
Biz ta'lim va tarbiya tizimining barcha bo'g'inlari faoliyatini
bugungi zamon talablari asosida takomillashtirishni
o'zimizning birinchi darajali vazifamiz deb bilamiz
TOSHKENT DAVLAT
IQTISODIYOT UNIVERSITETI
TDIU
TASHKENT STATE
UNIVERSITY OF ECONOMICS

Climate Action Plan 2030: Strategy for Tashkent State University of Economics

TABLE OF CONTENTS

INTRODUCTION

Climate change poses significant challenges to our planet, economy, and society. As a leading academic institution, Tashkent State University of Economics (TSUE) recognizes the urgent need to address climate change and promote sustainability. Climate change and sustainability are central to Tashkent State University of Economics' (TSUE) mission. The Climate Action Plan 2030 underscores our commitment to addressing climate challenges while promoting green economics principles across our institution.

VISION AND OBJECTIVES

VISION

To become a global leader in climate action and green economics by 2030.

OBJECTIVES

1 Reduce greenhouse gas emissions: Implement measures to significantly reduce carbon emissions from university operations.

2 Enhance climate resilience: Develop strategies to adapt to climate change impacts and build resilience.

3 Promote green economics: Integrate green economics principles into all aspects of university policies, practices, and curricula.

4 Foster engagement: Engage students, faculty, staff, and stakeholders in climate action and green economics efforts.

5 Lead by example: Demonstrate leadership in sustainability and green economics through innovative projects, partnerships, and initiatives.

KEY STRATEGIES

Energy Efficiency and Renewable Energy

- Invest in energy-efficient technologies and renewable energy sources to reduce energy costs and carbon emissions.
- Offer courses and research opportunities in renewable energy technologies, energy economics, and energy policy.
- Collaborate with industry partners to develop and implement sustainable energy solutions.

Tashkent State University of Economics (TSUE) has integrated renewable energy sources into its infrastructure, reflecting a commitment to sustainable and invironmentally-friendly practices. This report delves into the specifics of these initiatives and their overall contribution to the university's energy landscape.

Street solar lights and batteries
(Tashkent State University of Economics, Uzbekistan)

Renewable Energy Breakdown:

The following are the primary renewable energy sources employed at TSUE, along with their production values:

Street Solar Lights and Batteries: These installations are not only environmentally-friendly but also cost-effective in the long run. They harness sunlight during the day, converting it into electricity which is then stored in batteries for nighttime use.

Production: 68,984.3 kWh. PREXTHERM RSW 92÷1890: Without specific details on this source, it's likely a system or equipment that contributes to energy efficiency or renewable energy generation, possibly related to heating solutions.

