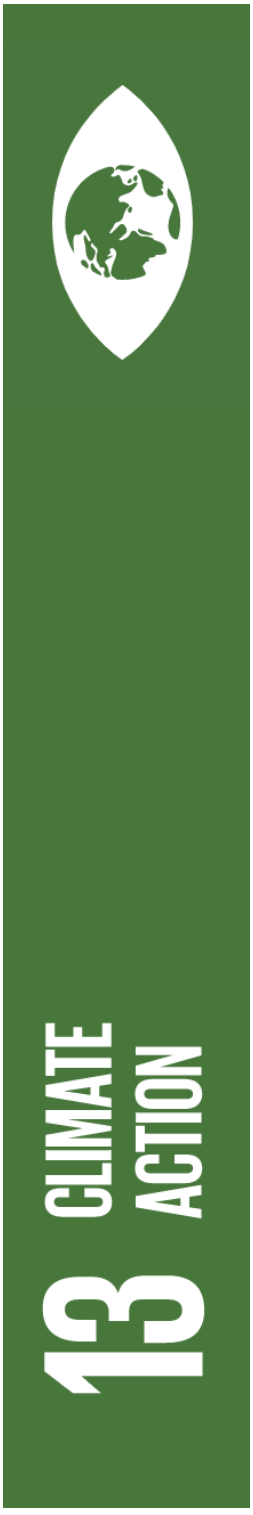
Azerbaijan TECHNICAL University



Report on Sustainable Development Goal 13

Climate Action

2025



Foreword

The accelerating impacts of climate change make immediate, coordinated action more crucial than ever. Sustainable Development Goal (SDG) 13 emphasizes the need for decisive measures to combat climate change and its consequences, highlighting the responsibility of institutions, governments, and individuals to work toward a resilient and sustainable future. This report highlights Azerbaijan Technical University's (AzTU) ongoing commitment to SDG 13, focusing on low-carbon energy adoption, environmental education, and international collaboration. By implementing measurable actions and setting ambitious targets, AzTU continues to strengthen its commitment to climate action.

Introduction

SDG 13 calls for urgent action to combat climate change and its impacts. In 2025, AzTU continued to integrate climate awareness across teaching, research, and infrastructure management. The university has reinforced climate literacy within its academic community and implemented low-carbon technologies as part of its ongoing "Green Transformation Roadmap."

Key 2025 focus areas included:

- Expanding renewable-energy and efficiency projects across campus facilities;
- Enhancing cooperation with international universities for climate innovation;
- Organizing training programs on sustainable technologies and environmental protection;
- Engaging students in awareness campaigns and applied climate-resilience projects.

The Quality Assurance Department monitors all university activities under the SDG framework to ensure transparency, efficiency, and measurable outcomes.

References

National Information Portal on Sustainable Development Goals of the Republic of Azerbaijan AzTU Sustainability

AzTU SDG 13 Report / November 2023

AzTU SDG 13 Report 2024

A Meeting with UN Experts at the Department of Energy Efficiency and Green Energy Technologies

Ecological Thinking Begins at School – Another Group of Students Joined the Green Mission at AzTU

A Workshop on AI in Precision Agriculture Project Held at AzTU

Training on Plastic Pollution Awareness and Bioplastic Production Held as Part of Sustainability Workshops

A Digital Transformation Strategy Will Be Developed for AzTU

SDG 13 keywords - Climate action			
Climate Action	Climate Change Mitigation	Climate Change Adaptation	Greenhouse Gas Emission Reduction
Carbon Emission Reduction	Carbon Management	Carbon Neutrality	Low-Carbon Technologies
Renewable Energy	Solar Energy	Wind Energy	Energy Efficiency
Sustainable Energy Transition	Climate Resilience	Climate Risk Assessment	Climate Action Planning
Climate Change Education	Climate Literacy	Environmental Awareness	Environmental Sustainability
Green Mission Initiative	Climate-Resilient Infrastructure	Sustainable Transportation	Climate-Smart Campus
Artificial Intelligence for Climate Solutions	AI-Driven Environmental Monitoring	Climate and Energy Research	Sustainable Agriculture
Climate-Resilient Agriculture	Smart Irrigation Systems	Pollution Prevention	Plastic Pollution Reduction
Sustainable Waste Management	Digital Transformation for Resource Efficiency	Decarbonization Strategies	Green Infrastructure Development
Climate Disaster Preparedness	International Climate Cooperation	Climate Capacity Building	Sustainable Development Partnerships

SDG 13 Targets

- **Integrate Climate Change Measures into Policies and Planning:**

AzTU actively monitors and measures low-carbon energy use across its campus, including rooftop solar photovoltaic panels with a capacity of 210 kW. The university aims to reduce campus emissions by 50% by 2030 through energy-efficient building designs and the promotion of sustainable transportation options such as electric vehicles, walking, and biking.

- **Improve Education, Awareness, and Capacity on Climate Change:**

AzTU's 5E Climate Change Model serves as the foundation for local education programs and international conferences that address climate risks, impact mitigation, and adaptation strategies. Through seminars, webinars, and campaigns, the university promotes environmental awareness and aims to foster a well-informed community capable of addressing climate-related challenges.

- **Implement the Commitment Undertaken by Developed-Country Parties to the UNFCCC:**

In alignment with Azerbaijan's ratification of the Paris Agreement, AzTU has developed a Climate Action Plan shared with local government and community groups. This plan outlines initiatives and collaborations aimed at reducing emissions and preparing the community for climate adaptation.

