

**The Ministry of Science and Education of the Republic of Azerbaijan  
Azerbaijan Technical University**

**SDG 15: Life on Land Report**

**PROGRESS REPORT**



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## **SECTION 1. SUPPORTING LAND ECOSYSTEMS THROUGH EDUCATION**

### **1.1. Conservation and sustainable utilization of the land, including forests and wild land**

Azerbaijan Technical University (AzTU), actively supports and organizes events aimed at promoting the conservation and sustainable use of land, including forests and wild areas. Our institution is committed to fostering sustainable development, as well as environmental and ecological initiatives, and we proudly highlight a range of activities and events that demonstrate our dedication to this cause.

One of the key initiatives supported by our university is the organization of educational events and campaigns aimed at raising awareness of the importance of preserving natural ecosystems and sustainable land use. We regularly organize seminars, lectures, and workshops where our students, faculty, and the community at large can learn about and discuss issues related to nature conservation, biodiversity, and sustainable land management.

Furthermore, our university actively participates in research projects related to ecology and sustainable land use. Our researchers and students conduct studies to assess the state of natural ecosystems and develop practical recommendations for their preservation and sustainable management. These research efforts contribute to our better understanding of nature and its needs and have a positive impact on our educational programs.

We also collaborate with other organizations and institutions to conduct joint events and campaigns focused on nature conservation. Our participation in such partnerships allows us to combine efforts and achieve more significant results in the conservation of natural resources.

One of our key priorities is sustainable forest resource management. We support and organize events aimed at advocating the crucial importance of forest conservation and responsible forest management. We endorse research related to forests and engage in projects focused on forest protection and ecosystem restoration.

Our university is also actively involved in maintaining and restoring wild areas and biodiversity. We conduct research in the fields of ecology and biology, which help us better understand and preserve the wild nature. We also support programs and events aimed at protecting wild species, including endangered ones.

However, our activities go beyond research and education. We actively participate in practical initiatives related to sustainable land use. For instance, we organize community tree planting events and take part in projects to improve public green spaces.

Our efforts in the field of land conservation, including forests and wild areas, aim to contribute to a healthier and more sustainable planet for our current and future generations. We strive to ensure that our students and society as a whole recognize the importance of nature conservation and actively engage in this process [1].

### **1.2. Food on campus is sustainably farmed**

AzTU is a non-profit state educational institution located in Baku. Baku is a fairly large city that offers students a multitude of opportunities, from cafes, restaurants, and entertainment options to internships with major companies. The university campus encompasses the territory and buildings of the institution, which include educational, laboratory, sports, administrative, and utility facilities.

The university hosts a library with a collection that goes beyond textbooks and academic works; it also includes classic literature, contemporary publications, and more. Urban-type university campuses are often of smaller size, with buildings concentrated in one area or scattered throughout the city. The campus of Azerbaijan Technical University is situated in an urban zone and does not have significant land for agriculture. Therefore, the university does not engage in agricultural activities on campus. However, we actively support research and

educational programs related to sustainable agriculture, and we encourage students and researchers to participate in projects aimed at improving agriculture and sustainability in rural areas of Azerbaijan.

An important part of the natural environment on our campus is the presence of old trees. We value the existence of these mature trees on the campus, as they bring numerous benefits to the university environment and the overall surroundings. We are also open to exploring opportunities for caring for these trees, preserving them, and even participating in nature and tree conservation projects in collaboration with local organizations and communities.

Old trees offer a multitude of advantages, and we take pride in having them as a part of our university environment.

There are Faculty of Food Safety in AzTU [2.3]

### **1.3. Maintenance and extension of existing ecosystems and their biodiversity, of plants and animals, especially ecosystems under threat.**

AzTU supports scientific research aimed at studying and protecting diverse ecosystems and species. Our scientists conduct research in the fields of ecology, biology, nature conservation, as well as develop strategies to increase biodiversity.