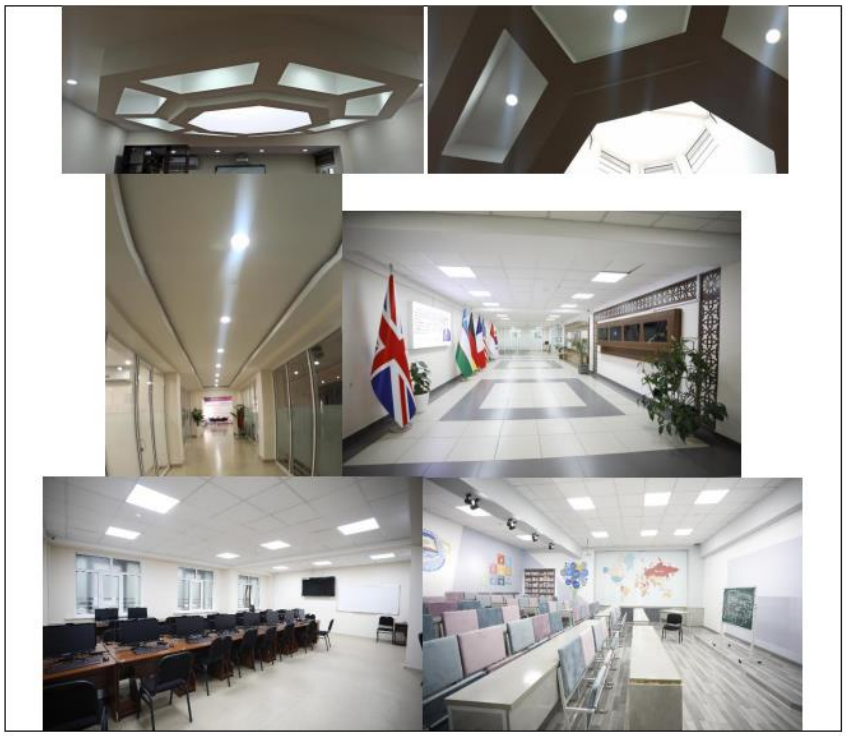
Production: 12,173.7 kWh

Total Production from Renewable Sources: 81,158 kWh

Renewable energy sources at TSUE contribute to approximately 2.66% of the university's total energy consumption. This indicates that while the university has taken steps towards sustainability, there's substantial potential for increasing the share of renewable energy in the energy mix. The Tashkent State University of Economics, with its adoption of renewable energy sources such as street solar lights and the PREXTHERM system, has demonstrated a positive move towards environmental stewardship. However, the current contribution of 2.66% suggests that there's significant room for expansion in this domain. For TSUE to further its commitment to sustainability, it's essential to continually invest in and adopt more renewable energy technologies, thereby increasing its green energy footprint.

Formula: (2.5)/(2.6)*100 **81,158/28,673,91.8*100 = 2.83%**

No	Renewable Energy	Production (in kWh)
1	Street solar lights and batteries	68,984.3
2	PREXTHERM RSW 92÷1890	12,173.7
Total		81,158



The university endeavors to adopt the newest technological advancements in a manner that ensures their integration doesn't adversely affect the health of students and staff. Over the recent 5 years, the Tashkent State University of Law has extensively adopted LED lighting, solar-powered street lamps, and energyefficient desk lamps. Solar panels are mounted on the university building rooftops, supplying the institution with consistent alternative energy throughout the year. For this purpose, the university boasts its own central systems for heating and cooling both air and water. The Tashkent State University of Economics' developmental programs and strategic roadmaps play a pivotal role in the initiation, adoption, augmentation, and enhancement of sustainable, energyefficient technologies. Presently, innovative air conditioning systems designed for expansive spaces are available, which are both efficient and cost-effective. Concurrently, centralized air conditioning systems using intermediary refrigerants are becoming increasingly popular. One such system is the chiller-fan coil system, which the Tashkent State University of Economics employs to regulate the temperature of its facilities.

Appliance	Total Number	Total number energy Efficient appliances	Percentage
LED Lamp	2355	2355	100%
Fan	93	93	100%
Automatic energy breaker	40	**40**	**100%**
		Average Percentage	**100%**

Sustainable Transportation

• Promote sustainable transportation options, including public transit, biking, and walking.

• Conduct research on transportation economics, urban planning, and sustainable mobility solutions.

• Advocate for policies that support green transportation infrastructure and initiatives.

Waste Reduction and Recycling

- Implement waste reduction strategies to minimize waste generation and disposal costs.
- Explore opportunities for waste-to-energy conversion and circular economy initiatives.
- Integrate waste management economics into relevant courses and research programs.

Plastic-Free Challenge at Tashkent State University of Economics (TSUE)

The "Plastic-Free Challenge" at Tashkent State University of Economics (TSUE) could be a comprehensive program aimed at reducing the use of single-use plastics on campus and promoting environmental sustainability.

Tashkent State University of Economics prioritizes environmental sustainability through three key initiatives overseen by the university administration:

1. Green Initiative: This central movement encourages students to be mindful of their consumption, particularly urging them to reduce the use and wastage of paper and plastic.

2. Eco Scholarships: As a testament to the university's commitment to the environment, they award scholarships to the victors of the "Students Cup". Special emphasis is placed on recognizing and rewarding endeavors in ecological conservation and research.

