

UN CTCN

2026 Joint Programme: NDE Forum, Capacity Building on AI for Adaptive Management in the Energy Sector, and Voluntary Technology Talk for SIDS

14th-18th September, in-person, Incheon and Busan, Republic of Korea

Background

NDE Forum

The **Climate Technology Centre and Network (CTCN)**, implementation arm of the UNFCCC Technology Mechanism (TM), hosted by UNEP, is mandated to support developing countries through capacity building, technical assistance, and knowledge sharing, with **Nationally Designated Entities (NDEs)** serving as national focal points (1/CP.16, paragraph 117 (b), 123). With the ongoing Programme of Work¹, the focus lies on achieving transformative impacts and scaling up through national innovation systems and digitalization across five key areas: Water-Energy-Food nexus, Buildings and Infrastructure, Sustainable Mobility, Energy Systems and Business and Industry. As part of its mandate and as one of its activities it organizes a Regional Forum for the National Designated Entities on an annual basis. In 2025, for the first time in CTCN's history, global Small Islands Developing States (SIDS) gathered 15 (out of 33) NDEs to foster their discussion and learning on co-creation for system transformation through climate action.

Capacity Building on AI for Adaptive Management in the Energy Sector

The year 2026 marks the fourth year of CTCN's 3rd Programme of Work (PoW), which places increased emphasis on moving from discrete technology support toward integrated, system-level transformation pathways. This direction takes into consideration COP/CMA decisions, including the AI4ClimateAction (9/CP.28, para 6-7) and the Belém Technology Implementation Programme (BTIP, 18/CMA.7, para 19), which emphasizes demand-driven implementation, capacity building, and a more complete technology cycle to support deployment and diffusion.

CTCN's 2026 Capacity Building Programme focuses on system transformation, understood as coordinated change across technologies, institutions, and decision-making processes to deliver lasting climate impact. Feedback from the 2025 thematic programmes on Climate Finance and Co-creation reinforces the need *to move beyond the status quo, to improve livelihoods, and to measure progress*. Together, these perspectives underscore that impact is understood by NDEs as a system-level outcome, achieved when capacity building enables coordinated change across interconnected layers.

In SIDS, technology priorities emphasize **water and coastal resilience**, including climate-resilient crop varieties, flood-hazard mapping, and mangrove rehabilitation, alongside **energy solutions** such as off-grid electrification and battery electric vehicles. These priorities point to readiness for **transformational adaptation**, where system change is required to manage compounding climate risks

¹ https://www.ctc-n.org/sites/default/files/resources/CTCN%20Third%20Programme%20of%20Work%202023-2027_2.pdf

rather than incremental improvements alone. While one country (i.e. Papua New Guinea) explicitly references **Artificial Intelligence (AI)-related technologies** in its NDC, this highlights both nascent demand and a clear capacity building opportunity to support responsible integration of digital and AI tools into highly exposed national energy systems.

The 2026 programme builds on this evolution by focusing on updating NDEs' knowledge on AI² application for adaptive management skillset enhancement in the energy sector. The curated sessions will showcase technological innovation led by private and public sectors and provide a space for discussing how AI may increase viabilities of energy solutions and elevate adaptive management required to handle climate crisis.

Voluntary Technology Talk

The Network Engagement Strategy agreed during the 27th Advisory Board meeting responds to the continued growth of the CTCN Network by calling for more systematic, visible, and meaningful engagement modalities that move beyond ad hoc participation and project-based interaction. In this context, the Voluntary Technology Talk (VTT) programme serves as a technology outreach and engagement modality that strengthens endogenous capacity through direct exposure to emerging climate technologies, technology solution providers, and innovation ecosystems.

Grounded in the demand-driven approach of the CTCN, the VTT programme provides NDEs with opportunities to voluntarily engage with current and prospective Network Members to explore innovative and concept-proven technologies relevant to their national priorities. Since 2023, the programme has supported 92 NDEs globally and facilitated the exploration of more than 300 climate technologies across sectors.

