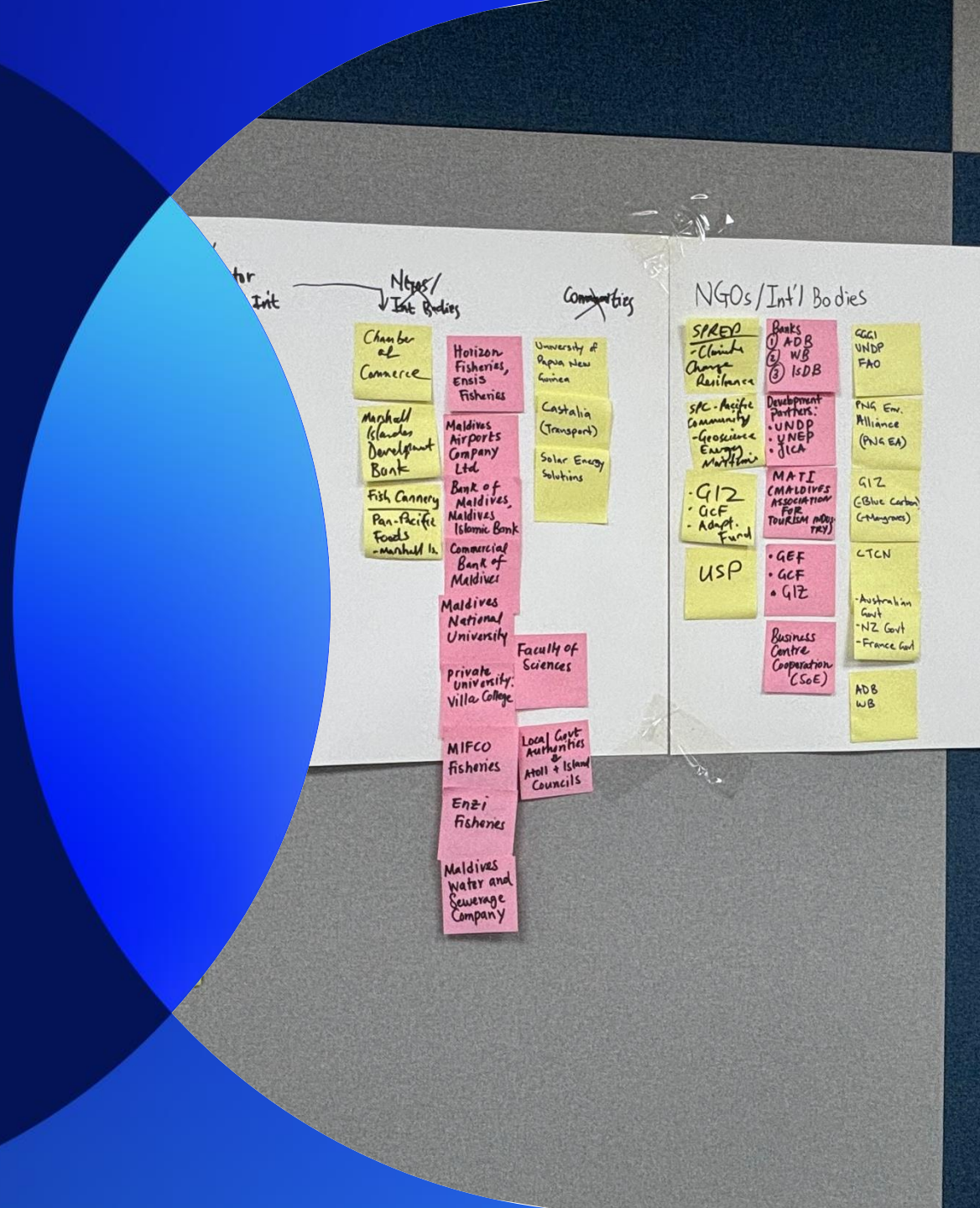


DAY 4: DEVELOPING BEST PRACTICE CASES FOR CTCN TAI

Invitational Training on Exploring Climate Adaptation Technologies
28 May 2026

CTCN Secretariat



Overview of Day 4

Thought-provoking and Knowledge development

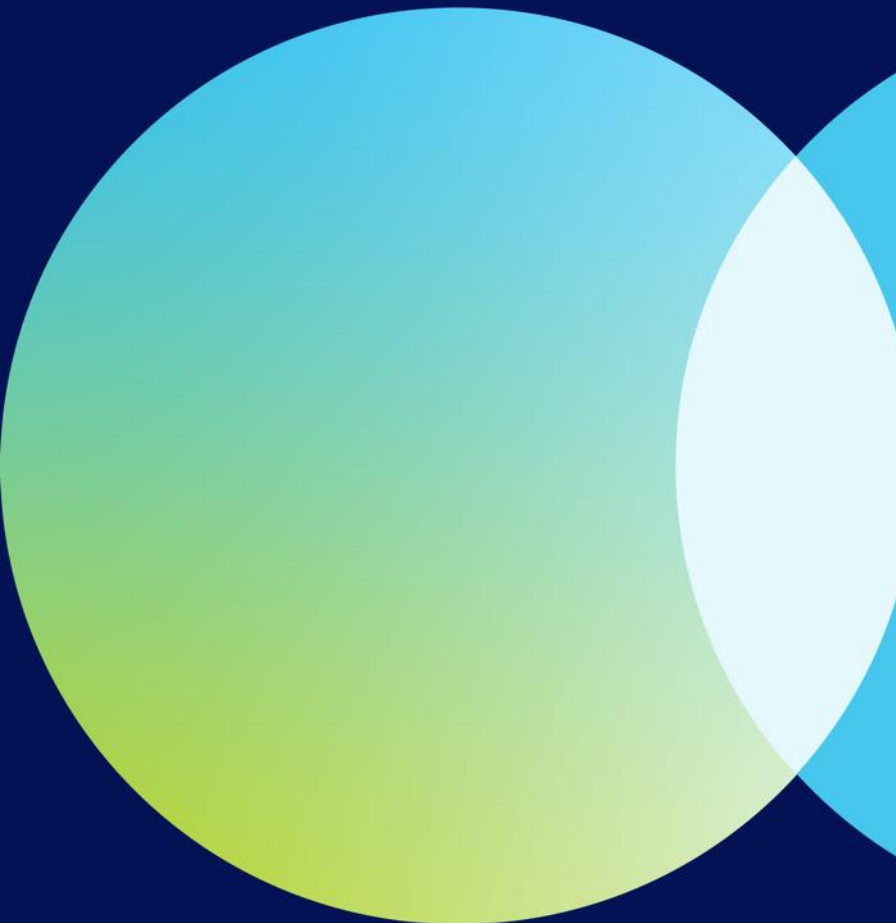
Morning

**Understanding
CTCN support**

**Understanding
GCF support**

Afternoon

**Build 'Climate Narrative-led Concept
Note/Request form'**



Morning Session

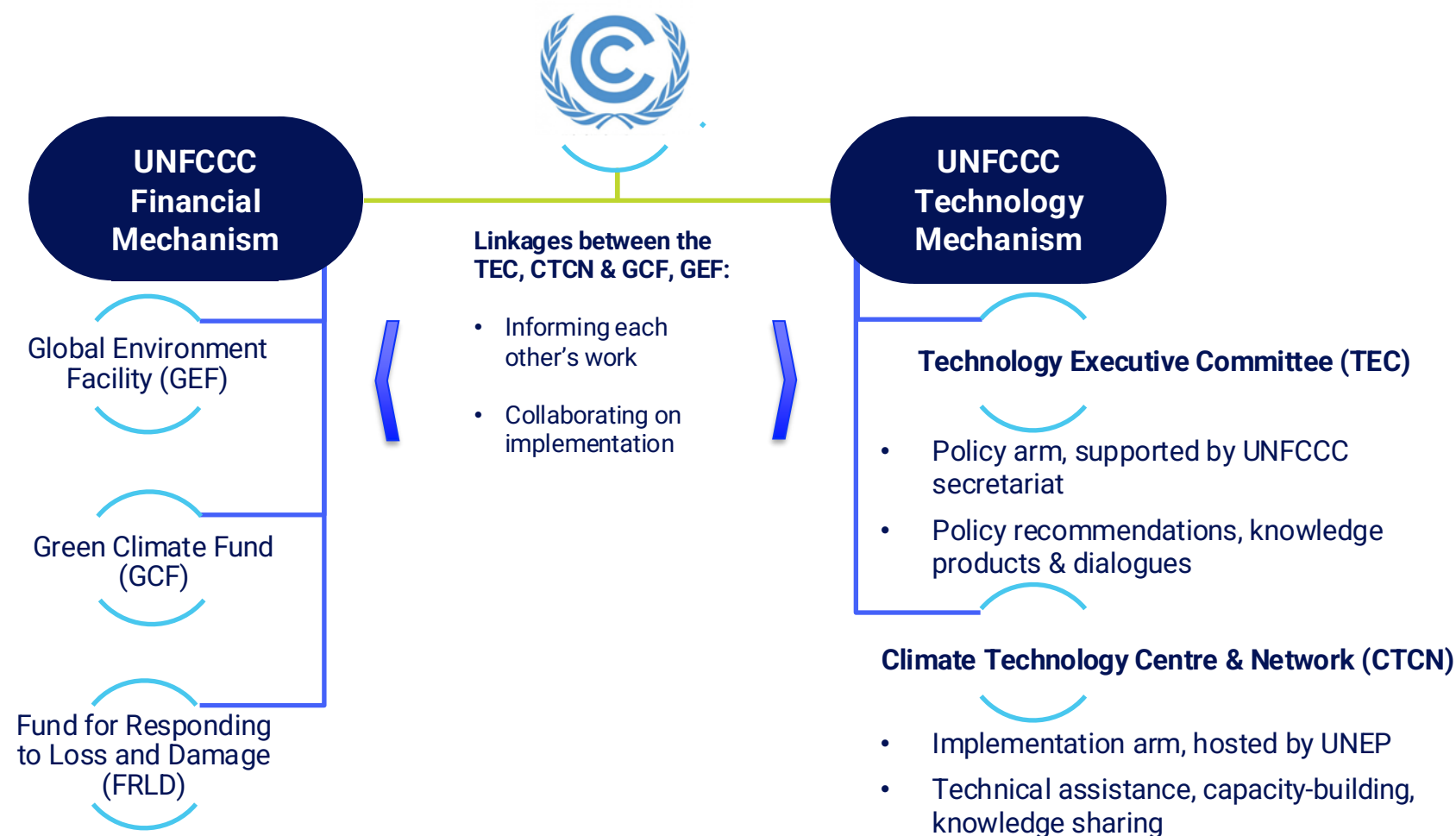
Presentation by
Jeawon Kim

CTCN Asia Portfolio and Procedures

UNFCCC Technology Mechanism



United Nations Climate Change
Technology Executive Committee



Established in 2010, the Technology Mechanism is comprised of the TEC and the CTCN. Both bodies work together in a synergistic way under a joint work programme.

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

TEC Rolling Workplan (2023-2027)

**Joint Activities
Common Areas of Work**

CTCN Programme of Work (2023-2027)

10 Years of CTCN: Snapshot

500+

requests for technical
assistance received



370+

technical assistance
projects implemented



1.5bn

of anticipated funding
leveraged**

**Calculated considering a yearly operational
budget of USD 10 million.



110+

Developing countries
benefiting from CTCN
technical assistance, of which
38% are LCDs and 16%
are SIDS



6,900+

trained individuals



3-4

capacity building
initiatives per month
on average

200+

Million anticipated
beneficiaries



10-15m

expected tonnes
of CO₂eq reduced
per year*

*Average annual GHC emission potential
based on the full implementation of the
technology solutions proposed



840+

Network members



 Ariesta Ningrum CTCN Director	 Nima Joshi Finance & Administration	 Bibiana Sanchez Programme Management Assistant
 Anastasiia Tiurmenko Governance and Communication Specialist	 Julia Kempny Resource Mobilization and Donor Engagement Specialist	 Vere De Jong Intern
 Isabel Hagbrink Communication and KMS Specialist	 Woojin Han Senior Advisor and Climate Specialist	 Thanh Thanh Tranova Junior Network Engagement & Capacity Building Specialist
 Jeawon Kim Capacity Building and Network Engagement Specialist	 Nadege Trocellier Global Adaptation lead	 Marcus Nield Communications Lead, AFCIA Programme
 Neil Walmsley Strategic Advisor, AFCIA programme, part-time	 Tomoko Furusawa Head of Partnership and Liaison Office	 Suil Kang Coordination Officer
 Hoyoung Jo Climate Technology Specialist	 Sebin Lee Operation Support	 Robinson Mugo CTCN Africa Regional Manager
 Sharone Molly Climate Technology Specialist	 Valentin Rudloff Climate Technology Specialist, Africa and West and Central Asia	 Ramiro Salinas Latin America & Caribbean Regional Manager
 Rima Dabbagh Finance and Admin (part-time)		

HQ: Copenhagen, Denmark

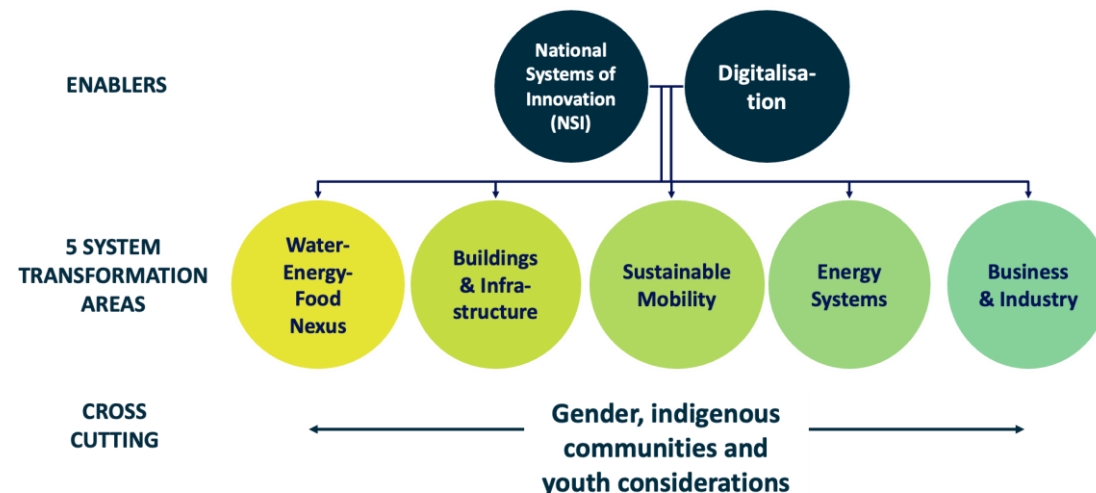
Two regional presences: Africa, LAC

One Partnership and Liaison Office (PALO): AP

Joint TEC and CTCN meetings

- 2 times per year (Q1, Q3)
- TEC board members: Individual capacity
- CTCN board members: Parties

Take note, discuss, endorse, and approve



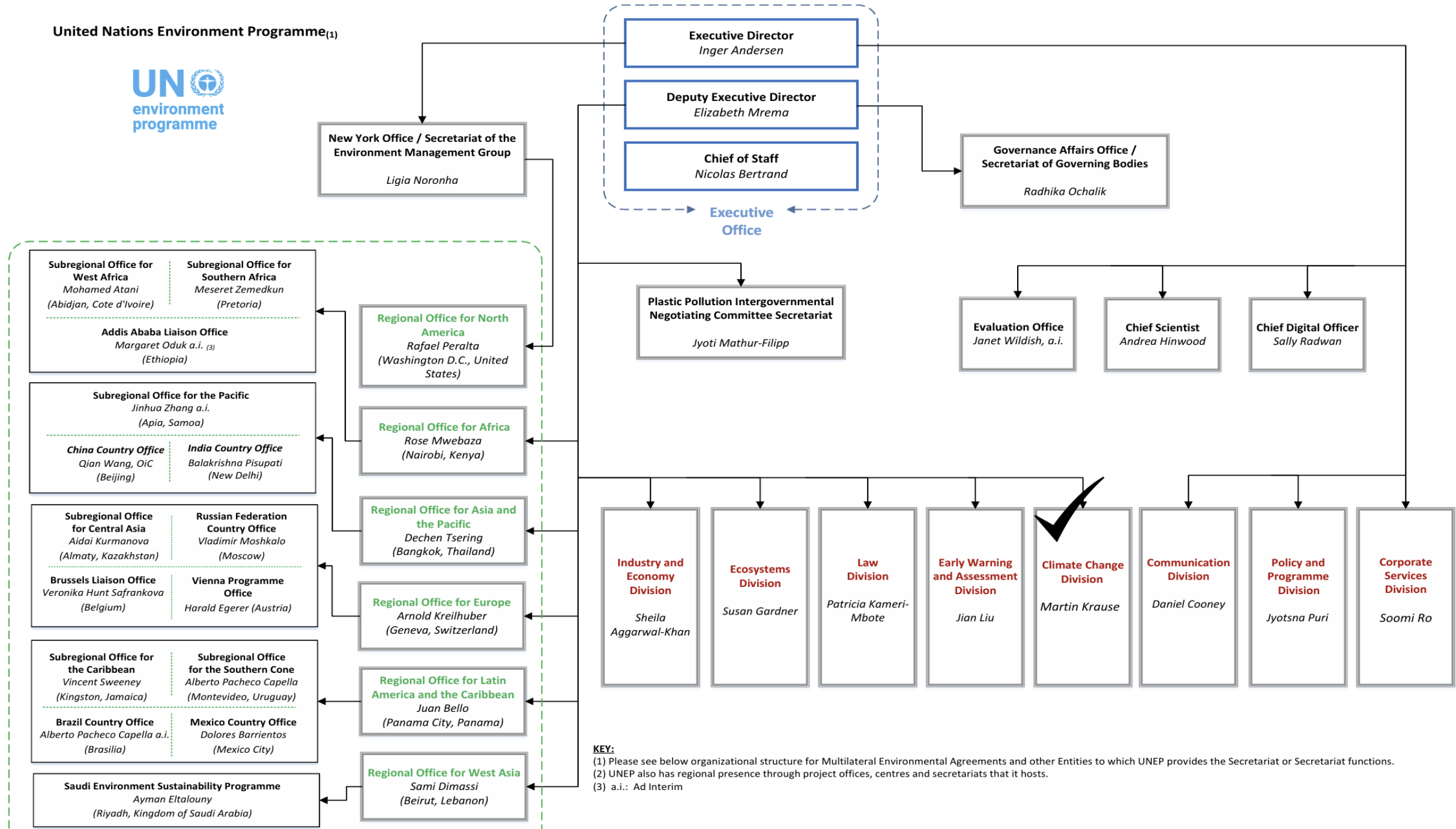
UNEP: General Information

- Established 1972
- HQ in Nairobi, global presence
- Executive Director: Inger Andersen
- Main governing bodies: UNEA, CPR, SMT

