NET-ZERO POLICY

Toward Net-Zero Scope 1 and 2 Emissions by 2050

TERMEZ STATE UNIVERSITY |

Contents

Purpose

Uzbekistan, like many countries in Central Asia, faces the growing urgency of climate-related challenges, including extreme weather conditions, water scarcity, and land degradation. These issues directly impact the environmental, economic, and social fabric of the nation, and higher education institutions must now act as catalysts of systemic change. Termez State University (TerSU) recognizes the critical need for leadership in this space and aims to transition from a traditional operational model to one that is sustainable, resilient, and forward-looking.

The purpose of this policy is to set a clear and actionable direction for reducing greenhouse gas emissions across all university operations, while aligning with national and international climate goals. In doing so, the university will become an active contributor to Uzbekistan's green transition and a regional model for institutional climate responsibility.

This document outlines the strategic vision and institutional mechanisms by which TerSU will reduce its environmental footprint, with particular focus on Scope 1 and Scope 2 emissions, and gradually expand its capacity to measure and mitigate Scope 3 emissions. Our commitment goes beyond emissions reduction alone. We aim to integrate sustainability into the fabric of our educational, infrastructural, and organizational culture.

Concrete steps will be taken to increase the energy efficiency of university buildings by redesigning spaces to optimize natural lighting and reduce electricity consumption. This includes the reconstruction of rooms using reflective materials and colors that maximize ambient light. Behavioral change is also an integral part of our strategy. Parking fees will be introduced for internal combustion engine vehicles on campus, with the generated funds allocated to local carbon offset initiatives such as tree planting and landscape

restoration. In parallel, the university will initiate programs to advance water recycling and sustainable water management practices, recognizing water security as a key pillar of environmental resilience.

Through this policy, the university commits to becoming a living laboratory for climate action. This includes engaging our staff, students, and partners in building the knowledge, skills, and infrastructure required for a just and impactful transition toward carbon neutrality. We acknowledge that this transformation will require systemic change, active collaboration, and a long-term vision, all of which are embedded into the structure and intent of this document.

Mission

The mission of Termez State University's climate action policy is to lead the transformation of higher education in Uzbekistan toward climate neutrality, resilience, and sustainability. The university seeks to embed environmental responsibility at the core of its operations, teaching, research, and community engagement by becoming a model of low-emission campus management and a hub for climate-smart innovation in the Surkhandarya region.

This mission reflects the university's responsibility to educate a generation of climate-literate graduates who are equipped to contribute to sustainable development locally and globally. It also underscores the importance of reducing the institution's environmental footprint by decarbonizing its energy systems, optimizing resource use, and investing in projects that remove or offset emissions in an ethical and scientifically sound manner.

TerSU is committed to achieving net-zero Scope 1 and 2 emissions by 2050, with near-term milestones that demonstrate meaningful progress toward that goal. This commitment is reinforced by strategic initiatives such as the Surkhan

Green Energy Hub, which serves as a cornerstone for both energy transition and capacity-building in the region. The mission further entails fostering innovation in climate solutions, advancing partnerships for environmental justice, and integrating sustainability into every layer of institutional planning and decision-making.

By advancing this mission, the university not only fulfills its environmental obligations but also embraces a forward-thinking role in shaping a sustainable future for southern Uzbekistan and beyond.

Vision

By 2050, Termez State University envisions itself as a carbon-neutral academic institution that actively contributes to regional and national climate goals while fostering a culture of environmental awareness, innovation, and equity. This vision positions the university as a leader not only in emissions reduction but in transforming the educational experience to prepare future generations for the realities and opportunities of a climate-constrained world.

The university aspires to become a living example of integrated sustainability, where its infrastructure, academic activities, governance systems, and external partnerships are aligned toward achieving a thriving, low-carbon, and climate-resilient campus. Through this transformation, TerSU will not only reduce its own environmental impact but also serve as a demonstration site for scalable climate solutions in Central Asia.

By embracing this vision, the university reinforces its role as a regional change agent—building capacity among staff and students, engaging communities, and generating practical solutions to the pressing environmental challenges facing Uzbekistan and the world.

Emissions Boundary

To establish a clear and measurable foundation for climate action, Termez State University defines its emissions boundary in alignment with international best practices, while also accounting for local context and institutional capacities. At the core of this boundary are emissions that are either directly generated by the university's own operations or indirectly result from the purchase of energy. These are categorized as Scope 1 and Scope 2 emissions under the internationally recognized Greenhouse Gas Protocol.