Recycling Program for University Waste (Tashkent state university of economics, Uzbekistan)


Recycling Program for University Waste (Tashkent state university of economics, Uzbekistan)

3. Digital Transformation: Embracing the "No Paper" policy, the university takes a staunch stand against the superfluous use and disposal of paper. By transitioning educational methodologies and administrative documentation to a completely digital format, the institution champions a paperless approach in its operations

Tashkent State University of Economics has partnered with local recycling specialists, "EKO MODERN SERVICE" LLC and "GLOBAL TECHNOMET" LLC. These companies have adopted the Single Stream Recycling system, which simplifies the recycling process for both students and faculty. With this method, everyone can effortlessly discern which items are recyclable and which aren't. Moreover, the initiative supports the co-mingling of diverse recyclables – be it plastic, paper, glass, or aluminum – in one singular container. This streamlined approach not only promotes efficiency but also enhances the user experience by making recycling more accessible and convenient.

Inorganic Waste Treatment (Tashkent state university of economics, Uzbekistan)

Green Buildings and Infrastructure

- Design and construct green buildings that prioritize energy efficiency, water conservation, and indoor air quality.
- Offer courses and workshops on green building economics, sustainable design, and lifecycle analysis.
- Partner with industry stakeholders to advance green building practices and standards.

All structures at TSUE comply with the European and German Energy Standards for Buildings, with some even surpassing these benchmarks. TSUE has incorporated 'green building' elements, which include an adsorption cooling plant for temperature regulation, a geothermal heat exchanger that warms incoming outside air, a solar heat transmitter equipped with heat storage, a solar thermal collector that serves as a heat source for a compression heat pump, a community heating system powered by a woodburning power plant, dual compression heat pumps, a rainwater storage system with a pressure modulator, and two ventilation pumps equipped with efficient waste-heat extraction mechanisms.

Green House (Telkom University)

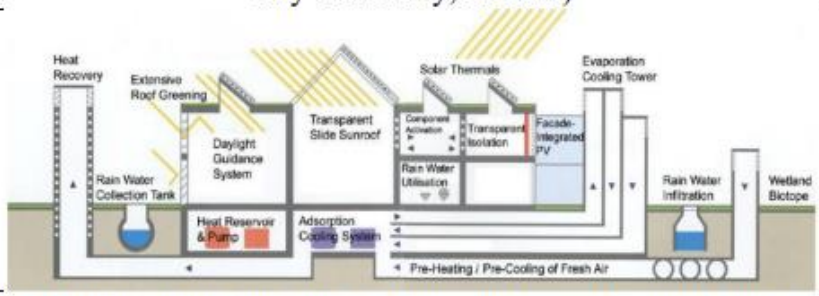
Danau Kenanga (Universitas Indonesia)

NPUST Institute of Wildlife Conservation

Cattle Farming

Example of **Conservation: plant, animal, and wildlife, genetic resources for food and agriculture secured in either medium or long-term conservation facilities**

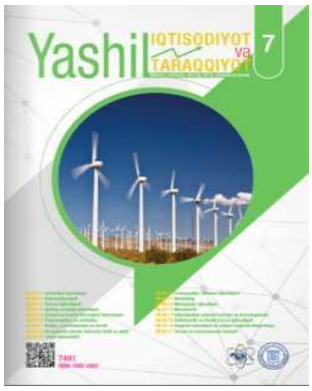
Example of Green Building Implementation - Copy of the DCU ISO50001 certification (Dublin City University, Ireland)



Example of Green Building Implementation - Overview Green Technologies implemented at the Environmental Campus Birkenfeld (Umwelt-Campus Birkenfeld, Germany)

Climate Resilience and Adaptation

- Develop cost-benefit analyses for climate adaptation strategies and resilience investments.
- Incorporate climate risk assessments and insurance economics into campus planning and decision-making processes.
- Engage in interdisciplinary research on climate economics, environmental economics, and risk management.



