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WATER DIPLOMACY
PROJECT ERASMUS +
101082976 - HWCA
ERASMUS-EDU-2022-CBHE

Strengthening Higher Education in the Water Sector for Climate Resilience and Security in Central Asia

101082976 – HWCA - ERASMUS-EDU-2022-CBHE (HWCA)

**Saken Seifullin Kazakh Agrotechnical
Research University**

BRIEFLY ABOUT THE UNIVERSITY

- Founded in **1957**: FIRST Higher Educational Institution in Astana, the capital of Kazakhstan
- Mission: generation, introduction, dissemination and application of advanced knowledge to improve quality of life, increase labor productivity and competitiveness of the economy
- 87,4% graduates' employment



In the QS World University Rankings **2022**, KATU entered the top **+1001** among world universities



2022: in **TOP +251** universities from emerging Europe and Central Asia



2023: **401-450th** place in the ranking "QS Asia University Rankings" in 2023
20th place in "Asian University Rankings –Central Asia"



4 stars in "QS STARS RATING-2023"

- **№3** in the National ranking of demand for universities of the Republic of Kazakhstan – **2022-2023**

- The Largest Agricultural University in Kazakhstan: **5 Campuses, 9 Faculties** and **134 programs**:

- Undergraduate - **48** programs, **10 359** BA students
- Master's degree - **53** programs, **422** Master's students
- PhD degree - **33** programs, **166** PhD students

- Teaching staff: **849** Faculty members, including:
(1) **70** Doctors of Sciences, (2) **90** PhDs, and (3) **331** Candidates of Sciences and others **358**





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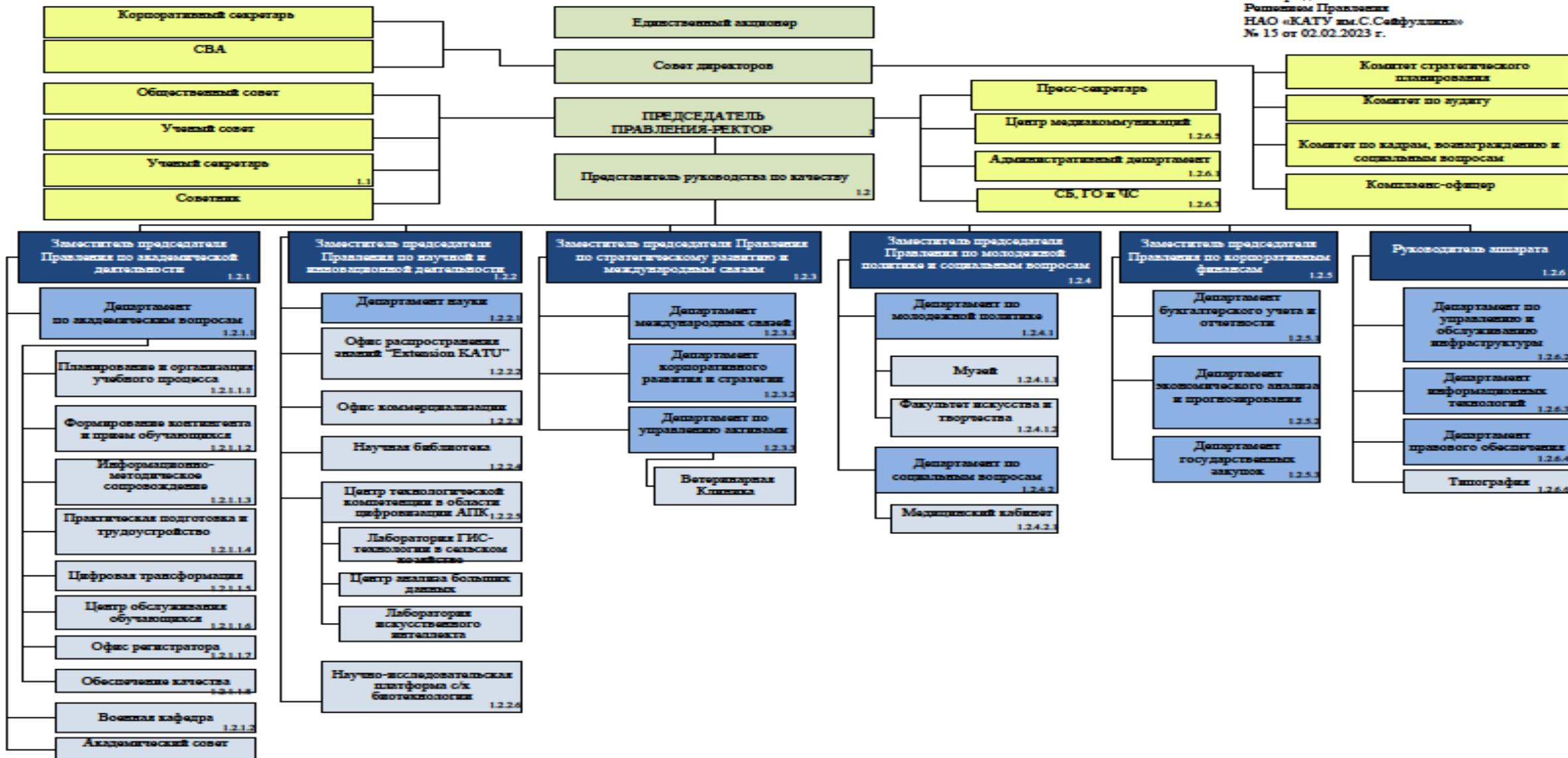
STRUCTURE OF UNIVERSITY