We actively engage in projects initiatives focused on nature and ecosystem conservation. Our students and faculty collaborate with local and international organizations to make contributions to sustainable ecosystem management. We conduct greening and beautification programs which includes tree planting, the establishment of natural reserves and animal habitats, and the preservation of natural areas.

We offer educational programs designed to support biodiversity and ecosystem conservation. These programs encompass courses in ecology, nature conservation, and sustainable development. AzTU supports student clubs and groups that actively participate in environmental and social initiatives aimed at nature and biodiversity conservation [4].

Chief of the “Engineering physics and electronics” department Dr., prof. Matanat Mehrabova carried out scientific research studying the effect of anthropogenic pollution on the biodiversity of spiders, coccinellids, bees, snake venom and etc. in the framework of some projects [9- 31].

### **1.4 Ecosystems for local or national communities**

Our current initiatives related to ecosystems include integrating this theme into our educational courses and programs for students, as well as conducting seminars and lectures on nature conservation. However, these activities are primarily aimed at students and the academic community and may not always be accessible to the general public.

We acknowledge the need for educational programs that can reach local and national communities and help them better understand ecosystems, wildlife, and flora. In the future, we plan to explore opportunities for developing specialized educational programs and events that could be accessible and beneficial to a broader audience.

We are committed to continuing to strengthen our efforts in the field of education and understanding ecosystems, and we look forward to contributing to the education of local and national communities in the future.

### **1.5 Local or national communities on sustainable management of land for agriculture and tourism.**

In the Azerbaijan Polytechnic Institute (now AzTU) since 1960, the need to create a sports-health camp for the involvement of students-young people in physical education and sports, strengthening their health, appeared during the holidays. In order to create such a camp, the Council of Ministers of the Azerbaijan SSR issued an order on June 28, 1965 on the allocation of the appropriate land for the Polytechnic Institute. On July 14 of the same year, according to the order of the General Department of Forestry, 4 hectares of land was allocated for this purpose. This area is located in a charming corner of nature, surrounded by a green forest, near the town of Nabran on the northern shores of the Caspian Sea, about 250 km from Baku. The presence of a beach at the place where the area meets the sea, very close to it, turns these places into a beautiful natural recreation area. Necessary conditions for recreation have been created on that plot of land, appropriate facilities have been built for the organization of sports exercises and competitions in various types of sports. A canteen, a discotheque, sports grounds, a doctor's examination room, a bath and other household facilities have been put into use here. The university's Nabran Recreation Center was previously only for students. However, later, necessary conditions were created for the rest of the faculty and other employees. Now, up to 500 employees and students rest in the Nabran Recreation Center of AzTU every year during the summer season [5].

## **SECTION 2. SUPPORTING LAND ECOSYSTEMS THROUGH ACTION**

### **2.1. Conservation, restoration, and sustainable use of terrestrial ecosystems associated with the university, in particular forests, mountains, and drylands**

AzTU conducts periodic observations to study the environment protection, spread, development and dynamics of exogenous processes, cooperates with relevant executive authorities in monitoring the environment and natural resources.

A number of educational measures have been taken by our university in the establishment of new forests in the open areas of the forest fund (not covered by forests) and restoration of existing forest areas (sparse forests).

### **2.2 Identify, monitor, and protect any IUCN Red Listed species and national conservation list species with habitats**

Within the framework of measures for the protection of species included in the IUCN Red List, our university protects nature reserves, including biosphere reserves; national parks; nature parks; ecological parks, etc. participated in educational training and events for expansion.

Chief of the “Engineering Physics and Electronics” department Dr., prof. Matanat Mehrabova carried out scientific research studying air pollution by definition of heavy metals concentration and activity of radioactive elements in the content of mosses taken from the region around the AzTU campus [32- 36].

### **2.3 Local biodiversity in any planning and development process**

AzTU as an organization does not include local biodiversity in any planning and development process. Being a higher education institution, Azerbaijan Technical University supports these processes as in the framework of scientific researches, projects, as volunteers and startups within the framework of various events.

