MINGACHEVIR STATE UNIVERSITY

MINGACHEVIR STATE UNIVERSITY

Report

11 SUSTAINABLE CITIES AND COMMUNITIES

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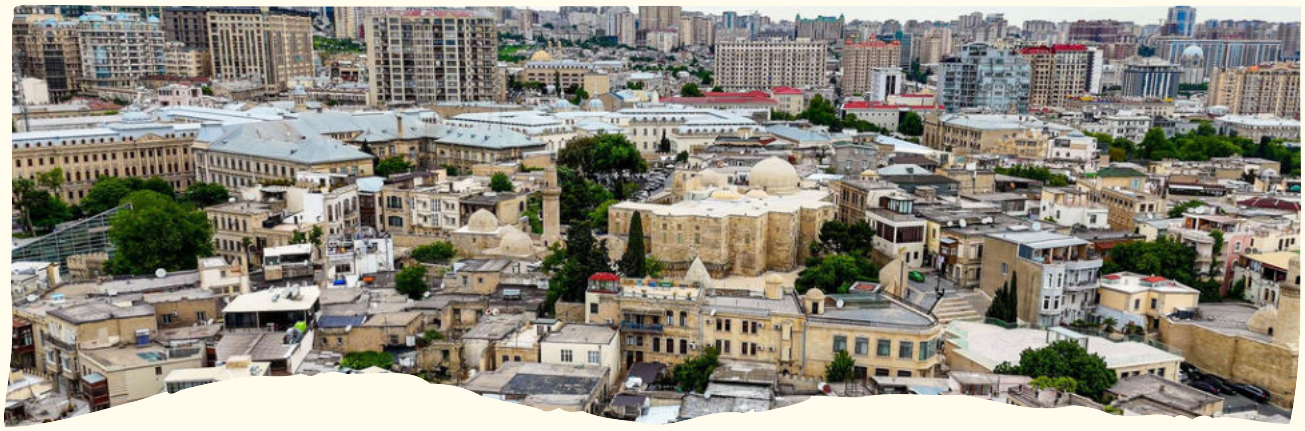
At a glance

GENERAL INFORMATION ON THE SDG

11 SUSTAINABLE CITIES AND COMMUNITIES

One of the Sustainable Development Goals (SDGs) of the United Nations, SDG 11 – "Sustainable Cities and Communities", aims to make cities and human settlements inclusive, safe, resilient, and sustainable. This goal focuses on improving urban planning, ensuring access to adequate housing, enhancing public transportation systems, reducing environmental impact, and preserving cultural and natural heritage. It also emphasizes the importance of disaster risk reduction and the development of smart, sustainable urban infrastructure.

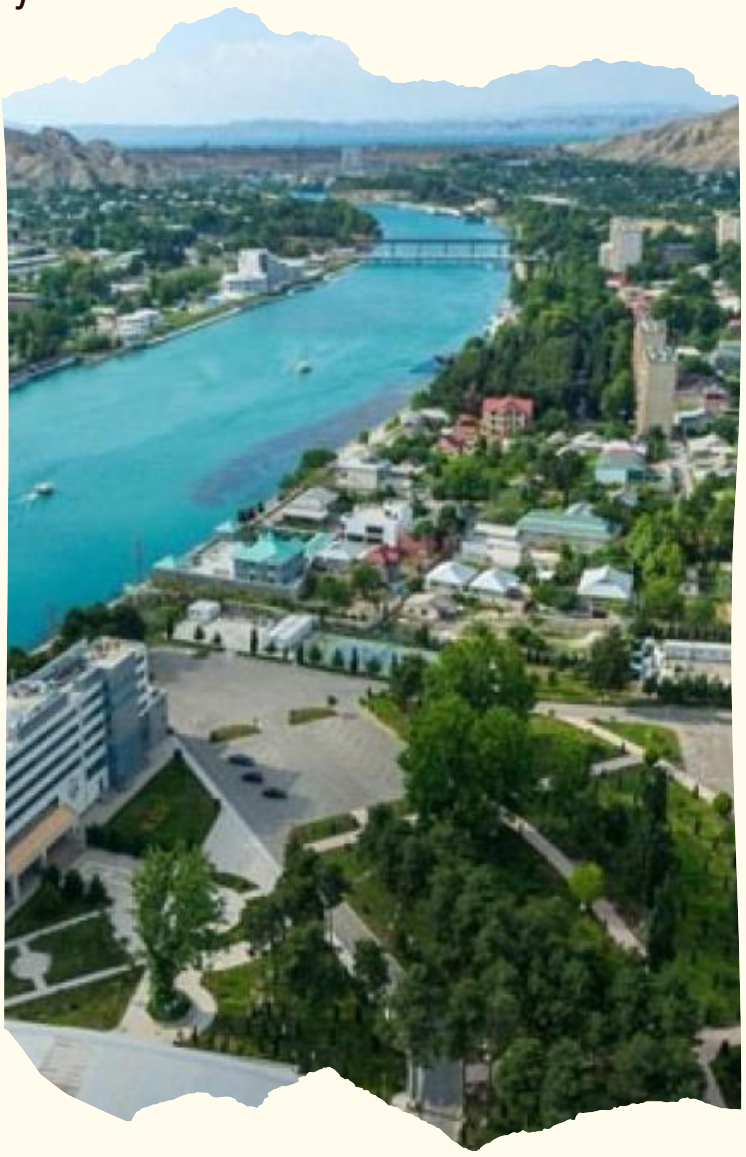
Cities are central to economic growth, innovation, and social development. More than half of the world's population currently lives in urban areas, and this proportion continues to increase. Urban environments provide opportunities for education, employment, and cultural exchange. At the same time, cities play a critical role in addressing global challenges such as climate change, energy efficiency, and sustainable resource management.



However, rapid urbanization has led to numerous challenges, including overcrowding, air pollution, inadequate infrastructure, housing shortages, and increased pressure on natural resources. Traffic congestion, waste management issues, and limited access to green spaces negatively affect the quality of urban life. In addition, vulnerable populations often face inequality in accessing basic services such as housing, transportation, and healthcare. Therefore, SDG 11 represents a key priority that integrates environmental sustainability with social equity and economic development.