WATER DIPLOMACY PROJECT ERASMUS+ 101082976 - HWCA ERASMUS-EDU-2023-CBHE

Организационная структура НАО «Казakhского агротехнического университета имени С.Сейфуллина»

«Утверждено»
Решением Правления
НАО «КАТУ» им.С.Сейфуллина»
№ 15 от 02.02.2023 г.





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Educational programs by the number of students, employment



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Degree	Majors	Number of students	Employment
Bachelor	48	10 359	88
Master's	53	422	95
PhD	33	166	100



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Analysis of EPs in the direction of Water Resources



BACHELOR'S DEGREE:

- **Forestry, Wildlife and Environment Faculty**

Educational Program (EP) "Nature management"

Disciplines: protection of water resources; runoff, erosion and water quality management

EP "Aquaculture and aquatic bioresources"

Disciplines: hydrobiology, hydrology, structure and systematics of coastal aquatic plants, operation of recirculating water supply installations, protection of aquatic biological resources, bio productivity of reservoirs, aquaculture, fisheries design and hydraulic engineering, hydrobiont cultivation technology, pond fish farming

EP "Agroecology"

Discipline: integrated water resources management

- **Faculty of Land Management, Architecture and Design**

EP "Geodesy and Cartography"

Discipline: land and water management



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Proposed new EP in the direction of Water Resources



BACHELOR DEGREE

Faculty of Forestry, Wildlife and Environment

Proposed new EP “Forest Hydrology and Water Resources” – 4 years

An application is submitted for registration of the EP on the EPUHE (Unified Platform for Higher Education Management) portal of the Ministry of Science and Higher Education of the Republic of Kazakhstan in June 2023

List of disciplines to be studied: hydrobiology, biological methods for studying water bodies, hydrometer, global and regional hydrology, assessment of anthropogenic impact on surface water resources, water resources, hydrology and runoff regulation, hydrology of rivers, statistical methods in forest hydrology, integrated use of water resources, water resources and water supply of the territory of the Republic of Kazakhstan, groundwater resources and quality, hydrochemistry, natural water quality, water balance studies, water-salt balance of river systems, GIS technologies in water resources management, automated processing of hydrological information and water cadaster, assessment of water protection and water regulation role forests, land reclamation and hydraulic structures, equipment and technologies for water treatment, hydro forestry for labor protection in forestry and water management, water resources management, protection of forest and water resources



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Analysis of EPs in the direction of Water Resources



MASTER'S DEGREE:

- **Faculty of Forestry, Wildlife and Environment**

EPP "Sustainable management of natural resources"

Discipline: human impact on ecological systems

EP "Intensive fish farming"

