

Updates on the Joint Work Programme of the Technology Mechanism (2023-2027)

Asia NDE Forum
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United Nations Climate Change
Technology Executive Committee



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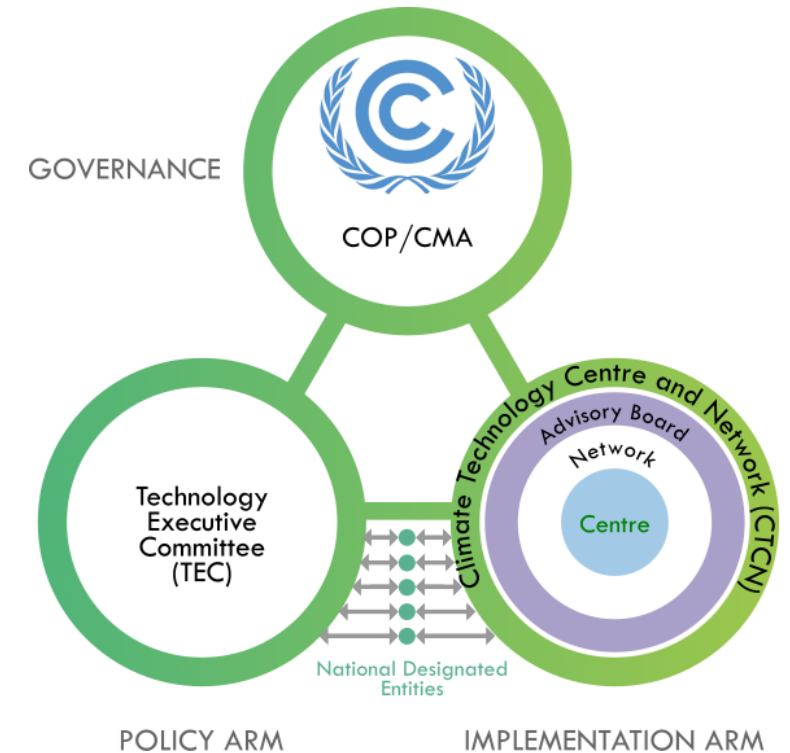
UNFCCC Technology Mechanism

2010 – COP 16, Cancun

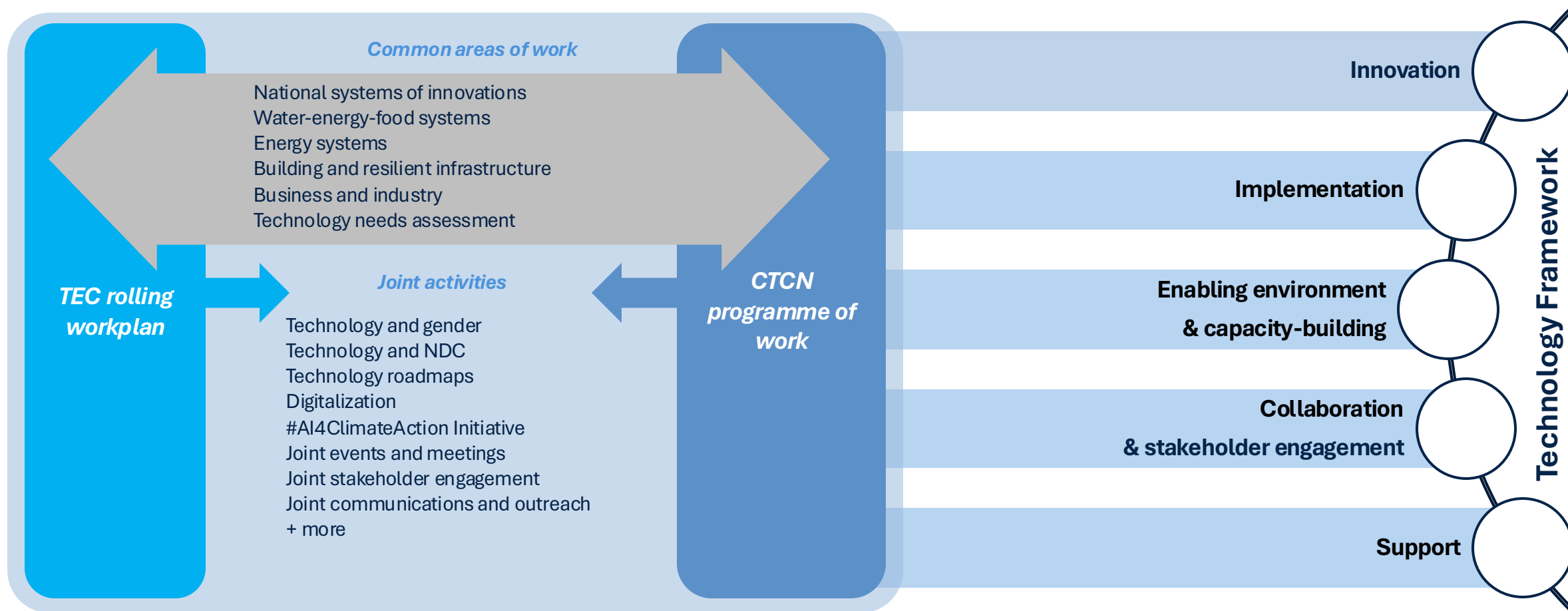
The **Technology Mechanism** was established, consisted of the Technology Executive Committee (policy arm) and Climate Technology Centre and Network (implementation arm), to enhance action on climate technology development and transfer.