Mingachevir State University places significant importance on promoting sustainable urban development and integrating SDG 11 principles into its institutional framework. The university actively contributes to raising awareness about sustainable cities, urban ecology, and responsible resource use among students and the broader community. Through its academic programs, the university encourages the development of knowledge and competencies related to urban sustainability, environmental protection, and smart city solutions.

SDG-related topics are incorporated into programs such as engineering, environmental studies, energy management, and urban planning. These programs enable students to understand the challenges of modern cities and to develop innovative, sustainable solutions. In addition, the university supports scientific research focused on urban infrastructure, renewable energy integration, waste management systems, and sustainable transportation.



Through research projects, workshops, and collaborations with local institutions, the university actively contributes to improving urban environments at the regional level. These initiatives support the application of academic knowledge to real-life urban challenges, including environmental protection, resource management, and infrastructure development. Laboratory work and field studies provide students with practical experience, enabling them to analyze urban issues and develop realistic, sustainable solutions.

In addition, the university organizes public initiatives, awareness campaigns, and community engagement activities that promote sustainable lifestyles and responsible urban citizenship. By encouraging active participation from both students and the wider community, these efforts help raise awareness of urban sustainability and strengthen the university's overall contribution to regional development.

The main purpose of this report is to systematically present and analyze the activities carried out by Mingachevir State University within the framework of SDG 11 – "Sustainable Cities and Communities." The report examines the university's educational programs, research activities, governance strategies, and community-based initiatives, evaluating their impact on urban sustainability.

At the same time, the document highlights the university's role in supporting sustainable urban development at both regional and national levels. It emphasizes contributions to improving living conditions, promoting environmental responsibility, and fostering innovation in urban systems. The report also aims to identify key priorities for future development, enhance strategic planning, and strengthen the university's overall contribution to achieving SDG 11.

POLICY AND STRATEGIC ALIGNMENT

Mingachevir State University has adopted sustainable development principles at the institutional level and has approved a number of official policy documents that directly support the implementation of the Sustainable Development Goals (SDGs), including SDG 11 – "Sustainable Cities and Communities." The university's Sustainable Development Policy, Environmental Policy, Climate Change Mitigation Policy, Energy Efficiency and Green Infrastructure Policy, Waste Management and Recycling Policy, Zero Emission Policy and Clean Water Policy define sustainable urban development, environmental protection, efficient resource use, and the creation of inclusive and resilient communities as key institutional priorities.

The **Sustainable Development Policy** ensures the systematic integration of sustainability principles across all university activities, including teaching, research, governance, and community engagement (available at: https://sustainable.mdu.edu.az/wp-content/uploads/2026/03/Sustainable-Development-Policy.pdf). Within the framework of SDG 11, this approach promotes sustainable urban planning, improved environmental quality, efficient infrastructure development, and strengthened social inclusion.

The **Environmental Policy** focuses on reducing the university's environmental impact in urban contexts, minimizing its carbon footprint, improving waste management systems, and supporting the development of a "green campus" model as part of sustainable city initiatives (available at: https://sustainable.mdu.edu.az/wp-content/uploads/2026/03/Environmental-Policy.pdf). It prioritizes pollution reduction, sustainable resource use, environmentally friendly infrastructure, and the creation of healthier urban environments. In line with SDG 11, the policy also emphasizes environmental risk management, climate resilience, and the promotion of sustainable urban living practices.

The **Clean Water Policy** is particularly aligned with SDG 14 and SDG 6. It addresses the protection and sustainable use of water resources, efficient water consumption, wastewater management, and the prevention of water pollution (available at: https://sustainable.mdu.edu.az/wp-content/uploads/2026/03/Clean-Water-Policy.pdf). This policy demonstrates the university's systematic contribution to safeguarding aquatic ecosystems and ensuring water sustainability.

The **Climate Change Mitigation Policy** at Mingachevir State University supports SDG 11 by promoting the reduction of greenhouse gas emissions and enhancing urban resilience (available at: https://sustainable.mdu.edu.az/wp-content/uploads/2026/03/Climate-Change-Mitigation-Policy.pdf). It focuses on energy efficiency, renewable energy use, and sustainable transportation, while also supporting climate-responsive urban planning. Overall, the policy contributes to safer, more resilient, and sustainable urban communities.

The **Energy Efficiency and Green Infrastructure Policy** at Mingachevir State University supports SDG 11 by promoting energy-efficient systems and sustainable infrastructure (available at: https://sustainable.mdu.edu.az/wp-content/uploads/2026/03/Energy-Efficieny-and-Green-Infrastructure-Policy.pdf). It focuses on reducing energy consumption, increasing the use of renewable energy, and implementing green building practices. Overall, the policy contributes to resilient, smart, and sustainable urban development while improving the quality of life.

The **Waste Management and Recycling Policy** at Mingachevir State University supports SDG 11 by promoting waste reduction, proper segregation, and recycling practices that contribute to cleaner urban environments (available at: https://sustainable.mdu.edu.az/wp-content/uploads/2026/03/Waste-Management-And-Recycling-Policy.pdf). It also encourages responsible resource use and sustainable consumption, helping to reduce pollution and improve urban environmental quality.

The **Zero Emission Policy** supports SDG 11 by aiming to significantly reduce greenhouse gas emissions and promote cleaner urban spaces (available at: https://sustainable.mdu.edu.az/wp-content/uploads/2026/03/Zero-Emission-Policy.pdf). It focuses on renewable energy, energy-efficient technologies, and sustainable transportation, contributing to healthier and more resilient communities.

The "MSU 2030: Development Strategy" identifies sustainable development as a core strategic priority of the university, aiming to align education, research, and governance processes with global sustainability challenges while integrating the SDGs into all institutional activities. Within this framework, several strategic directions are closely linked to SDG 11 – "Sustainable Cities and Communities," including the promotion of urban sustainability and the development of a "green campus" model, the efficient use of energy and natural resources, and the reduction of environmental pollution to improve urban environmental quality. The strategy also prioritizes directing scientific research toward key urban challenges such as sustainable infrastructure, transportation, and smart city solutions, while enhancing the knowledge and competencies of students and staff in sustainable urban development. This comprehensive approach demonstrates that MSU integrates the SDGs not only within academic activities but also across institutional governance and campus-wide policies. At the same time, the strategy highlights the university's active role in supporting sustainable urban development, improving living conditions, and contributing to solutions for urban challenges at both regional and national levels.