Chief of the “Engineering Physics and Electronics” department Dr., prof. Matanat Mehrabova carried out scientific research studying the effect of anthropogenic pollution on the biodiversity of spiders, coccinellids, beer, snake venom, etc. in the framework of some projects [9- 31].

## **2.4. Reduce the impact of alien species**

AzTU pays attention to the reproduction and protection of various types of trees and plants, both in the Campus area and outside it. Thus, volunteers consisting of university employees and students participate in tree - planting campaigns and forest greeting events with local community bodies and other public organizations [6].

## **2.5 Collaboration with the local community, e.g. through partnerships, in efforts to maintain shared land ecosystems**

At the AzTU started cooperation with local, regional and global groups and organizations for the protection and restoration of terrestrial ecosystems (especially forests). In this framework, seminars were organized jointly with the Ministry of Ecology and Natural Resources of Azerbaijan, educational events were held from time to time (in secondary schools of cities and regions of the country). At the same time, the representation of the European Union in the Republic of Azerbaijan actively participates in these events.

As an example of such measures, on June 28, 1965, the Council of Ministers of the Azerbaijan SSR issued an order on the allocation of the appropriate land for the AzTU. On July 14 of the same year, according to the order of the General Department of Forestry, 4 hectares of land was allocated for this purpose. This area is located in a charming corner of nature, surrounded by a green forest, near the town of Nabran on the northern shores of the Caspian Sea, about 250 km from Baku. The presence of a beach at the place where the area meets the sea, very close to it, turns these places into a beautiful natural recreation area. Every year, up to 500 employees and students rest in the Nabran Recreation Center of AzTU during the summer season [7].

## **SECTION 3. Land sensitive waste disposal**

### **3.1. Water quality standards and guidelines for water discharges.**

The AZS 929:2023 standard contains requirements for the safe management of drinking water in centralized and decentralized water supply systems, drinking water quality indicators and their acceptable levels.

During its development, we took into account the recommendations of the WHO European Office, set out in the working document on drinking water quality dated December 16, 2020 (Directive of the European Parliament and Council of Europe 2020/2184), as well as GOST 2874-82, SanPin 2.1.4.1074-02 and standards USEPA.

The new Azersu document contains three times more criteria for calculating quality. This included a requirement to conduct two types of radiological analyzes of water (according to the Soviet standard, the requirements for maintaining water quality in order to protect ecosystems, wildlife, human health and well-being for the safe management of drinking water had 30 parameters).

All powers for water purification, water quality standards and recommendations for water discharge rest with the Azersu organization.

### **3.2 Reducing plastic waste on campus.**

In connection with the adoption of the National Strategy for Improving Solid Waste Management in the Republic of Azerbaijan for 2018–2022 and the Action Plan to Reduce the Negative Impact of Plastic Container Waste on the Environment in the

Republic of Azerbaijan for 2019–2020, amendments were made to the law in November 2020 "On environmental protection." As a result, from January 1, 2021, the import, production and sale of plastic bags and single-use plastic products is prohibited throughout the country.

November 30, 2018 “In Azerbaijan, in general, more than 130 containers for collecting and sorting plastic utensils were installed in 35 cities and regions,” including on the campus of the Azerbaijan Technical University [8].

### 3.3 Waste disposal - covering hazardous materials

The State Phytosanitary Control Service, subordinate to the Ministry of Agriculture, according to the Resolution of the State Committee for State Property Management dated 27.07.2007, by the Resolution of the Cabinet of Ministers No 170 of 25.06.2007, it was reorganized, by the Order of the Ministry of Agriculture dated 16.10.2007 requirements for this landfill were approved. After the landfill was transferred under the control of the Ministry of Agriculture, an administrative building, a checkpoint, sanitary centers, and equipment storage facilities were created.

Since 2001, Azerbaijan has joined the UN Basel Convention on the Control of Transboundary Movements and Disposal of Hazardous Wastes. In 2004, Azerbaijan adopted a state strategy for hazardous waste management. The public association IDEA in Azerbaijan raised the issue of recycling used batteries and, organizing their collection in educational institutions in Baku. AzTU participate in this program.

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