakhstan model of a research university", "Kazakhstanskaya Pravda": 07/02/2020. https://kazpravda.kz/fresh/view/kazahstanskaya-model-issledovatelskogouniversiteta

5. T.I.Espolov: "Economics son serpin beretin ulttyk zhoba", "Egemen Kazakhstan" 09/30/2020. https://egemen.kz/article/250464-el-ekonomikasyna-serpin-beretin-ulttyq-dgoba

Thus, the University, in all its structural divisions, maintains an open dialogue with suppliers and consumers of educational services on an ongoing basis. All information about the activities of the University and the department, about the conditions for admission, training, and development opportunities is available to the public through the University website. In addition, the teaching staff of the University and its employees systematically appear in the media, bringing the results of their activities to the public and stakeholders.

### Analytical part

The Commission notes the systematic work on posting information on the website, which ensures transparency of activities. The EEC notes the availability of information about teachers involved in the implementation of accredited EPs on the website of the institute.

The University provides an active media presence in the region, takes part in explaining the Messages of the President and government programs, ensures the dissemination of up-to-date information within the framework of educational programs.

The University carries out in full within the framework of the accredited programs the external evaluation procedures and takes an active part in the National EP ranking among the universities of Kazakhstan, invariably being among the leaders of the republican universities participating in the ranking.

The competitive advantages of the EP implemented by the university include: conditions have been created for the implementation of educational standards of higher education;

availability of the university website; high equipment of material and technical base; free access to educational Internet resources, free Wi-Fi; providing students with educational and methodical publications through the use of an electronic library; publication of objective and up-to-date information within educational programs; active media presence in the region; wide public involvement in the activities carried out by the university; implementation by the university within the framework of accredited programs of various external evaluation procedures.

On the page of the department on the official website of the university, there is not enough information about teaching staff implementing accredited EPs. Data on the area of scientific interests, publications, etc. are not presented.

The Commission notes that information on vacancies for graduates from the external information environment is not available. The personalities of the teaching staff of the departments on the website of the university do not fully reflect their successes and achievements. In the social network Facebook, the commission did not find the page of the Department of Soil Science and Agrochemistry, Department of Soil science and Agrochemistry, KazNARU.

Strengths/best practice in EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- According to this standard, the WEC does not note strengths.

# **Recommendations for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:**

- It is recommended that the responsible structural unit on the website of the university ensure that the "Alumni/Vacancies" tab is completed in a timely and systematic manner, as well as include the "Partners/Resume" tab for graduates with annual data updates. It is necessary annually, by September 1, to publish a report on the employment of EP graduates, with dynamic data updates.

- It is recommended to replenish the personal information of the teaching staff in the department tab of the university website, with the inclusion of data on the area of scientific interests, publications, etc., which will facilitate the choice of scientific supervisors by students of all levels of the EP "Soil Science and Agrochemistry" and "Horticulture".

- Post information on cooperation and interaction with partners within the framework of the EP, including scientific / consulting organizations, business partners, social partners and educational organizations, in a timely manner on the university website (as well as in social networks). Update information at the start of the school year. To make the Facebook page of the Department of Soil science and Agrochemistry, KazNAU accessible and active by the new academic year.

#### EEC conclusions:

According to the standard "Public Information "EPs have 11 satisfactory positions, 2require improvement.

6.10. Standard "Standards in the context of individual specialties"

## The Evidence Part

The EP reflects the regulatory requirements for the professional practice of students. The main modules are developed on the basis of an analysis of market needs, trends in the development of world science, and the experience of implementing similar educational programs in leading foreign universities. EPs are updated annually, taking into account modern trends in

the development of science, society, economic, political and social processes. The content of the disciplines is updated, new modules and courses are included that help maintain the relevance of the acquired knowledge, skills and abilities.

All disciplines are provided with up-to-date educational and methodological materials multimedia presentations, video content, assignments for independent work of an innovative nature.

Monitoring the impact of introducing innovations in the educational process on learning outcomes is carried out at the departments - through a system of mutual attendance of training sessions, discussions at seminars. Various types of practices are provided: educational, pedagogical, industrial, research. All types of practices are carried out in accordance with the standard curriculum. The departments have concluded contracts for professional practice, which define the duties of the department, the base enterprise and students. The department has developed guidelines for the organization and conduct of practices, training programs. Students undergo internships in accordance with the order of the rector of the university, which indicates the basis of the internship, the terms of its passage and the leaders of the internship from the educational institution. At the end of the practice, students submit reports. The program is designed taking into account the requirements of the Bologna process, the learning outcomes are expressed through competencies and are designed on the basis of the Dublin descriptors. For the purpose of employment and career guidance, advisors maintain contact with graduates, who periodically hold round tables, open days and curatorial hours with undergraduate students. The university holds an annual job fair, which allows employers and graduates to establish contact and selection for work. As a result of these events, students before graduation from the university get a good idea of the labor market, existing vacancies and the requirements for them in terms of competencies and personal characteristics.

