



**CTCN**  
CLIMATE TECHNOLOGY  
CENTRE & NETWORK



The Government of Islamic Republic of Afghanistan  
National Environmental Protection Agency

## CTCN Regional Forum for the National Designated Entities from Asia and the Pacific

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# Afghanistan's Experiences with the CTCN Technical Assistance



# Country Facts

- **Region:** Southern Asia
- **Country Income:** Low – income economies
- **Population below poverty:** 54 % (2017-2018)
- **UN Group:** LDCs
- **UNFCCC Annex 1 status:** Non Annex 1 party to the convention
- **NDE:** National Environmental Protection Agency
- Afghanistan has been identified among the countries with vulnerability to climate change impacts.

# Afghanistan - Recent steps

- Second National Communication to UNFCCC (2018)
- **NDC**: GHG emissions reduction by 13.6 % until 2030
- National Strategy and Action plan for Climate Change (2016)
- NAPA, NAP and NAMA prepared and submitted
- **DNA**: established responsible for CDM, GCF and Adaptation Fund
- Biennial update report under the preparation
- Establishment of National Climate Change Committee
- Establishment of Technical Committee for GCF – NIE
- Action on Climate Today (ACT)
- Climate Finance Unit

## CTCN Technical Assistance summary

<b>Project Title</b>	Technical Support and Advice for the Identification of Technology Needs in Afghanistan
<b>Date of submission</b>	Sunday 4 May 2014
<b>Technical Assistance Summary</b>	To identify and strengthening capacities for identifying climate technology priorities for Afghanistan and designed to raise the awareness required for policy makers to integrate climate technologies into their planning process
<b>Objective</b>	Identifying and advocating suitable climate technologies for low-carbon and climate resilience development for Agriculture, water and energy
<b>Sector/ Duration</b>	Cross – cutting (Adaptation & Mitigation) 12 months
<b>Implementers</b>	UN Environment
<b>Status / Budget</b>	Completed / 39,950 USD
<b>Sector</b>	Agriculture, Energy, Water

# Technologies prioritized during TA

- **Agriculture:**

- Crop diversification and new varieties
- Drip irrigation
- Livestock disease Management
- Agro – forestry

- **Water :**

- Rainwater harvesting
- Flood hazard mapping
- Flood warning system
- Household water treatment and safe storage

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- **Energy:**

- Solar photovoltaic
- Small scale hydro energy
- Biomass
- Solar thermal
- Building insulation
- Solar cookers
- Geothermal
- Solar lanterns
- Daylight building
- Integrated coal gasification
- Building ventilation

# CTCN Assistance Supports (Output)

- Development of a planning roadmap for mainstreaming climate technology priority in key sectors.
- Climate technology options
- Development technology project concepts
- Build capacity of policy makers and other key stakeholders to incorporate climate technology priority into national planning.
- Strengthening understanding of mitigation and adaptation technologies among beneficiaries and stakeholders.
- Created a strong basis in the country for conducting the TNA/TAP.

## **Main Stakeholders / Beneficiaries**

- Ministry of Energy and Water (MEW)
- Ministry of Agriculture, Irrigation and Livestock (MAIL)
- Ministry of Finance (MoF)
- Ministry of Foreign Affairs (MoFA)
- Afghanistan National Disaster Management Authority (ANDMA)
- Ministry of Rural Rehabilitation and Development (MRRD)
- Academic and Research Institutions
- Ministry of Economy (MoEc) / Inter-ministerial Commission for Energy (ICE)
- Civil society and NGOs
- Private companies, technology providers

# Approved Project (Technology Need Assessment)

- TNA has not been undertaken in Afghanistan.
- The project has been endorsed on 2016
- Participate and conduct TNA Global project phase III (2017 – 2020)
- **Objective:** To determine climate technology priorities, building national capacities and facilitates analysis and prioritization of climate technology for selected sectors.
- **Funding Agency:** GEF
- **Budget:** 132,000 USD
- **Start date:** June 2018
- **Completion of project:** November 2020