- **Promote Mechanisms to Raise Capacity for Climate Change-Related Planning and Management:**

AzTU collaborates with the Eurasian Energy and Sustainable Development Association (EESDA) to enhance its capacity for climate adaptation and sustainability projects. Through partnerships with local and international NGOs, the university supports projects that advance sustainable development and environmental resilience within the broader community.

Statistics and Their Indicators

Indicator	2023	2024	2025	Change (2023–2025)
Institutional Carbon Emissions (t CO_2)	960 t	890 t	730 t	**−24 %**
Renewable Energy Share in Operations	12 %	16 %	23 %	**+11 pp**
Number of Climate & Sustainability Workshops	11	17	23	**+109 %**
Participants in Green Mission Activities	480	730	1,050	**+119 %**
Research Projects Focused on Climate & Energy	18	26	34	**+89 %**
Campus Energy Intensity (kWh/m²)	**148**	**136**	**121**	**−18.2 %**

SDG 13's Positive Impact on Other SDGs

- **SDG 1 – No Poverty:** Effective climate action helps reduce the economic vulnerabilities that climate change creates, especially for low-income communities. By preventing climate-related disasters, improving resilience, and supporting sustainable livelihoods, SDG 13 reduces poverty risks caused by crop failure, loss of assets, and displacement. Strengthening climate adaptation ensures stable income sources and improves long-term economic security for marginalized populations.
- **SDG 2 – Zero Hunger:** Climate action promotes sustainable agricultural practices that are essential for maintaining food production and food security. Addressing issues like drought, soil degradation, and extreme weather helps protect crops and livestock. By supporting climate-resilient farming and improved irrigation systems, SDG 13 directly contributes to reducing hunger and ensuring stable food supply chains, especially in rural and vulnerable regions.
- **SDG 6 – Clean Water and Sanitation:** Climate action is closely linked to water management, as climate change influences water availability, quality, and distribution. Efforts to mitigate climate impacts help prevent the contamination and depletion of water resources. Strengthening water management through climate-responsive strategies ensures reliable clean water access and reduces the risk of floods and droughts.
- **SDG 7 – Affordable and Clean Energy:** Promoting climate action accelerates the transition to renewable energy sources, such as solar, wind, and hydropower. This shift reduces carbon emissions and air pollution while increasing energy security. Expanding clean energy infrastructure not only supports environmental sustainability but also makes energy more accessible and affordable for households and industries.
- **SDG 11 – Sustainable Cities and Communities:** Climate action encourages cities to adopt resilient infrastructure, efficient transport systems, and sustainable urban planning. Reducing emissions, increasing green spaces, and strengthening disaster preparedness help urban areas withstand climate risks. This improves overall living conditions, promotes healthier environments, and enhances long-term community resilience and sustainability.

Current situation

1. Collaboration on Renewable Energy and Climate Innovation

In partnership with the Department of Energy Efficiency and Green Energy Technologies, AzTU hosted a meeting with UN experts to discuss institutional strategies on sustainable energy transition and decarbonization.

Source: A Meeting with UN Experts at the Department of Energy Efficiency and Green Energy Technologies.

2. Green Education and Student Engagement

The *Green Mission* initiative expanded its outreach by engaging both students and local schools in ecological activities and awareness programs that emphasized sustainable urban living and environmental stewardship.

Source: Ecological Thinking Begins at School – Another Group of Students Joined the Green Mission at AzTU.

3. AI Applications for Resource Efficiency

AzTU hosted a workshop within the project on applying artificial intelligence in precision agriculture, highlighting data-driven approaches to more efficient use of land, water, and energy resources.

Source: A Workshop on AI in Precision Agriculture Project Held at AzTU.

4. Awareness and Capacity-Building Programs

Multiple events such as the *Sustainability Workshop Series* and *Plastic Pollution Awareness & Bioplastic Production Training* promoted community-based approaches to reducing pollution and improving waste management — key components of climate resilience.

Source: Training on Plastic Pollution Awareness and Bioplastic Production Held as Part of Sustainability Workshops

5. Digital Transformation for Resource Efficiency

AzTU announced the development of a Digital Transformation Strategy, which aims to reduce paper use and the operational carbon footprint through digital communication and e-learning platforms.

Source: A Digital Transformation Strategy Will Be Developed for AzTU

Future goals

- **Achieve Carbon Neutrality by 2035**: Implement an institutional carbon-management system, including monitoring, reduction, and offset mechanisms.
- **Expand Green Infrastructure**: Increase solar capacity, enhance building insulation, and promote energy-efficient retrofits.
- **Enhance Climate Literacy:** Introduce compulsory modules on climate science and sustainable technologies across all faculties.
- **Strengthen Regional Partnerships:** Collaborate with government and industry partners on climate innovation and resilience projects.
- **Develop a Climate-Smart Campus Policy:** Integrate climate risk assessment, disaster preparedness, and sustainable transport planning.

Conclusion

AzTU's 2025 initiatives under SDG 13 demonstrate a robust commitment to integrating climate action into education, research, and operations. By expanding renewable energy adoption, promoting environmental literacy, and embedding sustainability across disciplines, the university continues to shape a climate-resilient academic community.

AzTU's experience shows how higher-education institutions can translate scientific knowledge and civic responsibility into concrete steps toward a **low-carbon and sustainable future**.