

Introduction to the CTCN and the NDE-SA

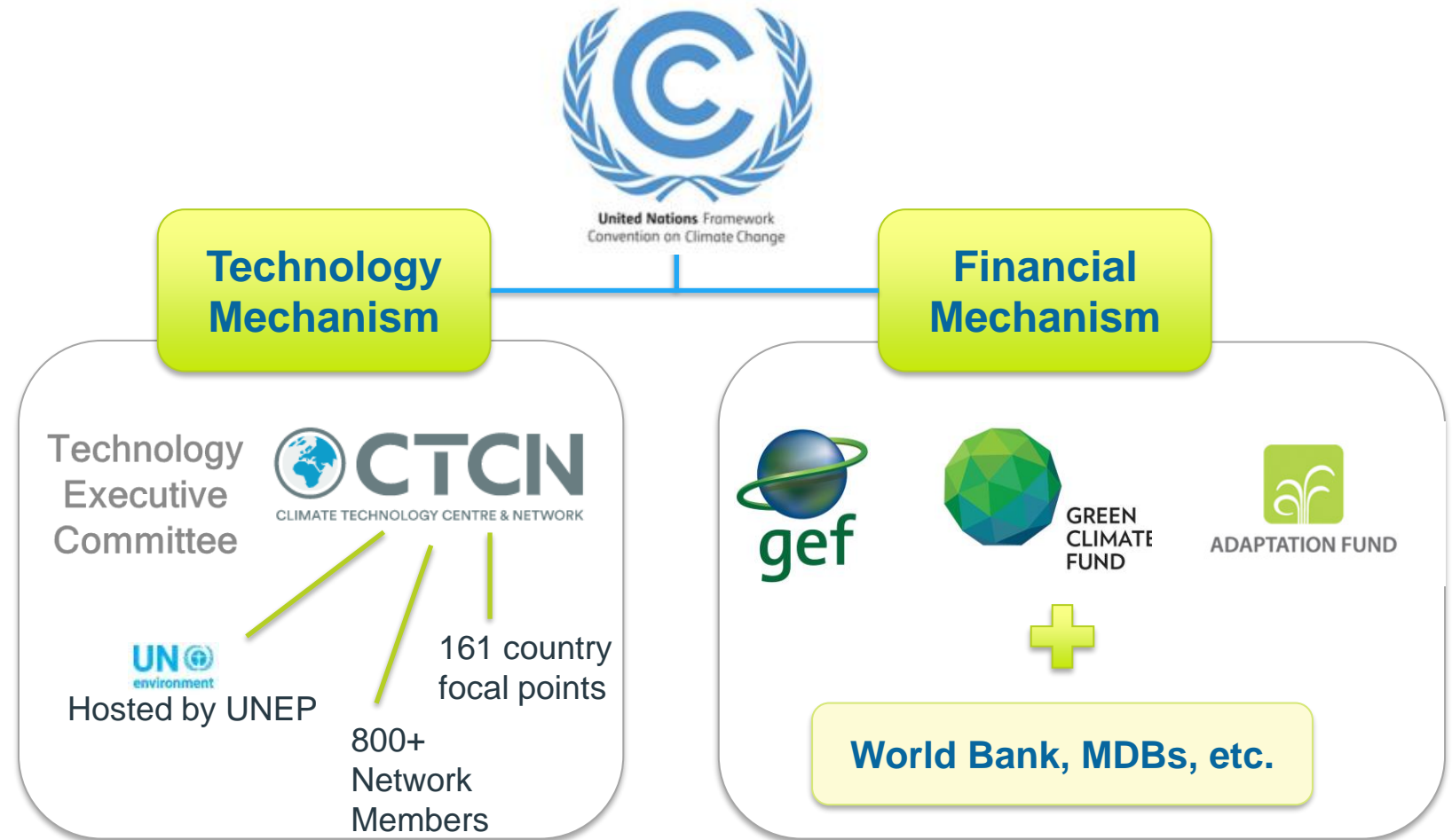