Mandate:

The United Nations Environment Programme (UNEP) is the leading **global environmental authority** that **sets** the global environmental agenda, **promotes** the coherent implementation of the environmental dimension of sustainable development within the United Nations system and serves as an **authoritative advocate** for the global environment

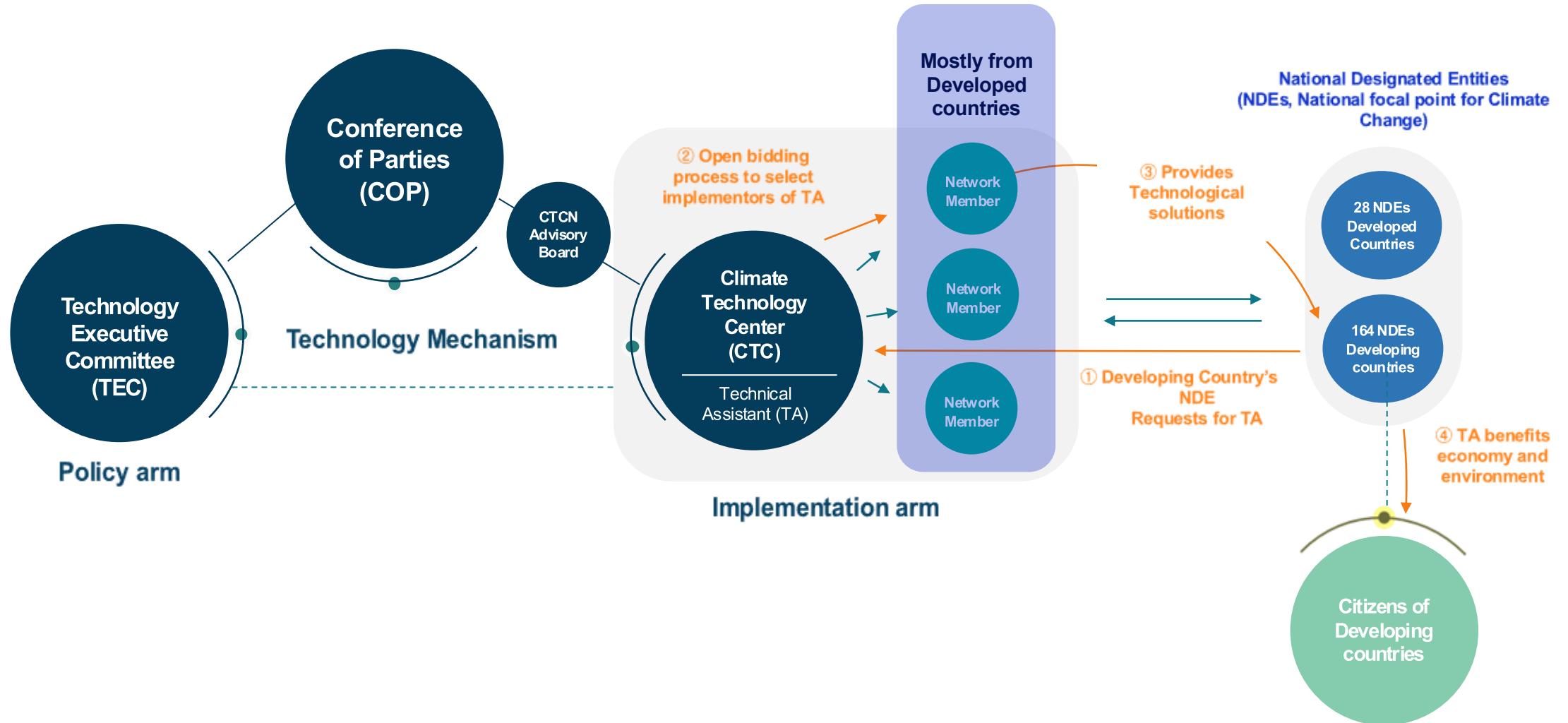




KEY:
(1) Please see below organizational structure for Multilateral Environmental Agreements and other Entities to which UNEP provides the Secretariat or Secretariat functions.
(2) UNEP also has regional presence through project offices, centres and secretariats that it hosts.
(3) a.i.: Ad Interim

Demand-Driven Approach

The Paris Agreement requires all Parties to implement 'Nationally Determined Contributions' (NDCs), in order to lower the global temperature below 2 degrees Celsius.



National Focal points (NDEs)

← → ↻ ctc-n.org/about-ctcn/nde ☆ ⬇️ Paused Relaunch

Suggested Sites

National Designated Entities

A Party to the United Nations Framework Convention on Climate Change (UNFCCC) assigns a National Designated Entity (NDE) the responsibility to manage requests made of the CTCN. Establishment of an NDE is necessary before a Party to the UNFCCC can participate in the CTCN Technical Assistance process.

List of NDE's

Search for your NDE

Roles and Responsibilities

NDEs play a fundamental role in ensuring that requests submitted to the CTCN reflect their national circumstances and priorities. NDEs also ensure that support provided by the CTCN is well coordinated at the national level with other processes that address climate change. For example, they ensure the engagement of relevant ministries, focal points for other UNFCCC mechanisms, the private sector, civil



NDE Request

[Submit request](#)

NDE Question

To ask a question about NDEs, If you are a newly selected NDE and you would like to register with us, please contact us.

[➤ Send an Email](#)

NDE Documents

[📄 CTCN Operating Manual](#)

← → ↻ ctc-n.org/about-ctcn/nde/search ☆ ⬇️ Paused Relaunch

Suggested Sites

UN environment programme

CTCN UN Climate Technology Centre & Network

EN Log in

Home > Climate Technology Centre and Network (CTCN) > NDE > Search

Country

Select

Type of organisation

Select

Region

Select

Search for your NDE's

[XLS](#)

[Comma separated email addresses](#)

Showing 1 - 24 of 166 results Sort by ▾

National Environment Protection Agency of Afghanistan

Country: Afghanistan

Type of organisation: Specialized agency

Environment Division - Ministry of Agriculture, Housing, Lands and the Environment

Country: Antigua & Barbuda

Type of organisation:

Albanian Ministry of Environment, Forestry and Water Administration

Country: Albania

Type of organisation: Government/Ministry

Technology Transfer Association Union of Juridical Persons

Country: Armenia

Type of organisation: Specialized agency

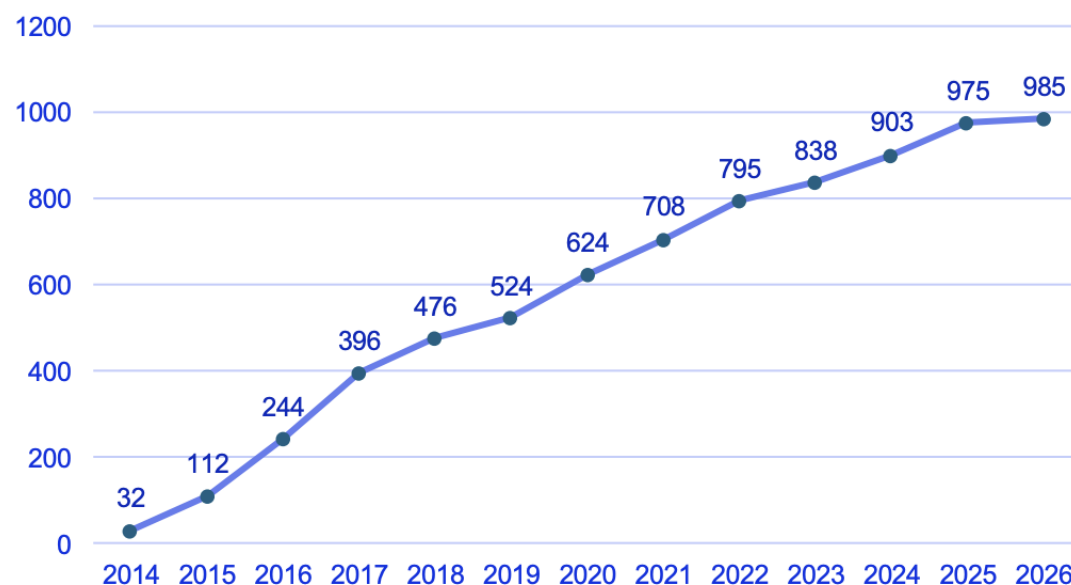
Ministerio de Relaciones Exteriores,

Division V/7 - Environmental Protection

Network Overview: 2025

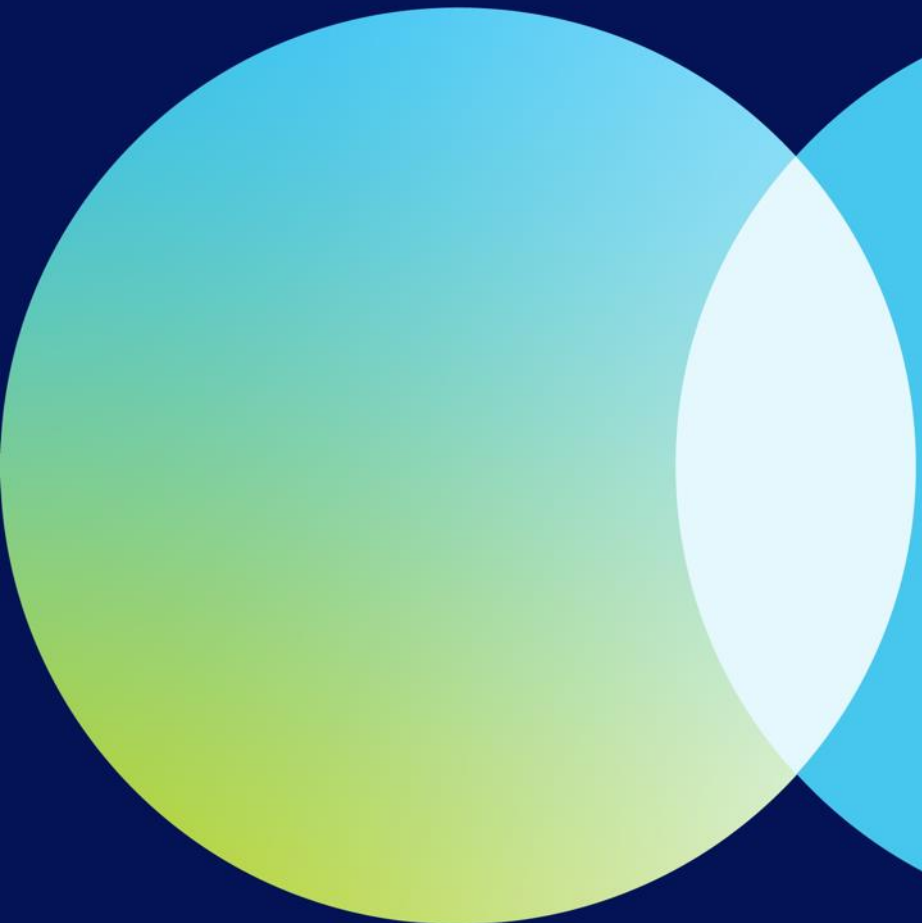
The Network has grown to have **985** members across the world

- 45.7% from Annex I / 54.3% from Non-Annex I
 - 44.3% WEOG, 32.1% Asia-Pacific, 11.9% Africa, 10.1% LAC, 1.7% Eastern Europe



Over half of the members are from the private sector, followed by research and academic institutions and NGOs.

Type of Organization	Counts	%
Private sector organization	534	54.2%
Research and academic institution	154	15.6%
Non-governmental organization	110	11.2%
Not for profit organization	79	8.0%
Public sector organization	49	5.0%
Intergovernmental organization	20	2.0%
Other	12	1.2%
Partnership	9	0.9%
Initiative	5	0.5%
Financial institution	5	0.5%
Specialized agency	3	0.3%
Government/Ministry	2	0.2%
Local government	1	0.1%
Regional organization	1	0.1%
Total	985	100.0%



Process and support modalities

Capacity Building

Input to TA ideation at global/regional levels

- 1) Analyze developing countries' climate portfolio, global climate governance, and financing opportunities to design capacity-building program agenda.
- 2) CTCN invites relevant stakeholders to the action-tailored programs.
- 3) CTCN facilitates the co-ideation of bankable TA projects between NDE/representatives of NDEs, Network members, and financing entities/their focals.

Technical Assistance

Implementation at national levels

- 4) Interested parties in developing countries contact their national focal point (NDE) to request technical assistance, then step through 5 sequential processes for delivery of TA service.

Knowledge Sharing

Output to impact at global/regional levels

- 5) The CTCN regularly reaches out to the NDEs, project implementers and project proponents to follow up to collect the lessons learned and impacts achieved in countries.

Global and Regional: Capacity Building Programmes

Global Thematic

Exclusive to NDEs (do not accept rep.) and line ministries

Objectives

- Focus on training climate technology trends
- Offer Peer-to-Peer learning
- Facilitate co-ideation of cross-regional/multi-country TA projects among NDEs

Youth

Exclusive to Emerging Technology Innovators

Objectives

- Provide a training of incubating and accelerating entrepreneurship for climate technology innovators

Network Engaged

Exclusive to NDE rep. on technology and Network members

Objectives

- Provide a platform for showcasing climate technologies
- Fostering partnerships/collaborations among NDEs and Network members
- Welcome emerging technology providers to the Network

Global thematic capacity building

Facilitating global multi-country TA ideation

Digitalization in Agriculture

2022 30 delegates from 15 countries
Invited NDEs and line ministry focal points

Objectives

- 1) Knowledge transfer, introducing the latest digital technologies as potential ways to increase the overall efficiency, substitute the existing, and redesign the agriculture sector
- 2) Encouraging collaboration, supporting participating countries to share their technology and policy needs and facilitating brainstorm of the next multi-country TA project ideas.



Innovation in Water

2022 17 NDEs from 17 countries



Objectives

- 1) Acknowledge the current status of the water crisis;
- 2) Share the latest technology, policy, and finance solutions to address challenges in the sector;
- 3) Understand the actual operation of one of the latest technology



Capacity Building on #AI4ClimateAction

Activity 1.2.1 of the Work Plan on AI4 Climate Action

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:

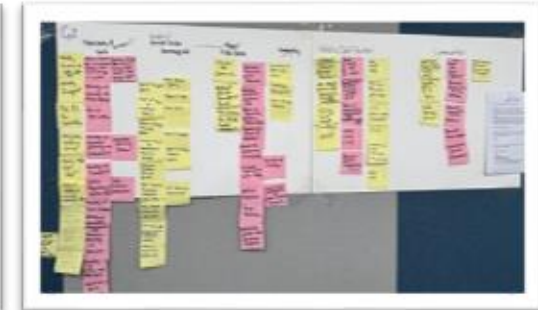
- Workshop content developed through NDC analyses, focusing on AI components and sector priorities.
- Tailored to National Designated Entities (NDEs), aligning with their knowledge level on AI.
- Introduction to the history of AI, its challenges and opportunities, and pioneering cases of AI technology 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



Region-tailored thematic capacity building

Facilitating regional multi-country TA ideation

Climate Finance

2025 Asia (2-3 September)
Africa (23-25 July)
Latin America and
Caribbean (21-22 May)

2026 SIDS (TBC)
Central Asia (TBC)



Objectives

- Introduction to the UNFCCC Technology Mechanism
- Workshop on Scalable Digital Projects: a hands-on workshop aimed at learning concepts and tools to design and develop scalable climate technology projects.



Co-creation for System Transformation

2025 SIDS (3-5 Dec)



2026 Asia (Thailand, May-July)
Africa (Tunisia, 23-26 Mar)
Latin America and Caribbean
(Belie, 19-21/2 May)

Objectives

- Introduction to the co-creation concept, tools, and techniques
- Mapping a system-transformative network
- Knowledge on climate integrity and accountability, leading the creation of co-benefits that national and global climate actors seek.



CTCN Youth Climate Innovation (YCI) Programme

<https://www.youthclimateinnovation.com/startups>

Climate Action

Across Africa, Asia-Pacific, MENA, and Latin America & the Caribbean, young entrepreneurs are transforming local climate challenges into global solutions. The Youth Climate Innovation (YCI) Programme proudly supports these bold startups as they tackle urgent issues in water, energy, food systems, mobility, and more.

We're featuring 8 outstanding startups from each region – all working at the intersection of innovation and impact, across diverse categories and climate challenges. Get inspired by the next generation of climate leaders.