2015 – COP 21, Paris

The Paris Agreement established **a technology framework** to provide overarching guidance to the Technology Mechanism and mandated the TEC and CTCN to serve the Paris Agreement.



Joint Work Programme of the Technology Mechanism 2023-2027



Common area of work: Water-Energy-Food Nexus



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9 TAs on WEF systems completed

Several TA requests have focused on Technology piloting and deployment:

- sustainable groundwater extraction system,
- weather forecasting,
- rainwater harvesting,
- soil erosion valuation,
- flood early warning systems

Current and upcoming projects:

- Feasibility study on aquaponics in Peru, developing real-time mapping of floods in Mali

Reflections pertinent to TEC work

- CTCN will use TEC&FAO knowledge product: “Climate Technologies for Agrifood Systems transformation” in capacity-building events, regional forums where applicable and when developing TA request

CTCN feedback to TEC

- TEC to analyze CTCN lessons learnt from using the knowledge product in TA implementation



Common area of work: Business and Industry



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4 TAs were completed.

TAs requests on:

- Market assessment in the application of climate tech in the agriculture sector
- Technologies framework for implementation of NDCs
- Developing an STI-led cross-sectoral Circular Economy Roadmap
- Framework and roadmap for NSI

Current and upcoming projects:

- Decarbonization of the cement sector in Senegal and Zimbabwe
- Developing a national framework for the standardization of architecture and procedures for climate smart street side vendors in the Bahamas

Reflections pertinent to TEC work

- CTCN to use TEC policy brief on hard-to-abate industries for future TA development.

CTCN feedback to TEC

- Lessons learnt from CTCN's TAs on cement to be shared with TEC and used in TEC analysis of standards for low and near zero emissions production and products CTCN to contribute to Technology Day at COP 30.



1 TNA was completed during the reporting period:

- In Chile, its first TNA started in 2023 with 4 TAPS for energy, waste, water resources, and forestry/agriculture.
- A CN was developed for a complete early warning system in Nuble-Biobio.
- The results from the TNA are being integrated into the 17 sectoral plans that make up Chile's Climate Change Law.
- Tunisia: TNA (2017) led to a TA project on a smart drinking water network

CTCN feedback to TEC

CTCN's knowledge product of its TNA portfolio to feed into TEC's work on TNA/TAP implementation success stories and lessons learned.



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Technology Executive Committee

The Technology Executive Committee (TEC) is the policy arm of the Technology Mechanism. It focuses on identifying policies that can accelerate the development and transfer of technologies that foster low-emission and climate-resilient development.



