Azerbaijan TECHNICAL University



Report on Sustainable Development Goal 11

Sustainable Cities and Communities

2025



Foreword

This report presents a comprehensive overview of Azerbaijan Technical University's (AzTU) ongoing dedication to Sustainable Development Goal 11 (SDG 11) in 2025, emphasizing the development of sustainable cities and communities. It highlights the university's latest initiatives, projects, and contributions aimed at preserving cultural heritage, promoting the arts, and integrating sustainable practices across its campus operations.

Introduction

In 2025, AzTU continues to advance Sustainable Development Goal 11 (SDG 11), focusing on creating sustainable, inclusive, and resilient communities. This report examines AzTU's efforts to enhance public access to cultural heritage, support artistic and cultural initiatives, and implement environmentally responsible practices within the campus, reflecting the university's commitment to shaping sustainable urban and campus environments.

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

References

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

AzTU SDG 11 Report / November 2023

AzTU SDG 11 Report 2024

Ecological Thinking Begins at School – Green Mission

Training on Plastic Pollution Awareness and Bioplastic Production

AzTU and Dithari Technologies Sign MoU on DISC Innovation and Sustainability Lab World Civil Defence Day Event Held at AzTU

AzTU Becomes a Full Member of AASHE

Artificial Intelligence in Universities – Change Is at Our Doorstep Digital Medicine 4.0 Conference

SDG 11 keywords - Sustainable cities and communities			
Sustainable Cities and Communities	Sustainable Urban Development	Urban Sustainability	Sustainable Urban Planning
Resilient Communities	Sustainable Infrastructure	Smart Campus Infrastructure	Green Campus Initiatives
Energy-Efficient Buildings	Renewable Energy Integration	Urban Green Spaces	Cultural Heritage Preservation
Arts and Cultural Initiatives	Public Access to Cultural Heritage	Sustainable Transportation	Eco-Friendly Commuting
Electric Shuttle Systems	Bike-Sharing Programs	Sustainable Waste Management	Waste Recycling and Segregation
Circular Economy Practices	Plastic Pollution Prevention	Bioplastic Production	Environmental Awareness
Climate Resilience	Disaster Risk Reduction	Community Safety and Preparedness	Smart Building Technologies
Digital Infrastructure Monitoring	Carbon Emission Reduction	Sustainable Consumption	Urban Technology Innovation
Community Engagement	Sustainability Education	Environmental Research and Innovation	International Sustainability Partnerships
Sustainable Urban Mobility	Climate Change Adaptation	Urban Sustainability Research	Sustainable Campus Development

SDG 11 Targets

1. **Support of Arts and Heritage**

- Public access to culturally significant monuments and buildings.
- Engagement with local arts and community events.

2. **Expenditure on Arts and Heritage**

- Funding allocation for preserving cultural assets and supporting artistic initiatives.

3. **Sustainable Practices**

- Promoting sustainable commuting options for students and staff.
- Encouraging the use of renewable energy sources.

Statistics and Their Indicators

Indicator	2023	2024	2025	Change (2023–2025)
Campus energy efficiency (kWh per m^2)	148	136	121	−18.2 %
Waste recycled (%)	22 %	28 %	36 %	+14 pp
Green space coverage (m^2 per person)	6.2	6.8	7.5	+21 %
Student participation in sustainability projects	820	1,050	1,380	+68 %
Faculty involved in sustainability research	43	52	61	+42 %
CO_2 emissions (tons/year)	960	890	730	−24 %
Community outreach programs conducted	9	14	19	+111 %
Active international sustainability partnerships	10	15	21	+110 %

SDG 11's Positive Impact on other SDGs

SDG 1 (No Poverty): Promoting affordable housing and inclusive urban services helps reduce urban poverty and improves living standards for low-income communities.

SDG 3 (Good Health and Well-being): Cleaner air, safe public spaces, efficient transport and proper waste management contribute to better physical and mental health for city residents.

SDG 4 (Quality Education): Developing accessible schools and safe transportation networks ensures that all children, including those in marginalized areas, can attend and benefit from education.

SDG 7 (Affordable and Clean Energy): Encouraging energy-efficient buildings and expanding access to clean energy in urban areas supports lower emissions and reduces energy-related inequalities.

SDG 8 (Decent Work and Economic Growth): Well-planned cities attract businesses, create job opportunities, and support sustainable economic development through efficient infrastructure and innovation.

SDG 13 (Climate Action): Sustainable urban planning reduces carbon emissions and enhances climate resilience by promoting green spaces, public transport, and low-emission development models.

Current situation

1. **Green Campus and Environmental Awareness**

- The "Ecological Thinking Begins at School – Green Mission" campaign engaged both students and faculty in urban greening and waste management activities. (**source**)
- Workshops on plastic pollution awareness and bioplastic production were organized to promote sustainable consumption and environmental innovation. (**source**)
- Waste segregation bins and energy-efficient lighting systems were expanded across campus facilities, contributing to a measurable reduction in annual energy consumption.

2. **Sustainable Infrastructure and Innovation**

- The DISC Innovation and Sustainability Lab was launched in partnership with Dithari Technologies, providing a platform for urban technology solutions and clean innovation. (**source**)
- The university integrated smart building technologies and digital monitoring systems to enhance infrastructure efficiency and reduce its environmental footprint.

3. **Resilience, Safety, and Community Engagement**

- AzTU hosted events dedicated to World Civil Defence Day, emphasizing the role of safety, preparedness, and disaster resilience in community sustainability. (**source**)
- Student-led volunteer groups collaborated with local NGOs and the Ministry of Science and Education to support community-driven sustainability projects.

4. **International Cooperation and Knowledge Exchange**

- AzTU's international collaborations with Pakistan, Türkiye, Germany, and Malaysia focused on sustainable engineering and green innovation.
- Conferences such as "Digital Medicine 4.0" and "Artificial Intelligence in Universities: Change Is at Our Doorstep" further integrated sustainability and innovation across disciplines.
- The university's membership in AASHE (Association for the Advancement of Sustainability in Higher Education) reinforced its global standing in sustainable higher education. (**source**)

Future goals

1. **Develop Smart Campus Infrastructure:** Introduce renewable energy systems, including solar panel networks and smart energy management across university buildings.
2. **Enhance Waste Management and Circular Economy Practices:** Implement a full digital waste tracking system and expand bioplastic production pilot projects.
3. **Increase Community Engagement:** Partner with local schools and municipalities to scale the *Green Mission* initiative citywide.
4. **Advance Sustainable Transport:** Promote eco-friendly commuting through electric shuttle systems and bike-sharing programs.
5. **Establish a Center for Urban Sustainability and Climate Resilience:** Focus on research and policy development for sustainable city design and climate adaptation in Azerbaijan.

Conclusion

The 2025 period marked significant progress in AzTU's journey toward urban sustainability and community development.

By embedding sustainability principles into every aspect of university life—from curriculum design to infrastructure modernization—AzTU has positioned itself as a forward-thinking institution contributing meaningfully to **SDG 11**.

Through its innovative projects, community collaborations, and international partnerships, the university not only enhances its campus environment but also actively shapes the sustainable future of Azerbaijan's urban landscape.