Climate Technology Matchmaking Network Fair



March 25 | Africa, In-person

Upcoming

- **May 20 | LAC, In-person**
- **July 7 | Asia, In-person**

Voluntary Technology Talk for SIDS World Climate Expo, Busan, ROK September 17-18 | In-person



National: Technical Assistance - 5 Types

- **Policy design, development (framework, roadmaps)**
- **Develop methodologies or tools**
- **Pre-feasibility studies**
- **Capacity Building of Communities**
- **Small-scale pilot testing**

National coordination meeting (Logistical Support Scheme)

Date & time: 17 July, 9am - 5pm

Venue: Ministry of Environment, Cambodia

Participants: MoE, MISTI, MPT, ARDB, Network members, Universities

Key insights

- Marked as the first time in the history of Cambodia's MOE to run the workshop on climate technology (separate from the national working group)
- 3 TA ideas were generated (1 on digitalization, 1 on adaptation, 1 on mitigation)



Global and Regional: Knowledge Sharing Programmes

Stakeholder Engagement

Exclusive to NDEs and their finance focal points

Objectives

- Provide a platform for increasing awareness of TAs near-completion and completed
- Support initial activities of TA projects complementing under developing/existing climate projects

Collaborative RD&D

Exclusive to NDEs and Network members from private sector

Objectives

- Provide a platform facilitating knowledge exchange

Network Engaged

Exclusive to NDE rep. on technology and Network members

Objectives

- Foster increasing awareness of Network members' emerging technologies to the public

Stakeholder Engagement

Broaden the scope of collaboration with financial mechanisms/entities

GCF's 2025 Structured Dialogues

- March 17– 20, the Caribbean, St. Kitts and Nevis
- May 6 – 9, the Pacific, Cook Islands



Regional NDE Fora

- May 19 – 20, LAC, Panama
- July 21 – 22, Africa, Kenya
- September 1, Asia, ROK
- Dec 1 – 2, SIDS, Australia



Collaborative RD&D

Engagement of global research institutes to the existing/arising partnership opportunities



Webinar/Events

An introduction to the CRD&D concept, strategy, and status

- Conference Session in August 2025 - on Energy Storage Systems as UNFCCC TM
- Global webinars in December 2025- two time zones (to rewatch, follow QR)



Learning Visits

NDEs nominate national experts for learning visits, focuses on technology exploration between South-South, North-South

- Green Hydrogen and fuel cell (in Seoul and Daejeon, July 15-17 2026, KIST, KIER, KRICT (Chemical Research Institute) and NIGT
- ESS (in Jeju, Sep 1-4 2026, KIER, UNITAR CIFAL Jeju)

- Reflection on cRD&D facilitation activities 2023-2025
- Reflection on cRD&D TAs (2026, Q4)



Publications

Network-led capacity building activities

Online course on Climate Finance and Co-create-Build-Engage Framework

May-June | Certificate of completion

bci **indjco** **CLURAI**

Funded by:  **ENROLMENT DETAILS TO BE ANNOUNCED SOON**

Understanding Digitalization and Climate Fintech: Legal and Regulatory Perspectives from the EU

Course Objectives

- ✓ Empowering participants with new legal and regulatory knowledge about the application of emerging digital technologies like AI and Blockchain in climate action
- ✓ Enabling participants to implement or facilitate digital solutions in various climate policy areas and foster collaboration between EU and non-EU experts

Key instructors

Mr. Alastair Marke is the Director-General of the Blockchain & Climate Institute (BCI). A principal UK expert on ISO/CEN standards for climate change-related activities, sustainable finance, SDG management, AI, blockchain and quantum computing. He also advises governments on national digital tech and sustainability policies. Mr Marke is the key author of "Transforming Climate Finance & Green Investment with Blockchain" (Academic Press, 2018) and "Governing Carbon Markets with Distributed Ledger Technology" (Cambridge University Press, 2022).

Prof. Michael Mehling Deputy Director at MIT CEEPR and Professor of Law at the University of Strathclyde. Prof Mehling serves on multiple advisory boards worldwide, including as a Special Advisor to the BCI. He co-edited "Governing Carbon Markets with Distributed Ledger Technology" (Cambridge University Press, 2022).

Ms. Christiana Aristidou Business Technology Lawyer and CEO of *The Hybrid Law Tech Firm* (Christiana Aristidou LLC). She is the founder of *SmartCity Business*, she develops innovative legal frameworks and business models to help smart cities deliver value through tech integration. The Director of Legal Research at BCI, she is also a non-executive Director at *Rheo Legal Tech*, providing AI, machine learning, and automation solutions for legal and regulatory sectors.

Dr. Stephen Minas is a legal scholar at Peking University focused on the intersection of climate change, finance, energy, and technology. He is also a senior research fellow at King's College London's *Transnational Law Institute*. His work spans public and private international law, energy law, and EU law.

Curriculum Overview (May-July 2025)

Stage I: Digitalization Basics (Weeks 1-4)

- Definition and key concepts of emerging digital technologies like AI, blockchain, and Fintech.
- Core concepts of Open Banking, Embedded Finance, and Sustainable Finance

Stage II: Fintech and Climate Change (Weeks 5-7)

- Core areas within climate Fintech.
- Core international and EU policy frameworks relevant to climate change, including the SDGs, Paris Agreement, European Green Deal, and related legislation

Stage III: Fintech in Climate Treaty Implementation (Weeks 8-10)

- Digitalization's role in implementing the Paris Agreement
- Implications for international climate negotiations, sustainability and climate finance reporting, including green bonds and sustainable investments

courseinquiries@blockchainclimate.org

WEBINAR ALERT

AFCIA II Co-Design Workshop for Pacific

Under AFCIA II, \$10 million is available to support climate change adaptation. Flinders University and UN CTN are hosting a webinar to develop a multi-country project proposal for the Pacific. Join us!

**April 2, 2025
10:00 AM (AEDT)**

For more information, [click here](#)
To join the call, [click here](#)

by the 17th of February 2025.
<https://lsdoflms.com/event/pacific-nde-forum-and-capacity-building-workshop-on-mcclimateaction/>

About the Webinar Hosts: Svetlana and Laura joined the Pacific NDE Forum and Capacity Building Workshop on "MCClimateAction". Svetlana and Laura enjoyed collaborating with the Pacific NDEs and representatives, as well as navigating new experiences together. Svetlana and Laura look forward to a "Pacific NDE Reunion" and getting to know other valued CTN members!

We look forward to driving positive change together!
Flinders University, Network member of the CTN

Integrating AI into Climate Action

Enhancing Climate Technology Capacity in Latin America and the Caribbean



Green Energy Institute's Technology Solutions 2025



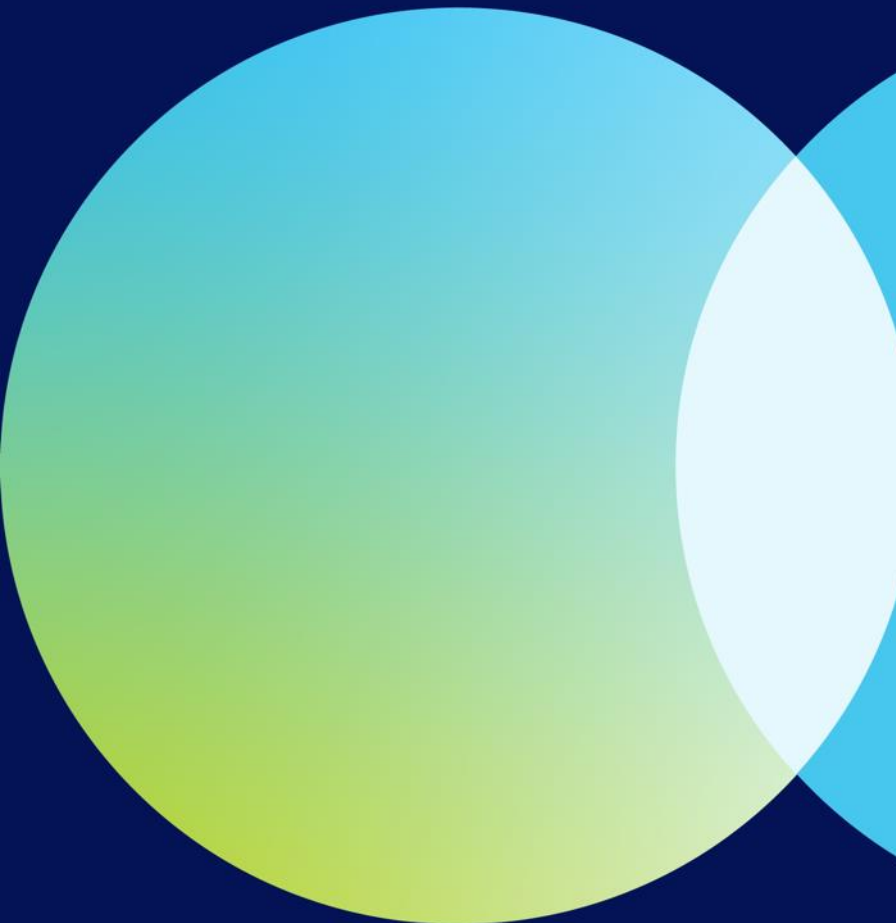
Behavioural Science Climate Technology Innovation and Action

Report on 2025 Global SIDS Capacity Building Program on Co-creation for System Transformation



Network-led publications

- 1) Promotion of Network Solutions (Green Hydrogen)
- 2) AI cases in LAC
- 3) Report on 2025 Global SIDS Capacity Building Programme on Co-creation for System Transformation

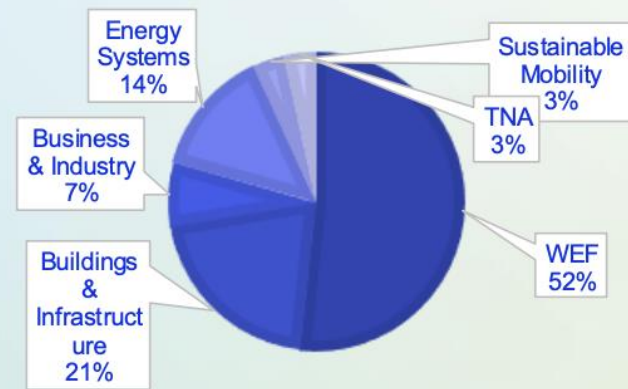
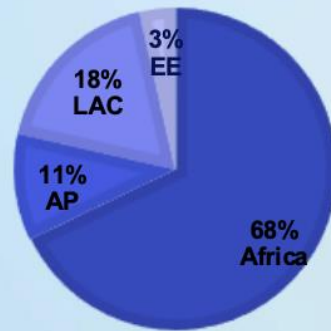
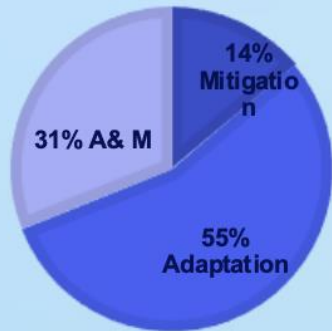


Technical Assistance – Global portfolio

Overview: Technical Assistance projects

162 Technical Assistance interventions at various stages of implementation

29 Technical Assistance interventions completed in 2025



Out of the 29, 8 were completed under AFCIA I, 1 under GCF Readiness, 2 were probono RoK TAs and 12 were funded under the two EC programmes.

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

Water-Energy-Food nexus

Country	Objective	Title
Bahamas	Adaptation & Mitigation	Developing a national framework for the standardization of stalls and procedures for a climate smart street side vendor in the Bahamas (AFCIA 1)
Cameroon	Adaptation	Local climate resilience through synecoculture, a high-yield agricultural technique in the northern region of Cameroon (mainly in the commune of Garoua 2 and in Figuil (Mayo-Louti)) (EC CC&S)
Central African Republic	Adaptation & Mitigation	Production of affordable solar cookers in the deforestation-threatened Bangui region of the Central African Republic (EC CC&S)
Chad	Adaptation	Rehabilitation of wells in the commune of Liwa, capital of LIWA (Lake region), using solar-powered pumps and drawing up a guide to good practice for the consumption of this water, depending on the end use (drinking water, agriculture, livestock, sanitary in Chad (EC CC&S)
Haiti	Adaptation	Technical Assistance to identify and prepare a system of payments for ecosystem services, in order to manage and protect their watersheds in Haiti (EC CC&S)
Jamaica	Adaptation	Enhancing multi-scalar mapping and research on food security risk due to the impacts of climate change on rural and urban environments in Jamaica
Malawi	Adaptation	Using simple mobile technologies to scale up digital collection & processing of climate observations for adaptation actions in Malawi (AFCIA 1)
Mali	Adaptation	Pilot project for the sustainable management of wood resources through the promotion of solar cookers and solar energy for the operation of electric cookers in a context of climate change (EC CC&S)



Photo Credit: UN CTCN/Miranda Rikki Tasker

Water-Energy-Food nexus (cont.)

Mozambique	Adaptation, Mitigation	Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique (AFCIA 1)
Nigeria	Adaptation	Empowering communities of Kaduna State, located in the North-west Nigeria with sustainable agricultural practices (Em-Hydro) (EC CC&S)
Sudan	Adaptation, Mitigation	Improving the efficiency and sustainability of water harvesting technologies in Sudan by providing technical assistance in terms of enhancing; technology transfer, capacity building, and research collaboration under EC Climate Change & Security Programme (EC CC&S)
Suriname	Adaptation, Mitigation	Enhance the resilience of Suriname's water supply system by modelling drought risks and developing a roadmap of prioritized alternatives for aquifer recharge (AFCIA 1)
Thailand	Adaptation	Blockchain Technology for a real-time climate risk insurance system in Thailand's agricultural sector (AFCIA 1)
Zambia	Adaptation	Aquifer mapping technologies for Zambia (AFCIA 1)
Zimbabwe	Adaptation	Piloting of a reliable solar powered drying facility for mopane worms in the Gwanda rural District of Zimbabwe (EC CC&S)



Photo Credit: UN CTCN/Miranda Rikki Tasker

Spotlight: Nepal's Customized Weather and Climate Information System for Climate-Resilient Agriculture



Buildings and Infrastructure

Country	Objective	Title
Colombia	Adaptation, Mitigation	Sustainable Cuerval: Strategies for conservation, restoration and monitoring of the mangrove areas of the Cuerval for adaptation and mitigation with a focus on the integration of peace in climate action in Colombia (EC CC&S)
Georgia	Adaptation	Building up integrated monitoring and early warning forest fires detection system in the Borjomi - Kharagauli National Park by innovative remote sensing tools
Ghana	Mitigation	Development of Green Building Guidelines and Standards for Ghana
Malaysia	Adaptation	Development of a Multi-Hazard Platform for forecasting local level climate extremes and physical hazards for Iskandar Malaysia (AFCIA 1)
Mali	Adaptation	Data-driven approach in flood mitigation: developing real-time mapping of floods in Mali (AFCIA 1)
Uganda	Adaptation, Mitigation	Technical Assistance Towards the Development of a Project Proposal for the Implementation of Climate Adaptation and Mitigation Technologies to Address Climate Challenges in Specific Sectors Based on Uganda's Technology Needs Assessment Outcomes



Photo Credit: UN CTCN/Miranda Rikki Tasker

Country	Objective	Title
Chile, Dom Rep, Uruguay, Costa Rica	Adaptation, Mitigation	Multi-country Circular Economy Finance for MSMEs
Uganda	Adaptation, Mitigation	Strengthening Waste Management Policymaking in Uganda in Response to Climate Change (Pro-bono K)



Energy Systems

Country	Objective	Title
Burkina Faso	Adaptation, Mitigation	Reinforcing the implementation of actions to mitigate and adapt to climate change by developing solar energy systems for off-grid agro-industrial facilities through the establishment of a "Community Solar Platform" (EC CC&S)
Kenya	Mitigation	Development of a SF6 Phase-out Roadmap and Pilot Projects in Kenya (EC ICS)
Tanzania	Mitigation	Feasibility Study of Optimal Design Conditions for Biogas Plant for the Improvement of CH4 Capture Efficiency in Tanzania (Pro-bono K)
Timor-Leste	Mitigation	Formulating a National Electricity Grid Code and the Definition of a Net Metering Policy in Timor-Leste



Photo Credit: UN CTCN/Miranda Rikki Tasker

Sustainable Mobility

Country	Objective	Title
Tanzania	Mitigation	Developing a national framework for deploying and scaling up E-Mobility in Tanzania



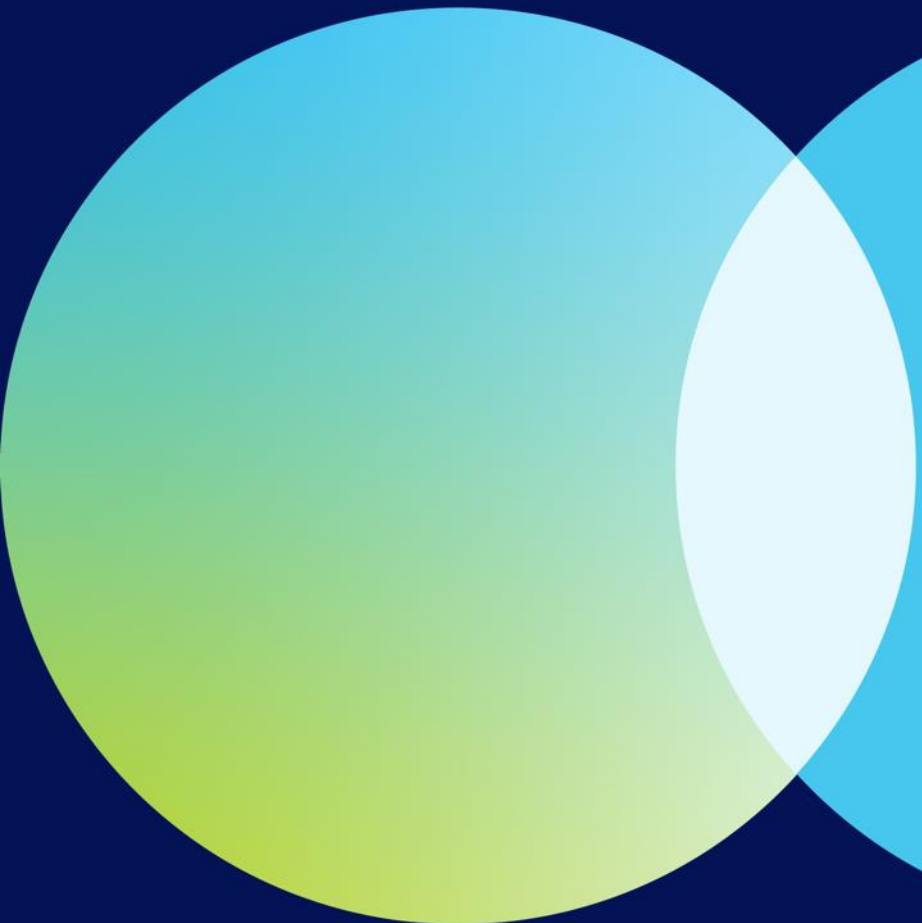
Photo Credit: TRi Tanzania

Spotlight: Tanzania e-mobility

- CTCN Technical Assistance (completed Jan 2025) supported the development of the National EV Policy Framework and key studies to establish the foundation for the e-mobility transition
- Since then, consultations with key stakeholders continued, a technical white paper was developed for each institution to commit to their responsibilities
- Stakeholders are now looking into implementing fiscal incentives, finalizing EV charging tariffs and regulations, expanding charging infrastructure planning, and strengthening skills & private sector partnerships



Working Group Visit to the Dar es Salaam Institute for Technology (DIT) retrofitting workshop



Technical Assistance – Neighbouring countries

Types of Technical Assistance

Decision making tools, Piloting, small-scale demonstration

Localized early warning system: Vietnam
Surface rainwater harvesting technology:

Pakistan

Skimming well gallery system for agricultural use: Maldives

Longer lead-time flood forecasting: Bangladesh

Integrated salinity intrusion data sharing system: Vietnam

Weather and climate information system: Nepal

Multi-Hazard Platform for forecasting local level climate hazards: Malaysia

Recommendations for law, policy, and regulations

National Electricity Grid Code and Net Metering Policy: Timor-Leste
Green Building Codes: Pakistan