Beyond technology showcasing, the VTT programme supports countries in articulating technology needs in ways that are matchable to existing technological solutions and expertise. The programme also functions as an initiating platform for voluntary co-creation processes between NDEs and Network Members through early-stage dialogue, exchange of expectations, and partnership exploration that may evolve into future technical assistance and collaborative activities.

Complementing the VTT programme, the CTCN also trialled a "Network Fair" format during the Asia, Africa, and Latin America and the Caribbean regional forums in 2026. While the VTT programme primarily focuses on technology outreach and engagement, the Network Fair format was designed as a more targeted matchmaking space to facilitate direct interaction and partnership-building between NDEs and Network Members within regional forum settings. This year's VTT programme will be held at the World Climate Industry Expo³ 2026, themed "Energy for AI & AI for Energy", organised by Ministry of Climate, Energy and Environment (MCEE, Republic of Korea) and International Energy Agency (IEA).

Objectives

The three objectives of this joint programme are to:

² 2024 capacity building was on #AI4ClimateAction

³ <https://wce.or.kr/Eng/Main.asp>

- a) Share experiences, lessons learned, and best practices from CTCN technical assistance projects in SIDS;
- b) Enhance knowledge and practical understanding of AI applications for adaptive management and skillset development in the energy sector; and
- c) Facilitate NDEs' participation in exhibitions showcasing emerging climate technologies and promote direct engagement with technology solution providers.

Hosting organizations

UN CTCN (Climate Technology Centre & Network, www.ctc-n.org: The Implementation arm of Technology Mechanism of UNFCCC), Global Green Growth Institute (GGGI, <https://gggi.org/>, International organization)

Partnering organization

Google DeepMind (<https://deepmind.google/>)

Target audience

13 NDEs from the Pacific and Caribbean

Venue

Days 1&2 – Incheon, CTCN Partnership and Liaison Office (PALO), G-tower 32F

Day 3 – Busan, BEXCO

Days 4&5 – Busan, NewCZ Hotel (2F, Meeting room) and BEXCO

Anticipated sessions

- NDE Forum: Information on COP30, peer-to-peer learning on CTCN procedures and services, and bilateral with CTCN
- Capacity Building: Information on AI and energy related developments and discussion on enhancing adaptive management skills, workshop on climate narrative and Theory of Change
- Voluntary Technology Talk: Group Hall Tour, voluntary bilateral with exhibited companies

Agenda

Day 1 – SIDS NDE Forum (14th September) Songdo PAL office, 32F, G-tower

Arrival and Registration

08:30~09:00 **Arrival and Registration**

Official Opening and Introduction to the Joint Programme

Moderator: Suil Kang, Coordination Officer, CTCN

09:00~09:10 **Opening Remarks**

Ariesta Ningrum, Director, CTCN (recording)

09:10~09:15 **Group photo**

09:15~09:25 **NDEs Round of Introductions**

- NDE/NDE representative: Name, country
- Role of the NDE in their countries

Introduction of the CTCN teams

09:25~09:40 **Overview of the Agenda**

Jeawon Kim, Capacity Building and Network Engagement Specialist, CTCN

Session 1: Updates by UNFCCC Technology Mechanism

Moderator: Suil Kang, CTCN

09:40~10:10 **Technology Development and Transfer under the UNFCCC (COP 30)**

Bhava Dhungana, UN Climate Change Secretariat (recording)

Coffee Break – 20 minutes

10:30~11:00 **CTCN Activities and Outlook for 2026-2027**

Tomoko Furusawa, Senior Programme Management Officer, CTCN

11:00~11:30 **TEC Activities and Outlook for 2026-2027**

Pedro Ivo Ferraz da Silva (TEC Chair) Brazil Non-Annex I / Latin America and the Caribbean (recording)

11:30~12:00 **Q&A**

Lunch break – 75 minutes

Session 2: Roundtable Discussion with NDEs

Moderator: Nadege Trocellier, CTCN

13:15~13:45 **Summary of 2026 Roundtable and Framing**

Tomoko Furusawa, Senior Programme Management Officer, CTCN

1) Belem Technology Implementation Programme (BTIP)

Q1. Have you seen successful approaches (either nationally or from other countries) that help bridge the gap between technology identification and implementation?