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TEC Mandate and Activities

Functions

- Analyze policy and technical issues related to climate technology development and transfer
- Recommend actions to promote climate technology development and transfer
- Recommend guidance on climate technology policies and programmes
- Promote and facilitate collaboration between climate technology stakeholders
- Recommend actions to address barriers to climate technology development and transfer
- Seek cooperation with climate technology stakeholders and promote coherence across technology activities
- Catalyse the development and use of climate technology roadmaps and action plans

Outputs

- Policy recommendations
- Knowledge products
- Analysis & synthesis
- Dialogues & events
- Initiatives & global engagements
- + more

Conducting work

- 2 meetings per year
- Joint sessions with the CTCN Advisory Board
- Intersessional work through task forces and activity groups
- Engagement with representatives of all UNFCCC constituencies
- Gender mainstreaming
- Collaborative partnerships
- + more



TEC Rolling Workplans

- Contains activities of the TEC to implement its functions as mandated by Parties and the Technology Framework
- “Rolling” – to reflect dynamics of the work in response to annual guidance from Parties and changing circumstances
- Development is usually initiated at the second meeting in the last year of workplan period, and may include consultations with relevant stakeholders
- **Four rolling workplans** have been developed and implemented. Each rolling workplan between 2 – 4 years.

2012–2013

2014–2015

2016–2018

2019–2022

- The TEC is currently implementing its **rolling workplan for 2023-2027**, as part of the first ever joint work programme of the Technology Mechanism.



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Find out more: <https://unfccc.int/ttclear/tec/workplan>

TEC rolling workplan 2023-2027

Part of the joint work programme of the Technology Mechanism, the TEC rolling workplan for 2023-2027 provides a framework for the TEC to deliver on its mandate in the era of implementation of the Paris Agreement through promoting science-based and systemic approaches, bolstering transformative technology solutions, focusing on high-impact, high-potential sectors and actions and leveraging collaborative partnerships across four workstreams

- | | | | |
|----------|---|--|----------|
| 1 | NSI, Collaborative RD&D & General-Purpose Technologies | TNAs & technology planning tools to support NDC implementation | 2 |
| 3 | Transformative & innovative solutions | Collaboration & engagement with other UNFCCC processes/bodies & other UN agencies | 4 |