## Analytical part

Based on the results of the analysis, the members of the EEC came to the conclusion that teaching in accredited educational programs is based on the achievements of science and practice in the field of specialization.

The commission was provided with factually confirmed information on the presence of a practice-oriented nature of education, which allows the formation of the necessary professional competencies of graduates.

Information about the types of practices and related aspects is presented and confirmed by facts, the main skills acquired as a result of training are indicated.

The distinctive characteristics of accredited EPs are as follows: interdisciplinary orientation, practice orientation, orientation towards deepening research within the curriculum. Thus, a connection is realized between theoretical knowledge and practical skills in conducting research, which ultimately determines the professional competence of graduates.

The competitive advantages of the EP implemented by the university include:

- Core modules are developed based on market needs analysis

- Disciplines are provided with up-to-date teaching materials

- Availability of a wide base of production practices

- Availability of laboratories for scientific research

- The ability to provide access to the totality of modern knowledge by levels of education (bachelor's - master's - PhD doctoral studies)

- Competence-based approach to the development of skills and abilities.

- attraction of potential employers to participate in the development of the EP.

- teaching staff have practical experience of working in schools

- involvement in the discussion of the effectiveness of the implemented EP employers, graduates and other interested parties.

MEPs, QEDs, the Self-Assessment Report and the Development Plan did not indicate the connection of the EP with the new innovative structures of the university: Research Institute

"Water Problems and Land Reclamation", Research Institute "Agroinnovation and Ecology" and "Agrotechnological HUB", etc. Students and graduates in an online conversation, as well as in the survey noted the desire to strengthen the practical side of education.

The Commission noted the low diversity of the use of ICT in teaching students. It is necessary to search for and implement modern information software systems for the study of special disciplines by students in the OP. During the work, members of the EEC online visited the internship bases. As a result, inspection and online interviews with managers and employees of the practice bases showed good conditions for students to practice; employees of the practice bases note a decent level of training of interns, however, the commission of the EEC notes the need to strengthen and deepen the practical skills of students during classroom training. When analyzing the survey of the commissions, it was noted that it is necessary to pay more attention to the Russian-speaking and multilingual teaching of disciplines.

KazNII Soil Science and Agrochemistry named after U.U.Uspanov, there are branches of the department that specialize in conducting field laboratory and practical classes in the disciplines of the EP. Annually, plans for ongoing classes and their responsible teaching staff are drawn up.

In the Reference on recommendations for finalizing the report (version 2, EP "Soil Science and Agrochemistry") it was noted: "The reason for the satisfactory assessment of 4 bachelors is the low level of preparation of the final work and their defense before the SAC, and the reason for not defending 15% of undergraduates is expulsion due to poor progress, at their own request, leaving on academic leave to care for a child and their deductions during the course of study until the defense of graduation theses. PhD doctoral students due to the lack of articles with an impact factor on time, but they have prepared a dissertation work, and are preparing for defense in the current academic year." Having assessed this, the commission believes that it is necessary to strengthen the research component of the training of undergraduates and doctoral students.

# Strengths/best practice in EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- According to this standard, the WEC does not note strengths.

# EEC recommendations for OP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- Revise the curricula of accredited EPs in terms of practice orientation, research component and increase the share of dual education by the 2022-2023 academic year. In connection with the noted cases of student failure (master's and doctoral studies) and, when the university received the status of "research", to optimize R&D in the master's and doctoral studies. Strengthen the interaction of the EP "Soil Science and Agrochemistry" (primarily at the doctoral level) with the Research Institute "Water Problems and Land Reclamation", the Research Institute "Agroinnovation and Ecology" and "Agrotechnological HUB" and other innovation centers of the university.

- The management of the EP to ensure high-quality training of students of all three levels of training in the field of application of modern information technologies, to include in the EP the study of modern programs that are necessary for future bachelors, masters, doctors of philosophy in accredited EPs in the FVE block. The management of the university should develop a mechanism for the formation of active motivation for the use of teaching staff of online learning technologies based on electronic courses of disciplines, MOOCs, virtual workshops by the 2021-2022 academic year.

Conclusions of the EEC according to the criteria:

According to the standard " Standards in the context of individual specialties " EPs have 5 satisfactory positions.



# Standard " Management of Educational Program "

- strengths were not identified by the members of the EEC.

# Standard " Information Management and Reporting "

- strengths were not identified by the members of the EEC.