IMPLEMENTATION AND MAIN ACTIVITIES

3.1 TEACHING AND LEARNING

Mingachevir State University integrates topics relevant to SDG 11 – "Sustainable Cities and Communities" into its academic curriculum through a wide range of environment-, engineering-, and urban-oriented courses. These include subjects such as urban planning, environmental protection, sustainable infrastructure, smart city technologies, transportation systems, and energy efficiency.

Although not all courses are exclusively dedicated to urban sustainability, many incorporate key concepts related to sustainable urban development, resource efficiency, and improving the quality of life in cities. This interdisciplinary approach enables students to understand the complexity of urban challenges, including environmental, social, and economic dimensions, as well as their global and regional implications.

SDG 11-related content is mainly delivered through programs in fields such as Environmental Engineering, Energy Engineering, Urban Planning, Information Technologies, and other technical and social science disciplines. These programs are designed to provide students with both strong theoretical foundations and practical competencies related to sustainable urban systems, smart city solutions, and infrastructure development. Students gain knowledge in areas such as sustainable transport systems, urban resilience, environmental impact assessment, and digital solutions for city management. Through this academic framework, they develop the ability to analyze urban problems, design innovative and evidence-based solutions, and understand the importance of inclusive, safe, and resilient communities.

Sustainability principles, including those aligned with SDG 11, are systematically embedded across the university's curriculum. Rather than being confined to standalone courses, urban sustainability topics are integrated into multiple modules and disciplines, ensuring that students from diverse academic backgrounds are exposed to sustainable city concepts. This approach promotes cross-disciplinary thinking and encourages students to consider sustainability as a shared responsibility across all sectors. Practical components such as workshops, simulations, case studies, and project-based learning play a crucial role in this process. These methods allow students to apply theoretical knowledge to real-world urban issues, develop critical thinking skills, and engage in collaborative problem-solving. For instance, initiatives such as the Master Class on Transformational Planning (https://mdu.edu.az/transformative_17-06-25/) provide students with exposure to global perspectives on urban transformation, mobility, and land-use planning in the context of contemporary challenges.

Student participation is a central element in the effective implementation of SDG 11 within the teaching and learning process. Students are actively engaged in coursework, innovation projects, and applied assignments related to urban development, environmental sustainability, and smart technologies.

They are encouraged to work on real-life case studies, conduct field observations, and develop project-based solutions that address local urban challenges. In addition, students take part in a variety of extracurricular activities, including seminars, trainings, hackathons, and awareness campaigns that focus on sustainable cities and communities. Events such as the Training on Academic Startup Solutions for Urban Challenges (https://mdu.edu.az/training-on-academic-startup-solutions-for-urban-challenges-09-10-25/), Smart City initiatives (https://mdu.edu.az/smart_city_17-09-25/), and the City of the Future event (https://mdu.edu.az/city-of-the-future_01-12-25/) further strengthen their entrepreneurial mindset, digital skills, and capacity for innovation.

3.2 RESEARCH

Mingachevir State University actively implements research activities aligned with SDG 11 – "Sustainable Cities and Communities," focusing on sustainable urban development, smart city solutions, environmental quality, and resilient infrastructure. Various applied research initiatives have been carried out in areas such as urban mobility, green infrastructure, energy efficiency, and sustainable land use. These activities are supported through interdisciplinary collaboration, combining engineering, environmental sciences, and information technologies to address complex urban challenges in an integrated manner.

The university also strengthens research capacity through practical engagement with real urban challenges. Key research directions include smart mobility systems, digital urban solutions, sustainable energy integration, and environmental monitoring in urban areas. For instance, the Ecological Mobility Hackathon (https://mdu.edu.az/ecological-mobility-hackathon-held-at-mdu/) encourages participants to develop environmentally friendly transport solutions and innovative mobility concepts. Through applied methodologies such as field studies, data analysis, and project-based research, students and academic staff work together to generate innovative and context-specific solutions.

In addition, initiatives such as City Mobility activities (https://mdu.edu.az/city_mobility_18-12-25/) focus on improving urban transport efficiency and accessibility, while the Smart Solutions event (https://mdu.edu.az/smart-solution_18-11-25/) highlights the role of digital technologies and innovation in solving urban challenges. Scientific knowledge exchange is further supported through events like the Scientific Seminar (https://mdu.edu.az/scentific_13-04-25/), which contributes to strengthening research capacity and academic collaboration.

At present, research outputs related to SDG 11 are disseminated through national and institutional scientific journals, conference proceedings, and academic events. Faculty members publish studies on topics such as sustainable urban systems, environmental protection, and infrastructure development. Although international indexed publications are gradually increasing, the university continues to expand its global research visibility through collaborations and joint projects.

SDG 11-related topics are also actively integrated into undergraduate and graduate research. Students conduct projects on urban sustainability, smart technologies, waste management, and energy-efficient systems. Field-based activities, applied research, and project work enhance students' analytical and problem-solving skills while contributing to real urban development challenges. Research activities are further supported by infrastructure such as Green Infrastructure initiatives (https://mdu.edu.az/green-infrastructure_18-12-25/), which provide opportunities for applied experimentation in sustainable urban systems.

Moreover, specialized facilities like the Water Laboratory (https://mdu.edu.az/water-lab-13-12-25/) enable detailed environmental analysis and support research on water resource management and urban ecological systems. These resources strengthen the practical dimension of research and allow students and researchers to test and implement innovative solutions.

Overall, Mingachevir State University demonstrates a comprehensive and integrated approach to implementing SDG 11 through its research, innovation, and academic activities. The university not only equips students with relevant knowledge and competencies but also actively contributes to solving urban challenges and promoting sustainable, resilient, and inclusive community development at regional and national levels.