	Q2. What are the main barriers preventing countries from moving from technology planning and technical assistance to large-scale deployment and diffusion of climate technologies? 2) CTCN's independent review Q3. If you could recommend one improvement to strengthen the relevance and effectiveness of the CTCN for all countries, what would it be? 3) Hosting Agency Q4. What partnerships should the hosting agency promote to ensure the CTCN remains fit for purpose over the next decade? 4) TM-FM linkages (preface to Day 3 and 4) Q5. Where do the greatest disconnects remain between climate technology needs and access to finance? How could CTCN support?
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Session 3: Updates on Support	
Moderator: Nadege Trocellier, CTCN	
13:45~14:15	Key Concept Notes for Technical Assistance for 2026-27 - Global and SIDS Hoyoung Jo, Climate Technology Specialist, CTCN
14:15~14:30	Global Capacity Building Programme Jeawon Kim, Capacity Building and Network Engagement Specialist
14:30~14:45	PNG's reflection on online course – SROI and CBE Framework Emily Mulina-Pomoh, REDD+ & Mitigation Division, Climate Change and Development Authority, PNG
14:45~15:00	Q&A

Session 4: Updates from Financing Entities – Adaptation Fund	
Moderator: Suil Kang, Coordination Officer, CTCN	
15:00~15:30	Status and outlook for support and procedures, including SIDS portfolio Alyssa Maria Gomez, Innovation Specialist, Adaptation Fund
Coffee break – 15 minutes	
15:30~15:45	CTCN Programme: Adaptation Fund support for SIDS Nadege Trocellier, Global Adaptation Lead, CTCN
15:45~16:15	Co-LAB, climate adaptation programme targeting Pacific Islands Pierre-Yves Charpentier, Programme Manager, SPC
16:15~17:00	Consultation on AFICA programme phase 2, call for proposal Split into two groups (5 each), NDEs will have time to review submitted requests with the CTCN secretariat.

Day 2 – SIDS NDE Forum and Capacity Building on AI for Adaptive Management in the Energy Sector (15th September)

Session 5: Updates from UNFCCC Finance Mechanism – Green Climate Fund

Moderator: Hoyoung Jo, CTCN

09:00~09:30	Progress on Updated Strategic Plan 3, Modalities, and the SIDS portfolio Mr. Jose Alfred Cantos, Climate Investment Principal, Pacific and Asian SIDS, Green Climate Fund
09:30~10:00	Readiness 2023-2027, Country Platform and Liaison Officers AJ Untalan, Readiness Programme Officer, Green Climate Fund
10:00~10:30	Q&A

Coffee break – 15 minutes

Session 6: Updates from UNFCCC Finance Mechanism – FRLD and Santiago Network

Moderator: Hoyoung Jo, CTCN

10:45~11:15	Introduction to FRLD – Support and procedures (online) Zoha Shawoo, Programming Specialist, Programming and Country Engagement, The Fund for responding to Loss and Damage (FRLD)
11:15~11:45	Introduction to Santiago Network – Support and procedures (online) Ms. Nazgul Borkosheva, Regional Coordinator for Asia-Pacific, Santiago Network Secretariat
11:45~12:00	Q&A

Lunch break – 75 minutes

Opening: Capacity Building on AI for Adaptive Management in the Energy Sector

Moderator: Jeawon Kim, CTCN

13:15~13:30	Overview of the Workshop with a live survey on System Transformation
13:30~13:45	Collaborative Research, Development, and Demonstration for Adaptive management - Support and Procedure Suil Kang, Coordination Officer
13:45~14:45	Introduction to potential partners - Green Society, Hyundai Motos CMK Foundation Moses Sung, CEO, Huject (10 min presentation, 5 min Q&A) Prof. Woo-Kyun Lee, OJEng Resilience-E3 (10 min presentation, 5 min Q&A) Doyeon Kim, Code of Nature, CTO (10min presentation, 5 min Q&A) Kim jintae, Korea Grid Forming, Team leader (10min presentation, 5 min Q&A)