## Standard " Development and approval of the Educational Programme "

- EP "Soil science and agrochemistry" and "Horticulture" include the consistent development of special disciplines - the protection of fruit crops from diseases, the system of fertilizer application, etc., with the implementation of theoretical knowledge in practice. The provision of educational and scientific laboratories, the qualifications of the teaching staff form a high level of students' competencies. Many doctoral students link their scientific activities with the practical issues of agriculture with the prospect of creating a job for themselves. In general, the majority of graduates work in their specialty and are in demand in the labor market. Employers are satisfied with the level of professional competence of graduates. All this was confirmed during an online conversation with students and graduates of the EP.

**Standard '' On-Goig Monitoring and Periodic Review of Educational Programme ''** - strengths were not identified by the members of the EEC.

**Standard '' Student-Centered Learning, Teaching and Performance Evaluation ''** - strengths were not identified by the members of the EEC.

# Standard " Students"

- strengths were not identified by the members of the EEC.

# **Standard '' Teaching Staff ''**

- The university consistently demonstrates the compliance of the staff potential of the teaching staff with the development strategy of the university and the specifics of the EP (https://www.kaznau.kz/file\_archive). The teaching staff providing the educational programs "Soil Science and Agrochemistry" and "Horticulture" have the appropriate scientific potential, a worthy scientific rating, practical work experience, teaching experience, correspond to the implementation of the university's strategy, one of the indicators of which is the combination of education, science and practice.

**Standard '' Education Resources and Student Support Systems ''** - strengths were not identified by the members of the EEC.

## Standard " Public Information "

- strengths were not identified by the members of the EEC.

### Standard " Standards in the context of individual specialties"

- strengths were not identified by the members of the EEC.

## Standard " Management of Educational Program "

# For EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture; 8D08103 Horticulture:

- Ensure revision (adjustment) of the EP Development Plan, including indication of deadlines, target indicators, funding, responsible, quantitative indicators.

- The management of the EP to ensure a thorough monitoring of the labor market in order to predict the employment of graduates and, if necessary, make changes to the EP in accordance with the requirements of employers and changes in the labor market.

- It is recommended to involve scientists of the department, foreign partners, in writing and implementing the topics of scientific and educational projects, within the budget programs of public, private and international sources (at least 2 projects for each EP), which will accelerate the formation of joint EPs with other foreign educational institutions

- The leadership of the EP in the development plans of the EP should include a clause aimed at developing professional cooperation with foreign educational organizations for accredited EPs in order to harmonize modules and develop joint EPs, start developing and implementing joint educational programs.

- In accordance with the University Development Program for 2020-2024. include a section in the Development Plans of the accredited EPs with the assessment and management of possible risks in the implementation of the accredited EPs, indicating the possible consequences in case of failure to take timely response measures, as well as a description of the risk management mechanisms and measures.

- For undergraduates and doctoral students of the EP "Soil Science and Agrochemistry" and "Horticulture" organize semester reports of students at the final courses on the implementation of research, organize master classes or elective courses on writing scientific articles, preparing for scientific reports and implementing themselves (oral and poster) reports, elective courses on modern complexes for processing statistical material (Data Base, R, Phyton, etc.), elective course on scientific English writing in the field of soil science and agrochemistry, fruit and vegetable growing, in time for the 2022 - 2023 academic year.

- Within the framework of the EP "Soil Science and Agrochemistry" and "Horticulture" it is necessary to actively and expediently introduce innovations into the learning process through the analysis and implementation of innovative proposals (a set of methods, techniques and teaching aids). The management of the EP and teaching staff in the EP should discuss innovative proposals at the level of the department of the accredited EP, then analyze them and implement them according to the procedure (creation, development and application of innovations), while it is necessary to keep minutes of meetings of working commissions and draw up proposals for the university management (hold a seminar EP (or cluster) on innovations in education, at least 1 time per academic year.

- It is recommended to introduce modules into the programs of disciplines to prepare the student for professional certification in the 2021-2022 academic year.

### Standard " Information Management and Reporting "

For EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture:

- There are no recommendations for this standard.

#### Standard " Development and approval of the Educational Programme "

# For EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture:

- In order to improve the EP, annually analyze the effectiveness of changes made to the OP. It is recommended to plan the preparation of material for the publication of electronic textbooks and educational literature in English, by the 2022-2023 academic year.

- The leadership of the EP should include modules in the programs of disciplines that allow students to prepare for professional certification in the 2021-2022 academic year, as well as conduct additional training in related and related areas, including databases, geographic information systems, special programming, work with aerial and satellite images, virtual modeling.

- The leadership of the EP "Soil Science and Agrochemistry", "Horticulture" to consider possible ways to obtain professional certification of students in the agricultural direction, including in independent certification centers (until 2023).