3.3 SOCIAL AND INDUSTRIAL ENGAGEMENT

Mingachevir State University (MSU) plays an active and strategic role in cooperation with industry partners and public institutions in promoting sustainable urban development, smart city solutions, and environmentally responsible practices in line with SDG 11 – "Sustainable Cities and Communities." Collaboration with key sectors such as energy, transportation, urban planning, and environmental management creates opportunities for knowledge exchange, joint initiatives, and the practical application of academic expertise.

MSU actively engages in public awareness initiatives related to sustainable urban living and environmental responsibility. The university implements a range of projects aimed at improving urban environmental quality, expanding green spaces, encouraging sustainable transportation, and reducing pollution. Public campaigns such as tree-planting initiatives (https://mdu.edu.az/tree-planting_10-05-25/) not only contribute to environmental improvement but also promote ecological awareness and community participation in sustainability efforts.

Through student involvement in volunteering and outreach activities, the university strengthens its connection with the local community. Initiatives such as Safe Campus programs (https://mdu.edu.az/safe-campus_01-11-25/) and awareness events on sustainable mobility foster responsible behavior, safety awareness, and environmental consciousness among students and citizens. These activities enhance social responsibility while supporting the development of inclusive and sustainable urban communities.

The university also organizes a wide range of seminars, trainings, and workshops that address key topics such as smart cities, urban planning, sustainable mobility, and green infrastructure. Activities like the Smart City initiative (https://mdu.edu.az/smart_city_17-02-26/) provide students with both theoretical knowledge and hands-on experience, enabling them to better understand and respond to complex urban systems and challenges.

3.4 CASE STUDIES: SDG 11 IN PRACTICE

This figure presents Case Study 1 on Sustainable Campus and Green Infrastructure at Mingachevir State University under SDG 11 (Sustainable Cities and Communities). It highlights the University's integrated efforts to enhance campus sustainability through green infrastructure development and resource-efficient planning aligned with sustainable urban principles.

Between 2024 and 2025, two major infrastructure upgrades were completed, including the development of green zones, pathways, and modern lighting systems. The campus green areas increased by 15%, alongside the installation of energy-efficient outdoor lighting and improvements in environmental conditions and accessibility.

3.4 CASE STUDIES: SDG 11 IN PRACTICE

This figure presents Case Study 2 on Sustainable Mobility and Smart Urban Solutions at Mingachevir State University under SDG 11 (Sustainable Cities and Communities). It illustrates the University's efforts to promote sustainable urban mobility and smart city concepts through educational, technological, and awareness-based initiatives.

Between 2024 and 2025, six seminars and awareness events on sustainable transport were conducted with the participation of over 300 students and staff. In addition, five digital innovation events focused on smart systems and urban technologies, covering topics such as urban mobility, smart infrastructure, IoT, and data-driven solutions.

3.4 CASE STUDIES: SDG 11 IN PRACTICE

This figure presents Case Study 3 on Community Engagement and Social Sustainability at Mingachevir State University under SDG 11 (Sustainable Cities and Communities). It highlights the University's active role in promoting inclusive and sustainable communities through outreach programs, cultural initiatives, and stakeholder engagement.

Between 2024 and 2025, more than 10 community engagement initiatives were implemented, along with 12 cultural and social events, reaching over 700 beneficiaries. The University also strengthened collaboration with local institutions and organizations.

EVIDENCE

An event dedicated to green infrastructure and sustainable urban development was held at Mingachevir State University. The role of urban planning, public transport systems, and environmentally friendly infrastructure in improving city ecosystems was widely discussed (https://mdu.edu.az/green-infrastructure_18-12-25/). It was highlighted that efficient transport systems and well-designed urban infrastructure are essential for reducing congestion, minimizing environmental impacts, and enhancing the quality of urban life.

An open lesson on "Waste Management" was held at Mingachevir State University, focusing on sustainable urban development and responsible waste practices (https://mdu.edu.az/open-lesson-on-waste-management-23-12-25/). The session highlighted the importance of proper waste segregation, recycling systems, and circular economy principles in improving urban environmental quality. It was emphasized that effective waste management is essential for building cleaner, safer, and more sustainable cities.

EVIDENCE

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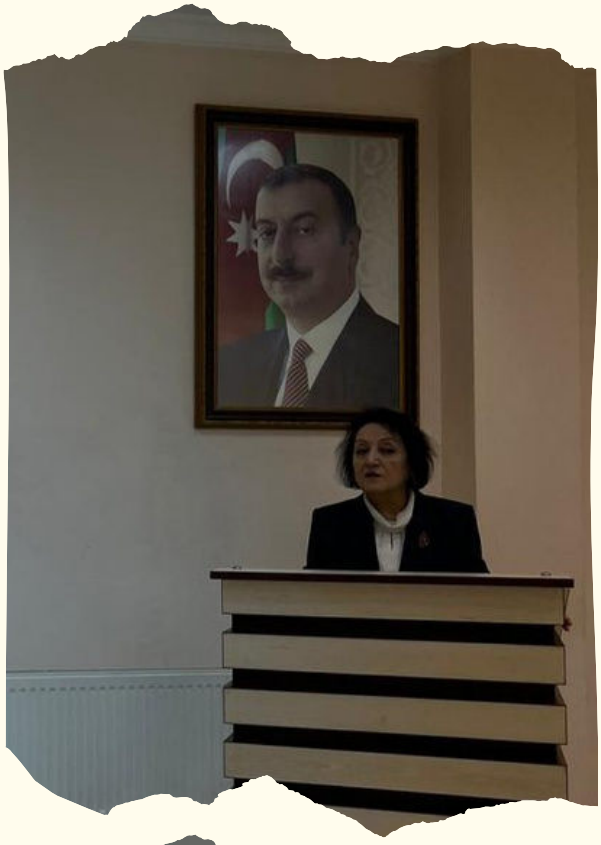
Goal 11: Sustainable Cities and Communities

An event dedicated to zero-emission principles and sustainable urban development was held at Mingachevir State University (https://mdu.edu.az/zero-15-12-25/). The session provided a comprehensive platform for discussing innovative and practical approaches to reducing carbon emissions in urban environments. Particular emphasis was placed on enhancing energy efficiency across infrastructure and buildings, accelerating the transition to renewable energy sources, and promoting sustainable transport systems such as public transit, electric mobility, and non-motorized transport. Experts and participants highlighted that the integration of these components is essential for creating low-carbon, climate-resilient, and environmentally sustainable cities.