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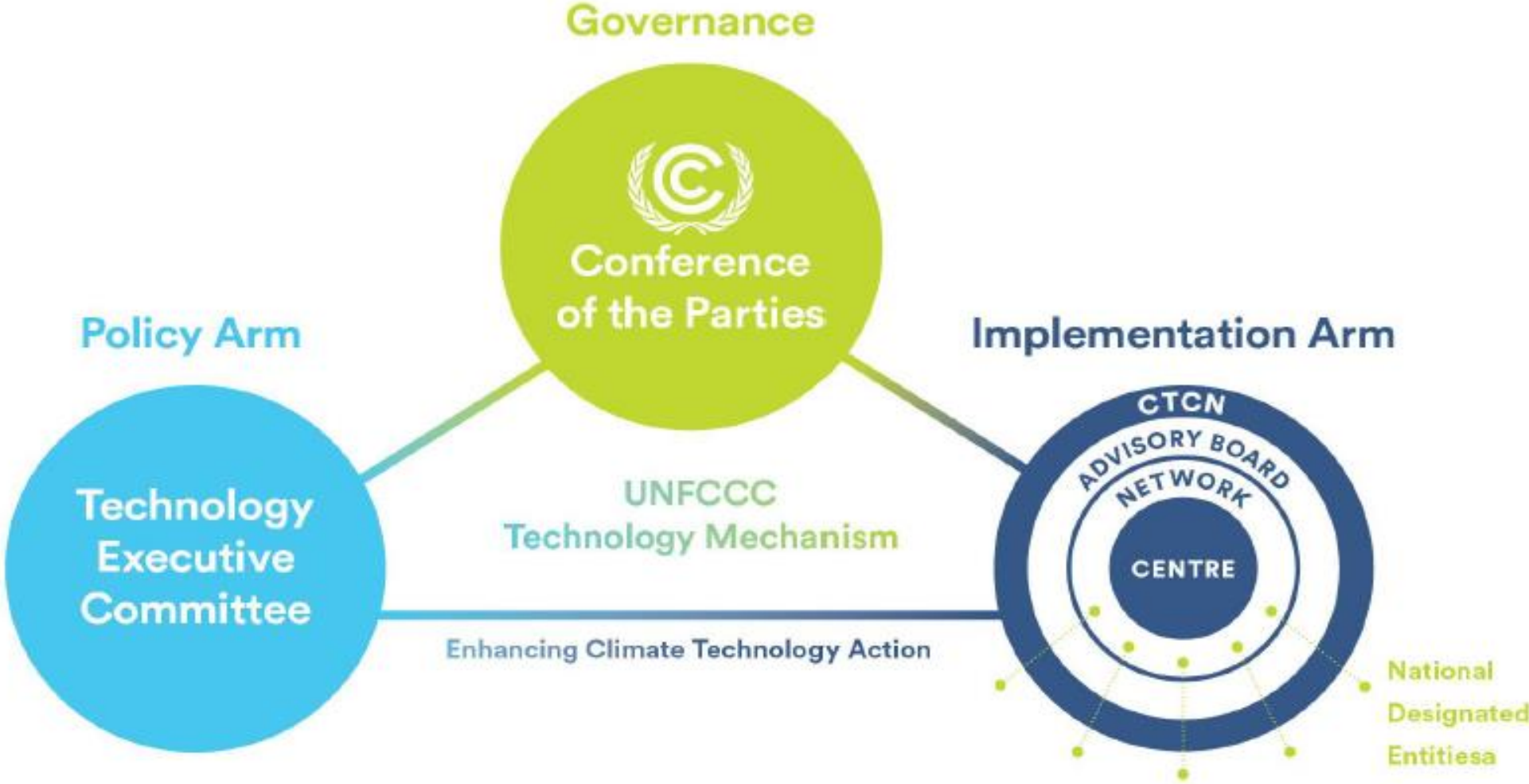
Introduction to CTCN