Disciplines: hydrobiology and ecology of fresh water bodies of the Republic of Kazakhstan, biological productivity of water bodies and sustainable use of the gene pool of aquatic biological resources, aquaculture of Kazakhstan, ichthyopathology and toxicology of inland water bodies of the Republic of Kazakhstan, theory and practice of acclimatization of hydrobionts

- **Faculty of Land Management, Architecture and Design**

EP "Land management"

Discipline: legal framework for the use and protection of land and water resources



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Proposed new EP in the direction of Water Resources



MASTER'S DEGREE

- **Faculty of Forestry, Wildlife and Environment Faculty**

Proposed new EP “Forest and Water Resources Management” based on the EP “Biological Resources Management” - 1.5 years

An application is submitted for registration of the EP on the EPUHE (Unified Platform for Higher Education Management) portal of the Ministry of Science and Higher Education of the Republic of Kazakhstan in June 2023

List of disciplines to be studied:

- water-saving technologies in agriculture and forestry
- water security
- international forest and water law
- water diplomacy



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PROJECT TEAM



- 1). **Tireuov K. M.** - manager, development of a regional program of professional development and research to increase sustainability (WP5); project sustainability (WP7); management (general management, implementation of project results at the university, communication with representatives of the Ministry of Education and Science of the Republic of Kazakhstan) (WP8), Chairman of the Board - Rector;
- 2). **Meiramova S.A.** - administrative manager, organizational activities, communication with the project coordinator, National Erasmus+ Office in Kazakhstan (WP8), organization of dissemination of project results, information on student mobility (WP6), director of the Department of International Relations;
- 3). **Abisheva R.D.** - quality manager, development of a regional program of professional development and research to increase the sustainability of project results (WP5); information on mobility, preparation of developed documentation for distribution to the target audience (WP6); carrying out activities to assess the quality of work performed, developing performance indicators and analyzing the results, sustainability and quality of the project, conducting surveys of employers, teaching staff and students (WP7), disseminating project results in the media, social networks (WP2), sustainability and quality of the developed EP (WP7), Member of the Board - Vice-Rector for Academic Affairs
- 4). **Kitaipekova S.O.** - institutional coordinator, contact person, teacher-methodologist, analysis of existing curricula at the university (WP1); development of new curricula for two specializations (Water Resources Management, Water Diplomacy) (WP2); organization of improving the level of English proficiency, organization of specialized professional English courses for teaching staff and students of partner universities in Central Asia (WP4 - KATRU is responsible for this WP), senior lecturer, Department of Forest Resources and Forestry, Faculty of Forestry, Wildlife and Environment;
- 5). **Sarsekova D.N.** - academic manager, teacher-researcher, assessment of existing curricula, needs assessment (WP1); development of new curricula for two specializations (water management, water diplomacy) (WP2); professional development of teachers and teaching methods (WP3); development of a regional professional development and research program to increase the sustainability of project results (WP5); sustainability and quality of the developed EP (WP7), Dean of the Faculty of Forestry, Wildlife and Environment, Professor of the Department of Forest Resources and Forestry;
- 6). **Kazangapova N.B.** - teacher-methodologist, assessment of existing curricula, needs assessment (WP1); development of new curricula for two specializations (water resources management, water diplomacy); dissemination of project results (WP6), acting Associate Professor of the Department of Forest Resources and Forestry, Faculty of Forestry, Wildlife and Environment;
- 7). **Shakhanov A.A.** – teacher-methodologist, development of new curricula in two specializations (water management, water diplomacy) (WP2), professor of the department of agricultural machinery and technology, Technical faculty;
- 8). **Boranbay Zh.T.** .- teacher - methodologist, development of new curricula for two specializations (water resources management, water diplomacy) (WP2), the Head of Forest Resources and Forestry Department, Faculty of Forestry, Wildlife and Environment;
- 9). **Uteubayeva E.A.** - teacher-researcher, improving the level of English proficiency for teaching staff and students, specialized courses for improving the level of English language proficiency of teaching staff and students of partner universities in Central Asia (WP4 - KATRU is responsible for this WP); the Head of the Department of Foreign Languages of the Faculty of Humanities;
- 10). **Karabasov R.A.** - teacher - methodologist, development of new curricula for two specializations (water resources management, water diplomacy) (WP2); Associate Professor, Department of Management and Marketing, Faculty of Economics.
- 11). **Diailibekova U. B** - technical staff financial issues, Director of the Department of Economic Analysis and Planning