In addition, a scientific seminar on "Preservation of Cultural Heritage and Urban Tourism" was organized (https://mdu.edu.az/urban-tourism_05-10-25/), focusing on the intersection of cultural heritage protection and sustainable urban development. The seminar explored how historical and cultural assets contribute not only to the identity and continuity of cities but also to their economic vitality through tourism. Discussions highlighted the need to balance conservation efforts with urban development pressures, ensuring that heritage sites are preserved while remaining accessible and economically beneficial. Participants also examined strategies for integrating cultural heritage into urban planning processes, promoting responsible tourism practices, and fostering community involvement.

EVIDENCE

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Goal 11: Sustainable Cities and Communities

The Master Class "Transformational Planning: Rethinking Mobility, Land Use, and Urbanization in an Era of Global Disruptions" examined how global challenges are reshaping cities (https://mdu.edu.az/transformative_17-06-25/). It highlighted sustainable mobility, land-use planning, and climate resilience.

The "Safe Campus Environment and Risk Reduction" training focused on safety awareness and preparedness for emergency situations (https://mdu.edu.az/safe-campus_01-11-25/). It contributed to building a more secure and resilient campus environment.

EVIDENCE

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Goal 11: Sustainable Cities and Communities

A water laboratory was established at Mingachevir State University to support research and practical training in water quality and environmental protection (https://mdu.edu.az/water-lab-13-12-25/). The lab enables students to apply theoretical knowledge and develop research skills.

A training session on "Academic Startup Solutions for Urban Challenges" enhanced students' innovation and problem-solving skills by connecting academic knowledge with real urban issues (https://mdu.edu.az/training-on-academic-startup-solutions-for-urban-challenges-09-10-25/). Participants developed practical solutions through teamwork.

EVIDENCE

The workshop on "City Mobility" focused on improving urban transport systems and addressing mobility challenges (https://mdu.edu.az/city_mobility_18-12-25/), where students and experts exchanged ideas on sustainable, efficient, and environmentally friendly transport solutions, highlighting the importance of integrated mobility planning in modern cities.

Through the "Smart City" training, participants were introduced to modern approaches to urban development and digital transformation (https://mdu.edu.az/smart_city_17-09-25/), gaining insights into the application of smart technologies and data-driven solutions for improving urban infrastructure and quality of life.

EVIDENCE

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Goal 11: Sustainable Cities and Communities

A scientific event brought together students and academic staff to promote research collaboration and interdisciplinary discussion (https://mdu.edu.az/scentific_13-04-25/), fostering knowledge exchange, critical thinking, and the development of innovative research ideas across different fields.

Focusing on innovation, a “Smart”-themed event explored digital technologies in urban and educational systems (https://mdu.edu.az/smart-11-11-25/), allowing participants to better understand the role of technology in shaping sustainable and efficient urban environments.

EVIDENCE

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Goal 11: Sustainable Cities and Communities

To strengthen academic and professional competencies, a legal-themed event enhanced students' understanding of legal systems and their practical application (https://mdu.edu.az/legal_29-12-25/), contributing to their overall academic development.

An ecological mobility hackathon encouraged participants to develop eco-friendly transport solutions and improve urban mobility (https://mdu.edu.az/ecological-mobility-hackathon-held-at-mdu/), fostering creativity, collaboration, and the application of innovative approaches to environmental challenges.

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EVIDENCE

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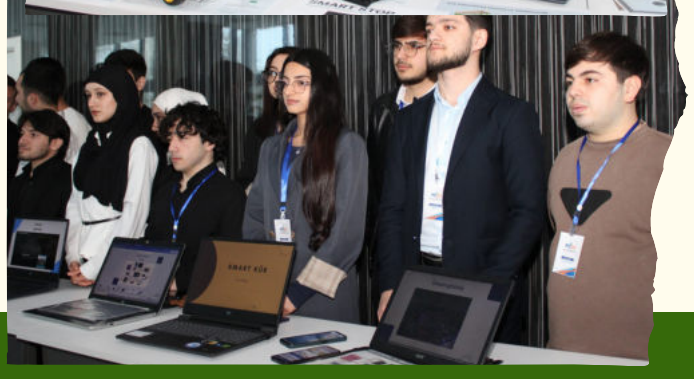
Promoting environmental responsibility, a clean-up campaign engaged students in maintaining a cleaner and healthier campus environment (https://mdu.edu.az/clean_up_14-04-25/), reinforcing the importance of sustainable behavior and community involvement.