- The leadership of the EP in the development plans of the EP should include a clause aimed at developing professional cooperation with foreign educational organizations for accredited EPs in order to harmonize modules and develop joint EPs, start developing and implementing joint educational programs by the 2022-2023 academic year.

#### Standard " On-Goig Monitoring and Periodic Review of Educational Programme "

For EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- It is recommended to create a system of prompt information about any planned or undertaken actions in relation to the EP on the EP page on the university website. It is necessary to ensure that the information is updated at least once a year before the start of a new school year. The management of the EP in the self-assessment documents should reflect a description of the progress made or the presence of objective difficulties in implementing the recommendations received as a result of the previous accreditation procedure, taking into account the results of interim post-monitoring reports.

- It is recommended to ensure the practice orientation of accredited educational programs, taking into account the requirements of the labor market and professional associations of employers, by increasing the time allotted for internships at enterprises in the field of study within the framework of the EP "Soil Science and Agrochemistry", to review the scope of the EP regarding practice by 2021 - 2022 academic year.

#### Standard "Student-Centered Learning, Teaching and Performance Evaluation "

For EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- It is recommended by the beginning of the academic year to create for students of all levels in accredited EPs a list of familiarization with the procedure for filing complaints, including appeals based on the results of assessment of competencies in the control of knowledge.

#### Standard " Students"

# For EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- To intensify the work of the association of university graduates. Draw up a work plan for the Alumni Association, inform university graduates about the activities of the association.

Position successful graduates of the EP "Soil Science and Agrochemistry", "Fruit and Vegetable Growing" as an indicator of the effectiveness of the OP. Regularly hold vocational guidance events, employment events (vacancy fairs, etc.), with the publication of information on the events held on the website of the university and the media.

#### Standard " Teaching Staff "

# For EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture:

- Include in the Development Plan of the departments "Soil Science and Agrochemistry" and "Horticulture and Nut Growing" the growth trajectory of young teachers (internships, advanced training, incentives, support, create a personnel reserve), indicating in the plan specifically the number, approximate dates, and, if necessary, surnames and initials of teachers, from 2021.

- To intensify the work of the teaching staff of the EP in the development of their own research in the field of teaching methods of academic disciplines through the use of information and communication technologies (introduce new interactive methods for conducting seminars and lectures in the special disciplines of the EP "Soil Science and Agrochemistry" in the DOT by the new 2021-2022 academic year, "Fruit and Vegetable Growing" for Bachelor's and Master's Degrees).

- It is recommended to conduct an open policy of internal and external academic mobility for teaching staff and students.

- Organize affordable opportunities for learning foreign languages by the beginning of the 2021-2022 academic year by organizing free language courses, platforms for students to communicate with each other in foreign languages, inviting native speakers, distance conversational courses, etc.

### Standard " Education Resources and Student Support Systems "

# For EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture:

- Include in the Development Plan of the EP "Soil Science and Agrochemistry" the stages of information modernization of the EP: soil process modeling systems, GIS, databases, modern data analysis programs, as well as updating the material and technical base of laboratories by the 2023-2024 academic year.

- Include in the development plans of the EP for the next 5 years (if necessary, after conducting a marketing research on the potential demand for inclusive education in the EP) a point on improving the infrastructure and educational and methodological support, taking into account the special needs of students - inclusive education (ramps, elevators, paths for the visually impaired, etc.).

### Standard " Public Information "

## For EP 6B08102 Soil science and agrochemistry, 7M08102 Soil science and agrochemistry, 8D08102 Soil science and agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture; 8D08103 Horticulture:

- It is recommended that the responsible structural unit on the website of the university ensure that the "Alumni/Vacancies" tab is completed in a timely and systematic manner, as well as include the "Partners/Resume" tab for graduates with annual data updates. It is necessary annually, by September 1, to publish a report on the employment of EP graduates, with dynamic data updates.

- It is recommended to replenish the personal information of the teaching staff in the department tab of the university website, with the inclusion of data on the area of scientific

interests, publications, etc., which will facilitate the choice of scientific supervisors by students of all levels of the EP "Soil Science and Agrochemistry" and "Horticulture".

- Post information on cooperation and interaction with partners within the framework of the EP, including scientific / consulting organizations, business partners, social partners and educational organizations, in a timely manner on the university website (as well as in social networks). Update information at the start of the school year. To make the Facebook page of the Department of Soil science and Agrochemistry, KazNAU accessible and active by the new academic year.