Session 1: Understanding Adaptive Systems in Small Islands Contexts

Moderator: Jeawon Kim, CTCN

14:45~15:10	What does an energy transformation really mean in SIDS Sanjaya Bhatia, Head of Office Incheon, UN Office for Disaster Risk Reduction (UNDRR) - Office for Northeast Asia (ONEA) & Global Education and Training Institute (GETI)
15:10~16:50	Snapshot of SIDS Reality – Country status update This session opens NDEs to exchange each country's adaptative system-related policies, programmes, and projects in place. The aim of this understand at what stage countries are to increase/improve/enhance existing SIDS adaptative systems in the energy sector. 10-minute presentations by NDEs of Cuba, Fiji, Kiribati, Naoero, Palau, Papua New Guinea, Vanuatu <i>Coffee served at 15:30</i>

Session 2: Available CTCN support for Adaptive Process Improvement

16:50~17:30	Open house format - The Open House format is an interactive dialogue designed to foster learning and action. - Designated rapporteurs will provide a topic-related guide, address questions, and support the creation of outputs. - Participants will choose and rotate through thematic stations focused on key CTCN operations, considering which service be relevant to increase/improve/enhance existing climate-adaptative process. <i>Topic 1: Logistical Support (Rapporteur: Jeawon Kim)</i> - If you join this table, you will learn how NDEs can use CTCN logistical support to strengthen their national role, convene stakeholders, and build a pipeline of climate technology projects, as well as support follow-up actions after project completion, drawing on recent examples of Cambodia and Somalia. - NDEs are encouraged to draft LS form and receive direct feedback from CTCN. <i>Topic 2: High-quality TA and NDE Manual (Rapporteur: Hoyoung Jo)</i> - If you join this table, you will be introduced to the new CTCN post-implementation monitoring and evaluation form, providing guidance on how to complete it effectively and highlighting its benefits for tracking results, learning, and follow-up. - NDEs are encouraged to understand the post-implementation form and if any TA is/are near completion, start drafting under CTCN's consultative support.
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Topic 3: CRD&D (Rapporteur: Suil Kang)

- If you join this table, you will learn CTCN's ongoing and planned cRD&D facilitation support.
- NDEs are encouraged to share thematic areas requiring cRD&D facilitation.

Topic 4: Post-implementation of TA (Rapporteurs: Tomoko Furusawa & Nadege Trocellier)

- If you join this table, you will learn about the latest updates in the manual about your role as an NDE to provide a high-quality CTCN request, focusing on alignment with NDCs, TNAs and TAPs, strong stakeholder engagement, and national ownership.
- NDEs are encouraged to receive CTCN's feedback on under-design TA request (if any).

Relocation to Busan – Group Bus will be arranged. Pick-up-point G-tower, lobby.

Day 3 – Capacity Building on AI for Adaptive Management in the Energy Sector with GGGI (16th September)

Busan, BEXCO, Auditorium

Opening Ceremony - World Climate Expo

10:30~11:30	Fatih Birol, Executive Director, International Energy Agency (IEA) Francesco La Camera, Director General, IRENA (International Renewable Energy Agency)
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Lunch break, back to BEXCO Conference Room 2 (214-215)