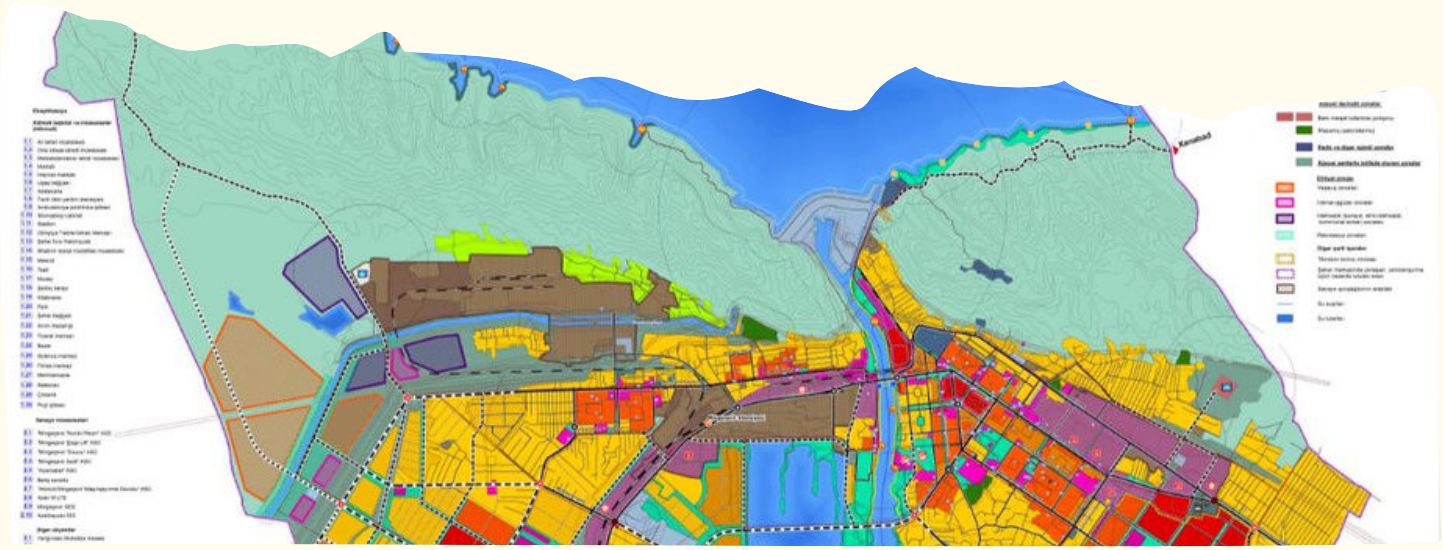


Finally, an “Urban Vision” event focused on modern urban planning and smart city concepts (https://mdu.edu.az/urbanvision-04-03-26/), encouraging discussions on innovative urban solutions and strengthening participants’ understanding of future-oriented city development.

11 SUSTAINABLE CITIES AND COMMUNITIES

IMPACT

The integration of SDG 11-related topics into teaching and learning processes at Mingachevir State University has significantly enhanced the quality, relevance, and practical orientation of education. By embedding real-world urban challenges—such as sustainable urban planning, smart city development, transportation systems, waste management, and urban resilience—into the curriculum, the university ensures that students acquire up-to-date, interdisciplinary, and application-based knowledge. The use of diverse teaching methods, including seminars, workshops, hackathons, field visits, simulations, and project-based learning, further strengthens students' critical thinking, creativity, and analytical skills. As a result, the educational process becomes more interactive, innovation-driven, and aligned with international sustainable development standards and best practices.



IMPACT

SDG 11-related activities also make a substantial contribution to the professional and personal development of both students and academic staff. Students actively engage in urban innovation projects, mobility studies, environmental campaigns, and smart city initiatives, which enhance their teamwork, leadership, and problem-solving abilities. These experiences help them develop a deeper understanding of complex urban systems and prepare them for real-life challenges. At the same time, academic staff participate in interdisciplinary research, collaborative innovation projects, and partnerships with external stakeholders in fields related to urban development and sustainability. Continuous involvement in such activities fosters a culture of lifelong learning, strengthens research capacity, and promotes academic excellence, while also encouraging a strong sense of social responsibility and civic engagement among all participants.

IMPACT

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Goal 11: Sustainable Cities and Communities

The university's SDG 11 initiatives play a crucial role in raising urban sustainability awareness within society. Through public events, training sessions, awareness campaigns, hackathons, and cooperation with local authorities, Mingachevir State University actively disseminates knowledge about sustainable cities, ecological mobility, environmental protection, and urban resilience. These outreach activities not only inform but also motivate individuals and communities to adopt more sustainable behaviors and actively contribute to improving urban environments. As a result, the university functions as an important platform for knowledge transfer and a catalyst for positive societal change in urban sustainability.

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IMPACT

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Goal 11: Sustainable Cities and Communities

By equipping students with advanced knowledge and practical skills related to sustainable urban development, smart technologies, and modern city planning, the university contributes to building a highly skilled, adaptable, and competitive workforce. Graduates are well-prepared to work in key sectors such as urban planning, transportation systems, environmental management, public administration, digital infrastructure, and sustainable development projects. Close collaboration with industry partners, participation in internships, and involvement in real-world projects ensure that academic outcomes are closely aligned with labor market demands. This not only enhances graduate employability but also supports innovation, economic growth, and the transition toward smarter and more sustainable cities.