(pre) Feasibility studies

Blockchain Technology for a Real-time Climate Risk Insurance System:

Thailand

AI-based Early warning system: Tajikistan

Technical capacity enhancement

EbA and digitalized risk mitigation insurance solutions for smallholder vegetable farmers: Mongolia

WEF nexus management: Cambodia

Sectoral roadmaps and strategies

Green hydrogen: Cambodia, Maldives, Thailand

Climate-smart agriculture: Indonesia, Cambodia

Technology Roadmap for the Implementation of NDC: Pakistan

Collaborative RD&D

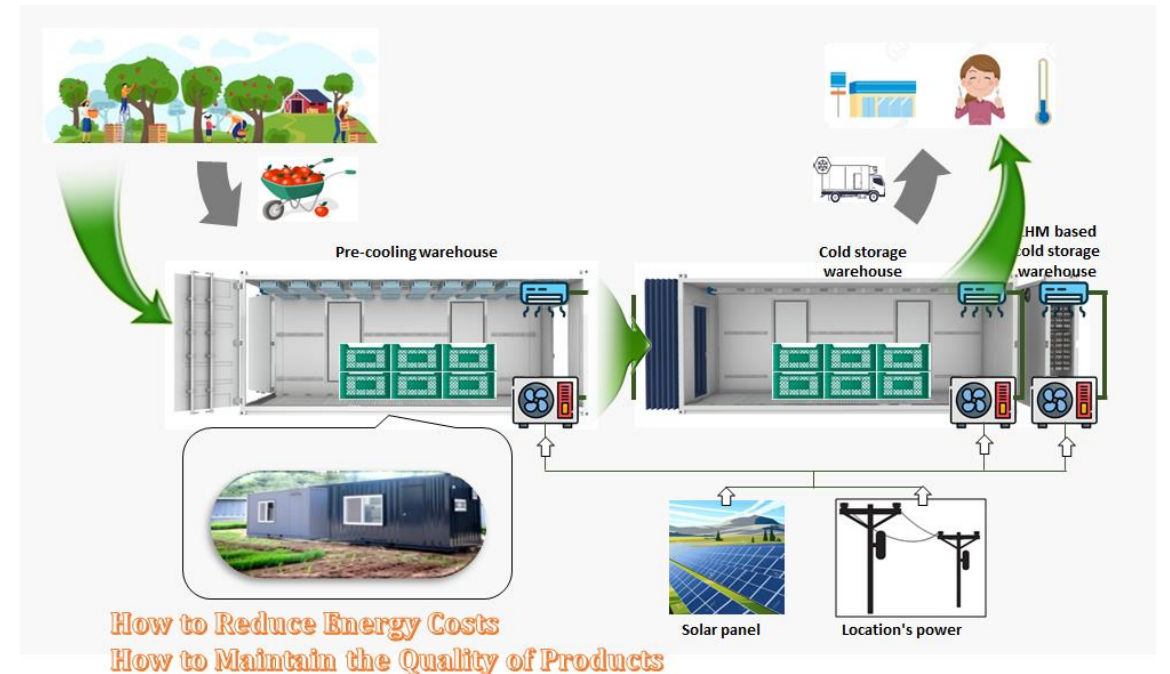
Cold Warehouse equipped with Low-temperature Latent Heat Material for Fruit Storage: Bangladesh

Groundwater desalination and resource recovery: Uzbekistan

Collaborative Research, Development and Demonstration (cRD&D) TA in Bangladesh

Feasibility Research of Solar Electric-Based Cold Warehouse equipped with Low-temperature Latent Heat Material for Fruit Storage in Bangladesh Climate Conditions

- Bangladesh's agricultural sector suffers 40% post-harvest losses of perishable goods due to inadequate cold storage.
- CTCN TA aims to develop portable solar-powered cold storage units for rural areas, reducing losses, improving food security, and enhancing climate resilience.
- Key activities include designing the storage model, piloting units, and creating a sustainable business model.



Malaysia: Development of a Multi-Hazard Platform for forecasting local level climate extremes and physical hazards for Iskandar

Implementation period: 2023-2025

Project status: Under implementation

NDE: Dr. Sugumari Shanmugam, Under Secretary, Climate Change Division, Ministry of Environment and Water

Project proponent: Ms. Kamisah Mohd Ghazali, Senior Vice President, Iskandar Regional Development Authority (IRDA)

Implementing partner: Stichting Deltares

Main objective: To develop a prototype Multi-Hazard Platform (MHP) for Iskandar Malaysia that integrates local climate extremes and coastal hazard risks, strengthens forecasting capacity, and supports evidence-based decision-making for disaster resilience

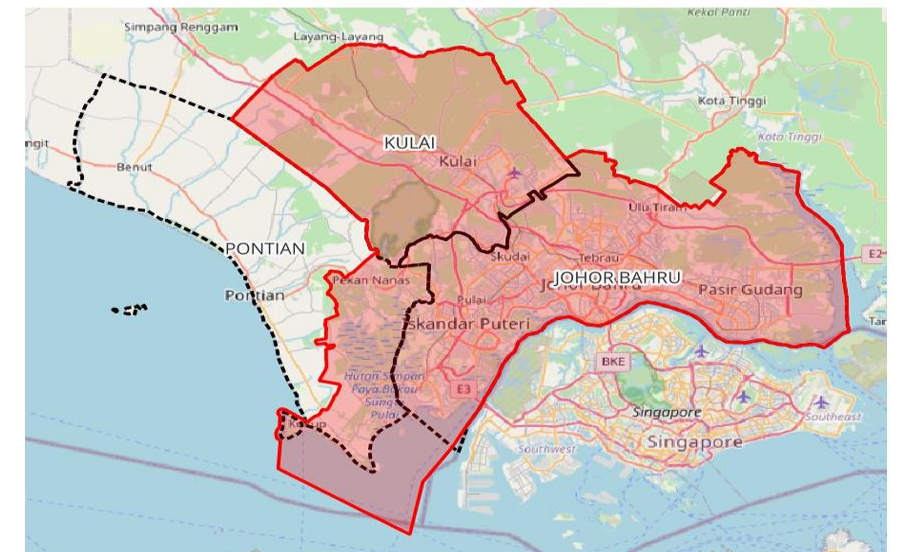


Figure 2-1 Study area indicated by the red area.

Malaysia: Development of a Multi-Hazard Platform for forecasting local level climate extremes and physical hazards for Iskandar

Key outputs:

- Technical specifications for integrating local climate and hazard data into the MHP.
- Probabilistic hazard maps and localized hazard forecasts (floods, storm surges, coastal erosion, sea-level rise).
- Prototype MHP and decision support tool with user manual.
- Assessment of financing needs for a fully operational system (including climate finance options such as GCF).
- Capacity building and training for local authorities and communities, with a gender-sensitive approach.
- Early action protocols and communication materials for disaster preparedness.



Figure 4-2 Group picture after the morning session of the 11 March workshop.

Post-project impact:



Inclusive Resilience:
Empowering women and vulnerable groups through capacity building and early warning systems.

Shared Learnings:
Replicable tools and insights for other Southeast Asian coastal cities.

Cambodia: Climate risk assessment for subnational adaptation and establishment of a local climate information system for climate change adaptation (LISA) in Cambodia

Implementation period: 2022-2023

Project status: Completed

NDE: Mr. Ou Chanthearith, Director of the Department of Science and Technology the General Directorate of Policy and Strategy Ministry of Environment

Project proponent: Dr. Hak Mao, Director of the Department of Climate Change, General Secretariat of the National Council for Sustainable

Implementing partner: ICEM – International Centre for Environmental Management

Main objective: Conducting climate risk assessments in targeted provinces and establishing a Local Climate Information System for Adaptation (LISA)

Key outputs:

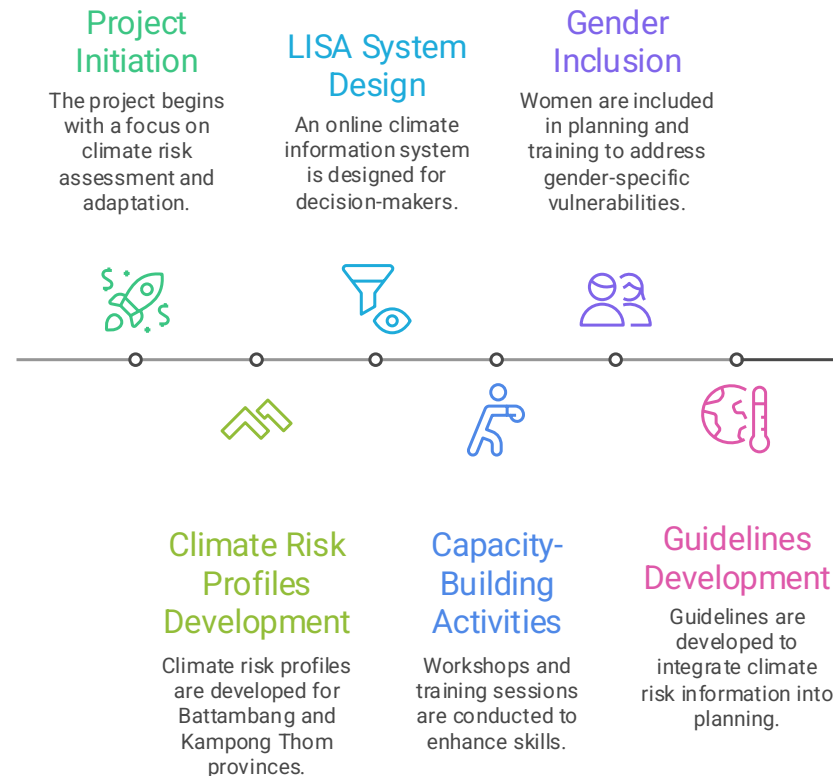
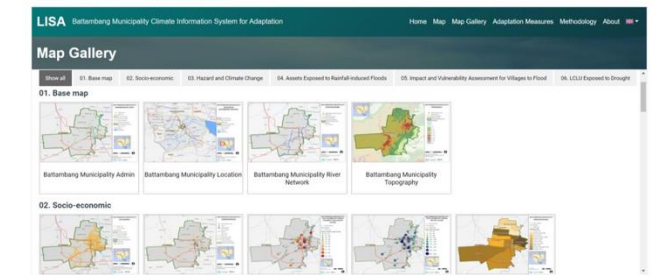


Figure 18: The LISA map gallery page



Bangladesh: Enhancing longer lead-time flood forecasting and strengthened community dissemination in Bangladesh

Implementation period: 2023-2024

Project status: Completed

NDE: Dr. Md. Kamruzzaman, Director General,
Department of Environment, Bangladesh

Project proponent: Sazzad Hossain, Bangladesh
Water Development Board (BWDB)

Implementing partner: Pohang University of
Science and Technology (POSTECH), Weatherpia
Co., Ltd.

Main objective: To develop a medium- to long-
range flood forecasting system for the Ganges-
Brahmaputra-Meghna river basins

Hydrological Modeling for Flood Prediction

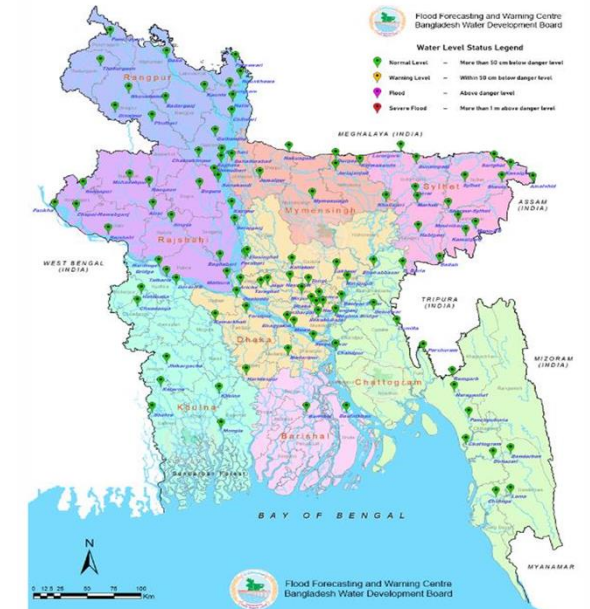
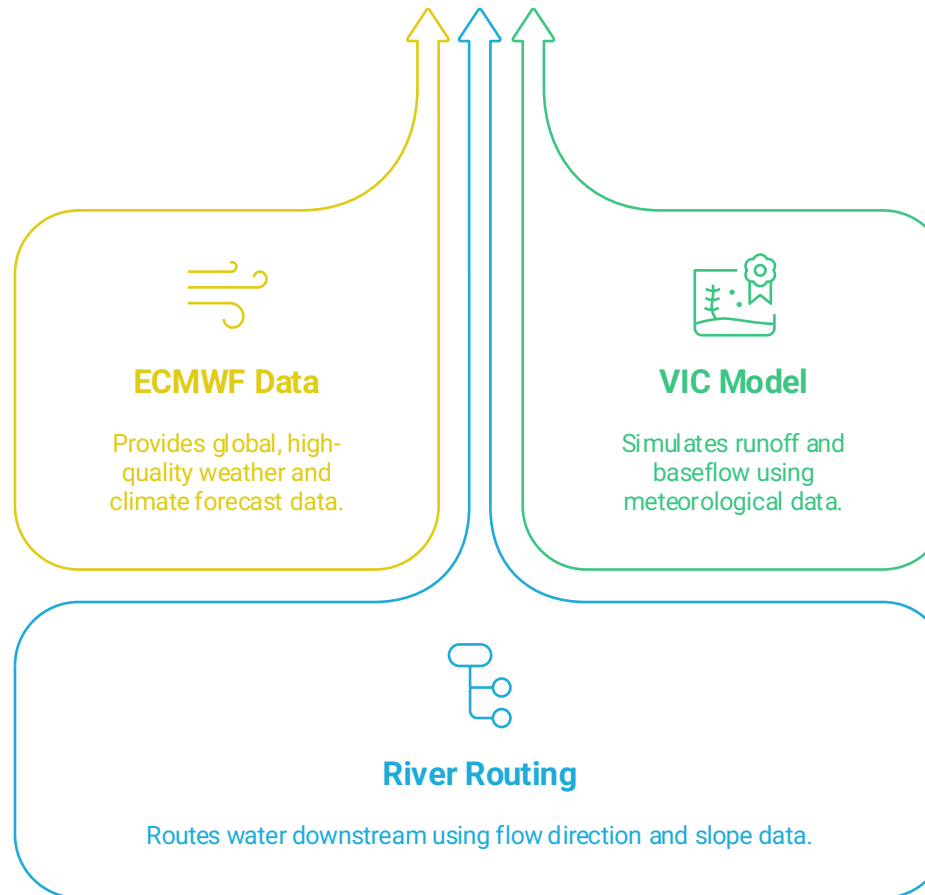


Figure 1. Flood forecasting stations in Bangladesh (Updated On: 24 Apr 2024)
(Flood Forecasting & Warning Centre, 2024)

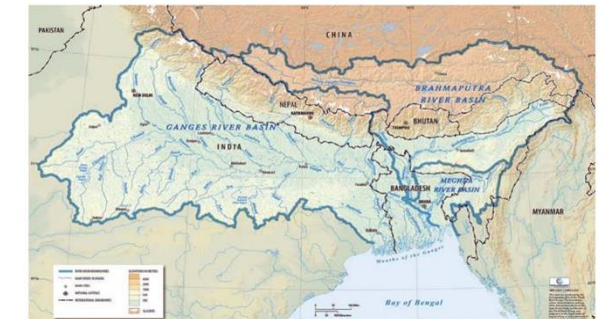
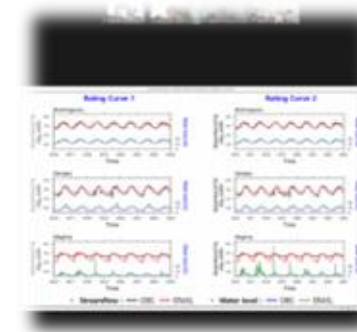
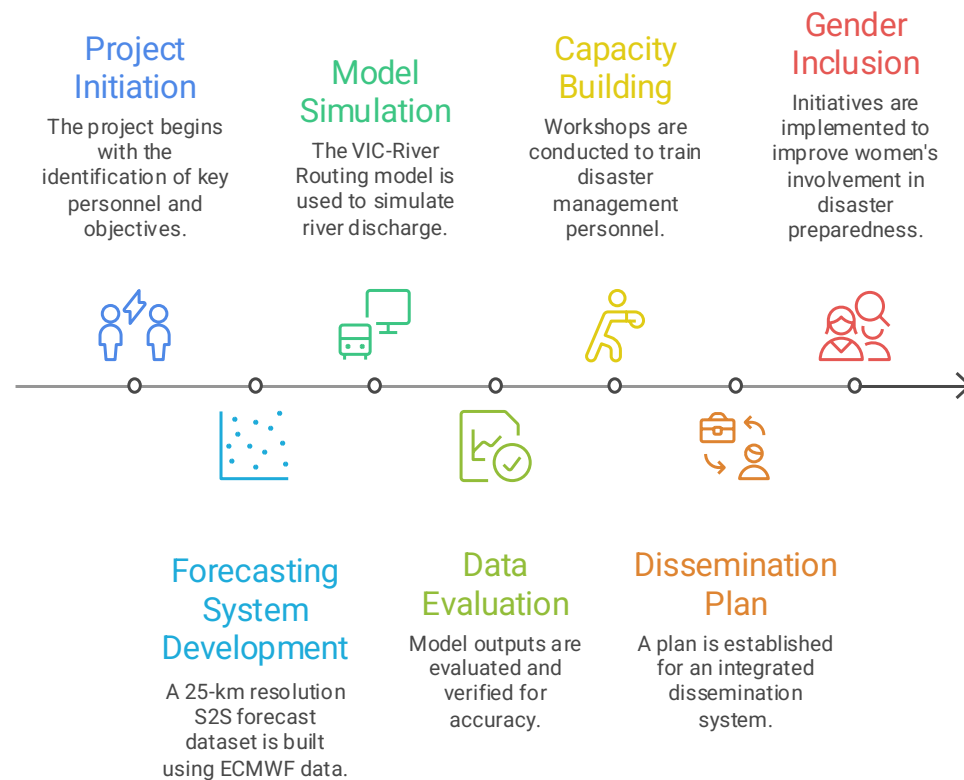


Figure 2. The Ganges-Brahmaputra-Meghna River Basins (World Bank, 2017)

Bangladesh: Enhancing longer lead-time flood forecasting and strengthened community dissemination in Bangladesh

Key outputs:



Thailand: Feasibility and Viability Study of Using Blockchain Technology for a Real-time Climate Risk Insurance System in Thailand's Agricultural Sector

Implementation period: 2023-2025

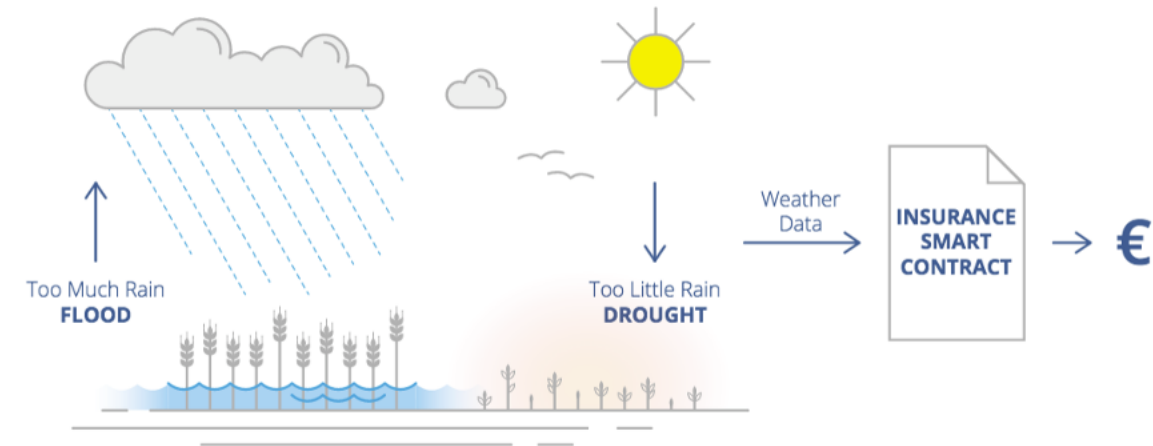
NDE & Project proponent: The Office of National Higher Education Science Research and Innovation Policy Council (NXPO)

Implementing partner: Blockchain Climate Policy Studies Limited (BCI)

Main objective: To evaluate the technical and economic feasibility and viability of using blockchain technology for a real-time parametric crop insurance system for farmers in Thailand

Background:

- The World Bank's report on Thailand reveals climate change impacts on agriculture, threatening rice yields and farmers' livelihoods.
- Crop insurance exists, but lacks adequate climate index coverage. Parametric insurance offers fixed payments tied to weather events, and blockchain technology could streamline claims and enhance fairness in premiums.