Session A. The AI-energy nexus: efficiency, infrastructure and accountability

13:30-13:40	Welcoming and opening remarks
	Welcoming remarks: Sang-hyup Kim , Executive Director, GGGI
13:40-13:50	Presentation 1: Google's Full-stack approach to AI x Energy nexus
	Presenter: Spencer Low, Head of Regional Sustainability, Asia Pacific, Google
13:50-14:25	Panel discussion 1: Sustainable AI Era: Scaling clean energy to power semiconductor supply chain
	AI growth is driving rapid expansion in the semiconductor industry, significantly increasing energy demand across the supply chain. The discussion will explore key challenges, including how to secure reliable clean energy, reduce emissions, and support continued industry growth. Moderator: Kim Seungwan , Professor, Korea Institute of Energy Technology Panelist: Malle Fofana, Deputy Executive Director, GGGI Seong-bong Cho, Vice President of ESG, SK Hynix Lokwon Kim, CEO, DEEPX Jens Bøgsted Orfelt, President - Asia Pacific (Director Offshore Development), RWE
14:25-15:00	Panel discussion 2: Discuss how policy can accelerate deployment of clean energy to support AI growth
	AI growth is creating significant new electricity demand, increasing the need for faster deployment of clean energy. Key policy priorities include removing regulatory barriers, strengthening investment incentives, and enabling the infrastructure needed to power AI growth sustainably. Moderator: Ferruccio Santetti , Chief of Staff and Director, Strategy, Sustainable Finance and Global Initiatives, GGGI Panelist: Dr. Tae Eui Lee, Senior Research Fellow, Korea Energy Economics Institute (KEEI) Dr. PilSeok Kwon, Director, GESI (Green Energy Strategy Institute) Danny Nekitel, Manager Mitigation and Low Carbon Growth, Climate Change and Development Authority, Papua New Guinea Justin Wu, Head of Sustainability and Climate Change, Asia and Middle East, HSBC Isao Hasegawa, Chief Consultant, Group Leader, Demand-Side Innovation Group, Electric Power and Energy Division, Mitsubishi Research Institute, Inc.
15:00-15:15	Group photo and coffee break

Session B. Aligning climate policy with energy innovation and technology

15:15-15:25	Keynote speech: AI's opportunities and economic, environmental, and social impact • Presenter: Chris Coulter, CEO, GlobeScan
15:25-16:15	Panel discussion 3: Aligning climate policy with energy innovation and technology Identify governance frameworks, accountability standards, and partnership models that align climate policy with energy innovation and accelerate the deployment of climate technologies for sustainable energy transitions. Moderator: Andreas Galatoulas, Data and AI Lead, GGGI Panelist: • Moanibou Muller, Senior Assistant Secretary, Administration - Corporate Services Department, Kiribati • Damien Pereira, Chief Representative of Québec Government Office in Seoul, Québec • Charles Pacini, Manager, Transforming Industrial Ecosystems, World Economic Forum • H.E. Emmy Jerono Kipsoi, Ambassador, Kenya Embassy Seoul
16:15-17:10	The Economist: Artificial intelligence, energy transition, and sustainability. Moderated by a journalist from Economist, the conversation will bring together perspectives from GGGI, Google, and CTCN to frame the key implications of AI for energy demand, technology deployment, and climate policy. Moderator: Economist Panelist: • Sang-Hyup Kim, Executive Director, GGGI • Oh Il-young, Director General for Climate and Energy Policy Bureau at the Ministry of Climate, Energy and Environment (MCEE) • Panel discussion: Current affairs: artificial intelligence on a cleaner grid • Spencer Low, Head of Regional Sustainability, Asia Pacific, Google • Tomoko Furusawa, Head of Partnership and Liaison Office, UNEP CTCN • Justin Wu, Head of Sustainability and Climate Change, Asia and Middle East, HSBC • Dongwook Chun, Vice President of Global Government Relations & ESG Strategy at LG Energy Solution

Day 4 – Capacity Building on AI for Adaptive Management in the Energy Sector (17th September)

Moderator: Jeawon Kim, Capacity Building and Network Engagement Specialist

Busan, NewCZ Centum Hotel, 2F, Meeting Room

Summary and reflection of Day 2 and Day 3	
09:00~10:00	Summary and reflection of Day 2 and Intro to Day 3 Roundtable discussion on Day 3 GGGI-Google Sessions
10:00~10:30	AI policy: Law, Policy, and Governance Jeawon Kim, CTCN Q&A

