TORAIGHYROV UNIVERSITY

QUALITY ACHIEVEMENTS
Department of Biology and Ecology
for the 2025–2026 academic year

Content of the objective	Criteria for achieving the objective
1 Academic work	Students of the 1st – 2nd year of the Educational program of a double bachelor's degree in the direction 6B05203 "Environmental protection and rational use of natural resources (Republic of Belarus), concluded between the Non-profit Joint Stock Company "Toraigyrov University" and the Belarusian State Technological University, study in the Republic of Belarus.
2 Academic and-methodological work	EMCOD in all disciplines and EMC have been developed for the educational programs of the department. 9 teaching aids have been published.
3 Scientific work	1. The Department of Biology and Ecology is working on the following funded projects:1) Program 217 "Development of science", subprogram 102 "Grant financing of scientific research", specialty 156 "Payment for consulting services and research", priority "Ecology, environment and rational use of natural resources" project on the topic: IRN AP23491050 "Climatic changes in forest ecosystems of the steppe and forest-steppe zones of Kazakhstan based on carbon and hydrogen content" No. 257/GF24-26/2 dated September 09, 2024. The amount of financing: 118,170,134 tenge. Implementation dates are 2024-2026. Responsible executor Mapitov N.B. 2) Program 217 "Development of science", subprogram 102 "Grant financing of scientific research", specific 156 "Payment for consulting services and research", priority: "Rational use of water resources, flora and fauna, ecology" project on the topic: IRN AP23485162 "Development of an innovative method for monitoring and early diagnosis of grain crop diseases using hyperspectral sensing technology" (Agreement No. 257/GF24-26/3 dated September 09, 2024). Completion dates: 2024-2026. The amount of financing is 119,498,467 tenge. The responsible executor is R.M. Ualieva. 3) Program 217 "Development of science", subprogram 102 "Grant financing of scientific research", specific 156 "Payment for consulting services and research", priority: "Rational use of water resources, flora and fauna, ecology" project on the topic: IRN AP22784689 "Development of an integrated remote monitoring system for agrocenoses of spring wheat based on spectral imaging technology to create precision agriculture" (Agreement No. 101/CMU-5-24-26/2 dated June 20, 2024). Completion dates: 2024-2026. The amount of financing is 89,858,330 tenge. The responsible executor is R.M. Ualieva. 4) Program 217 "Development of science", subprogram 102 "Grant financing of scientific research", specific 156 "Payment for consulting services and research", priority: "Rational use of water resources, flora and fauna, ecology" project on the topic: IRN AP26197815 "Development of an intelligent monitoring system for wheat agrocenosis through the synergetic integration of hyperspectral imaging and LiDAR using computer vision technologies" (Agreement No. 327-25-27GF/2 dated October 01, 2025). Completion dates: 2024-2026. The amount of financing is 119,668,192 tenge. The responsible executor is R.M. Ualieva. 5) IRN AP25795423 "Geoinformation modeling and mapping of distribution and stock of hunting and commercial mammal species of the north-east of Kazakhstan". The amount of financing is 29 582 078 tenge, the implementation period is 2025-2027. Responsible executor Sergazinova Z.M. 6) IRN AP26100705 Improving the competitiveness and investment attractiveness of domestic industrial enterprises through the training and retraining of personnel with ESG competencies. The amount of financing is 87,917,598.60 tenge, the implementation period is 2025-2027. Responsible executor Sergazinova Z.M. 2. Obtaining security documents for intellectual property objects – 10.
4 Scientific research	The number of published scientific papers in the department was 52, including 12 articles in foreign scientific journals, 12 articles in domestic scientific journals, 26 articles in the materials of domestic conferences, and 2 articles in foreign conferences. Of these, at least 3 articles have been published in highly rated Q1 scientific journals indexed in the international databases Scopus and Web of Science.

Head of the Department **A. Zhurumbaeva**

Member of the Board for Academic Affairs – Vice-Rector **R. Nurgozhin**

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