Thailand: Feasibility and Viability Study of Using Blockchain Technology for a Real-time Climate Risk Insurance System in Thailand's Agricultural Sector

Key outputs:

- Transparency on the feasibility and viability of using blockchain technology for a real-time parametric insurance system
- Clarity on the roadmap for implementation of a proof-of-concept of a blockchain-enabled real-time parametric insurance system
- Enhanced access of farmers to transparent and efficient parametric insurance if the blockchain-enabled system will be implemented
- Enhanced institutional capacities of key stakeholders (including NXPO, Bank for Agriculture and Agricultural Cooperatives (BAAC), Ministry of Agriculture, etc.) on the relevance of blockchain technology for parametric insurance and agriculture at large, and related considerations for technology implementation.



Mongolia: Reducing smallholder vegetable farmers' vulnerability to climate change impacts including water scarcity in Mongolia through EbA and digitalized risk mitigation insurance solutions

NDE: Climate Change Research and Cooperation Center (CCRCC)

Project proponent: Climate Change and Policy Planning Department, Government of Mongolia (Ministry of Environment and Tourism; and Ministry of Food, Agriculture and Light Industry)

Main objective: The main objective of this technical assistance is to support vegetable smallholder farmers in two provinces in Mongolia to adapt to climate change by providing a bankable proof of technology concept for solar-powered irrigation and agroforestry as an ecosystem-based approach for better water resource management. To support this solution, a digital-based crop insurance product will be developed for smallholders to fill the current gap for damage protection and financial instruments for investment risk mitigation.

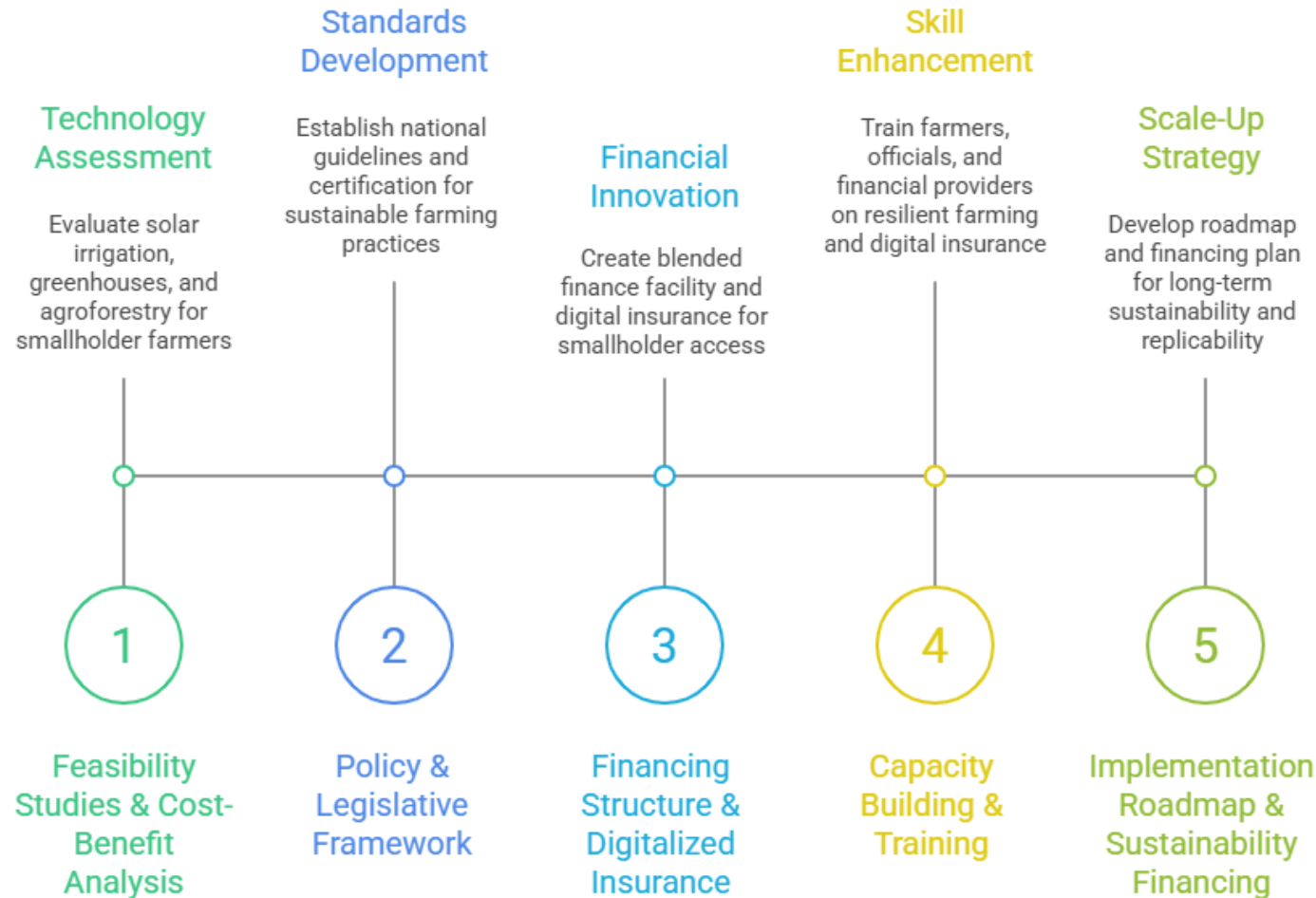
Background:

- Mongolia faces climate change, with temperatures up 2.2°C since 1940, affecting agriculture and food security.
- Provinces like Dundgobi and Uvurkhangai struggle with extreme weather, reducing yields.
- Smallholder farmers lack necessary resources, and despite government efforts, challenges remain.



Mongolia: Reducing smallholder vegetable farmers' vulnerability to climate change impacts including water scarcity in Mongolia through EbA and digitalized risk mitigation insurance solutions

Key outputs



Multi-country (Pacific): Developing a regional roadmap for an open-source knowledge-sharing and capacity-building platform in Pacific island countries

Participating countries: Fiji, Nauru, PNG, Timor-Leste, Vanuatu

Main objective: To support Pacific Island countries in jointly prioritizing adaptation needs, co-designing approaches, and developing a regional roadmap for an open-source knowledge-sharing and capacity-building platform that strengthens regional collaboration and resilience to climate change.

Expected timeframe: 15 months

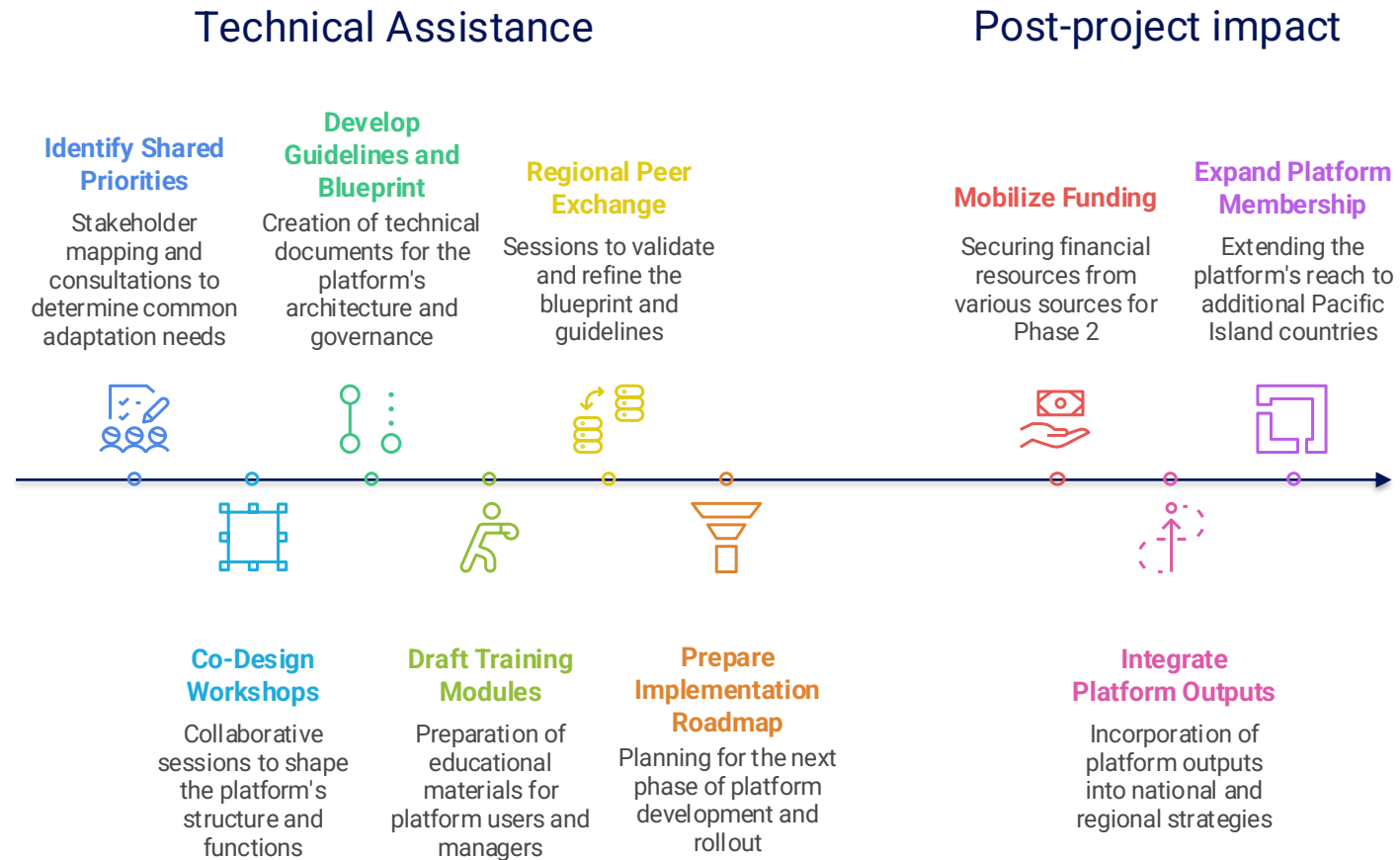
Project status: Concept development

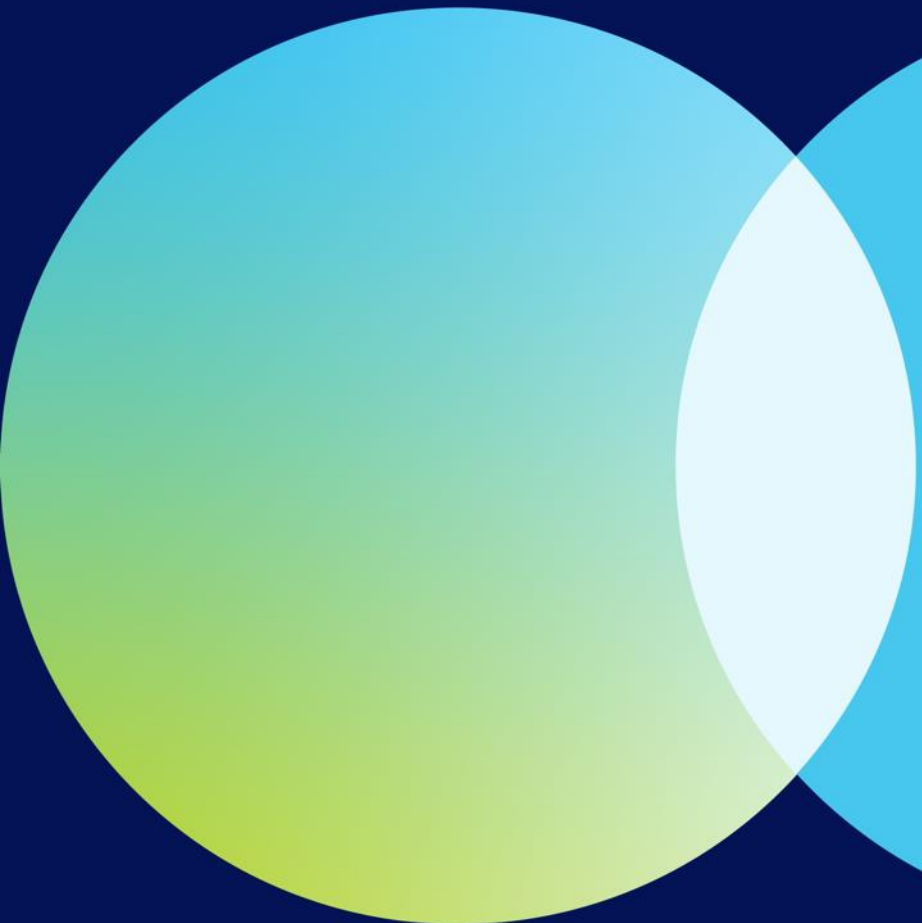
Specific technology barriers:

- Limited access to context-specific and culturally adapted technologies
- Lack of technical capacity to co-design, adapt, and evaluate climate solutions
- Insufficient platforms for regional knowledge sharing and learning from best practices
- Limited digital infrastructure for capacity building and knowledge dissemination
- Gaps in performance monitoring and evidence-based upscaling of adaptation solutions



Multi-country (Pacific): Developing a regional roadmap for an open-source knowledge-sharing and capacity-building platform in Pacific island countries





Technical Assistance – Process and opportunities

Technical Assistance Process

Developing countries

CTCN Secretariat

Network members

All

1 Request
Submission

Evaluation of requests for technical assistance within **2 weeks**, depending on clarity of the request.

2 Response
Plan Design

Development of response plans within **2-3 months**, provided that the necessary information is available and key stakeholders are responsive.

3 Bidding Process

Conduct of the competitive bidding process for about **8 months** depending on UNON procedures

4 Project
Implementation

Delivery of the technical assistance between **12-18 months** depending on the requested activities.

5 Monitoring
and Evaluation

Execution of monitoring and evaluation activities on an **ongoing basis**.

The CTCN evaluates the submitted request based on a standardized framework.

To prioritize a technical assistance request, it must meet two compulsory criteria (#1 and #2).

Additionally, it must comply with four out of the remaining six criteria.

	Prioritization Criteria
1	The request is aligned to the CTCN's existing Programme of Work.
2	The request is aligned to the key themes of the Technology Framework of the Paris Agreement.
3	The request is submitted by LDCs or SIDS or by a country that has not received CTCN technical assistance in the last 5 years, taking into account regional balance.
4	The request contributes to the CTCN's portfolio balance between mitigation and adaptation.
5	The request has the potential to contribute to systems transformations (nationally, regionally, and/or internationally).
6	The request is part of multi-country approach to allow regional bundling of requests to promote collaboration among stakeholders, including between countries (South-South, bilateral, or multilateral cooperation).
7	The request, developed in consultation with or with the engagement of various national climate-related focal points, enables leveraging public and/or private financing or is developed in consultation with research or private sector.
8	The request promotes gender equality and / or the empowerment of youth, Indigenous Peoples, or local communities.

The CTCN prepares bidding documents based on the agreed Response Plan.

The competitive bidding is conducted through the United Nations Office of Nairobi (UNON), abiding by UNEP rules and regulations.

Consortium partners or existing and new Network members can respond to the Expression of Interest (Eoi) and thereafter to the Request for Proposals (RfP).

A weighted technical evaluation (by CTCN) and financial evaluation (by UNON) of bids is conducted. No involvement of the NDE or beneficiary is possible.