CTCN Mandate

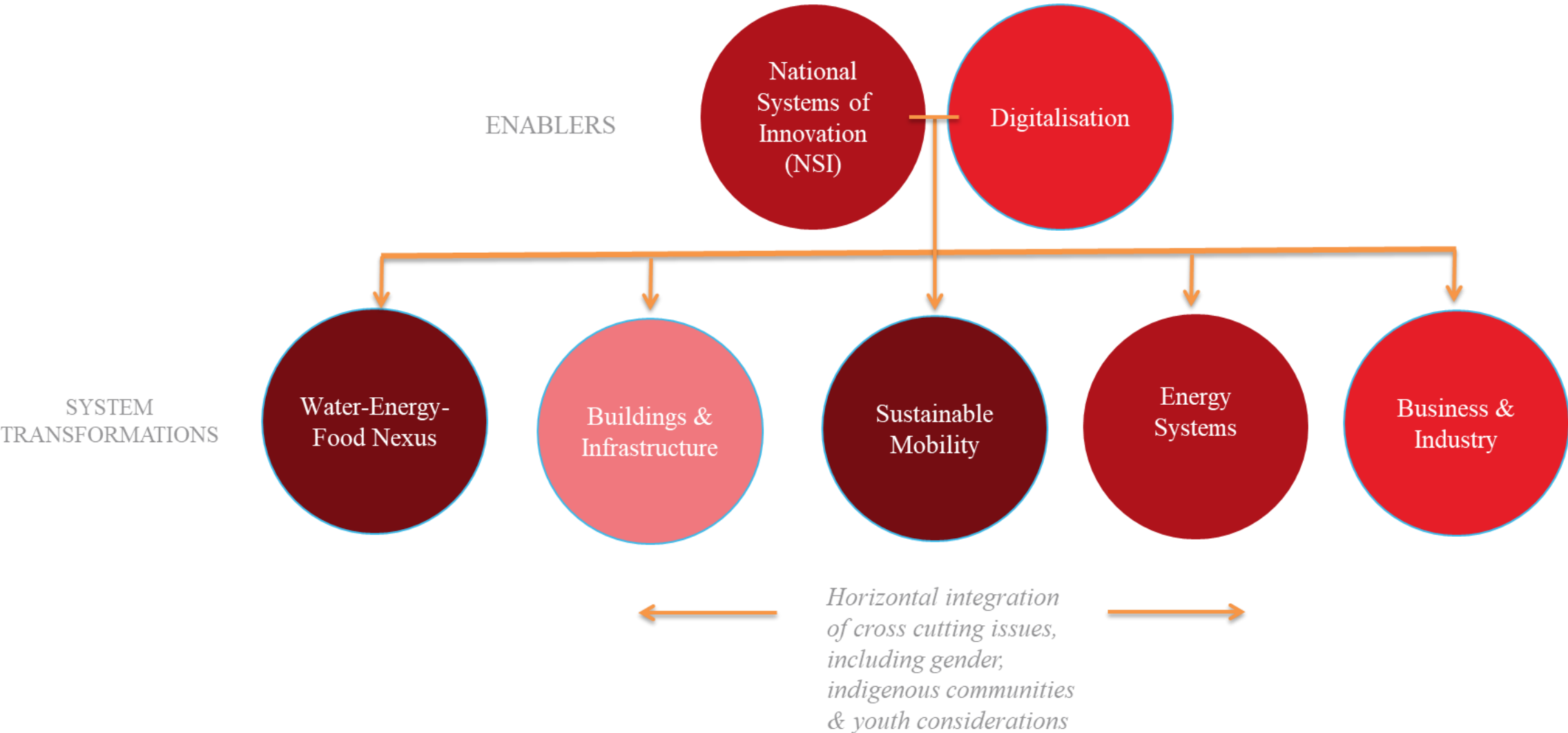
- Operational arm of the UNFCCC Technology Mechanism.
- Mandated to support the development, transfer, deployment and dissemination of climate technologies.
- Work with Financial Mechanism & via 800+ expert implementing partners (= Network)
- Hosted by UNEP



