EcoGIS Center was established on May 30, 2003 on the basis of the Department of Engineering Ecology of the TIAME based on the joint agreement among Wageningen University, TIIAME, the Ministry of Agriculture and Water Management of the Republic of Uzbekistan, the State Committee of the Republic of Uzbekistan on Ecology and Environmental Protection, CIMMYT and UNESCO.

The mission of the EcoGIS Center is to contribute to the ecological and social-economic development using Geographic Information Systems (EcoGIS). The main task of the EcoGIS Center is to organize quality education through the active use of double master degree programs, joint doctoral studies, advanced training of specialists and conducting research in the field of ecology, environmental protection and sustainable natural resources management with extensive use of geographic information systems and remote sensing in cooperation with leading foreign universities..

The projects of the European Union under the TEMPUS program, DESPES projects (2002-2005), EWASIA (2003-2006), TEAM (2004-2007), under the Erasmus Mundus Program Action 2 projects CASIA I (2010-2014), CASIA II (2011-2016), CASIA III (2012-2017), TIMUR (2013-2018), under the Erasmus + program (2017-2019) have made a valuable contribution to the development of the EcoGIS center.

Nowadays, the EcoGIS Center cooperates actively with 15 leading specialized universities of the European Union, 8 US universities, 4 universities of the People's Republic of China and other universities of Russia, Central Asia and the South Caucasus. EcoGIS Center has a wide international cooperation and today participates in more than 12 international projects and programs.

By now, 194 masters have been trained on the basis of the EcoGIS center of the TIIAME on the various forms of cooperation with foreign universities such as Wageningen University (The Netherlands), Bonn University and Weihenstephan University (Germany) including 92 masters with a degree in Environmental Protection (in rural and water industry), both Russian and Uzbek languages.

On the basis of the EcoGIS center for the double diploma program between Wageningen University and TIIAME, 44 masters in three specialties in Environmental Protection have been trained in English. As a result of successful training, 12 undergraduates have been awarded with the diplomas of the master degree of TIIAME and Wageningen University. -Moreover, 8 students received diplomas of a master’s degree from Wagenigen University as part of joint training for undergraduates, joint supervision and conducting research on environmental issues and geographical information systems in Uzbekistan. 34 foreign students from Wageningen University conducted their specialized practices, courses, and dissertation research on the basis of the joint training EcoGIS center.

The graduates of the master's program, employees and participants of the EcoGIS Center projects carry out their research at leading universities in the Netherlands, Germany, Sweden, Slovakia, Japan, Italy, Austria, 20 of them received Ph.D degrees, 5 candidates received PhD degrees in Uzbekistan. Currently, 8 candidates for a PhD degree continue their research at prestigious universities in the Netherlands, Germany, Slovakia, and the Czech Republic.

In close cooperation with foreign partners, EcoGIS, , improved the skills of more than 2,500 people of the State Committee for Environmental Protection, university and college teachers working on environmental issues and environmental protection.

The scientists of the EcoGIS Center at TIIAME have been working for more than 29 years to study the influence of conservation agriculture in irrigated land cultivation with the rotation of cotton and wheat. This technology is already used in Tashkent, Syrdarya, Khorezm regions. This technology is implemented on an area of 652 hectares in the Tashkent region. 256 farmers, extension service specialists are conducted trainings on this technology. The implementation of technology is carried out on 137 farmers’ fields.

The scientists of the University of Wageningen and EcoGIS Center TIIAME have developed a methodology

for assessing salinity and soil degradation based on plant indices. For the first time in the world, the method of assessing soil salinity using the method of space thermography of plants is used on the example of the Syrdarya region. Currently, based on the interest of Australian scientists, research is being conducted on irrigated and rainfed crop areas under cotton and grain in Australia.

Master and doctoral students are conducting research to improve the accuracy of the classification of satellite images of the LANDSAT (USA) and SENTINEL (EU) satellites in the Tashkent region in order to improve the accuracy of land use inventories and monitoring. Studies have been conducted on the topic “Wheat harvest forecasting system using satellite vegetation data SPOT (EU) in Uzbekistan”. During the research, the European model CGMS was used for predicting of crop production for arid regions of Uzbekistan. The correlation coefficient between the predicted and statistical data on wheat yield for all regions in Uzbekistan has been 0.92.

Together with scientists of Lund University (Sweden), the model for assessing the impact of climate change on the insect population (using the Colorado potato beetle as an example) and their possible movement from the south to the northern countries of the European Union has been developed.

In the framework of the FAO project on forest assessment, EcoGIS Center scientists participated in the implementation of the Collect Earth system, combining the capabilities of Google Earth, Bing Maps and Google Earth Engine.

The research results of the scientists of the EcoGIS Center are published in high rated international journals such as Global Change Biology, Climate Research, Agricultural and Forest Meteorology, Ecosystems & Environment, Biosystems Engineering, Biogeosciences Discussion, Science of the Total Environment, Geoderma, Sensors, Remote Sensing and others.