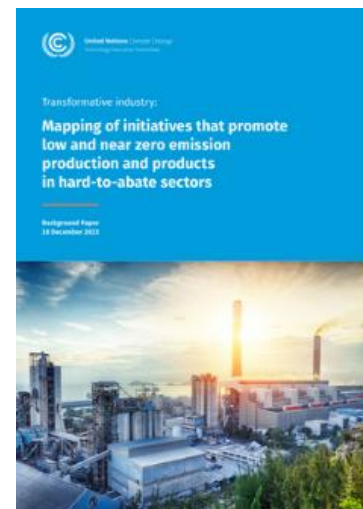
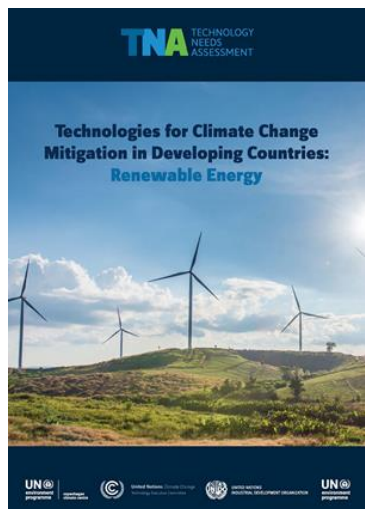
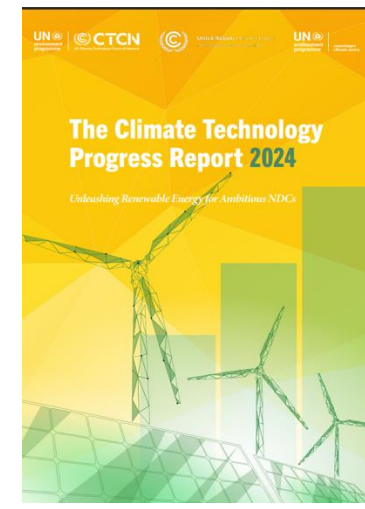
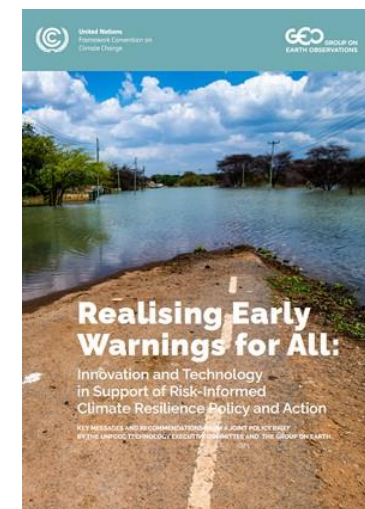
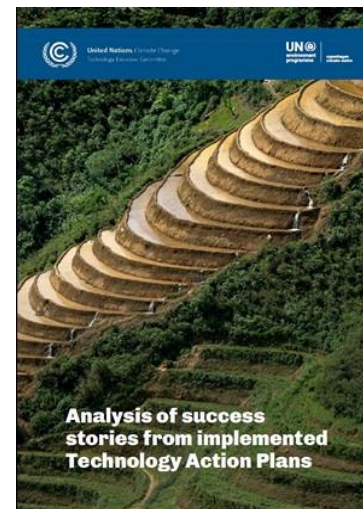
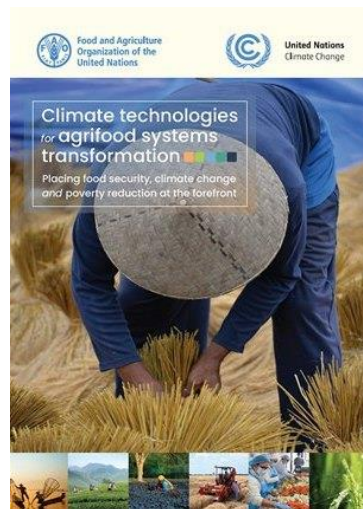


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Informed by

Parties' guidance
Mandates and functions of the TEC
Technology Framework
Science
Transformative solutions
NDCs
Climate goals and the SDGs
Gender-responsiveness
Mindful of resource implications
Pragmatic approaches

Latest TEC Publications



Collaborative Engagement and Partnerships



Regional Collaboration Centre – Kampala
Promoting Action Against Climate Change



GREEN CLIMATE FUND



IGES

Regional Collaboration Centre – Bangkok
Promoting Climate Action in Asia and the Pacific



copenhagen climate centre



Global Alliance for Buildings and Construction



KOICA

Marrakech Partnership



FEBA
Friends of Ecosystem-based Adaptation



IRENA
International Renewable Energy Agency



ADAPTATION FUND



ITA
INDUSTRIAL TRANSITION ACCELERATOR



FCA
Future Cleantech Architects

G-STIC

GACSA GLOBAL ALLIANCE FOR CLIMATE-SMART AGRICULTURE



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Technology Mechanism Initiative on AI for Climate Action



#AI4ClimateAction



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Update on TEC-CTCN joint activities under the AI Initiative

AI for Climate Action Award 2025



- ✓ **1st Round: Written Submission by 31 Jul 2025**
 - Semifinalist Announcement: 22 Aug 2025
 - Training for semifinalists: 25 Aug 2025
- ❑ **2nd Round: Video Submission by 10 Sep 2025**
 - Live Pitch Training for Finalists on 19 Sep 2025
- ❑ **3rd Round: Live Pitch on 25 Sep 2025**
 - Award Winner Announcement on 9 Oct 2025

2024 Regional Thematic Capacity Building

Asia (July 3-5, 2024)

12 NDEs, 14 presenters, 1 site visit to T.um, SK Telecom (largest telecommunication company in Korea). Partnered with NIGT.

