

Turkmenistan's National Policy on Climate Change

Developing Carbon Markets in CAREC Countries: Experience, Opportunities, and Regional Cooperation

8–9 October 2025 Almaty, Kazakhstan



Participation under Article 6 is aligned with the National Climate Strategies, implementation of Nationally Determined Contributions (NDCs) and long-term low-emission development plans

The National Strategy of Turkmenistan on Climate Change (NSTIC) was adopted in 2012. In September 2019, a new version of the NSTIC was approved by a Decree of the President of Turkmenistan.

Turkmenistan actively supports all measures the international community is undertaking to prevent possible climate change and mitigate its consequences, promoting, first and foremost, adaptation to climate change and reduction of GHG emissions.

National Strategies and Plans (NDC) *(Nationally Determined Contributions)*

Turkmenistan's NDC sets national targets for GHG emission reduction and climate change adaptation, in areas such as energy efficiency, renewable energy, transport, agriculture, and industry.

Long-Term Low Emission Development Plans (LTS) form a roadmap for economic transformation for the periods 2030, 2040, 2050, including:

- transition to clean technologies and energy efficiency.

- diversification of energy and increasing the share of renewable sources.

- integration of climate requirements into infrastructure and industrial planning.

Information on institutional frameworks, legal and regulatory structures, monitoring, reporting and verification (MRV) systems and stakeholder engagement for the functioning of Article 6 mechanisms.

Since the adoption of the National Climate Change Strategy, the following climate-related projects have been completed and are underway through the assistance of international organizations:

Climate risk management in Turkmenistan, 2010–2014

Local and national responses at farm level to climate risks in Turkmenistan, 2011-2017

Improving energy efficiency in housing sector of Turkmenistan, 2012–2017

Energy efficiency and renewable energy for sustainable water resources management in Turkmenistan, 2015-2021

Ecosystem-based approach to land and forest resource management in the Amu Darya River region for better life of local communities as climate adaptation, 2015-2017.

Supporting climate-resilient livelihoods of agricultural communities in dryland areas of Turkmenistan, 2016-2021

Sustainable cities in Turkmenistan: Integrated development of green cities in Ashgabat and Avaza, 2018-2024

Ecosystem-based land use and ecosystem conservation in the lower reaches of the Amu Darya River, 2019-2020

UNDP Regional Project - Climate Box: Education and awareness on climate change.



Challenges include lack of technical expertise, data quality issues, difficulties in interagency coordination, and inadequate infrastructure. Highlight areas where support is most needed, including capacity building, legal frameworks, registries, and funding.

Capacity building:

Training of specialists, improving their qualifications and developing new competencies in the field of renewable energy sources (RES).

Legal framework:

Develop and enforce energy legislation that allows businesses and individuals to supply excess of generated electricity into the grid, thereby stimulating the development of renewable energy sources.

Financing:

Allocate sufficient funds for infrastructure modernization, adopt new renewable energy technologies, provide training, and implement renewable energy projects.

Priority sectors or types of projects that have significant potential to achieve Internationally Transferred Mitigation Outcomes (ITMO)

Priority sectors and types of projects in Turkmenistan for internationalization of ITMOs

1) Energy efficiency and energy saving

Key project areas:

- modernize public offices and residential buildings according to energy efficiency standards (thermal insulation, modern windows, HVAC systems).
- implement Energy Management Systems (EMS) and smart meters.
- programs to replace obsolete industrial equipment with energy-saving equipment and transition to more efficient processes.
- scalable pilot projects on energy efficiency in utilities (water supply, heat supply).

Potential for ITMOs: high additionality due to energy savings, possible to transfer specific implementation results and verify within the MRV framework.

2) Renewable energy and local generation

Why it's a priority: aligned with strategic goals of energy diversification and decarbonization; easy to describe additional deliverables for transfer.

Key project areas:

- Install solar PV systems on buildings, municipal facilities and rural utilities.
- Local micro-state /municipal low-voltage (MV/LV) power generation, including battery solutions to improve supply stability.
- Adopt hybrid solutions and energy storage systems in remote areas.

Potential for ITMOs: clear additionality, possible to document the volume of reduced emissions and report through ITMO, supported by transparent MRV.

3) Energy-efficient transport and logistics

Key project areas:

- electrify public transport and urban mini-transport.
- charging infrastructure and development of parallel fuels (hybrids, hydrogen).

4) Industrial modernization and decarbonization

Why it's a priority: high potential for emission reductions in key industries and opportunity to implement modern technologies.

Key project areas:

replace outdated industrial installations with energy-efficient and low-emission technologies.

Digitalize production and energy consumption management processes.

How regional cooperation under CAREC can facilitate these projects

- Sharing knowledge and best practices
 - Regional working groups by sector: energy, buildings, transport, agribusiness.
 - Regular exchange of successful cases, MRV methods, and project finance models.
- Standardized approaches and methodology
 - Develop common methodologies for carbon accounting and MRV for projects so that results can be mutually recognized between countries.
 - Coordinate a unified framework for certification of energy-saving technologies, environmental standards and bidding procedures.
- Regional MRV platforms
 - A joint platform for monitoring, reporting and verifying emissions from projects implemented in the region.
 - Data exchange on project performance, validation of methods and comparison of results.

- Market linkages and financial mechanisms
 - Establish regional project financing facilities (carbon funds, grants, concessional loans).
 - Develop regional carbon credit markets or Internationally Transferred Mitigation Outcomes (ITMOs), where applicable.
- Ensure sustainability and adaptability of projects
 - Regional guidelines on risk management, infrastructure resilience and climate change adaptation.
- Contribute to the achievement of national and regional goals
 - Integrate national climate plans and Nationally Determined Contributions as part of international agreements.
 - Define similar targets and indicators to facilitate ITMOs.

Thank you!