Pass / Fail Criteria

1. CTCN Network Membership
2. The bidder firm has been in business relevant to the Terms of Reference for at least five (3) years
3. Statement to not sub-contract more than 50% of the budget allocated to the work
4. If not an organization based in the requesting country, **letter of partnership with a local organization/expert with clearly defined roles and at least 25% of budget**
5. Reference letter from a past client indicating experience of conducting similar work to the ToRs
6. Work Plan detailing activities, deliverables and timelines for this requirement in line with the ToR
7. Organigram and curriculum vitae/professional qualifications of each key personnel
8. Approach and Methodology to undertake the work

Scoring Criteria

Around 7 criteria defined for each technical assistance individually to for the technical evaluation and scoring of the different bids

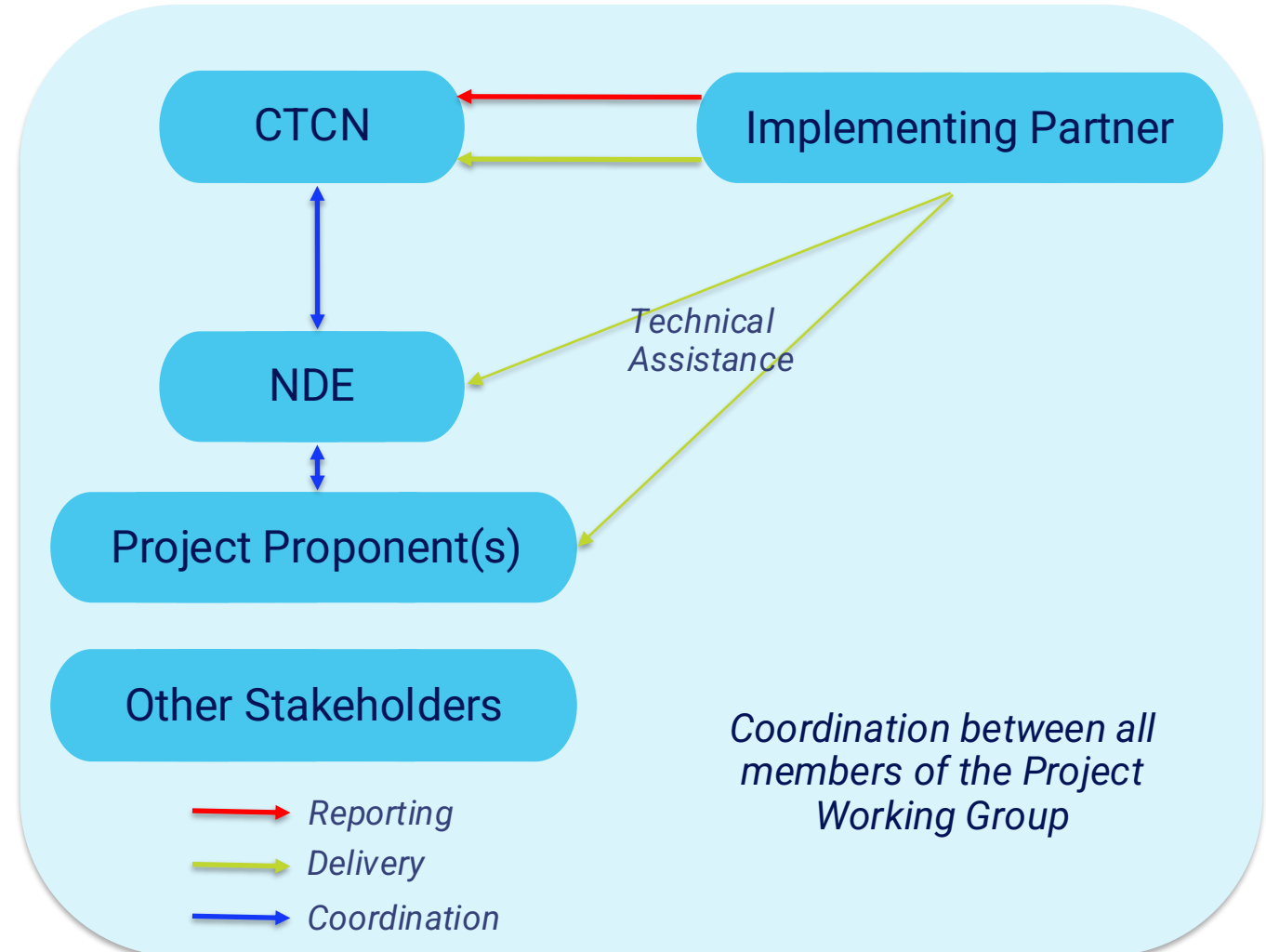
Project Implementation

The network member selected through a competitive bidding process implements the project according to the 'Response Plan'.

At the beginning of the technical assistance, the network member / implementing partner will develop a monitoring and evaluation (M&E) plan, detailed workplan, and gender assessment and action plan.

Regular project steering meetings will be organized to provide updates. Deliverables will be shared for review and approval with the NDE and proponent.

The CTCN conducts due diligence of deliverables and regular monitoring and evaluation.



The CTCN regularly reach out to the NDEs, project implementers and project proponents to follow up to collect the lessons learned and impacts achieved in countries before, during and after implementation.

Beginning

M&E Plan

Template to define performance and success indicators for the technical assistance.

By Implementing Partner

During

Progress Reporting

Continuous reporting on the project progress and success.

By Implementing Partner

End

Closure Report

Template to evaluate final project performance and lessons learned

By Implementing Partner

NDE Feedback Form

Template to provide feedback on implementation and define next steps after closure

By NDE and Proponent

After

Post-implementation Form

Template to provide updates on post-implementation progress and impact for past technical assistances on an annual basis

By NDE and Proponent

Overview: New TA Requests



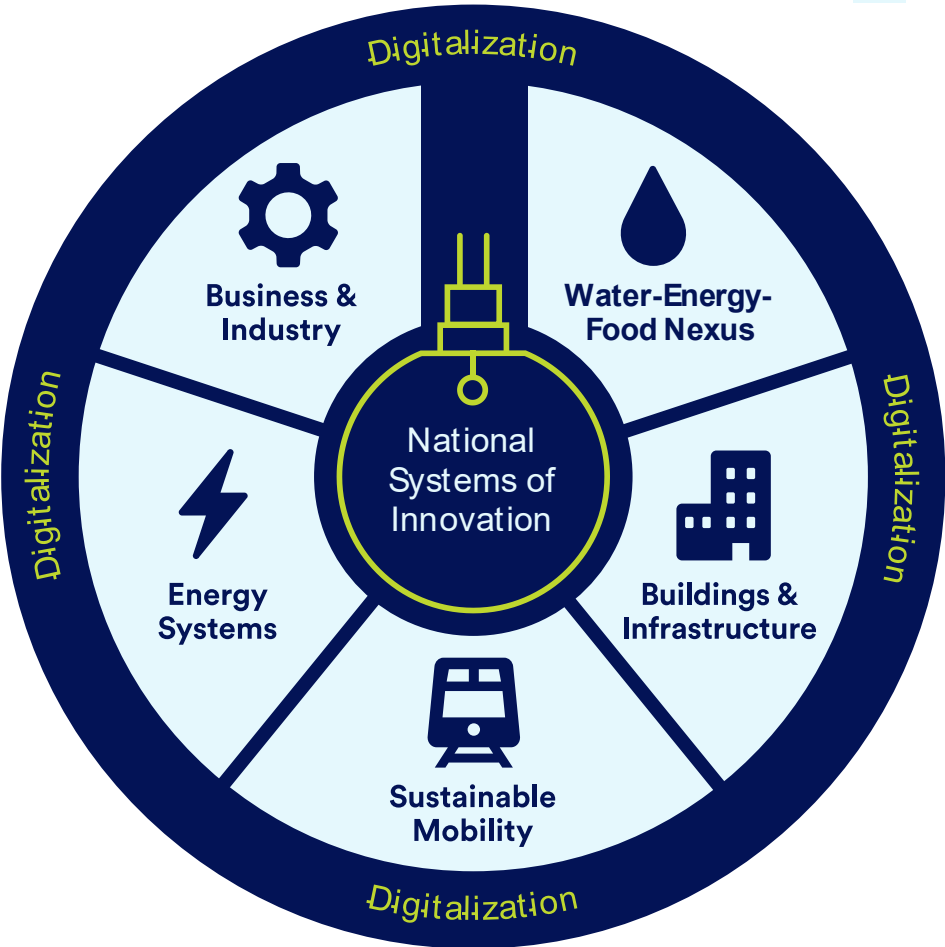
Cambodia, Laos, Mongolia, Tajikistan, Uzbekistan, Vietnam



Malaysia, Mongolia



Mongolia



Cambodia Water Management

Strengthening climate resilience through technology transfer and capacity development.

Cambodia Rainwater Harvesting

Feasibility study of improved rainwater harvesting for sustainable agriculture.

Laos Early Warning

Implementing Lao PDR's Early Warning for All Roadmap 2024-2027.

Malaysia Adaptation Finance

Adaptation finance facility for business and industry.

Mongolia Climate Resilience

Reducing smallholder vegetable farmers' vulnerability to climate change.

Mongolia SF6 Reduction

SF6 reduction in the energy sector.

Mongolia Cement Decarbonization

Cement decarbonization in the business and industry sector.

Tajikistan AI Early Warning

AI-based Early warning system for Tajikistan.

Uzbekistan Desalination Study

Pre-feasibility study for groundwater desalination and resource recovery.

Vietnam Climate Adaptation

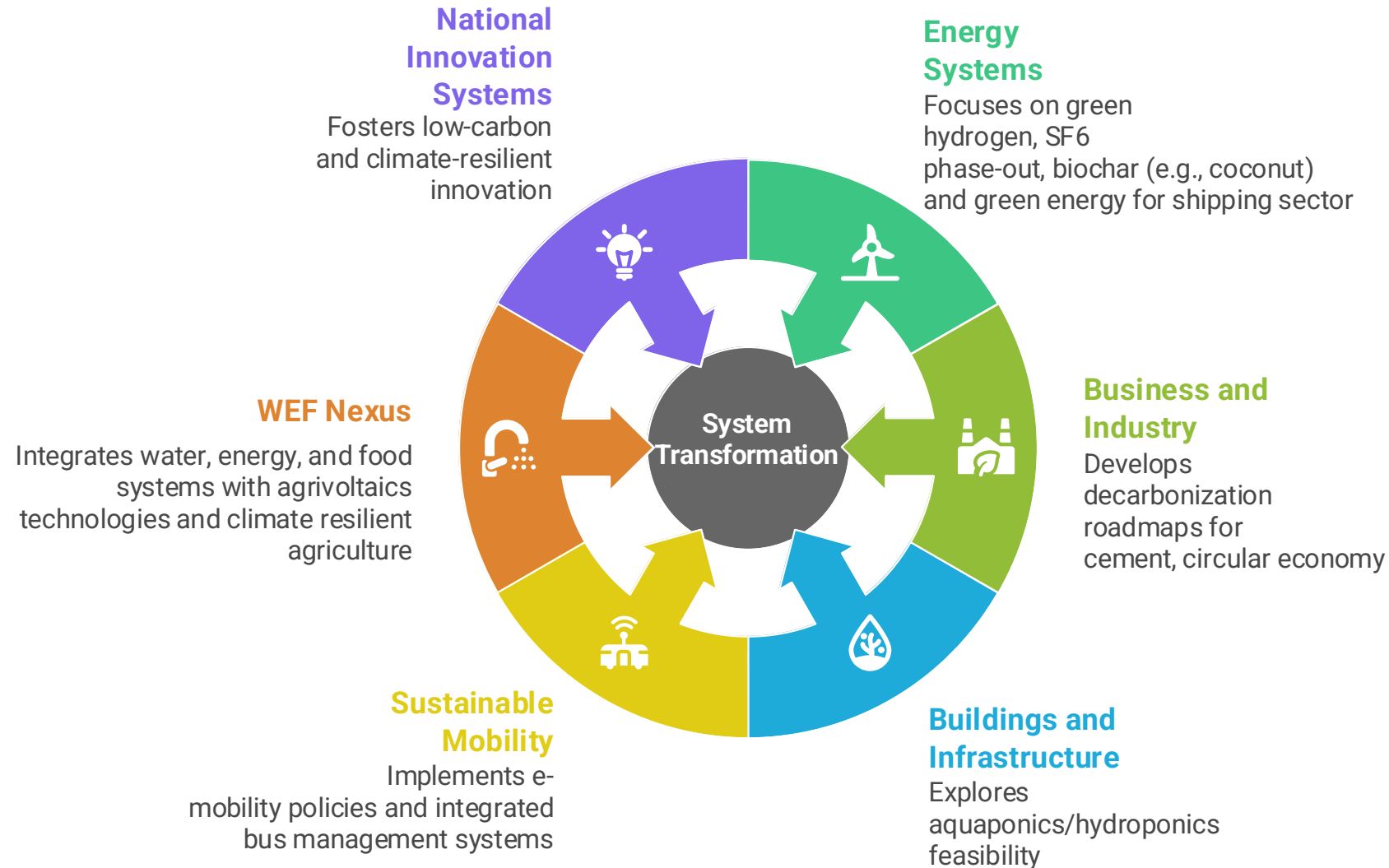
Strengthening Hai Phong City's climate adaptation and disaster prevention.

Tajikistan Data Management

Enhancing Weather and Climate Data Management through AI.