Coffee break – 15 minutes

Session 3: Learning Energy System Transformative Technologies	
10:45~11:00	Transitioning to net zero and renewable energy sources – Gaps in Policies and Opportunities for Implementation (online) Haruka Yoshida, UNIDO
11:00~11:50	Technology Discussion Activity <i>Facilitated by CTCN</i> <i>5-minute introduction of the session, explaining the objective, guiding questions</i> 10-minute silent thinking (individual work): What would you need to overcome those gaps/challenges to deploy renewable energy in your country? What kind of CTCN TA projects are needed to promote renewable energy deployment? 30-minute group discussion
11:50~12:00	Reflection from each group

Lunch break – 90 minutes

Session 4: The role, application, and potential of AI	
13:30~14:00	Case of adaptive system strengthened through AI – International Deeba Yavrom, Deployment Strategist, Palantir Technologies
14:00~14:30	Case of adaptive system strengthened through AI – Republic of Korea Ji Eun Choi, Senior Economist, World Bank
14:30~15:00	Q&A

Coffee break – 15 minutes

Session 5: Climate Narrative to design an energy project with strong AI components

15:15~17:00	<i>All NDEs</i> <i>NDE Logic Desk - Initiate for change: Development of problem and solution trees</i> Three sequential activities to be covered: - Brainstorming for problem identification - Ideate on the elements of climate narrative (30 minutes) - Problem tree - Organize the brainstormed elements into a problem tree, aligning them with the specific scope of the project (20 minutes and *10 minutes for sharing time) - Solution tree - Transform their problem tree into solution tree, adapting the elements to match the goals and structure of the intended financing modality (20 minutes and *10 minutes for sharing time) In between activities B and C, each group representative will present their idea board to the room for 10 minutes.
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Day 5 – Voluntary Technology Talk and Network Fair: Part 2 (18th September) Busan

Moderator: Jeawon Kim, Capacity Building and Network Engagement Specialist

Busan, NewCZ Centum Hotel, 2F, Meeting Room

Introduction	
09:30~10:15	Flow of the day and expected outputs
Relocation to BEXCO	

Session 5: Technology Exhibition and Network Fair	
10:30~11:30	Guided Hall Tour for NDEs by CTCN The list of Network Members participating with a booth is shared with NDEs prior to this session. During this session, accompanied by CTCN, NDEs will take a tour of the exhibition hall. The tour will introduce 5 CTC Network member's technologies and offer a direct discussion with them at each booth. - DI Lab Inc. - Korea Electric Power Corporation (KEPCO) - Korea District Heating Corporation (KDHC) - Korea Technology Finance Corporation (KOTEC) - Korea Institute of Industrial Technology (KITECH) / Korea National Cleaner Production Center (KNPCPC)
11:30~12:00	On-site matchmaking request submission for the afternoon

	NDEs will be asked to share which CTC Network members' booth(s) that they want to revisit after lunch break. CTCN will accompany for NDEs' revisit for deeper bilateral. NDEs those may want to explore other booths (non-CTC Network members'), they can visit. This free roaming is called as Voluntary Technology Talk.
Lunch Break – 90 minutes	
Session 6: Technology Matchmaking	
13:30~15:30	Parallel: Voluntary Technology Talk and Deep dive bilateral BEXCO Hall – Korea Energy Show and Net Zero Expo NDEs with the map of entire exhibition halls (4 halls available), will have time to freely explore emerging technologies that are interest of theirs. A reflection form will be available for NDEs to make notes as they explore, network, and learn the next innovative technologies. At the end of the VTT and bilateral, NDEs will be asked to rank top 3 technologies that captured their full attention.
Relocation to the NewCZ Centum Hotel, 2F, Meeting Room	
Reflections and way forward	
16:00~17:00	Exchange of technologies explored among NDEs For 30 minutes, in a smaller group of 4, NDEs will exchange technologies that they have explored at the exhibition halls. Open reflection from NDEs For 30 minutes, NDEs are invited to share reflection of their experience on the programme overall.
17:00~17:05	Closing Remarks Tomoko Furusawa, CTCN