UNFCCC Technology Mechanism

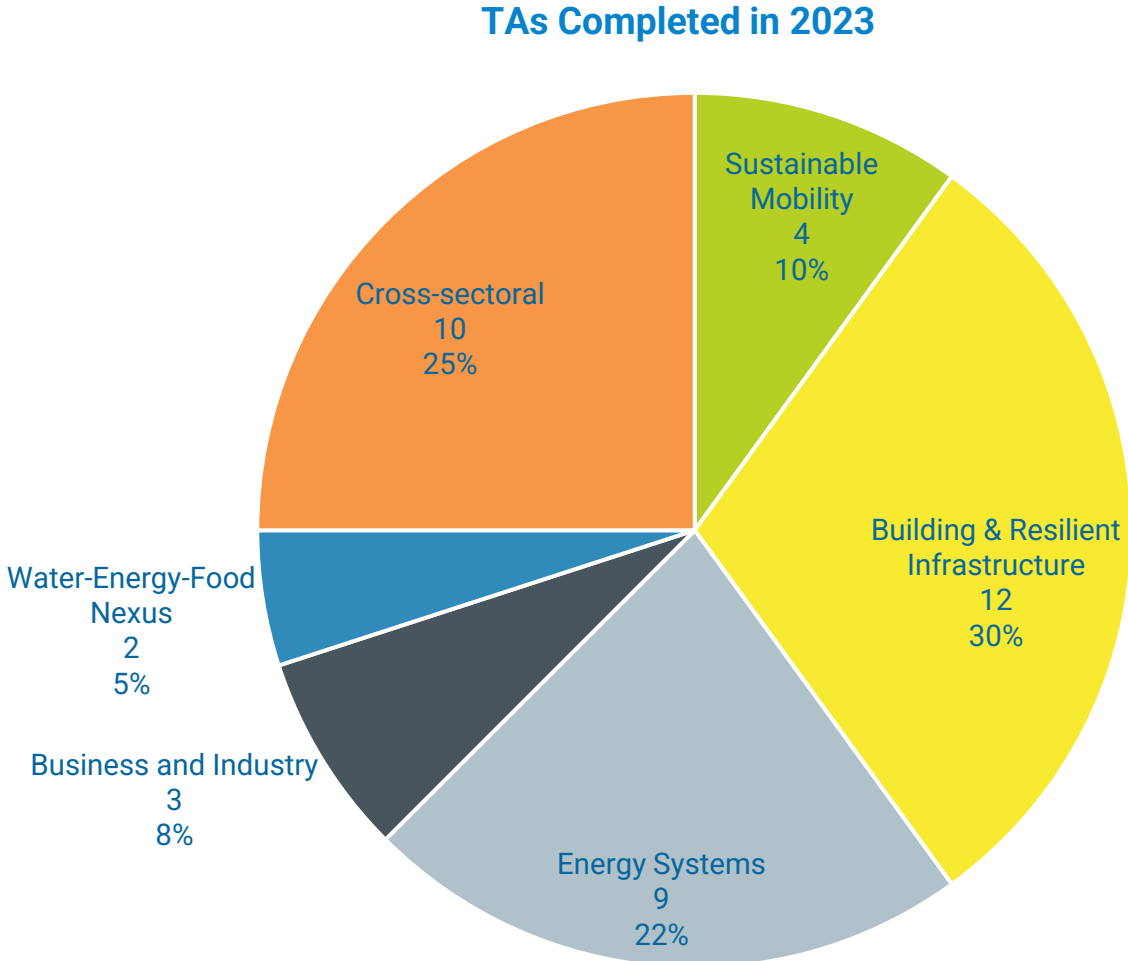


CTCN Programme of Work 2023 - 2027



CTCN Technical Assistances

- Between 2014 to 2023, the CTCN has received a total 401 requests from 110 country Parties.
- 40 technical assistance projects were completed in 2023.