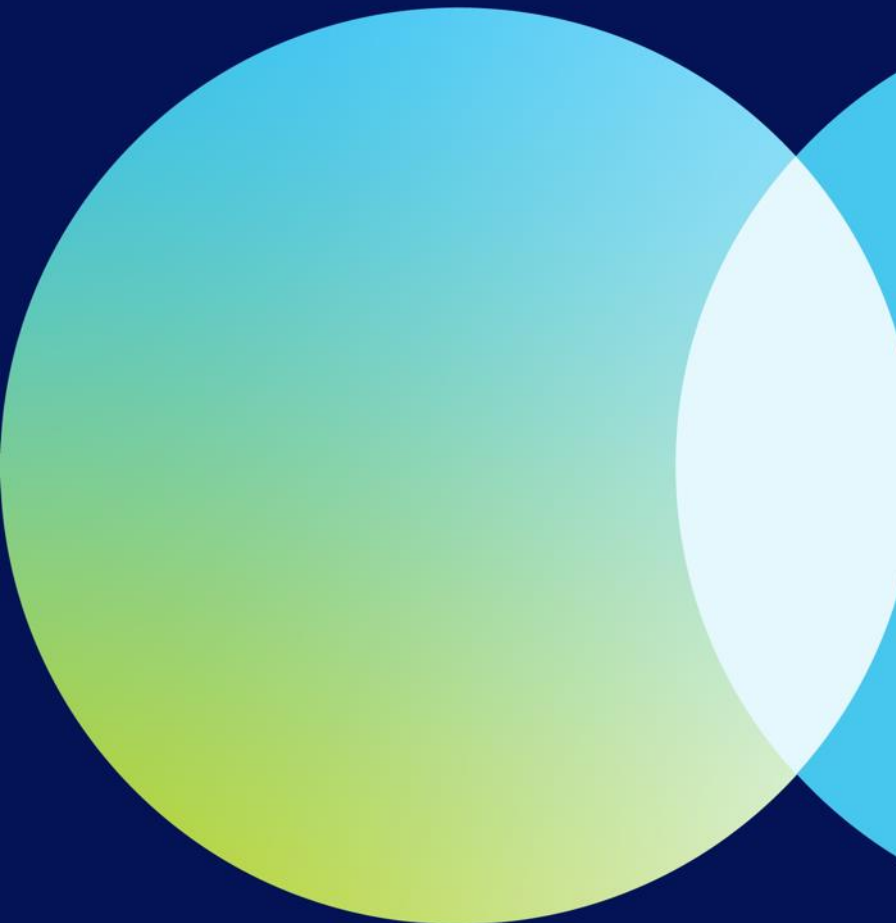
Technical Assistance Priority Topics

As per System Transformation Areas and Key Enablers



Presentation by
Bapon Fakhruddin

GCF's Country Platform and Circularity for Financing



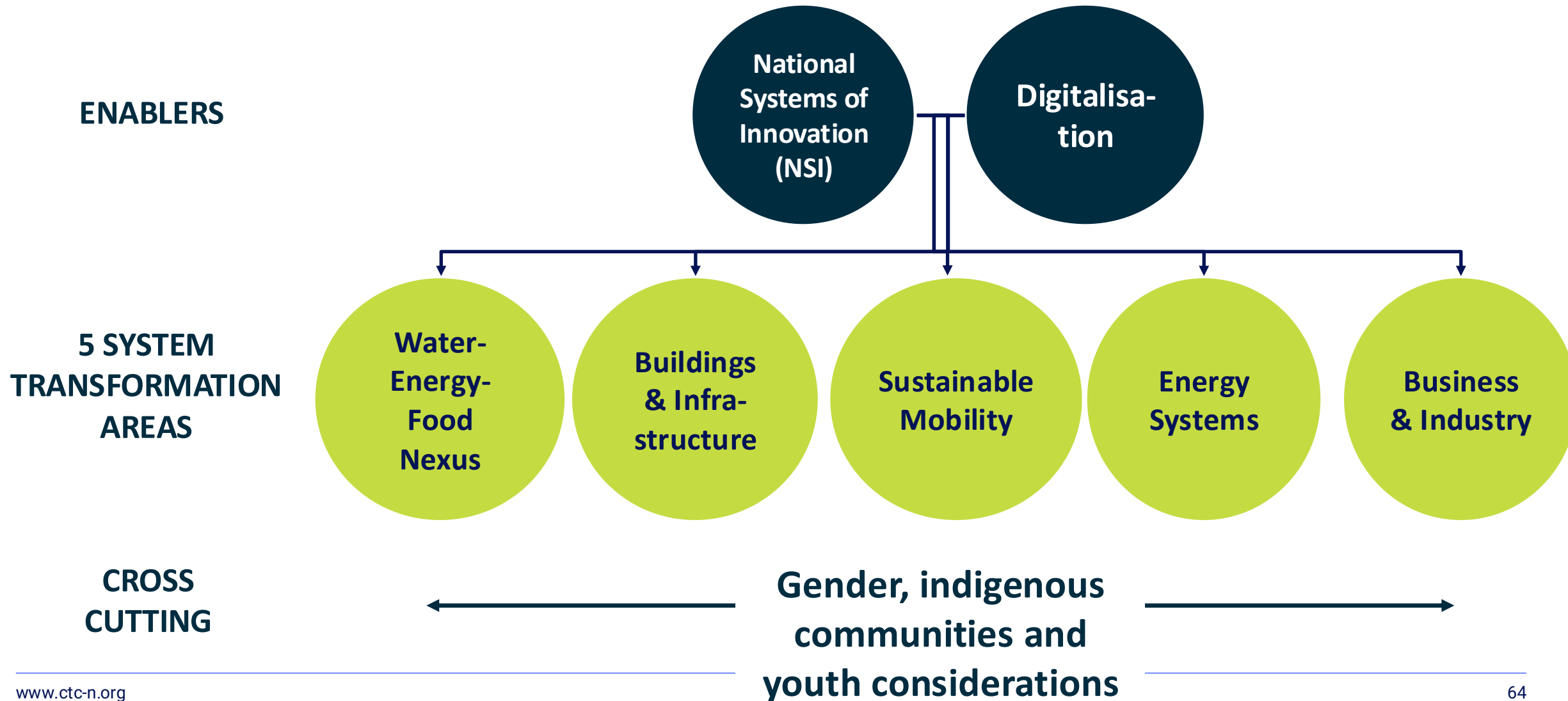
Afternoon Session

<https://www.mentimeter.com/>

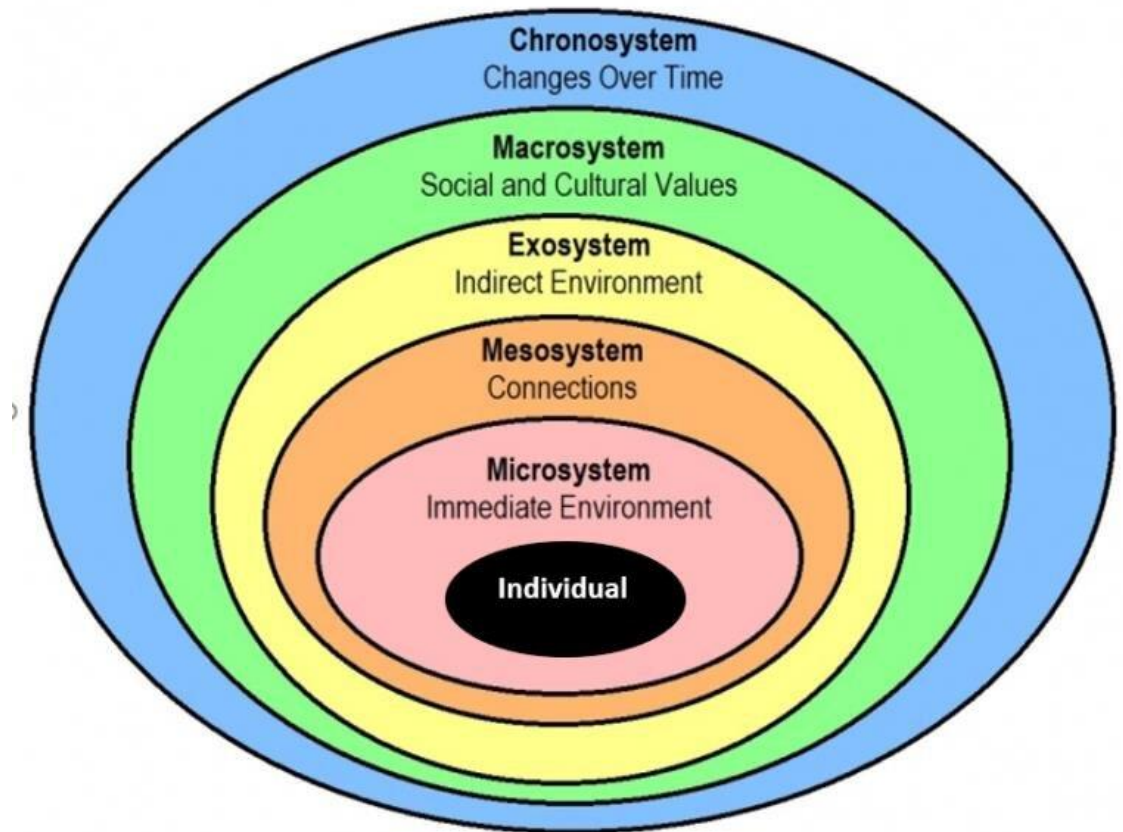
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CTCN's Impact: System transformation

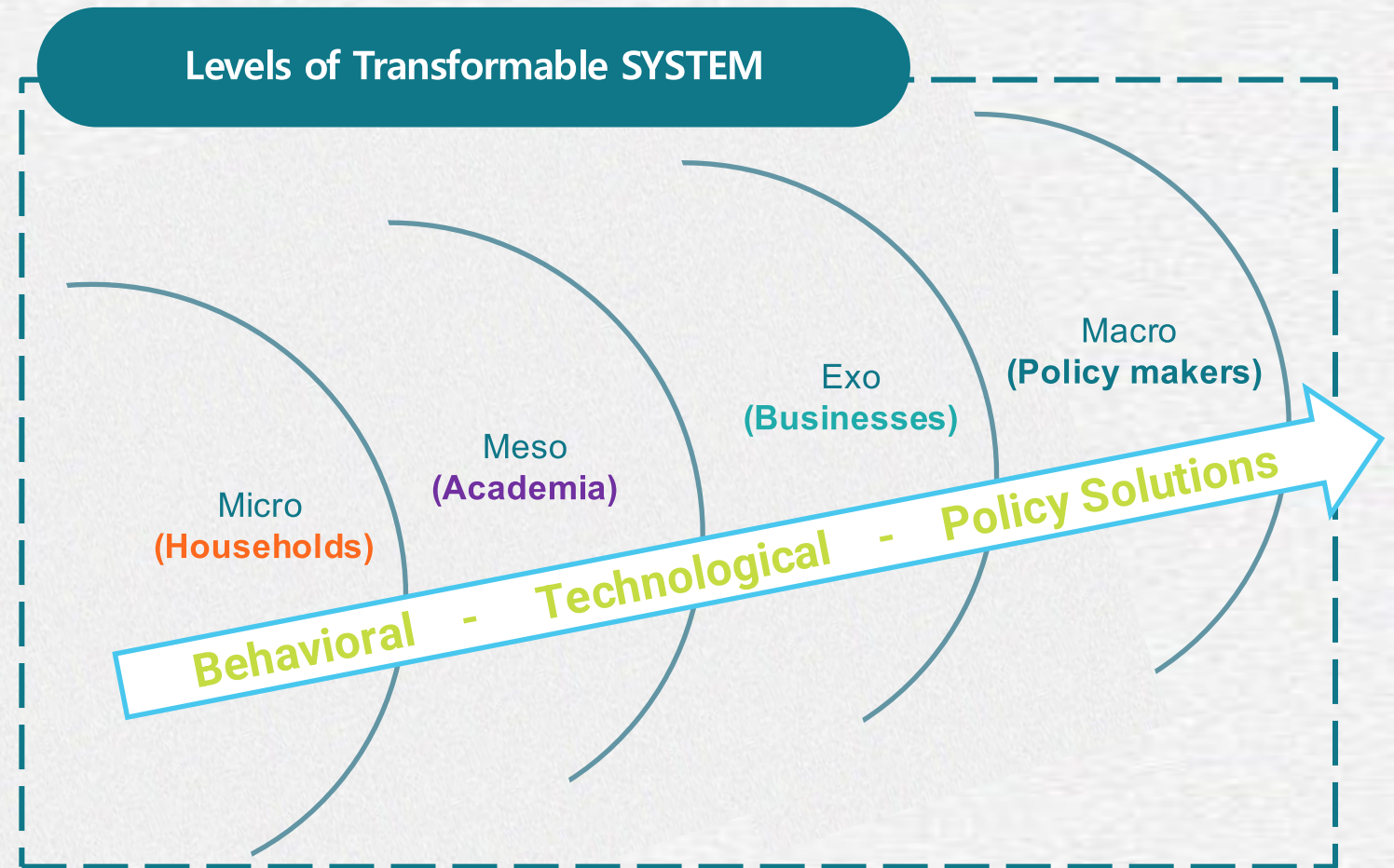


People Action

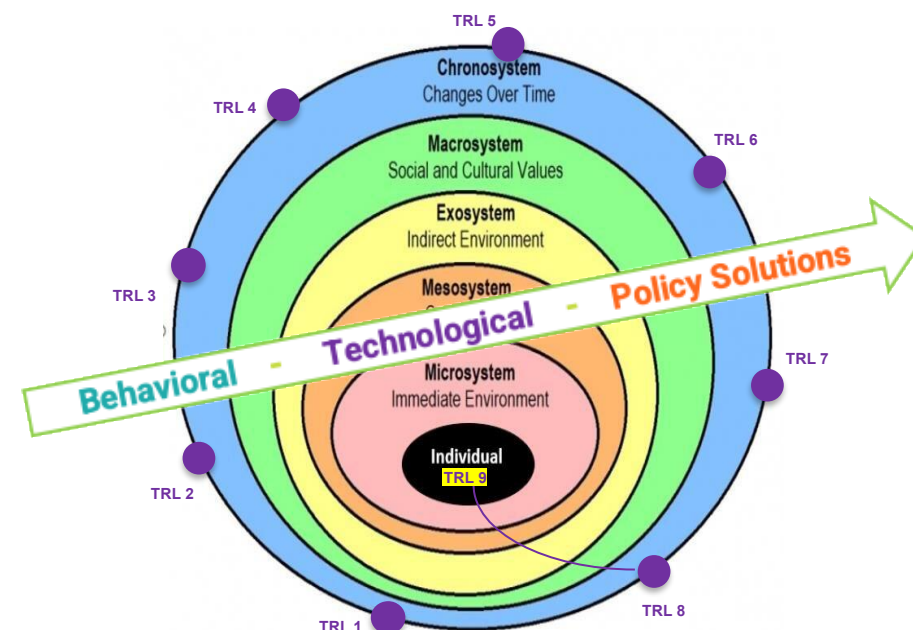
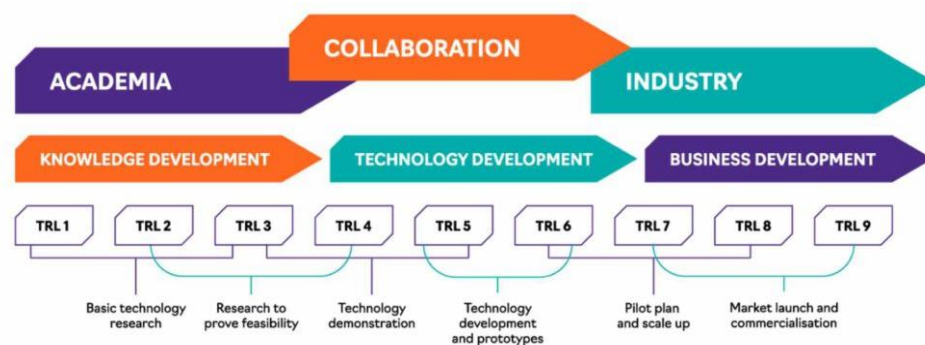


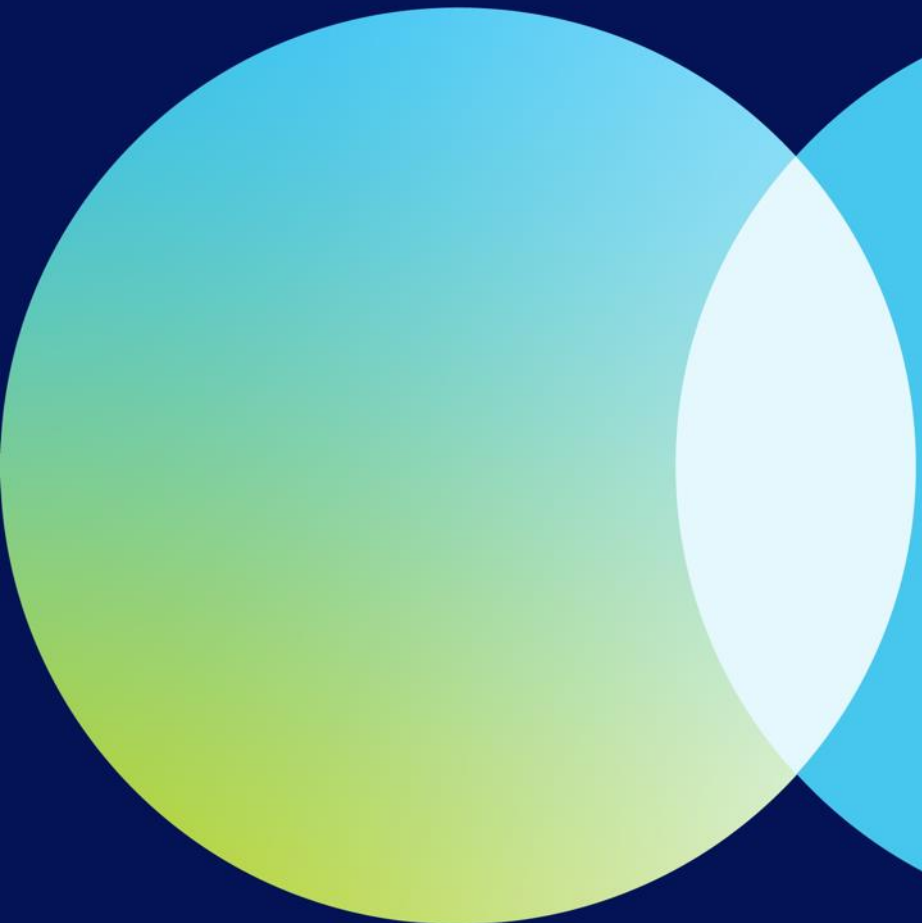
Bronfenbrenner's ecological system theory (1994)

**A project
linking each
actor's
solutions,
penetrates
the system**



The future of CTCN's impact we may co-create





Project design: Climate Narrative for a large- scale climate project

Developing a Climate Narrative

STEP 1 (PROBLEM)

Identify a key climate change problem related to your table's theme

STEP 2 (DRIVERS)

Define the drivers of the problem

Separate climate and non-climate drivers

Connect the drivers to the problem using thread

STEP 3 (THE GAP)

For the climate-related drivers define **what still needs to be done**

Connect the missing solutions to the drivers (solutions can address multiple drivers)

STEP 4 (BARRIERS)

For the solutions identified the barriers that prevent climate solutions (**why the gap has not been addressed**)

STEP 5 (REMOVING BARRIERS)

For each barrier explain how specific activities will address the barriers (**how the project removes barriers**)

Connect with thread to barriers

Group Exercise: 45 minutes – Brainstorming

Group 1: Waste Management

Group 2: Water

STEP 1 (PROBLEM)

Identify a key climate change problem related to your table's theme

STEP 2 (DRIVERS)

Define the drivers of the problem

Separate climate and non-climate drivers

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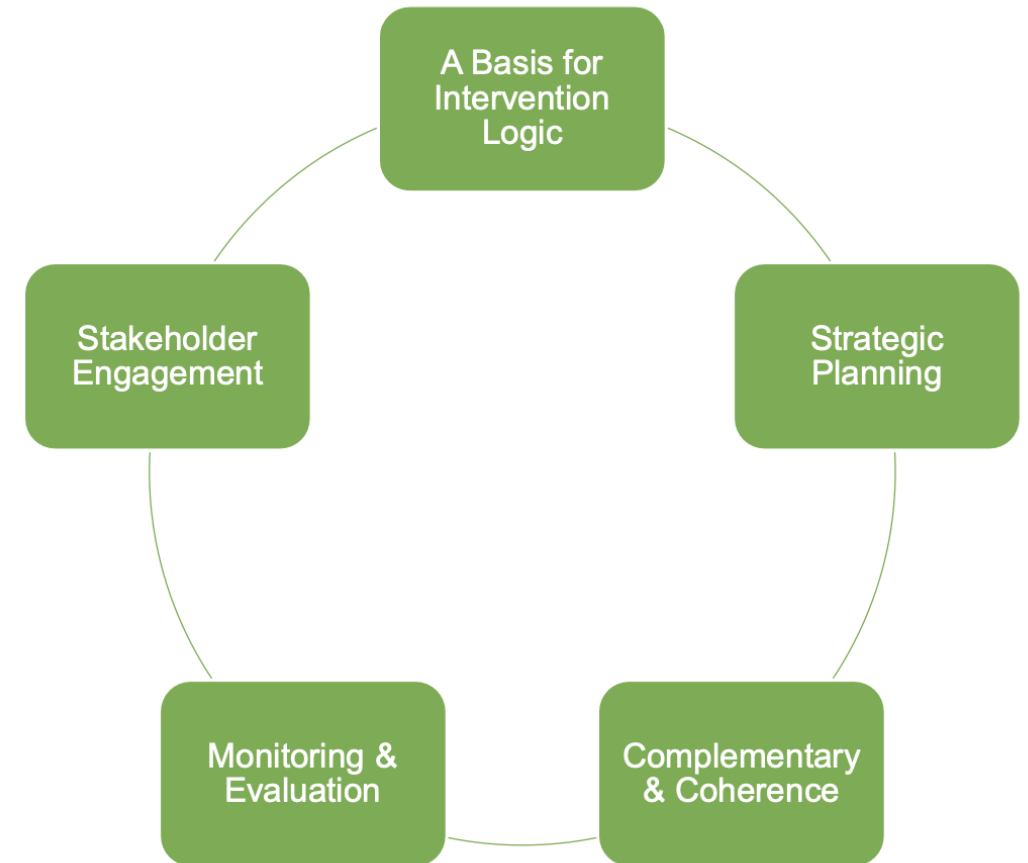
Connect with thread to barriers

What is and why we use Theory of Change (ToC)

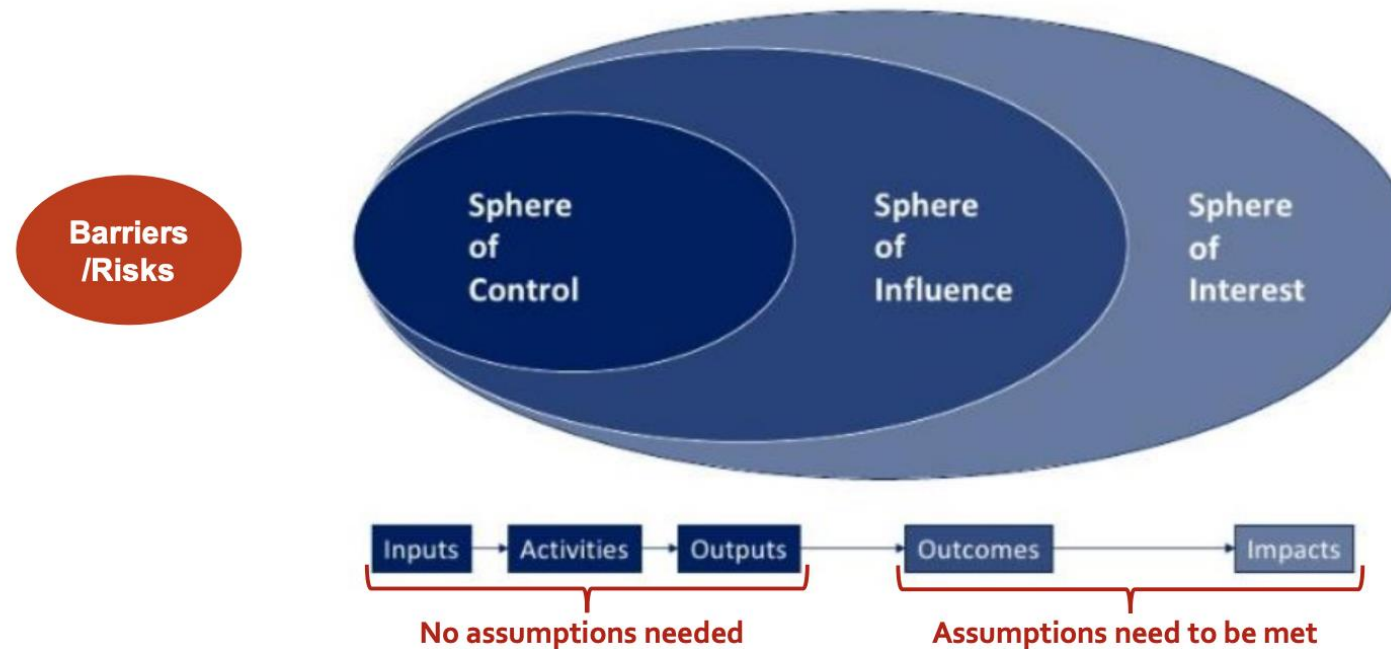
A theory of change (ToC) is an explicit theory of how and why it is thought that a social policy or program activities lead to outcomes and impacts.