Pacific (July 10-12, 2024)

10 NDEs, 16 presenters, 1 site visit to T.um by SK Telecom. Partnered with NIGT.

Africa (August 29-30, 2024)

10 NDEs, 16 presenters, 1 site visit to Green Data Center. Partnered with GIZ.

Latin America and the Caribbean (October 3-4, 2024)

22 NDEs, 20 presenters. Partnered with Costa Rica.

Objective: Increase the awareness of applicability of AI technology for climate action and facilitate the co-creation process of AI-led TA projects

Methodology:

- Workshop content developed through NDC analyses, focusing on AI components and sector priorities.
- Tailored to National Designated Entities (NDEs), aligning with their knowledge level on AI.
- Introduction to the history of AI, its challenges and opportunities, and pioneering cases of AI technology in the environmental and climate agenda.
- CTCN facilitated the Technical Assistance project ideation process.

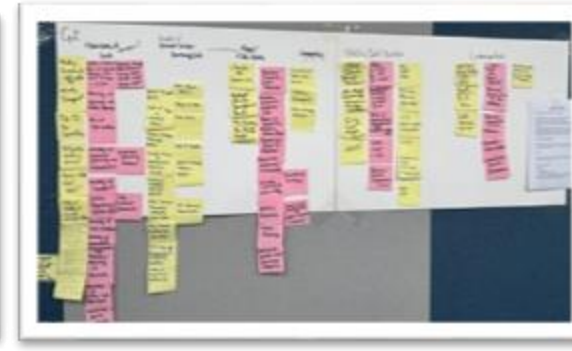
Outcomes: 32 AI-led TA project ideas

Asia & Pacific: 17 new ideas

Africa: 11 new ideas

LAC: 4 new ideas

Of those 10 are under implementation as TAs



Pacific

- Solomon Islands - The use of Artificial Intelligence (AI) for climate change adaptation and mitigation solution
- Samoa - Time series land use and land cover mapping and land use change drivers analysis

Africa

- Mali - Data-driven approach in flood mitigation: developing real-time mapping of floods in Mali

Eastern Europe / West Asia

- Georgia - Building an integrated monitoring and early warning forest fires detection system in the Borjomi - Kharagauli National Park

LAC

- Suriname - Enhance the resilience of Suriname's water supply system by modelling drought risks and developing a roadmap of prioritized alternatives for aquifer recharge

1.2.3. Online to reach more NDEs

Launch of AI online learning

- Explored the potential to feature ready-made lecture recordings on TT: Clear
- Under exploration to leverage on different UN learning platforms
- **Back-up plan: Youtube CTCN channel with membership function**

Capacitating Network members

- 17 April 2025 - Webinar: Leveraging Artificial Intelligence to Advance the Renewable Energy Sector in Asia-Pacific (in collaboration with UNEP ROAP)
- 30 October 2025 - Calling for prospective Network members with AI to the pool (with support from TEC)

Summary Note on Capacity Building Programme on AI4ClimateAction

- Summary of programmes delivered across 4 region-specific-groups of NDEs
- Draft to be shared with the UNFCCC Secretariat for its integration into 2.1.4 and/or 3.1.4

2.2. Strengthening Enabling environment

Insight sharing

Network-led publication (NIGT), 2024

Case studies in Asia

- India: Optimizing Household Energy Consumption - India's Tata Power EZ Home
- Singapore: Optimizing Water Management - PUB leverages AI to enhance water resource management and conservation
- Korea: Optimizing Urban Mobility - TOPIS uses AI to revolutionize traffic management and reduce emissions

Case studies in the Pacific

- Fiji, the Maldives, Palau, Solomon Islands, and Vanuatu: Optimizing Marine Ecosystem - Five Pacific nations leverage AI for real-time coral reef monitoring and conservation
- Solomon Islands: Safeguarding Coastal Ecosystems: Solomon Islands' ICZM with AMAP

Complemented by a Social Media Campaign:

- Sharing examples as references for NDEs to inform future technical assistance development
- Promoted through #DidYouKnow SNS campaign and Newsletter

Progress Update

2025 AI cases in LAC: Invitation to the TEC, its draft under preparation

2026 AI cases in Africa: Invitation to the TEC



Thank you



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