### Standard " Standards in the context of individual specialties"

for EP 6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture:

- Revise the curricula of accredited EPs in terms of practice orientation, research component and increase the share of dual education by the 2022-2023 academic year. In connection with the noted cases of student failure (master's and doctoral studies) and, when the university received the status of "research", to optimize R&D in the master's and doctoral studies. Strengthen the interaction of the EP "Soil Science and Agrochemistry" (primarily at the doctoral level) with the Research Institute "Water Problems and Land Reclamation", the Research Institute "Agroinnovation and Ecology" and "Agrotechnological HUB" and other innovation centers of the university.

- The management of the EP to ensure high-quality training of students of all three levels of training in the field of application of modern information technologies, to include in the EP the study of modern programs that are necessary for future bachelors, masters, doctors of philosophy in accredited EPs in the DVO block. The management of the university should develop a mechanism for the formation of active motivation for the use of teaching staff of online learning technologies based on electronic courses of disciplines, MOOCs, virtual workshops by the 2021-2022 academic year.

### (IX) OVERVIEW OF RECOMMENDATIONS FOR THE DEVELOPMENT OF EDUCATIONAL ORGANIZATION

### List of EEC sources, possibly with a probability of OO. These recommendations do not apply to quality control measures and compliance with IAAR recommendations.

In connection with the acquisition of a new title of "Researcher" by the university, it is necessary to strengthen the quality of selection for admission and in the control of the knowledge of applicants for a master's degree and a doctor of philosophy, with an emphasis on their creative abilities and level of critical thinking.



Appendix 1. Evaluation table "Conclusion of the external expert commission" (6B08102 Soil Science and Agrochemistry, 7M08102 Soil Science and Agrochemistry, 8D08102 Soil Science and Agrochemistry, 6B08103 Horticulture, 7M08103 Horticulture, 8D08103 Horticulture)

N₂	N⁰	Evaluation criterion	educ	Positio ational		
			Strong	Satisfactory	Suggests improvement	Unsatisfactory
Stand	dard ''	Management of Educational Program "				
1	1	The University must have a published quality assurance policy.		+		
2	2	Quality assurance policies should reflect the relationship between research, teaching, and learning.		+		
3	3	The University must demonstrate the development of a culture of quality assurance, including in the context of EP.		+		
4	4	Commitment to quality assurance should apply to all activities performed by contractors and partners (outsourcing), including joint/double-degree education and academic mobility.		+		
5	5	The EP management ensures transparency in the development of the EP development plan based on an analysis of its functioning, the real positioning of the University and the focus of its activities on meeting the needs of the state, employers, stakeholders and students.		+		
6	6	The EP management demonstrates the functioning of mechanisms for forming and regularly reviewing the EP development plan and monitoring its implementation, evaluating the achievement of training goals, meeting the needs of students, employers and society, and making decisions aimed at continuous improvement of the EP.			+	
7	7	The management of the EP should involve representatives of groups of interested persons, including employers, students and teaching staff in the formation of the EP development plan.		+		
8	8	EP leadership must demonstrate the individuality and uniqueness of the development plan of EP, its consistency with national development priorities and development strategy of the organization of education.			+	
9	9	The University must demonstrate a clear definition of those responsible for business processes within the framework of the EP, an unambiguous distribution of staff responsibilities, and differentiation of functions of collegial bodies.		+		
10	10	The EP management must provide evidence of the transparency of the educational program management system.		+		
11	11	The management of the EP must demonstrate the successful functioning of the internal quality assurance system of the EP, including its design, management and monitoring, their improvement, and fact-based decision-making.		+		
12	12	The management of the EP should manage risks.			+	
13	13	The management of the EP should ensure the participation of		+		