ToCs are used in the design of programs and program evaluation (particularly theory-driven evaluation), across a range of policy areas.

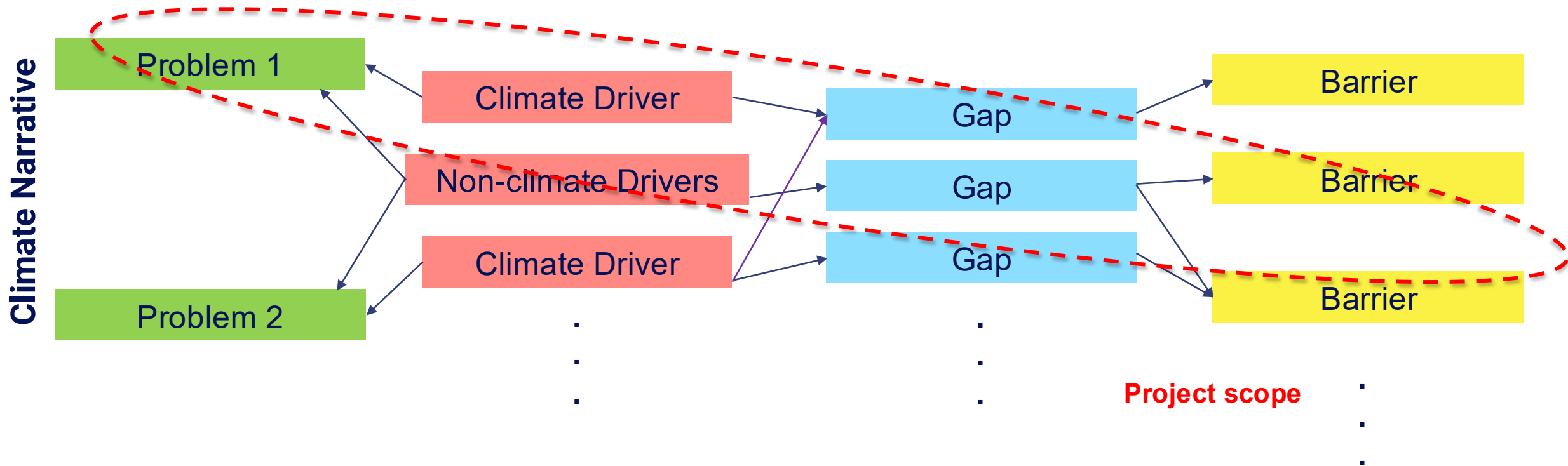
Climate
Action



- Results can be categorized into three levels: Output, Outcome, Impact
- Activities address identified barriers and can generate changes (results).



Applying climate narrative and ToC in a project



Group Exercise: 30 minutes – Problem tree

Group 1: Waste Management

Group 2: Water

STEP 4 (BARRIERS)

For the solutions identified the barriers that prevent climate solutions (**why the gap has not**

STEP 5 (REMOVING BARRIERS)

For each barrier explain how specific activities will address the barriers (**how the**

STEP 1 (PROBLEM)

Identify a key climate change problem related to your table's theme

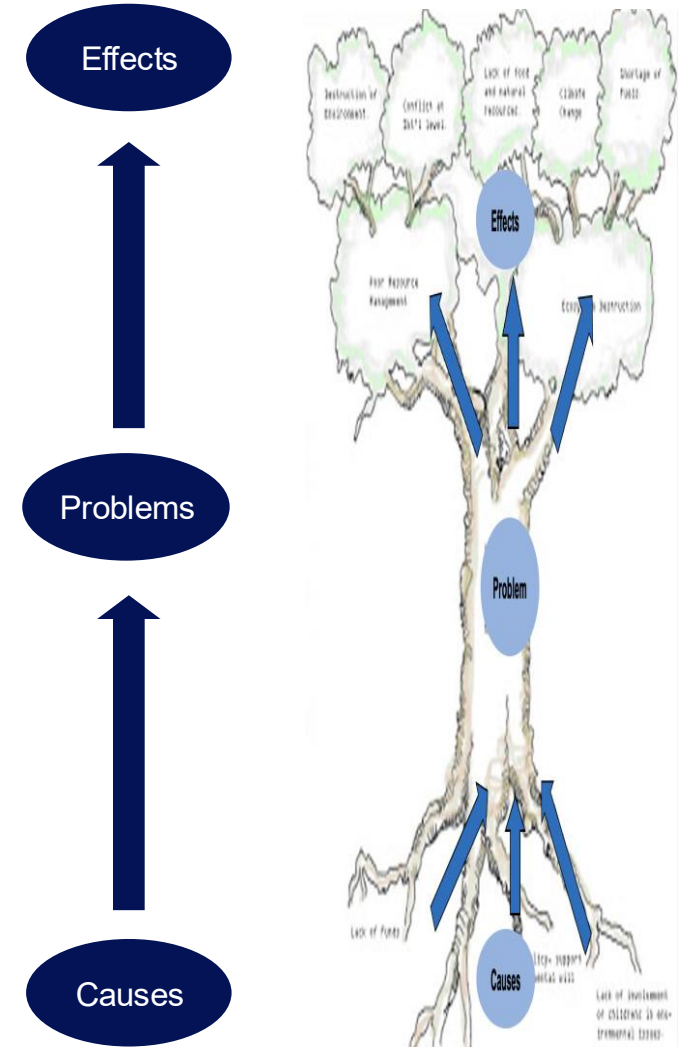
STEP 2 (DRIVERS)

Define the drivers of the problem

Separate climate and non-climate drivers

STEP 3 (THE GAP)

For the climate-related drivers define **what still needs to be done**

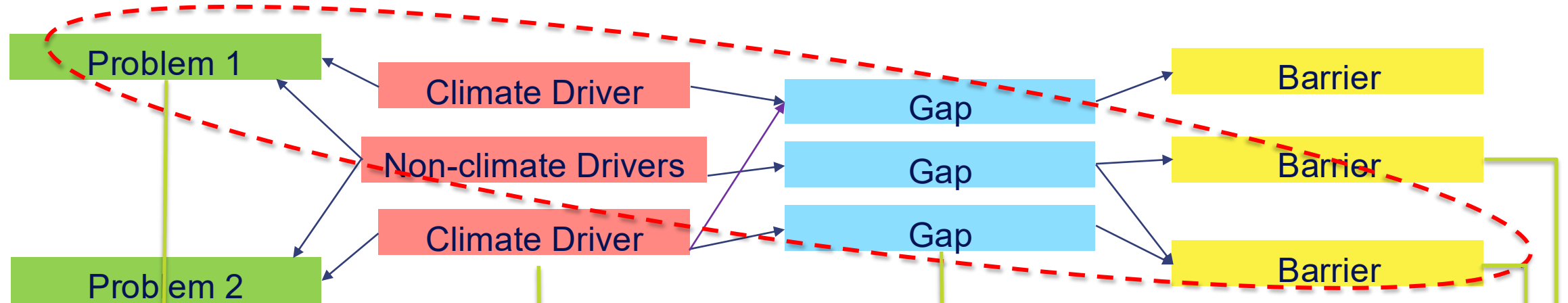


Let's check how other groups did!

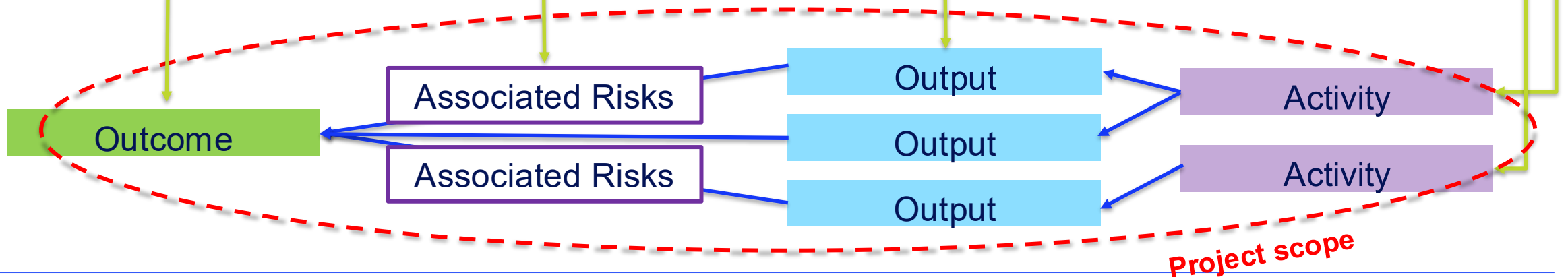
**1 group representative to share their group's
problem tree to the room**

Concept: Converting Climate Narrative into ToC

Climate Narrative



Concept note



Group Exercise: 20 minutes – Solution tree

STEP 4 (BARRIERS)

For the solutions identified the barriers that prevent climate solutions (**why the gap has not**

STEP 5 (REMOVING BARRIERS)

For each barrier explain how specific activities will address the barriers (**how the**

STEP 1 (PROBLEM)

Identify a key climate change problem related to your table's theme

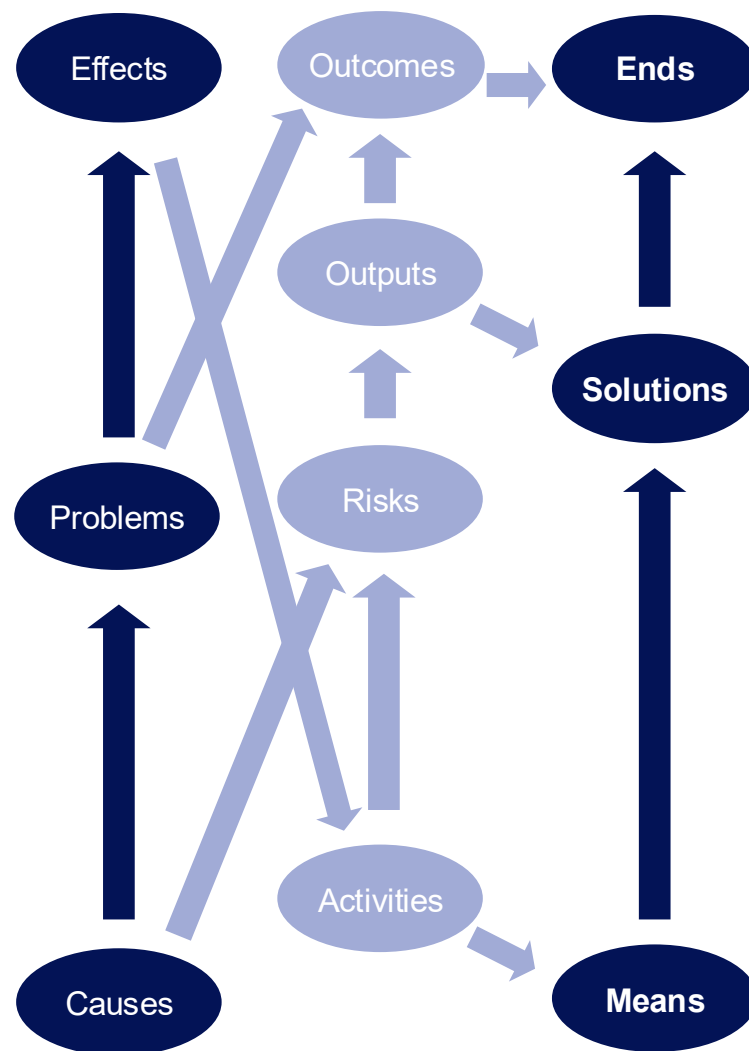
STEP 2 (DRIVERS)

Define the drivers of the problem

Separate climate and non-climate drivers

STEP 3 (THE GAP)

For the climate-related drivers define **what still needs to be done**



Step 1. Convert Problems into Outcomes

*Outcomes can be tangible/intangible benefits

Step 2. Convert Gaps into Outputs

*Outputs are direct results of activities

Step 3. Convert Drivers into Climate Risks

*Note that assumptions are outside our control

Step 4. Convert Barriers into Activities

*Try to frame barriers in a positive way

Step 5. Reconfirm the scope of a project

*Check if activities are speaking to the outcome

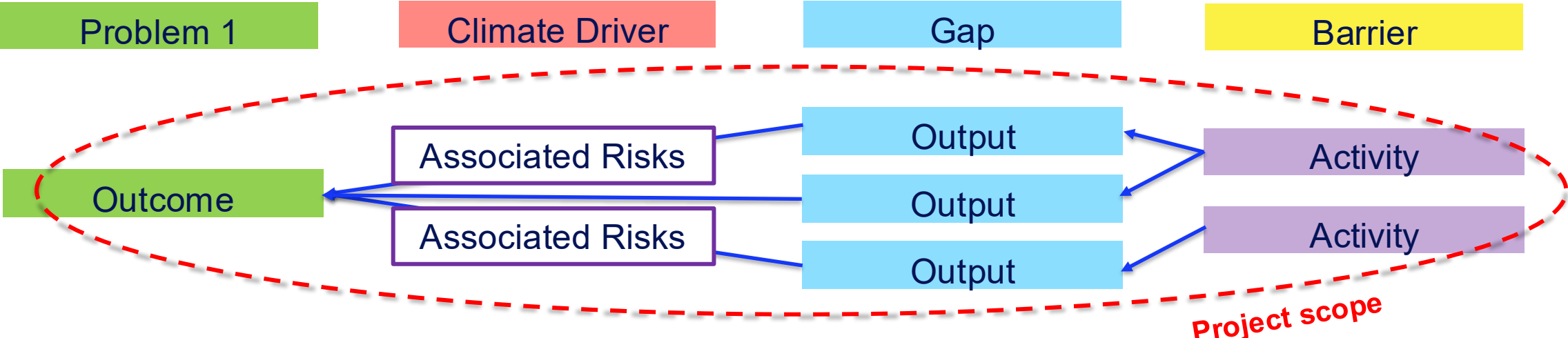
Let's check how other groups did!

**1 group representative to share their group's
solution tree to the room**

Translating into a request form

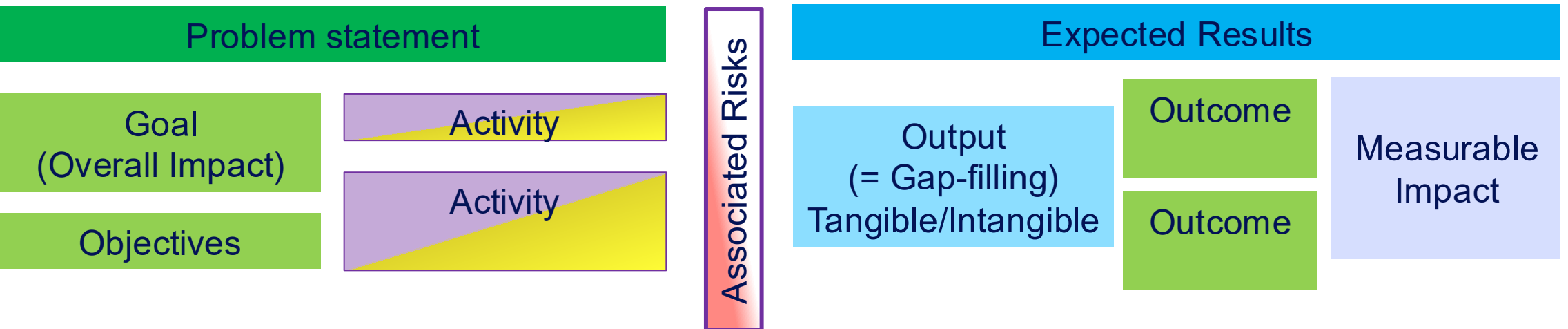
Climate Narrative-led

Concept note



Sections in the

Request forms



Recipe: Translating Climate Narrative-led ToC into a Request form

Step 1. Convert Problems into Outcomes

*Outcomes can be tangible/intangible benefits

⇒ **Goals and objectives**

Step 2. Convert Gaps into Outputs

*Outputs are direct results of activities

⇒ **Expected results (tangible)**

Step 3. Convert Drivers into Climate Risks

*Note that assumptions are outside our control

⇒ **Associated risks**

Step 4. Convert Barriers into Activities

*Try to frame barriers in a positive way

⇒ **Problem statement**

Step 5. Reconfirm the scope of a project

*Check if activities are speaking to the outcome

**Thinking about the climate
narrative and ToC,
Take a critical self-review of
the request form drafted**

Useful Information and Tools to further enhance the request form

- [C40 Cities Finance Facility | About](#)
- [Clean Energy Business Model Manual](#)
- [C40 Cities Finance Facility | City Academy on Finance and Equity workbook](#)
- [How National Governments Can Increase Finance for Subnational Climate Action | UrbanShift](#)
- [Supporting Access to Climate Finance for Small and Intermediary Cities: A Guide for Project Preparation Facilities | UrbanShift](#)
- [Bankability Checklist | UrbanShift](#)
- [CLIMATE FINANCE DECISION MAKING TREE AND GUIDANCE - ICLEI](#)



UNFCCC_CTCN



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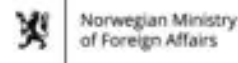
Climate Technology
Centre Network

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www.ctc-n.org
ctcn@un.org

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