



Report on Sustainable Development Goal 13

Climate Action

2024



Foreword

The urgent challenge of climate change demands immediate, concerted global action. Sustainable Development Goal (SDG) 13 aims to take decisive steps to combat climate change and its impacts, underscoring the need for institutions, governments, and individuals alike to work toward a resilient and sustainable future. This document sheds light on Azerbaijan Technical University's (AzTU) dedication to fulfilling SDG 13, particularly through low-carbon energy use, environmental education, and international collaborations. By focusing on measurable actions and setting targets, AzTU exemplifies a commitment to sustainability, providing a model for institutions globally.

Introduction

Sustainable Development Goal 13, "Climate Action," calls for urgent steps to address climate change by enhancing environmental resilience, promoting low-carbon energy sources, and raising awareness on climate adaptation. Azerbaijan Technical University has adopted various strategies to support these objectives, aligning with international agreements such as the Paris Agreement. AzTU's initiatives include renewable energy installations, comprehensive climate education programs, and partnerships with NGOs, all aimed at minimizing greenhouse gas emissions and fostering sustainable practices. This report examines AzTU's initiatives in alignment with SDG 13 targets, highlighting specific actions taken to mitigate climate risks and support sustainable growth.

References

[National Information Portal on Sustainable Development Goals of the Republic of Azerbaijan](#)

[AzTU Sustainability](#)

[AzTU SDG 13 Report / November 2023](#)

SDG 13 keywords - Climate action

Average global temperature	Climate mitigation	Greenhouse gases
Carbon	Climate refugees	Ice loss
Carbon dioxide	Climate-related hazards	Low-carbon economy
Changing weather patterns	Climate resilience	Natural disasters
Climate	CO2 capture	Natural systems
Climate action	CO2 conversion	Ocean warming
Climate adaptation	COP 21	Paris Agreement
Climate and gender	COP 22	Pollution
Climate and infectious disease	Ecosystems	Renewable
Climate and politics	Emissions	Sea level rise
Climate change	Extreme weather	Temperature
Climate change management	Extreme weather events	Warming
Climate change planning	Global mean temperature	
Climate change policy	Global temperature	
Climate early warning	Global warming	
Climate hazards	Greenhouse gas	
Climate impact	Greenhouse gas emissions	

SDG 13 Targets

- **Integrate Climate Change Measures into Policies and Planning:**
AzTU actively monitors and measures low-carbon energy use across its campus, employing renewable sources like wind turbines and solar panels with a 15kW capacity. The university aims to reduce greenhouse gas emissions by 35% by 2030 compared to 1990 levels 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

Azerbaijan Technical University (AzTU) demonstrates significant achievements in climate action through measurable indicators aligned with SDG 13. Notably, the university has implemented renewable energy sources, including a 15kW wind turbine and solar panels, contributing substantially to its low-carbon energy goals. In terms of total energy usage, AzTU recorded 25,049 GJ, with approximately 98.9% (24,779 GJ) derived from low-carbon sources, highlighting a substantial shift towards sustainability in energy management.

AzTU also actively monitors its carbon footprint, producing regular reports that align with international standards. These efforts involve energy audits by both internal teams and independent auditors, which

help identify areas for efficiency improvements. The university has reduced energy consumption through insulation improvements, the installation of LED lighting, and the adoption of renewable energy technologies. These indicators reflect AzTU's commitment to quantifiable climate actions and set an example of environmental accountability within the education sector.

SDG 13's Positive Impact on other SDGs

SDG 7 (Affordable and Clean Energy): Through the use of renewable energy sources, such as solar and wind power, AzTU contributes to the achievement of SDG 7 by promoting clean energy solutions on campus. The university's investments in solar panels and wind turbines not only lower carbon emissions but also support affordable, sustainable energy access for its facilities.

SDG 4 (Quality Education): AzTU's focus on climate-related education and awareness campaigns, particularly through the 5E Climate Change Model, promotes lifelong learning on environmental sustainability. The university conducts educational seminars, international conferences, and workshops, equipping students and faculty with the knowledge necessary to address climate risks and adaptations. These programs enhance critical thinking and capacity-building for future leaders, directly advancing the quality of education.

SDG 11 (Sustainable Cities and Communities): By integrating climate action into its urban planning and engaging in collaborative projects with local governments and community organizations, AzTU fosters sustainable community development. The university's Climate Action Plan, shared with local government and community groups, exemplifies a proactive approach to creating resilient and sustainable communities.