Scope 1 emissions include all greenhouse gases released directly from sources owned or controlled by the university, such as heating systems, diesel-powered generators, and university-owned vehicles. These emissions are typically quantifiable through fuel usage records and equipment inventories, making them a foundational starting point for mitigation efforts.

Scope 2 emissions refer to indirect greenhouse gases resulting from the generation of electricity, heating, or cooling that is purchased and consumed by the university. Given the growing reliance on grid electricity in campus operations, the reduction of Scope 2 emissions will be closely linked to renewable energy procurement and improved energy efficiency measures across all buildings and facilities.

In addition to these core areas, the university will also include select Scope 3 emissions within its initial emissions boundary. This will comprise emissions generated by university-related business travel and on-campus waste disposal. Though more complex to measure, these areas represent significant sources of indirect emissions and serve as early opportunities to influence behaviors and institutional practices.

As the university's capacity to collect and analyze emissions data improves, the emissions boundary will expand to incorporate a wider set of Scope 3 categories. These may include emissions from staff and student commuting, procurement of goods and services, construction materials used for campus infrastructure, and upstream/downstream transportation related to university activities. This phased approach will ensure that the university's climate commitments remain ambitious, while also being grounded in technical feasibility and operational readiness.

This evolving boundary reflects the university's commitment to transparency, continuous improvement, and alignment with the broader goal of achieving net-zero Scope 1 and 2 emissions by 2050. Ultimately, the emissions boundary is not a static construct but a dynamic framework that grows with institutional maturity and the demands of climate leadership.

Targets

Termez State University's climate targets reflect its long-term ambition and ethical responsibility to align institutional operations with global climate goals. These targets are structured to deliver measurable impact while allowing for adaptive, science-based decision-making.

The overarching goal is to reach **net-zero Scope 1 and 2 greenhouse gas emissions by the year 2050**, with an emphasis on reducing emissions at the source and only relying on offsets when absolutely necessary. In addition, the university will develop a parallel strategy to manage Scope 3 emissions, expanding its influence over indirect emissions in a phased, data-informed manner.

To ensure progress is transparent and accountable, the university adopts the following milestone timeline:

Table 1. Climate Action Milestones for Termez State University

Target Year	Milestone	Key Activities
2025	Establish full baseline emissions inventory for Scope 1, 2, and partial Scope 3	Conduct energy audits, vehicle fuel tracking, and begin waste and travel data logs
2026	Launch institutional emissions dashboard and reporting platform	Use digital tools to monitor energy, travel, and waste-related emissions
2030	Achieve 30% reduction in Scope 1 and 2 emissions from 2025 baseline	Implement efficiency upgrades, transition part of vehicle fleet to EV, solar pilot
2040	Achieve 60% reduction in Scope 1 and 2 emissions	Campus-wide transition to renewable electricity, deep retrofits of buildings
2050	Achieve net-zero Scope 1 and 2 emissions	Finalize decarbonization of fleet, energy systems, and offset residual emissions

While the 2050 net-zero target serves as the endpoint, the university emphasizes the importance of **emissions avoidance and reduction first**, before considering any offsetting. Any residual emissions that prove technically or financially infeasible to eliminate will be addressed through high-integrity carbon removal strategies, ideally within the national or regional context.

The university's carbon offsetting strategy will prioritize nature-based and technology-based carbon removal projects that are directly linked to educational, research, or land management activities at TerSU or in partnership with local environmental organizations.

Additionally, climate targets will be supported by operational innovations such as the reconstruction of interior spaces to optimize natural lighting and reduce electricity usage, the development of a university-wide water recycling system, and behavioral incentives including paid parking for fossil-fuel vehicles with revenues redirected toward afforestation and indirect carbon abatement programs.

These actions reinforce the university's integrated approach to climate action: a strategy that values both environmental outcomes and institutional transformation.

Approach

The transformation toward a climate-responsible university cannot rely solely on isolated technical interventions. It requires a holistic and integrated model that brings together infrastructure, governance, education, community engagement, and innovation. Termez State University adopts a systems-thinking approach to climate action, ensuring that each decision reinforces a broader cultural and operational shift toward sustainability.

The foundation of this approach rests on three interconnected pillars: **institutional transformation**, **community empowerment**, and **evidence-based innovation**. These elements form a feedback loop that enables continuous improvement, rapid scaling of effective solutions, and the embedding of climate-conscious values across every aspect of university life.