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PROJECT AIM



WATER DIPLOMACY
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“Strengthening Higher Education in the Water Sector for Climate Resilience and Security in Central Asia” (HWCA)

Total budget - 888 915 Euro

S. Seifullin KATRU - EU 90% - 37 380 Euro, 10% co-financing

Total: **41,538 Euro**

The overall goal of the project is to support the relevance, quality, and modernization of the Master's degree programs in water management and water diplomacy offered by universities in Central Asia. The project will allow partner universities to create conditions for training a new generation of managers and decision makers in the Central Asian water sector, including water diplomats, who can help solve the problems that have accumulated over the past three decades and effectively address new challenges, in particular climate change and water shortages. water, by encouraging interdisciplinary, intersectoral and intercountry dialogues. The project will create the capacity needed to promote and implement integrated water resources management, as well as strengthen regional cooperation and achieve more effective mobilization and use of private investment and international support.

Partner universities



No	Name	Country	Role in the project
1	Diplomatic Academy of the Ministry of Foreign Affairs of the Kyrgyz Republic	Kyrgyzstan	coordinator
2	Corvinus University Budapest	Hungary	partner
3	IHE Delft Institute for Water Education, the Netherlands	Netherlands	partner
4	University of Bergamo	Italy	partner
5	University of Reims, Champagne-Ardenne	France	partner
6	Kazakh-German University	Kazakhstan	partner
7	S. Seifullin Kazakh Agrotechnical Research University	Kazakhstan	partner
8	Academy of Public Administration under the President of Kazakhstan	Kazakhstan	partner
9	M. Dulati Taraz Regional University	Kazakhstan	partner
10	Kyrgyz National Agrarian University	Kyrgyzstan	partner
11	Academy of Public Administration under the President of the Republic of Tajikistan	Tajikistan	partner
12	Tajik Agrarian University named after Shirinshoh Shohtemur	Tajikistan	partner
13	Turkmen Agricultural Institute	Turkmenistan	partner
14	Turkmen State University	Turkmenistan	partner
15	Academy of State Service under President of Turkmenistan	Turkmenistan	partner
16	University of World Economy and Diplomacy	Uzbekistan	partner
17	Tashkent Institute of Amelioration and Agricultural Mechanization Engineering	Uzbekistan	partner

WP1 Assessment of existing curricula, needs assessment, planning of activities

WP2 Updating existing curricula or development of new curricula in two specializations: water governance and water diplomacy, start of the accreditation process of new MA/MSc courses, selection criteria for students agreed

WP3 Upgrading faculty skills and teaching methods

WP4 Upgrading proficiency in English for faculty and students (University Bergamo, Italy- S. Seifullin Kazakh Agrotechnical Research University, Kazakhstan)

WP5: Development of a regional programme for continuous professional development and research (water resources management and water diplomacy) to strengthen sustainability

WP 6: Dissemination organization of mobility

WP 7: Sustainability and quality

WP 8: Management



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RESPONSIBLE PARTNERS FOR WPs



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WP4 Improving the level of English proficiency for teachers and students (University of Bergamo, Italy – S. Seifullin KATRU, Kazakhstan)

Task 1. Increasing the level of English language proficiency of lecturers

Task 2. Increasing the level of students' English proficiency

Task 3. Improve reading, writing and presentation skills in English

3.1 Courses to improve the level of English language competence of lecturers and students will be completed. The leadership (rector) of the universities of Central Asia certifies the project leader the successful completion of the English language course for teachers and students, certificates of participation were issued

3.2 Completed specialized short-term training to improve reading, writing and presentation skills in English.

3.3 Specialized English proficiency improvement course for teaching staff

3.4 English language courses for **500** successful applicants for master's programs

3.5 Specialized English language courses to improve the reading, writing and presentation skills of participants in new programs

3.6 Online learning and tutoring from experts from EU universities to improve reading, writing and presentation skills of teachers and students of universities in Central Asia



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The contribution of the university to the implementation of the goals and objectives of the HWCA project