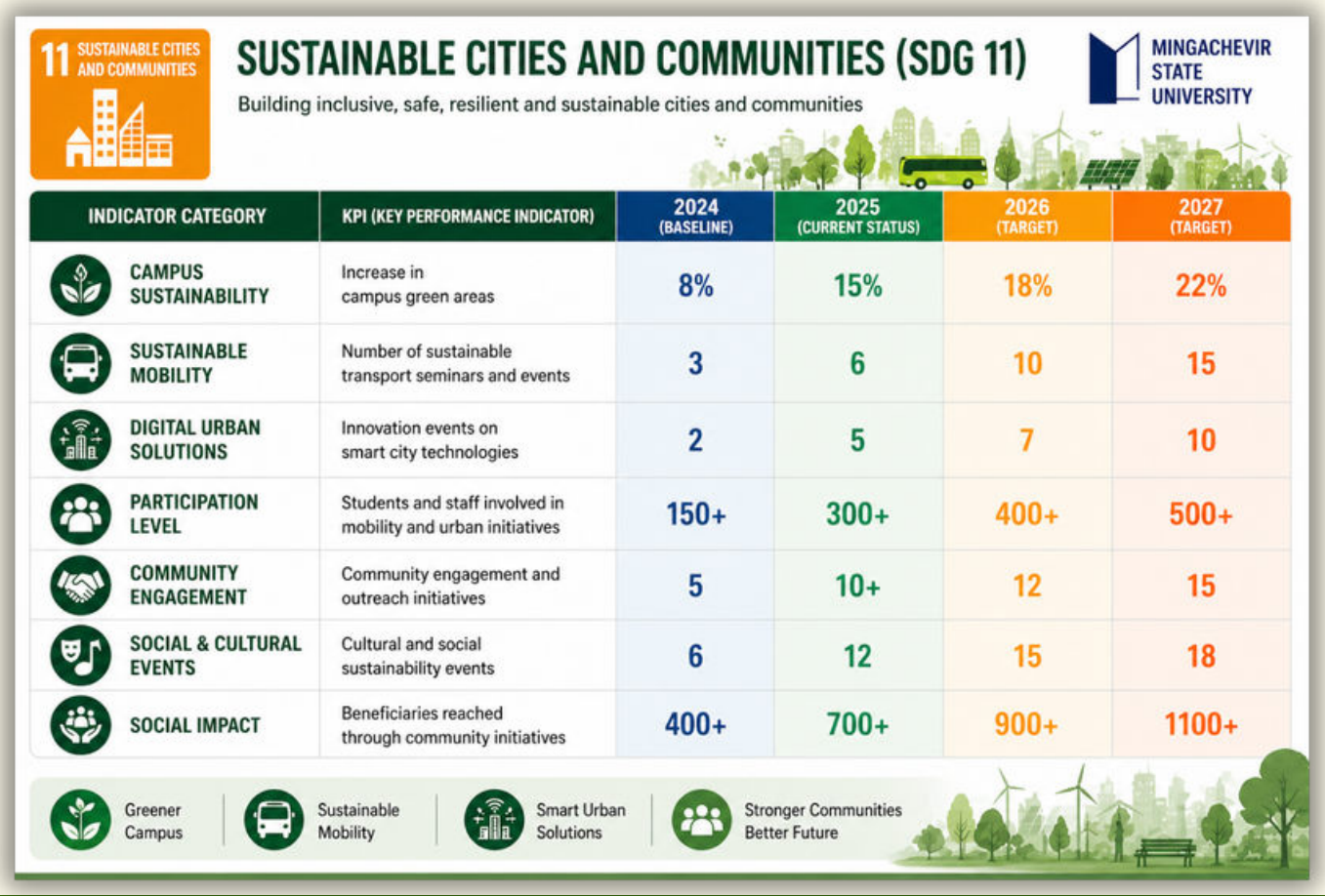
11 SUSTAINABLE CITIES AND COMMUNITIES

Mingachevir State University also plays a significant role in supporting sustainable regional development through its SDG 11-related activities. By addressing local urban challenges such as mobility optimization, infrastructure improvement, environmental cleanliness, resource efficiency, and the implementation of smart city solutions, the university directly contributes to improving the quality of urban life in the region. Its active cooperation with municipalities, local organizations, industry stakeholders, and community groups strengthens the effectiveness and impact of these initiatives. Furthermore, the university's efforts help bridge the gap between academic knowledge and practical implementation, ensuring that research and innovation contribute to real socio-economic development.

SUSTAINABLE CITIES AND COMMUNITIES

This figure presents Mingachevir State University's progress in advancing sustainable campus development, mobility, and community engagement. It highlights a steady increase in green campus areas, growing participation in sustainability initiatives, and the expansion of smart urban and community-based activities between 2024 and 2025.

The data also reflects significant growth in social impact, with more beneficiaries reached and stronger community involvement. Overall, the University demonstrates a consistent and forward-looking approach to building inclusive, resilient, and sustainable communities.



INDICATOR CATEGORY	KPI (KEY PERFORMANCE INDICATOR)	2024 (BASELINE)	2025 (CURRENT STATUS)	2026 (TARGET)	2027 (TARGET)
CAMPUS SUSTAINABILITY	Increase in campus green areas	8%	15%	18%	22%
SUSTAINABLE MOBILITY	Number of sustainable transport seminars and events	3	6	10	15
DIGITAL URBAN SOLUTIONS	Innovation events on smart city technologies	2	5	7	10
PARTICIPATION LEVEL	Students and staff involved in mobility and urban initiatives	150+	300+	400+	500+
COMMUNITY ENGAGEMENT	Community engagement and outreach initiatives	5	10+	12	15
SOCIAL & CULTURAL EVENTS	Cultural and social sustainability events	6	12	15	18
SOCIAL IMPACT	Beneficiaries reached through community initiatives	400+	700+	900+	1100+

Despite the progress achieved in advancing SDG 11, Mingachevir State University continues to face several structural and operational challenges that limit the effectiveness, scalability, and long-term sustainability of its urban sustainability and community-oriented initiatives.

One of the primary challenges is the limited scale of sustainable infrastructure development across the campus. While initial improvements such as green areas and energy-efficient lighting have been implemented, further expansion requires significant financial investment and long-term planning.

Another key issue relates to the integration of smart city concepts into institutional practices. Although awareness activities and academic discussions on smart urban solutions are conducted, the practical implementation of smart technologies within campus infrastructure remains limited.

The development of sustainable mobility solutions also faces constraints. Current initiatives are largely awareness-based, with limited infrastructure or institutional mechanisms to support alternative transportation systems such as cycling, shared mobility, or low-emission transport options.

In addition, community engagement activities, although increasing, are not yet fully institutionalized. Many initiatives are project-based and lack long-term continuity, which reduces their potential impact on sustainable community development.

Another important limitation is the lack of a comprehensive monitoring and evaluation framework. Existing activities are mainly assessed through participation numbers rather than measurable outcomes such as environmental impact, behavioral change, or community-level improvements.

Infrastructure accessibility and inclusiveness also require further attention. While improvements have been made, not all campus areas fully meet universal accessibility standards, particularly for individuals with disabilities.

By addressing these challenges, Mingachevir State University will enhance its contribution to building sustainable, inclusive, and resilient cities, in alignment with **SDG 11** and the global sustainability agenda.

MINGACHEVIR STATE UNIVERSITY

CORRECTIVE ACTIONS AND RESPONSE STRATEGY

ADVANCING SDG 11 – SUSTAINABLE CITIES AND COMMUNITIES

11 SUSTAINABLE CITIES AND COMMUNITIES

01 EXPAND SUSTAINABLE INFRASTRUCTURE

Implement a phased campus development plan to expand green spaces, improve energy-efficient systems, and upgrade pedestrian-friendly infrastructure. Focus on sustainable materials, efficient lighting, and climate-resilient design.

02 STRENGTHEN SMART CAMPUS IMPLEMENTATION

Introduce pilot "smart campus" projects including digital monitoring systems, efficient resource use and real-time decision-making.