To visualize this strategy, the following scheme illustrates the university's climate action model:

Figure 1. Termez State University's Three-Pillar Approach to Climate Action

The university's commitment to this model includes the redesign of decision-making frameworks to prioritize long-term environmental outcomes. Procurement policies, infrastructure planning, academic scheduling, travel systems, and digital platforms will be evaluated through the lens of carbon impact and sustainability.

In the spirit of experimentation and learning, pilot projects will be encouraged to test new technologies, behaviors, and processes. Successful initiatives will be scaled across departments and embedded into university operations. For

instance, a room reconstruction pilot using reflective materials to improve light distribution and reduce artificial lighting needs will inform future retrofitting across the campus.

Continuous monitoring and flexible planning will allow the university to respond to emerging technologies, climate science, and changing socio-economic conditions. By maintaining an iterative and adaptive framework, Termez State University ensures that its actions remain ambitious and responsive over time.

The approach also calls for collaboration beyond the campus walls. Local communities, government bodies, regional institutions, and international partners will be integral in supporting and expanding the university's climate impact. Engagement mechanisms will be embedded into the fabric of teaching and research, turning the university into a site of co-created knowledge and public value.

Ultimately, this approach is not about reacting to climate change—it is about proactively shaping a just, sustainable, and innovative future for the region, with Termez State University at the forefront of that transformation.

People and Community

A climate-conscious institution cannot rely on policy alone. At the heart of any effective sustainability transition is a community of informed, engaged, and empowered individuals who understand the urgency of climate change and are equipped to contribute meaningfully to solutions. Termez State University recognizes that creating a climate-literate and climate-capable academic culture is essential to achieving both the goals of this policy and broader societal transformation.

Building this culture requires institutional change that reaches every corner of the university, from academic leadership to administrative staff, from researchers to students, and from contractors to external partners. Climate literacy will not be treated as an optional pursuit, but as a defining characteristic of university identity and a core outcome of the student experience.

The university will introduce mandatory climate and sustainability training modules for new staff and students, integrated into onboarding and orientation processes. These modules will cover the science of climate change, institutional commitments, individual behavioral expectations, and opportunities for action. Over time, these materials will be expanded into continuing education formats, available to all members of the university in various formats including online platforms, workshops, and thematic seminars.

Beyond literacy, the university will invest in building climate capability. This includes ensuring that sustainability roles and responsibilities are clearly defined across all departments, that leadership positions reflect environmental competencies in recruitment and evaluation processes, and that climate-related performance is actively tracked and recognized. Academic promotions, staff appraisals, and student achievement awards will increasingly reflect contributions to environmental goals and sustainability-focused projects.

Opportunities for meaningful participation will also be embedded into institutional operations. Students and staff will be encouraged to take part in climate action through university-supported initiatives such as sustainability internships, research fellowships, green innovation challenges, and a campus-wide sustainability forum. A portion of research funding and community engagement resources will be directed toward climate-related initiatives that emerge from within the university population.

Importantly, behavioral incentives will be designed to reinforce shared responsibility. Initiatives such as the paid parking scheme for fossil-fuel vehicles and the "green points" reward system for sustainable behavior will both raise awareness and promote collective ownership. Funds generated through these programs will be transparently reinvested into green infrastructure and community-led climate projects, such as tree planting or public awareness campaigns.

In this way, Termez State University is not only creating pathways for individual and institutional behavior change, but also cultivating a new generation of regional leaders with the values, skills, and motivation to drive Uzbekistan's climate transformation beyond the campus.

Environment and Infrastructure

The physical, natural, and digital environments of Termez State University form the visible and operational backbone of its climate policy. These environments serve not only practical functions but also symbolic ones: they express the university's priorities, shape community behavior, and communicate values to both internal and external audiences. For the university's climate policy to be credible, these environments must align with the ambitions of emissions reduction, resource efficiency, and sustainability leadership.

Campus infrastructure will undergo a phased transformation guided by principles of low-carbon design, resilience, and adaptive re-use. Older buildings will be evaluated for energy efficiency potential and prioritized for retrofitting where feasible. Improvements will include better insulation, use of passive design features, integration of renewable energy sources, and the application of reflective interior materials to optimize daylighting and reduce electricity usage. All new construction projects will be required to meet climate-

conscious design standards, including the use of sustainable construction materials and systems that minimize embodied carbon.