Snapshot of TA in 2023

- **48 percent of all requests originate from Africa**, 34% from Asia Pacific, 24% from Latin America and the Caribbean and 1% from Europe. Requests from **Least Developed Countries (LDCs)** represent 24% of all TA requests, while **Small Island Developing States (SIDS)** represent 10%
- TA requests received to date support both **mitigation** (44%) and adaptation goals (30%), and an increasing number support a combination of both (26%). The largest categories for mitigation requests relate to energy efficiency, renewable energy, and waste management while the largest adaptation categories are water, agriculture and forestry, coastal zones and early warning and environmental assessment.
- In terms of the type of assistance, requests for **decision-making of information tools (25%) are received most frequently**, followed by requests for **technology feasibility studies (21%)** and **technology identification and prioritization (15%)**

Water-Energy-Food Nexus

- Recognition that water, energy, and food are linked in a complex web of relationships in the hydrological, biological, social, and technological spheres
- Agriculture is the largest consumer of freshwater; water is used to produce myriad forms of energy; and agriculture depends on energy.
- Demand is rising rapidly, driven by an increasing global population which is quickly urbanizing, alongside changing diets, economic growth, and rising living standards.

Countries	Examples of CTCN Technical Assistance	Status
Kenya	Formulation of Kenya's 2020 – 2030 national agroforestry strategy	Completed
Mali	Agrometeorological information system for decision-making in the agricultural sector	Completed
Saint Kitts and Nevis	Increase the water supply system resilience by managing aquifers recharge (MAR) and incorporating drought risks modelling	Completed



Buildings and Infrastructure

- Building and construction sector is responsible for nearly 15% of direct CO2 emissions
- Continuous growth in energy needs from this sector has been driven by improved energy access in developing countries, and an increasing demand for air conditioning and energy-consuming appliances

Countries	Examples of the CTCN Technical Assistance	Status
Côte d'Ivoire	The identification of projects for the greening and resilience of the land and coastal areas of the Commune of Cocody, Abidjan	Completed
Zimbabwe	Development of Green Building Standards for Zimbabwe	Ongoing
Timor Leste	Formulating a National Electricity Grid Code and the Definition of a Net Metering Policy in Timor-Leste	Preparation



Sustainable Mobility

- Transport sector is the most highly dependent on fossil fuels, comprising 37% of CO2 emissions from end-use sectors
- Strong regulations, fiscal incentives, and investment in zero and low-carbon vehicle operations are needed in order to make climate change progress in this area.

Countries	Examples of the CTCN Technical Assistance	Status
Zimbabwe, Uganda	Developing a national framework for deploying and scaling up E-Mobility	Completed
Solomon Islands	Feasibility Study for Low Carbon Transport in Solomon Islands	Completed
Bangladesh	Development of Framework for Real-Time Transport Information Systems for Public Transport in Greater Dhaka	Ongoing



Energy Systems

- Energy demand in developing countries is projected to expand by two-thirds by 2050.
- It is estimated that annual capital spending on clean energy in these economies will need to multiply by more than seven times, to more than USD 1 trillion, in order to remain on track to meet goals
- Energy solutions for a just energy transition “are clear but will require pragmatism, political will, and an inclusive global approach with concrete mechanisms and real financial incentives.” (WEF)

Country	Project	Status
SADC Region	Leapfrogging markets to energy-efficient refrigerators and distribution transformers	Completed
Liberia	Developing a renewable energy investment framework to increase the share of renewable energy-based electricity generation	Ongoing
Mongolia	Feasibility study of a combined heat and power supply using green hydrogen	Ongoing