03 IMPROVE SUSTAINABLE MOBILITY

zones, and incentives for low-emission transportation. Complement awareness initiatives with practical measures to encourage behavioral change.

04 ENHANCE COMMUNITY ENGAGEMENT

Institutionalize outreach programs through long-term partnerships with local communities, municipalities, and civil society organizations. Ensure continuity,

05

Track key indicators such as green space ratio, participati inability

In response to the identified challenges, Mingachevir State University has developed a comprehensive and forward-looking strategy aimed at enhancing sustainable campus development, strengthening community engagement, and integrating smart urban solutions in alignment with SDG 11.

To address limitations in sustainable infrastructure, the University will implement a phased campus development plan focused on expanding green spaces, improving energy-efficient systems, and upgrading pedestrian-friendly infrastructure. Investment priorities will include environmentally sustainable materials, efficient lighting systems, and climate-resilient design principles.

In order to strengthen the practical implementation of smart city concepts, the University will introduce pilot "smart campus" projects. These will include digital monitoring systems, smart lighting, and data-driven infrastructure management tools, enabling more efficient resource use and real-time decision-making.

To improve sustainable mobility, the University will develop campus-level transport solutions such as bicycle infrastructure, designated pedestrian zones, and incentives for low-emission transportation. Awareness initiatives will be complemented by practical measures to encourage behavioral change.

To enhance community engagement, the University will institutionalize outreach programs through long-term partnerships with local communities, municipalities, and civil society organizations. Structured programs will be developed to ensure continuity, scalability, and measurable impact of community-based initiatives.

Addressing monitoring and evaluation gaps, the University will establish a KPI-based framework for SDG 11 initiatives. Indicators such as green space ratio, participation in sustainability programs, mobility patterns, and environmental impact metrics will be systematically tracked.

To improve accessibility and inclusiveness, the University will upgrade campus infrastructure in line with universal design standards. This includes ensuring full accessibility for individuals with disabilities in both physical and digital environments.

Through these strategic actions, Mingachevir State University reaffirms its commitment to advancing sustainable cities and communities, contributing to a more inclusive, resilient, and sustainable urban future in alignment with **SDG 11.**

CONTINUOUS IMPROVEMENT AND FUTURE PLANS

Mingachevir State University aims to further strengthen its contribution to SDG 11 – "Sustainable Cities and Communities" by expanding its academic, research, and community-based activities. Future plans include the deeper integration of urban development, smart city planning, and sustainable mobility topics into curricula, as well as the development of specialized courses focused on urban studies. The university also plans to enhance interdisciplinary research in areas such as urban resilience, infrastructure development, and environmental sustainability in cities. Strengthening international cooperation and participation in global urban sustainability initiatives is another key objective.

The university intends to launch new initiatives focused on sustainable urban development and smart city solutions. These include establishing innovation hubs for urban technologies, expanding student-led projects on ecological mobility and city planning, and supporting hackathons and design challenges related to urban problems. Additional initiatives may involve organizing international conferences, workshops, and competitions on SDG 11 topics, as well as increasing collaboration with municipalities, public institutions, and private sector partners. Digital platforms and awareness campaigns will also be developed to promote sustainable urban lifestyles among a wider audience.

To ensure continuous progress, the university identifies several areas for improvement. These include strengthening research capacity in urban studies and smart technologies, increasing funding for sustainability-focused projects, and improving data collection systems related to urban development and environmental impact. There is also a need to expand industry and municipal partnerships and increase practical training opportunities for students in real urban environments. Furthermore, integrating more measurable indicators and performance evaluation mechanisms into SDG 11-related activities will support more effective monitoring and long-term strategic development.

CONCLUSION

Mingachevir State University (MSU) demonstrates a strong and structured commitment to the implementation of SDG 11 – "Sustainable Cities and Communities" through its integrated approach to teaching, research, governance, and community engagement. The university has developed a clear institutional framework supported by sustainability-oriented policies and strategic development goals, ensuring that urban sustainability, smart city concepts, and resilient community development are embedded across all levels of activity.

The analysis shows that SDG 11 principles are effectively integrated into the academic process through interdisciplinary curricula, project-based learning, workshops, and practical training activities. These initiatives enable students to develop both theoretical knowledge and practical competencies related to urban planning, sustainable mobility, infrastructure development, and smart city solutions.

CONCLUSION

In the field of research, MSU actively contributes to addressing urban development challenges through applied studies, innovation projects, and academic collaboration. Although there is potential for further expansion in internationally indexed research outputs, current efforts demonstrate a positive direction toward greater scientific visibility and interdisciplinary cooperation. The availability of practical learning environments and student participation in urban-related projects further strengthens the university's contribution to knowledge generation in this field.

The university's social engagement and cooperation with local stakeholders also play a key role in advancing SDG 11 objectives. Collaboration with municipalities, participation in urban development initiatives, awareness campaigns, clean-up activities, and hackathons reflect MSU's commitment to translating academic knowledge into real societal impact. These activities contribute to raising awareness about sustainable urban living and encourage responsible civic behavior among students and the wider community.

CONCLUSION

Overall, MSU's efforts contribute significantly to sustainable urban development at both regional and national levels, particularly in improving local infrastructure, mobility, and environmental quality. The university's active role in education, research, and community engagement positions it as an important stakeholder in promoting sustainable cities and communities.

At the same time, there is potential for further improvement, especially in strengthening international collaboration, increasing innovative urban research outputs, and expanding the use of digital technologies and data-driven urban planning approaches. Enhancing these areas will further align the university with global sustainability standards.

In conclusion, Mingachevir State University has established a solid foundation for contributing to SDG 11 and continues to progress toward becoming a more innovative, research-oriented, and sustainability-driven institution. Its ongoing and planned initiatives demonstrate a long-term commitment to developing inclusive, safe, resilient, and sustainable cities for future generations.

MINGACHEVIR STATE UNIVERSITY

11 SUSTAINABLE CITIES AND COMMUNITIES

THANK You

We sincerely thank all partners, academic and administrative staff, students, and participants for their support in implementing these initiatives. The achieved results contribute to the MSU`s progress in sustainable development.

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