Alongside energy-related interventions, water sustainability will become a strategic priority. The university will implement rainwater harvesting systems, greywater recycling infrastructure, and drought-resistant landscaping across campus. The goal is to move progressively toward circular water management and reduced reliance on municipal freshwater supplies. In regions increasingly affected by drought, such as southern Uzbekistan, responsible water use is not only a climate issue but also a matter of long-term institutional resilience.

The digital environment will also serve as a key platform for enabling and promoting sustainability. The university website, social media, internal portals, and learning management systems will prominently feature climate-related news, metrics, and tools for engagement. Real-time data dashboards will track emissions, energy use, waste diversion, and behavioral performance across departments. These platforms will make sustainability a transparent, participatory, and motivating force across the university.

At the operational level, institutional systems will be redesigned to make climate-positive decision-making the default. Travel booking platforms will automatically flag emissions-intensive itineraries, procurement systems will prioritize suppliers with low environmental footprints, and waste management contracts will be reviewed to favor composting, recycling, and landfill diversion. These changes will be accompanied by corresponding shifts in policy and procedure to ensure alignment across administrative and academic functions.

The campus will also serve as a testbed for climate-smart technologies and practices. A series of pilot zones—such as mobility nodes, micro-renewable energy hubs, and zero-waste areas—will demonstrate scalable interventions

and provide opportunities for student-led innovation and research. The intention is to create a "living laboratory" environment where sustainability goals are not just discussed but visibly enacted in everyday campus life.

By redesigning both the built and digital environments in this way, Termez State University ensures that sustainability is not an abstract concept but a tangible and lived experience for everyone who studies, works, or visits the institution.

Leadership and Governance

Sustained climate action at Termez State University requires committed leadership, structured accountability, and a governance model that can adapt to evolving climate challenges. The university recognizes that achieving long-term goals such as net-zero emissions cannot be the responsibility of a single department or working group; rather, it must be woven into the fabric of institutional leadership, strategic planning, and operational decision-making at all levels.

The university will establish a Climate Action and Sustainability Council (CASC), which will be mandated to oversee the implementation of this policy, monitor progress, ensure compliance, and coordinate initiatives across faculties, administrative units, and external stakeholders. This Council will report directly to the Rector's Office and will be composed of representatives from academic departments, facilities management, finance, student organizations, and relevant external partners.

The CASC will meet quarterly and will be tasked with reviewing progress against key performance indicators, advising on annual climate reporting, and making recommendations for updates to emissions boundaries, priority projects, and external engagement strategies. The Council will also serve as a

central hub for sharing best practices and aligning climate action across different areas of the university.

To further embed climate responsibility into institutional structure, each faculty and administrative unit will appoint a Climate and Sustainability Liaison. These individuals will serve as the point of contact for climate-related planning and will be responsible for local implementation of university-wide strategies. Their responsibilities will include facilitating data collection for emissions reporting, organizing community engagement activities, and identifying opportunities for improvement within their respective units.

The university's internal audit and performance review processes will be updated to include climate-related criteria, ensuring that leadership accountability extends beyond statements of support to measurable outcomes. For example, senior appointments and promotions may consider an individual's contribution to sustainability goals, and operational departments will be required to demonstrate alignment with the university's emissions reduction targets in their annual planning submissions.

A key component of the governance approach will be transparency. The university will publish an annual Climate Action Progress Report detailing emissions data, project outcomes, financial investments, and any revisions to strategic targets or operational frameworks. This document will be made publicly available and serve as both a communication tool and an internal driver of accountability.

To illustrate how this governance framework will function in practice, the following schematic outlines the lines of responsibility and collaboration across the institution:

Figure 2. Governance Model for Climate Policy Implementation

This model ensures that climate action is not siloed but institutionalized—integrated into how Termez State University plans, budgets, builds, educates, and collaborates. Leadership is expected not only to endorse climate goals but to be agents of the transformation, modeling the change the university seeks to inspire beyond its own walls.

Monitoring, Reporting, and Accountability

For climate action to be effective and credible, it must be measurable. Termez State University's climate policy will be underpinned by a robust system for monitoring progress, reporting outcomes, and maintaining institutional accountability. These mechanisms are essential to ensure that strategic goals translate into operational results and that the university remains responsive to new challenges, scientific developments, and stakeholder expectations.

The university will adopt an internationally recognized carbon accounting framework, such as the Greenhouse Gas Protocol or ISO 14064, to guide its

emissions monitoring efforts. An annual emissions inventory will be compiled that includes all Scope 1 and Scope 2 emissions, along with selected categories of Scope 3 emissions—such as business travel, on-campus waste, and employee commuting—where reliable data is available.