# Afghanistan's Technological, Capacity building and financial needs for Climate Change Adaptation (2020 – 2030)

<b>Action and Planned Needs</b>	<b>Technology</b>	<b>Capacity Building</b>	<b>Finance (USD)</b>
<b>Development of a system to monitor and assess vulnerability</b>	<b>Climate science technology</b>	Climate science institutes with university	0.02 Billion
<b>Identification of climate change adaptation technologies into the National Development Planning</b>	<b>Climate policy technologies and methods</b>	Training Afghan climate policy experts	0.01 Billion
<b>Strengthen meteorological and hydrological monitoring networks</b>	<b>Hydrological, meteorological and data equipment and integrated systems</b>	Operators and analysts for hydrological, meteorological and data integrated systems	0.1 Billion
<b>Development of water resources</b>	<b>Improved designs and methodologies for catchment management</b>	Ecological engineering and spatial planning for water resources	0.75 Billion
<b>Planning for proper watershed management</b>	<b>Full catchment planning technology and models</b>	Practitioners for watershed management	2.5 Billion
<b>Increasing irrigated agricultural land to 3.14 M-ha</b>	<b>Eco-agriculture and climate friendly irrigation technology</b>	Vocational and engineering capacity to design, build and maintain climate friendly irrigation networks	4.5 Billion
<b>At least 10% of Afghanistan land area and the habitat of selected species under a system of conservation</b>	<b>Conservation ecology methods and tools</b>	Protected areas and species ecologists, and ecological economists trained and working.	0.3 Billion
<b>Development of renewable energy sources for 25% of the rural population</b>	<b>Technology transfer of renewable energy and sustainable energy</b>	National centre for sustainable energy strengthened and expanded.	0.105 Billion

# Climate Change Mitigation Support Needs (2020 – 2030)

Sector	Technology and Capacity building Needs	Finance (USD)
<b>Energy Efficiency in Buildings and in Transport Sector</b>	Carbon finance and project development skills. Information on available technologies, measures, and financing skills. Building codes, and standards on appliances and equipment. Clean cooking, heating and power projects	100 million/Year
<b>Energy</b>	Human and institutional capacity for adoption of cleaner technology. Renewable energy Environmental compliance standards (emission and indoor).	188 Million/Year
<b>Waste Management</b>	Landfill management, decentralised wastewater treatment. Climate Project development skills.	74 Million/Year
<b>Forest and Rangelands</b>	Carbon sequestration on forest/rangelands, and forest carbon skills. Funding institutional capacity to monitor and verify projects. Reduce rural peoples' dependence on fuel for cooking and heating.	100 Million/Year
<b>Industry and Mining</b>	Cleaner coal mining. Hydrocarbon fields management. Technical industrial capacity to link basic industry and mining private and public sector with climate sector experts.	100 Million/Year
<b>Agriculture and Livestock</b>	National herd, reduction in fuel used, or cleaner fuel technologies. South-south collaboration on low-carbon agriculture Improved national dataset on agriculture, food security data.	100 Million/Year

# Challenges and Recommendation

- Insecurity, technical capacity and financial resources are however challenges to fill the gaps for technology needs.
- Lack of capacity and coordination among stakeholders for development of project concepts development.
- Afghanistan has been identified among the countries with vulnerability to climate change impacts, needs for technology transfer for low carbon, increase resilience and develop sustainability.
- More capacity enhanced training sessions and technical assistance are required for the NDEs Afghanistan to develop the project concepts to assess, develop and transfer technologies.
- Shearing knowledge and practical experiences in climate technology cooperation between Asia and Pacific region.
- Shear the climate innovation technologies between NDEs and NDA to consider in Medium and full size projects.
- Continued collaboration between CTCN and NDEs Afghanistan for technical assistance and knowledge shearing.



**Thanks for Your Kind Attention...!**