CAMPUS AS A LIVING LAB

HQ of Tashkent State University of Economics	The first building of Tashkent State University of Economics
	
Area: 62118 m2	Area: 12796 m2
The second building of the Tashkent State University of Economics	The third building of the Tashkent State University of Economics
	
Area: 11936 m2	Area: 3679.6 m2
The fourth building of the Tashkent State University of Economics	The fifth building of the Tashkent State University of Economics

Campus as a Living Lab (CLL) Initiatives for TSUE

Initiative 1: Establish Formal Structures for CLL

Develop and formalize structures within TSUE to facilitate the implementation of the Campus as a Living Lab program.

Establish a dedicated committee or task force comprised of faculty, staff, and student representatives to oversee CLL initiatives.

Define clear goals, objectives, and governance mechanisms to guide the implementation and management of CLL projects.

Initiative 2: Integration of Academic Research and Teaching with Campus Operations

Integrate academic research and teaching activities with campus planning,

operations, and services to address climate and sustainability challenges.

Encourage faculty members to incorporate CLL projects into their courses, research agendas, and student projects.

Foster interdisciplinary collaboration among departments and disciplines to leverage diverse expertise and perspectives.

Initiative 3: Utilize Campus as a Testing Ground for Innovation

Use the TSUE campus as a test-bed for piloting and demonstrating innovative climate action and sustainability solutions.

Identify specific areas on campus for pilot projects, such as energy efficiency upgrades, waste reduction initiatives, and green infrastructure installations.

Collaborate with industry partners, government agencies, and community organizations to implement and evaluate CLL projects.

Initiative 4: Engage Students and Faculty in Community Partnerships

Create opportunities for students and faculty to collaborate with community stakeholders, government agencies, and industry partners on climate and sustainability projects.

Facilitate partnerships and joint initiatives that promote evidence-based decision-making on equitable climate solutions, mitigation strategies, and adaptation projects.

Provide support and resources for student-led initiatives, internships, and experiential learning opportunities focused on sustainability and community engagement.

These initiatives aim to leverage TSUE's resources, expertise, and infrastructure to advance real-world solutions to climate and sustainability challenges while providing valuable learning experiences for students, faculty, and staff. Through the Campus as a Living Lab program, TSUE can contribute to creating a more sustainable future for both the university community and the wider society.

Cooperation In the Implementation of The Climate Action Plan

In the implementation of Climate Action Plan, TSUE has established direct cooperation relations with the following local and regional republican-level government bodies, organizations and institutions, as well as NGOs.

1. Chilonzor district administration
2. Bustonliq district administration
3. Tashkent city administration
4. Cabinet Ministry of Karakalpakistan
5. Scientific Research Institute of Environment and Nature Protection Technologies.
6. Tashkent City Department of Ecology and Environmental Protection.
7. State Committee for Ecology and Environmental Protection of the Republic of Uzbekistan.
8. Ministry of Water Management of the Republic of Uzbekistan "Information-analysis and resource center"

IMPLEMENTATION PLAN

i. Establish a Green Economics Task Force comprised of faculty, researchers, and industry experts to guide plan implementation and monitoring.

ii. Develop detailed action plans, timelines, and performance metrics for each strategy, with a focus on cost-effectiveness and sustainability.

iii. Allocate dedicated funding and resources to support green economics initiatives, including research grants, scholarships, and outreach programs.

iv. Monitor progress, evaluate outcomes, and adjust strategies as needed based on economic and environmental performance indicators.

MONITORING AND REPORTING

i. Establish a comprehensive monitoring and reporting framework to track progress towards green economics and climate action goals.

ii. Regularly communicate updates, achievements, and challenges to the university community, stakeholders, and the public through annual reports, newsletters, and events.

iii. Conduct periodic reviews and evaluations to assess the economic and environmental impacts of green economics initiatives and inform future decision-making processes.

CONCLUSION

The Climate Action Plan 2030 underscores TSUE's commitment to sustainability, climate action, and green economics. By integrating green economics principles into our operations, research, and education, we will not only reduce our environmental footprint but also create economic opportunities and promote social equity. Together, we can build a more sustainable and resilient future for all.