		representatives of interested persons (employers, teaching staff,			
		students) in the collegial management bodies of the educational			
		program, as well as their representativeness in making			
14	14	decisions on the management of the educational program.			
14	14	The University must demonstrate innovation management within the framework of the ER including the analysis and		+	
		within the framework of the EP, including the analysis and			
15	15	implementation of innovative proposals.The EP management must demonstrate evidence of openness			
15	15	and accessibility to students, faculty, employers, and other	+		
		stakeholders.			
16	16	The management of the EP must be trained in educational		1	
10	10	management programs.		+	
17	17	The EP management should strive to ensure that the progress		-	
17	17	made since the last external quality assurance procedure is		+	
		taken into account when preparing for the next procedure.			
Total	by sta		11	6	
	•		11	U	
Stand	dard '	Information Management and Reporting "			
18	1	The University must ensure the functioning of the system for	+		
		collecting, analyzing and managing information based on the			
		use of modern information and communication technologies			
		and software.			
19	2	The EP management should demonstrate the systematic use of	+		
		processed, adequate information to improve the internal quality			
		assurance system.			
20	3	There should be a system of regular reporting that reflects all	+		
		levels of the structure, including an assessment of the			
		effectiveness and efficiency of departments and research.			
21	4	The University must establish the frequency, forms and	+		
		methods of evaluating the management of the EP, the activities			
		of collegial bodies and structural divisions, senior			
		management, and the implementation of scientific projects.			
22	5	The University must demonstrate the definition of the	+		
		procedure and ensuring the protection of information, including			
		the identification of responsible persons for the accuracy and			
		timeliness of information analysis and data provision.			
23	6	An important factor is the involvement of students, employees	+		
		and teaching staff in the processes of collecting and analyzing			
		information, as well as making decisions based on them.			
24	7	The EP management should demonstrate that there is a	+		
		mechanism for communication with students, employees, and			
		other stakeholders, including mechanisms for conflict			
	-	resolution.			
25	8	The University should measure the degree of satisfaction with	+		
		the needs of teaching staff, staff and students in the framework			
		of the EP and demonstrate evidence of elimination of the			
0.		identified shortcomings.			
26	9	The University should evaluate the effectiveness and efficiency	+		
	10	of its activities, including in the context of the EP.			
	10	Information collected and analyzed by the University should	+		
07	1.1	take into account:			
27	11	key performance indicator;	+		
28	12	dynamics of the contingent of students in the context of forms	+		
•		and types;			
29	13	level of academic performance, achievement of students and the dismissal;	+		

30	14	students ' satisfaction with the implementation of the EP and		+		
31	15	the quality of education at the University; availability of educational resources and support systems for		+		
		students;				
32	16	employment and career development of graduates.		+		
33		Students, employees, and teaching staff must document their consent to the processing of personal data.		+		
34	17	The management of the EP should help to provide all the necessary information in the relevant fields of science.				
Total	by sta	ndard		17		
Stand	lard	" Development and approval of the Educational				
Prog	ramm	e ''				
35	1	The University should define and document the procedures for the development of the EP and their approval at the institutional level.		+		
36	2	The management of the EP should ensure that the developed		+		
		EP meets the set goals, including the expected learning				
		outcomes.				
37	3	The EP management should ensure that there are developed models of the EP graduate describing learning outcomes and personal qualities.		+		
38	4	The management of the EP must demonstrate the conduct of		+		
		external reviews of the EP.				
39	5	The qualifications obtained at the end of the EP must be clearly		+		
		defined, explained and correspond to a certain level of the NSC.				
40	6	The EP management should determine the impact of disciplines and professional practices on the formation of learning outcomes.	+			
41	7	An important factor is the ability to prepare students for professional certification.			+	
42	8	The management of the EP must provide evidence of the participation of students, teaching staff and other stakeholders in the development of the EP, ensuring their quality.		+		
43	9	The labor intensity of the EP should be clearly defined in Kazakhstan loans and ECTS.		+		
44	10	The management of the EP should provide the content of academic disciplines and results of training at the level of education (bachelor's, master's, doctoral studies).		+		
45	11	The structure of the EP should include various types of activities that correspond to the results of training.		+		
46	12	An important factor is the availability of joint EP with foreign educational organizations.			+	
Total	by sta	ndard	1	9	2	
Stand	lard	" On-Goig Monitoring and Periodic Review of				
	ationa	al Programme ''				
47	1	The University should monitor and periodically evaluate the EP in order to ensure that the goal is achieved and meet the needs of students and society. The results of these processes are aimed at continuous improvement of the EP.		+		
		Monitoring and periodic evaluation of the EP should consider:		+		

Total	by sta	ndard	-	10		
66	10	Evaluators should be familiar with modern methods of evaluating learning outcomes and regularly improve their skills in this area.	-	ł		
65	9	The University should determine the mechanisms for ensuring that each graduate of the EP learns the results of training and ensures the completeness of their formation.	-	ł		
64	8	The University must ensure that the procedures for evaluating the learning outcomes of students in the EP are consistent with the planned learning outcomes and program goals. The evaluation criteria and methods for the EP should be published in advance.		÷		
63	7	The University must ensure consistency, transparency and objectivity of the learning outcomes assessment mechanism for each EP, including the appeal.	-	ł		
62	6	The EP management must demonstrate that there is a procedure for responding to student complaints.	-	ł		
61	5	The EP management should demonstrate support for students ' autonomy while providing guidance and assistance from the teacher.	-	ł		
60	4	The EP management should demonstrate that there is a feedback system for using various teaching methods and evaluating learning outcomes.	-	ł		
59	3	An important factor is the availability of own research in the field of teaching methods of educational disciplines of the EP.	-	ł		
58	2	with flexible learning paths. The EP management should ensure that various forms and methods of teaching and learning are used.		ŀ		
57	1	The EP management should ensure respect and attention to different groups of students and their needs, and provide them with flowible learning paths	-	ł		
Perfo		ce Evaluation "				
Stand	•	"Student-Centered Learning, Teaching and			-	
Total	by star	in the labor market, the requirements of employers and the social demand of society. ndard		•	1	
56	10	The management of the EP should ensure that the content and structure of the EP are reviewed, taking into account changes	-	F		
55	9	All interested parties should be informed of any planned or taken actions in relation to the EP. All changes made to the EP must be published.			+	
		evidence of participation of students, employers and other stakeholders in the revision of the EP.				
54	8	compliance with the goals of the EP. The University and the management of the EP must provide		+		
53	7	in EP; educational environment and support services and their		÷		
52	6	expectations, needs, and satisfaction of students with training		г +		
50 51	45	load, academic performance and graduation of students; effectiveness of student assessment procedures;		+ +		
49	3	changes in the needs of society and the professional environment;		ŀ		
48	2	content of programs in the light of the latest scientific achievements in a particular discipline to ensure the relevance of the discipline taught;	-	ł		