Business and Industry

- Vulnerabilities to both economic and climate shocks are increasingly compounding an often dire situation in developing countries, running the risk of trapping these nations in a state of disruption, economic uncertainty, and slow productivity growth
- Climate action does not threaten economic growth but climate policies are benefitting economic growth

Countries	Examples of the CTCN Technical Assistance	Status
Congo – Brazzaville, South Africa	Technologies and industrial processes in cement producing industries	Completed
Cambodia	Study for Technology Upgradation in SMEs in Cambodia through Green Finance	Preparation
Vietnam	Feasibility study for Carbon Mineralization by using CO ₂ issued from coal power plant for recycling ash slag	Preparation



National Systems of Innovation

The CTCN will support the development of national systems of innovation to:

1. support collaborative approaches to climate technology research, development, and demonstration (RD&D);
2. create and promote relevant enabling policy to incentivize and nurture a supportive environment for innovation; and
3. actively engage the private sector and build closer collaboration between the public and private sector.

Country	Project title	Status
Zambia	Development of a framework and roadmap for a National Innovation System to foster low-carbon and climate resilient economic development in Zambia	Implementation



Digitalisation

The Programme of Work will explore how digital technologies and can bring significant potential in reductions in the global carbon footprint and increase resilience.

Country	Project Title	Status
Eswatini	Drone-enabled remote sensing of forests	Completed
Mali	Agrometeorological information systems	Completed
Georgia	Building up integrated monitoring and early warning forest fires detection system in the Borjomi - Kharagauli National Park by innovative remote sensing tools	Ongoing





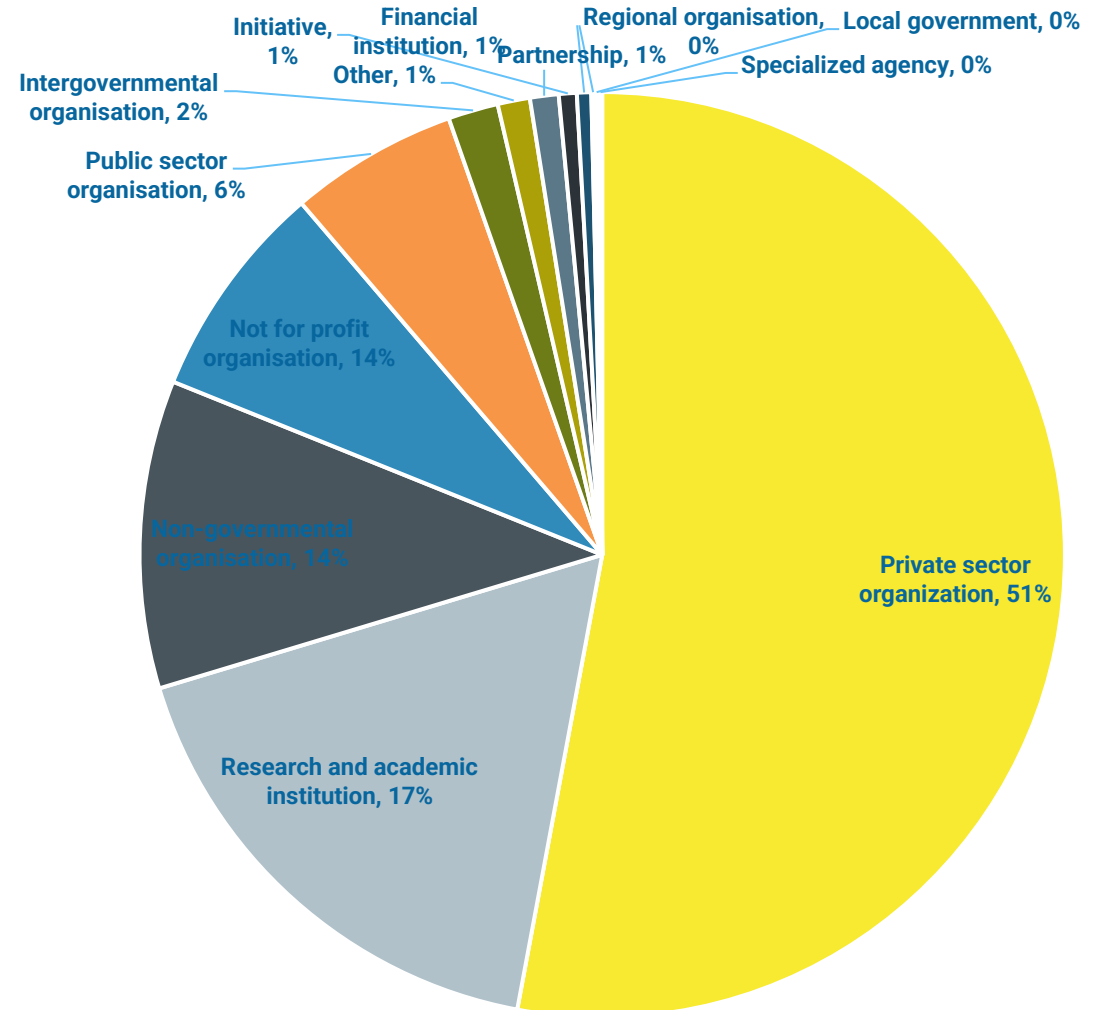
CTCN Procedures and its application in South Africa