- Conducting lectures and practical classes by university lecturers with basic education in the field of water, forest and land resources; economics, law, with experience in the development of EP projects of the EU TEMPUS, Erasmus + in the field of forestry, water resources, ecology
- The university has a Department of foreign languages (English, German, French) - **33** teaching staff
- Teaching disciplines for:
 - BSc - English, professionally oriented foreign language
 - MSc - English for Academic Purposes
 - PhD - academic writing by **36** EPs of the university
 - Preparatory Courses: “Kazakh/Russian as a foreign language”



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The contribution of the university to the implementation of the goals and objectives of the HWCA project



- Attracting foreign lecturers to conduct practical classes off-line, on-line
- Holding international scientific and practical conferences with the involvement of representatives of diplomatic services
- Clubs of English, German, French, professional spoken English "**Green Future**"
- Conducting international summer schools with the participation of students from partner universities in Central Asia, with the involvement of teachers from partner universities in Europe (**KATRU** has **10** years of experience in conducting Summer School in the field of forestry, precision agriculture and a summer cultural and linguistic program)
- Development of **MOOCs**, video lectures, presentations
- Raising the rating of scientists and their publication activity in the Scopus, Research gate, Google Scholar databases
- Scientific research "**Cognitive-matrix modeling of pedagogical design, taking into account professional foreign language competence in the conditions of education transformation**"



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University expectations from the implementation of the goals and objectives of the HWCA project



- New bachelor's program "**Forest Hydrology and Water Resources**" – 4 years
- New master's degree program "**Forest and Water Resources Management**" based on the "**Bioresources Management**" degree program – 1,5 years
- Opening of the Department of "**Water Resources**" at the Faculty of Forestry, Wildlife and Environment
- Improving the qualifications of the teaching staff of the university in the field of water management
- Increasing the level of knowledge of a professional foreign language of teaching staff and students of universities in Central Asia



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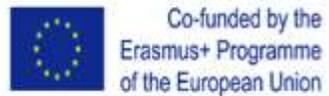


EQUIPMENT PROPOSAL



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№	Name of the equipment	Cost in KZT
1	Interactive kit 4 / Equipment composition: Vivitek D757WT ultra-short focus projector DigiTouch H102 interactive whiteboard Lazso WH-111 HDMI cable DP100BK wireless presenter, 2.4GHz KRON K2D wall bracket up to 10kg, 86-123 cm (for laboratory equipment)	751 000
2	Platform constructor “PedDesignBasics”/“ProfPedDesign“ (the possibility of developing syllabi, EMCD and didactic material)	5 600 000
3	Zoom software for organizing video conferences, a "Professional" package with up to 300 people	110 200
4	Portable pH meter HANNA HI 83141 230 944 x 6 ps	1385664
	Total:	7846867.20 KZT/ 16347 EURO



The contribution of the university to the socio-economic development of the country



- Modernization of the educational process through the introduction of unique educational curricula developed on the basis of their own scientific results with the participation of employers, leading domestic and foreign professors and scientists
- Creation of a modern and safe digital educational environment that ensures high quality and accessibility at all levels of education
- **KATRU** is actively working in all areas of the Sustainable Development Goals (**SDGs**), and is ready to contribute to the successful achievement of global goals; Ensuring global competitiveness and sustainable positioning of the university in world rankings
- Providing continuous education in order to update working citizens of their professional knowledge and acquire new professional competencies, including mastering competencies in the field of the digital economy through the **Extension-KATRU Center** (dissemination and transfer of knowledge on the practice of applying advanced technologies in the field of agroindustrial complex), **Big Data**, **GIS Center**, **“Green Skills” Center** (EU Erasmus+ **“SUSDEV”**), **Office PASO** (Precision Agriculture Service Office, EU Erasmus+ **“NICoPA”**)
- Formation of a career guidance system for young people and providing other citizens with opportunities for professional and career growth
- Creation of conditions for the development of mentoring, support for public initiatives and projects, including in the field of volunteering
- Increasing the number of foreign citizens studying at the university
- Increasing the volume of scientific research and development, including the commercialization of research results
- Scientific and personnel support in the water industry



THANK YOU FOR ATTENTION!

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