Stan	dard '	' Students''		
67	1	The University must demonstrate the policy of forming a	+	
		contingent of students from admission to graduation and ensure		
		transparency of its procedures. Procedures governing the life		
		cycle of students (from admission to completion) must be		
<b>C</b> 0	2	defined, approved, and published.		
68	2	The EP management should demonstrate that special	+	
		adaptation and support programs are being implemented for newly enrolled and foreign students.		
69	3	The University must demonstrate that its actions comply with	1	
09	5	the Lisbon recognition Convention.	+	
70	4	The University should cooperate with other educational	+	
		organizations and national centers of the" European network of		
		national information centers for academic recognition and		
		mobility/National academic information centers of Recognition		
		" ENIC / NARIC in order to ensure comparable recognition of		
		qualifications.		
71	5	The management of the EP should demonstrate the existence	+	
		and application of a mechanism for recognizing the results of		
		academic mobility of students, as well as the results of		
		additional, formal and non-formal education.		
72	6	The University should provide opportunities for external and	+	
		internal mobility of students of the EP, as well as assist them in		
		obtaining external grants for training.		
73	7	The management of the EP should make the maximum amount	+	
		of effort to provide students with places of practice, promote		
		employment of graduates, and maintain communication with		
74	0	them. The University report provide and ductor of the ED with		
74	8	The University must provide graduates of the EP with	+	
		documents confirming their qualifications, including the results achieved, as well as the context, content and status of their		
		education and certificates of completion.		
75	9	An important factor is monitoring the employment and	+	
15		professional activities of graduates of the EP.	Т	
76	10	The EP management should actively encourage students to	+	
70	10	self-education and development outside the main program		
		(extracurricular activities).		
77	11	An important factor is the existence of a functioning alumni	+	
		Association.		
78		An important factor is the availability of a support mechanism	+	
		for gifted students.		
Tota	l by sta	ndard	11	
Stan	dard '	' Teaching Staff ''		
79	1	The University must have an objective and transparent	+	
		personnel policy that includes hiring, professional growth and		
		development of staff, ensuring the professional competence of		
		the entire staff.		
80	2	The University must demonstrate that the personnel potential	+	
		of the teaching staff corresponds to the development strategy of		
		the University and the specifics of the EP.		
81	3	The management of the EP must demonstrate an awareness of	+	
		responsibility for its employees and provide them with a		
		favorable working environment.		
82	4	The EP management should demonstrate a change in the role	+	
		of the teacher in connection with the transition to student-		