National Designated Entities (NDEs)

- 161 NDEs globally
- DSI in SA is the NDE
- Serve as national entities for the development and transfer of technologies
- Country focal points for engaging with the CTCN
- *Important*
 - Only NDEs may submit requests to the CTCN
 - A beneficiary/project proponent cannot submit a request on its own
 - CTCN does not provide funding directly to countries, but provides technical assistance
 - Technical assistances are limited to a maximum of 250,000 USD

Network members

- Network members come from private sector, research institutions, not for profit organizations, etc.
- Network members can implement CTCN technical assistances and collaborate with the CTCN on various activities
- Any organization can apply to become a CTCN network member, simply via the CTCN website
- 810 members in total (31 August 2023)
- Over half of Network members represent private sector organizations, followed by research and academic institutions



SA network partners



Technical Assistance projects in RSA



Year	Proponent	Title	Objective	Sector
Initiated (2024)	City of Mombela	Tree Monitoring for Climate Adaptation	Adaptation, Mitigation	Governance and Planning
Ongoing (2023)	Dept of Science and Innovation	Development of an STI-led cross-sectoral Circular Economy Roadmap for abating GHG emissions in South Africa (ongoing)	Adaptation, Mitigation	Governance and Planning
2023	Council for Scientific and Industrial Research	Develop Capacity for Determining and Unlocking Untapped Demand-Side Potential in South Africa (2023)	Mitigation	Governance and Planning
2017	Association of Cementitious Material Producers (ACMP)	Substantial GHG emissions reduction in the cement industry by using waste heat recovery combined with mineral carbon capture and utilization	Mitigation	Industry
2016	KZN Department of Economic Development, Tourism and Environmental Affairs; and iLembe District Municipality	The Development of Technology Needs Assessment at Subnational Level	Mitigation	Governance and Planning

Technical assistance process



Interested parties in developing countries contact their national focal point (NDE) to request technical assistance.

The NDE confirms the alignment of the request with its national climate priorities *via a national steering committee* and submits it to the CTCN.

The CTCN collaborates with the NDE and applicants to develop a tailored response plan (terms of reference).

The CTCN selects a Network Member through a competitive bidding process (technical and financial evaluation done by UNEP/UNON) to implement the technology solution.

Key messages

- The CTCN aim to provide technical assistance to countries to enhance the enabling environment for climate technology uptake.
- The CTCN operates on a demand-driven basis (upon submission of a request), and provides a framework through its PoW (5 system transformation areas, 2 enablers)
- Developing countries are encouraged to seek technical assistance support through their NDEs
- Each technical assistance is limited to max. 250,000 USD

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