A digital dashboard will be developed to present key performance indicators across energy use, emissions trends, water consumption, waste diversion, and sustainable transport. This dashboard will be publicly accessible through the university's website and updated biannually to maintain transparency with both internal stakeholders and external partners.

Annual Climate Action Progress Reports will be published by the Climate Action and Sustainability Council. These reports will include:

- Emissions performance compared to baseline and targets
- Updates on priority projects and initiatives
- Financial investments and returns (e.g., energy savings, offset costs)
- Engagement metrics from training, events, and student/staff participation
- Revisions to timelines, boundaries, or strategy due to emerging risks or innovations

Each faculty and administrative unit will be responsible for submitting a yearly sustainability performance brief to the Council, detailing local contributions, data collection efforts, and implementation challenges. These briefs will feed into the university-wide report and be used for planning and prioritization purposes.

To support the principle of accountability, the university will integrate sustainability performance into institutional decision-making structures. This includes:

- Requiring sustainability impact assessments for all major infrastructure or procurement proposals
- Linking funding approvals for climate-related projects to clear performance metrics
- Embedding climate-related targets into strategic planning and risk management frameworks
- Including sustainability performance in leadership reviews and recognition programs

The university will also conduct external audits of its emissions data and sustainability practices every five years, inviting third-party evaluators to verify reported outcomes and recommend improvements. These evaluations will be shared publicly and responded to formally by the Council and Rectorate.

Accountability is not limited to metrics and compliance. It also includes the ethical responsibility to remain ambitious, adaptive, and just in our pursuit of climate goals. Termez State University acknowledges that climate risks and responses will evolve, and thus the policy includes a built-in mechanism for review and revision every three years. These revisions will be informed by community consultation, global science, and national policy developments, ensuring the university remains at the forefront of sustainability leadership.

Financial Strategy and Carbon Investment

Ambitious climate action requires not only strategic direction but also dedicated and well-managed financial resources. Termez State University recognizes that achieving its sustainability objectives will demand a shift in how capital is allocated, how financial risks and opportunities are assessed, and how return on investment is understood—not solely in monetary terms, but also in terms of environmental and social value.

The university will adopt a "climate-smart budgeting framework" that integrates environmental considerations into all planning, procurement, and capital allocation decisions. This approach will require that major infrastructure projects, equipment purchases, and service contracts undergo sustainability impact assessments as part of the financial approval process. Projects that contribute to emissions reductions, climate resilience, or environmental restoration will be prioritized and, where feasible, co-financed through partnerships, grants, or green funding mechanisms.

To fund initial phases of implementation, the university will establish a **Sustainability Innovation Fund**, financed through a combination of institutional budget reallocations, external grants, philanthropic contributions, and savings generated through efficiency projects. This fund will support pilot programs, research initiatives, training modules, and infrastructure upgrades aligned with the university's climate goals. A dedicated team within the finance office will be responsible for managing this fund transparently and reporting on its performance annually.

Revenues generated from behavior-based incentives—such as paid parking for fossil fuel vehicles—will be redirected into green infrastructure and carbon mitigation programs. For example, these funds will support campus

afforestation projects, maintenance of the water recycling system, and other locally relevant carbon removal or offsetting measures.

A central component of the financial strategy is the commitment to ethical carbon management. The university will adhere to a strict hierarchy: emissions must first be avoided, then reduced, and only offset as a last resort. In cases where offsetting is necessary, only high-quality, verifiable carbon credits will be used—preferably from projects based in Uzbekistan or closely linked to university research, education, or community engagement. Carbon investments will be evaluated not only for their environmental integrity but also for their co-benefits, such as biodiversity conservation, job creation, and land restoration.

To ensure financial accountability, the university will embed climate-related indicators into budget planning and institutional audits. Annual reports will include a section detailing sustainability expenditures, returns on environmental investments, and financial contributions to offset programs. This will help normalize climate-smart thinking within all departments and reinforce the understanding that climate action is not a cost but an investment in institutional resilience, operational efficiency, and public value.

Finally, the university will explore long-term financial partnerships, such as participation in national green bond programs, collaboration with international donors, or alignment with climate finance instruments offered by development banks and environmental funds. These partnerships will be pursued not only as a means of securing capital, but also as a way to align the university with broader global and regional climate finance ecosystems.

