SUSTAINABLE DEVELOPMENT GOAL NO. 15 «LIFE ON LAND»

Terrestrial ecosystems are the foundation of life on the planet and the space in which climate balance, biodiversity, food security, and the stability of natural cycles are formed. Forests, steppes, soils, and mountain systems form a complex network of interdependencies that supports the existence of human civilization.

In the 21st century, terrestrial ecosystems are under intense pressure: deforestation, soil degradation, urbanization, industrial load, and the consequences of climate change are creating a new environmental reality. These processes are cumulative in nature and are often irreversible without systemic restoration measures.

For Ukraine in 2025, the issue of preserving terrestrial ecosystems is particularly complex due to the consequences of the war, which affect natural areas, landscapes, soils, and biodiversity.

In these conditions, universities play an important role as scientific centers that study ecosystem conditions and develop approaches for their restoration and sustainable use.

In 2025, V. N. Karazin Kharkiv National University continued implementing Sustainable Development Goal No. 15 “Life on Land” through:

- biological and ecological research;
- educational programs;
- interdisciplinary scientific projects;
- international cooperation.

For Karazin University, terrestrial ecosystems are the living foundation of the natural world, where each element is significant for the integrity of the biosphere.

BIODIVERSITY AND NATURAL ECOSYSTEMS RESEARCH

In 2025, the university continued fundamental research on the biodiversity of regional ecosystems.

Main areas included:

- study of Ukraine’s flora and fauna;
- monitoring of species populations;
- research on ecological niches;
- analysis of changes in natural communities;
- assessment of rare and endangered species.

Biodiversity is considered an indicator of the ecological health of territories.

FOREST AND STEPPE ECOSYSTEM CONDITIONS

In 2025, special attention was given to the study of forest and steppe ecosystems of Ukraine.

The following issues were examined:

- degradation of forest areas;
- restoration of natural landscapes;
- condition of steppe territories;
- anthropogenic impact on natural zones;
- changes in vegetation structure.

Forests and steppes are regarded as key elements of the country’s ecological balance.

SOIL DEGRADATION AND ENVIRONMENTAL SECURITY

In 2025, the university continued studying soil conditions as the foundation of terrestrial ecosystems.

Main areas included:

- soil erosion;
- chemical contamination;
- loss of fertility;
- impact of military activities on soil cover;
- degradation of agricultural landscapes.

Soils are considered a resource that is not quickly renewable and therefore requires special protection.



IMPACT OF WAR ON NATURAL ECOSYSTEMS



In 2025, an important research direction remained the analysis of the war's impact on terrestrial ecosystems.

The following issues were examined:

- destruction of natural areas;
- soil and water contamination;
- disruption of animal migration;
- wildfires in natural ecosystems;
- long-term environmental consequences.

These studies are important for the future ecological recovery of the country.

EDUCATION IN ECOLOGY AND NATURE CONSERVATION

In 2025, the university continued developing educational programs related to ecology and biology.

Students studied:

- ecosystem ecology;
- nature conservation;
- biodiversity;
- sustainable development of natural areas;
- environmental monitoring methods.

Education is aimed at fostering a responsible attitude toward nature.

INTERDISCIPLINARY RESEARCH ON TERRESTRIAL ECOSYSTEMS

In 2025, Karazin University continued interdisciplinary research on natural ecosystems.

Main directions included:

- integration of biology, geography, and ecology;
- ecosystem process modeling;
- analysis of climate impacts;
- study of human–nature interactions.

This approach allows ecosystems to be viewed as holistic dynamic systems.



INTERNATIONAL COOPERATION IN ECOLOGY

In 2025, the university continued participation in international environmental programs.

Main directions included:

- joint scientific research;
- exchange of environmental data;
- participation in global biodiversity projects;
- integration into international scientific networks.

Environmental challenges are viewed as a shared global responsibility.

CONCLUSIONS

In 2025, V. N. Karazin Kharkiv National University continued implementing Sustainable Development Goal No. 15 “Life on Land” through:

- biodiversity research;
- study of soil conditions;
- analysis of war impacts;
- educational programs;
- interdisciplinary research;
- international cooperation.

The university views terrestrial ecosystems as the foundation of the planet’s natural balance. Their preservation represents a profound form of human responsibility toward the living world and future generations.