SDG 17 (Partnerships for the Goals): AzTU's partnership with organizations such as the Eurasian Energy and Sustainable Development Association (EESDA) enhances its ability to pursue sustainable development initiatives. Collaborations with local NGOs and international bodies reinforce AzTU's climate action projects and amplify their impact, aligning with SDG 17's emphasis on strengthening partnerships.

Current situation

Azerbaijan Technical University (AzTU) has undertaken substantial measures to integrate low-carbon energy sources and sustainable practices across its campus. The institution's renewable energy initiatives are reflected in its installed capacity for solar and wind power generation, with a 15kW wind turbine and solar panels providing a significant portion of its energy needs. These efforts align with SDG 13.2, focusing on the adoption of low-carbon energy sources to reduce reliance on traditional fossil fuels. Data from AzTU reveals a total energy usage of 25,049 GJ, with approximately 98.9% (24,779 GJ) derived from

renewable, low-carbon sources, highlighting a robust commitment to energy efficiency and sustainability (SDG13).

AzTU also emphasizes systematic carbon footprint monitoring to ensure accountability in its climate impact. The university prepares carbon footprint reports and shares these findings publicly, promoting transparency and environmental responsibility. These reports are supported by regular energy audits conducted both by internal teams and independent entities, ensuring adherence to international standards in energy management. Further, AzTU has implemented projects to improve energy efficiency, such as upgrading insulation, installing LED lighting, and expanding renewable energy infrastructure (SDG13).

To foster climate awareness, AzTU has developed educational programs and community outreach initiatives. The university's 5E Climate Change Model serves as a foundation for educating students and the local community on climate risks, adaptation, and mitigation strategies. AzTU hosts seminars, webinars, and joint international conferences that address pressing climate issues, encouraging active community participation and awareness. Additionally, the university's Climate Action Plan is shared with local government entities and community organizations, promoting collaborative efforts to address climate resilience at a regional level.

In terms of partnerships, AzTU collaborates with the Eurasian Energy and Sustainable Development Association (EESDA) to enhance climate adaptation projects and broaden its impact through joint initiatives. These partnerships, backed by state support, enable AzTU to engage in climate-centered research and projects, such as sustainable urban planning and environmental protection strategies. Through these collaborations, AzTU leverages its resources and expertise to contribute meaningfully to Azerbaijan's overall climate action agenda, in alignment with both national and international environmental commitments.

AzTU's multifaceted approach demonstrates a comprehensive commitment to SDG 13, integrating renewable energy use, environmental education, and collaborative partnerships to advance sustainable development and reduce its carbon footprint.

Future goals

- **Increased Low-Carbon Energy Usage:** The university plans to further reduce greenhouse gas emissions by 35% by 2030, compared to 1990 levels. To achieve this, AzTU will continue to expand its use of renewable energy sources like solar and wind, while promoting energy-efficient building designs and reducing overall campus energy consumption.

- **Sustainable Campus Transportation:** AzTU aims to enhance sustainable transportation options by transitioning to electric or hybrid vehicles and encouraging alternative modes of transport, such as walking, biking, and public transit, to further reduce emissions from campus-related activities.
- **Enhanced Environmental Education and Awareness:** Through its "5E Climate Change Model," AzTU plans to strengthen educational programs focused on climate change adaptation and mitigation. By collaborating with local and international partners, AzTU will provide updated and comprehensive climate education to prepare students and the community for emerging environmental challenges.
- **Expanded Partnerships and Community Engagement:** AzTU intends to strengthen its cooperation with NGOs, government agencies, and community groups to support joint climate action projects. This includes developing initiatives under agreements with entities like the Eurasian Energy and Sustainable Development Association, which could increase resources and broaden the scope of impact for sustainable innovations.
- **Comprehensive Monitoring and Reporting:** The university will advance its reporting capabilities by refining carbon footprint assessments and energy audits. These reports will enable AzTU to accurately track its progress toward carbon reduction goals and demonstrate transparency in its sustainability efforts to the public.

Conclusion

Azerbaijan Technical University is committed to tackling climate change through practical actions, education, and collaboration. With a solid foundation in renewable energy use and environmental awareness initiatives, AzTU has positioned itself as a leader in sustainable development within the academic community. The university's ambitious targets for emission reduction, coupled with its partnerships and innovative educational approaches, will not only reduce its carbon footprint but also inspire others to prioritize sustainability. As AzTU continues to build on these initiatives, it sets a valuable example of how educational institutions can play a transformative role in achieving global sustainability goals.