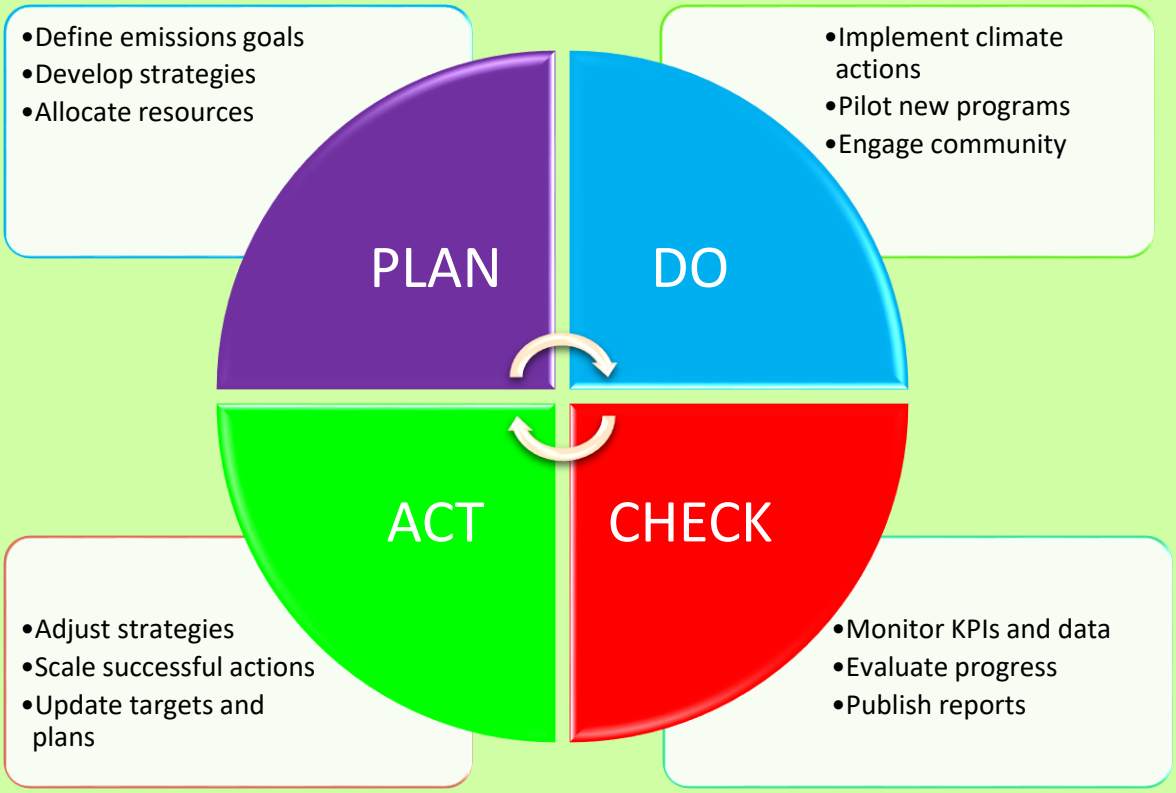
Conclusion and Strategic Framework for Continuous Improvement

This climate action policy marks a defining moment for Termez State University. It reflects not only a recognition of the global urgency of the climate crisis but also a deep institutional commitment to being part of the solution. By aligning its operations, education, research, infrastructure, and culture with sustainability principles, the university sets itself on a path of transformation that is both ethical and strategic.

As this policy is implemented, Termez State University will serve as a model for climate-resilient higher education in Central Asia—a university that does not simply respond to environmental risks but actively shapes a low-carbon future through knowledge, leadership, and community engagement. It will empower its students and staff to become informed changemakers, while contributing to regional development through innovation and climate-smart practices.

Yet this is not a static document. The pathway to net-zero and beyond will be complex, dynamic, and iterative. In recognition of this, the university adopts a **PDCA (Plan-Do-Check-Act)** framework as the guiding mechanism for operationalizing and refining this policy over time.

Figure 3. PDCA Cycle for Climate Action at Termez State University



This model ensures that the university's climate strategy remains flexible, evidence-informed, and responsive to change. Every year, the institution will revisit its performance, review challenges, adjust pathways, and act on lessons learned. Through this cycle, Termez State University ensures that climate action is not a one-time effort, but a permanent and evolving commitment embedded in its institutional DNA.

The implementation of this policy begins now. All university departments, staff, students, and partners are called upon to contribute, collaborate, and lead within their capacities. The climate challenge is immense, but so too is the university's potential to rise to it—with courage, clarity, and purpose.