1		centered learning.	ĺ	ĺ		
83	5	The University must determine the contribution of the teaching				
02		staff to the implementation of the University's development		+		
		strategy, and other strategic documents.				
84	6	The University should provide opportunities for career growth		+		ł
		and professional development of the teaching staff of the EP.				
85	7	The management of the EP should involve practitioners of the		+		
		relevant industries in teaching.				
86	8	The management of the EP should provide targeted actions for		+		
		the development of young teachers.				
87	9	The University must demonstrate motivation for the			+	
		professional and personal development of teachers of the				
		University, including encouraging both the integration of				
		research and education, and the use of innovative teaching				
		methods.				
88	10	An important factor is the active use of information and			+	
		communication technologies in the educational process (for				
		example, on-line training, e-portfolio, MOE, etc.).				
89	11	An important factor is the development of academic mobility			+	
		within the framework of the EP, attracting the best foreign and				
		domestic teachers.				
90	12	An important factor is the involvement of the PPS EP to		+		
		society (the role of PPP in education, in science, in the region,				
		creating cultural environment, participation in exhibitions,				
Tatal	her ator	creative competitions, charity programs, etc.).	1	9	2	
Total	-		L	9	2	
	1	Education Resources and Student Support Systems "				
91	1.	The management of the EP must demonstrate that the material and technical resources and infrastructure are sufficient.		+		
00						ŗ
92	2.	The EP management should demonstrate that there are		+		
		procedures in place to support various groups of students,				
		including information and counseling. The management of the EP must demonstrate that the				
		information resources correspond to the specifics of the EP,				
		including compliance with:				
93	3.	technological support for students and teaching staff in			+	
15	5.	accordance with educational programs (for example, online				
		training, modeling, databases, data analysis programs);				
94	4.	library resources, including the collection of educational,		+		
		methodological and scientific literature on General education,				
		basic and specialized disciplines on paper and electronic				
		media, periodicals, access to scientific databases;				
95	5.	access to online educational resources;		+		
96	6.	examination of the results of research, final papers and		+		
		dissertations for plagiarism;				
97	7.	functioning of WI-FI on the territory of the educational		+		
		organization.				
98	8.	The University should strive to ensure that the training		+		
		equipment and software used for the development of EP are				
		similar to those used in the relevant industries.				
99	9.	The University must ensure compliance with safety		+		
		requirements in the learning process.				
100	10.	The University should strive to take into account the needs of		+	1	
	10.	The oniversity should shrive to take into account the needs of				
	10.	various groups of students in the context of EP (adults,				
	10.	•				

Total	by sta	ndard	9	1	
Stan	dard '	' Public Information ''			
		The information published by the University within the framework of the EP must be accurate, objective, relevant and should include:			
101	1.	implemented programs, indicating the expected learning outcomes;	+		
102	2.	information about the possibility of assigning qualifications at the end of the EP;	+		
103	3.	information about teaching, training, and evaluation procedures;	+		
104	4.	information about passing points and training opportunities provided to students;	+		
105	5.	information about employment opportunities for graduates.	+		
106	6.	The management of the EP should use a variety of ways to disseminate information (including mass media, web resources, information networks, etc.) to inform the General public and interested persons.	+		
107	7.	Public awareness should support and explain the country's national development programs and the system of higher and postgraduate education.	+		
108	8.	The University must publish audited financial statements on its own web resource.	+		
109	9.	The University must demonstrate the reflection on the web resource of information that characterizes the University as a whole and in the context of EP.	+		
110	10.	An important factor is the availability of adequate and objective information about the staff of the EP, in the context of personalities.		+	
111	11.	An important factor is to inform the public about cooperation and interaction with partners within the framework of the EP, including scientific/consulting organizations, business partners, social partners and educational organizations.	+		
112	12.	The University should post information and links to external resources based on the results of external assessment procedures.	+		
113	13.	An important factor is the participation of the University and implemented EP in a variety of external assessment procedures.	+		
	by sta		11	2	
		' Standards in the context of individual specialties''			
0		l industry			
114	1.	In order to familiarize students with the professional environment and current issues in the field of specialization, as well as to acquire skills based on theoretical training, the educational program should include disciplines and activities aimed at obtaining practical experience and skills in the specialty in General and in the profile disciplines in particular, including: - excursions to enterprises in the field of specialization	+		
		(factories, workshops, research institutes, laboratories, educational and experimental farms, etc.), - conducting individual classes or entire disciplines at the enterprise of specialization,			

include full-time teachers who have long-term working as a full-time employee at enterprises in specialization of the education program.1163.The content of all the disciplines of the EP should one way or another and include a clear relationsh content of fundamental natural Sciences, such as m chemistry, and physics.1174.The management of the EP should provide n strengthen practical training in the field of specializa the use of modern information technologies.Total by standard	5
<ul> <li>working as a full-time employee at enterprises in specialization of the education program.</li> <li>The content of all the disciplines of the EP should one way or another and include a clear relationsh content of fundamental natural Sciences, such as m chemistry, and physics.</li> <li>The management of the EP should provide n strengthen practical training in the field of specialization of the EP management should ensure that students ar</li> </ul>	
<ul> <li>working as a full-time employee at enterprises in specialization of the education program.</li> <li>The content of all the disciplines of the EP should one way or another and include a clear relationsh content of fundamental natural Sciences, such as m chemistry, and physics.</li> <li>The management of the EP should provide n</li> </ul>	
<ul> <li>working as a full-time employee at enterprises in specialization of the education program.</li> <li>The content of all the disciplines of the EP should one way or another and include a clear relationsh content of fundamental natural Sciences, such as maginal specialization.</li> </ul>	
working as a full-time employee at enterprises in specialization of the education program.	
enterprises in the field of specialization, etc.1152.The teaching staff involved in the education prog	perience field of

