

2025 Joint Programme NDE Forum and Capacity Building on Climate Finance in Asia: Data and AI for Climate Resilience

1-3 September 2025, FKI Tower, Seoul, Republic of Korea, in person

Background

NDE Forum

National designated entities (NDEs) serve as national focal points for technology development and transfer under the UN Climate Change (UNFCCC) Technology Mechanism. The Technology Mechanism is comprised of an implementation arm, the Climate Technology Centre and Network (CTCN) and a policy arm, the Technology Executive Committee (TEC). For a decade, the CTCN has been promoting accelerated development and transfer of environmentally sound technologies for low-carbon and climate-resilient development at the request of developing countries. Implementing this mission, the CTCN has focused on the stimulation of technology cooperation and enhancement of the development and transfer of climate technologies to developing countries. In line with its mandate, the CTCN has supported over 110 countries benefited from climate technology innovation, transfer, and knowledge sharing.

The CTCN provides technology solutions, capacity building and advice on policy, legal and regulatory frameworks tailored to the needs of individual countries. With the ongoing Programme of Work, 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 from Asia and the Pacific countries on an annual basis. The objective of these forums is to share experiences and best practices from CTCN technical assistance in the region, strengthening collaborations and enhancing linkages with other mechanisms under the convention and create networking opportunities through showcasing innovative climate technologies that respond to country priorities and support them in meeting their Nationally Determined Contributions.

Capacity Building Programme on Digitalization and Finance

As noted in paragraph 9 of decision 14/CMA.5, adopted at COP28, the insufficient transfer and deployment of technology in developing countries underscores the need for synergistic action among key stakeholders in climate technology and finance. Specifically, negotiators on climate technology emphasized the importance of financial support throughout the innovation process, particularly as technologies move toward commercialization. Achieving Technology Readiness Levels (TRLs) 7 to 9 is crucial for continuous incremental improvements in climate technologies, which require substantial investment for commercialization and large-scale deployment.

At COP29, Parties agreed on a revised climate finance target under the New Collective Quantified Goal (NCQG), aiming to mobilize at least \$1.3 trillion per year by 2030. This replaces the \$100

billion annual climate finance goal, which is set to expire in 2025, and emphasizes the importance of transparent, equitable finance flows that align with the needs of developing countries. Additionally, the Triple Agenda adopted by the G20 Multilateral Development Banks (MDBs) highlights the role of larger MDBs in mobilizing financial resources. Section IV of the agenda calls for MDBs to triple their sustainable annual commitments to around \$390 billion, with \$300 billion allocated to non-concessional lending, ensuring that developing countries have access to affordable finance.

The World Bank (WB) plays a critical role in advancing climate-resilient development by providing financing, knowledge, and policy support to help countries address climate risks while achieving broader development outcomes. Its approach integrates both mitigation - reducing emissions through clean energy, sustainable transport, and land use - and adaptation, by strengthening systems and institutions to improve resilience and manage climate shocks, particularly for vulnerable communities. Guided by its Climate Change Action Plan (2021–2025), the World Bank has committed to aligning its operations with the Paris Agreement and to increasing the share of total financing towards resilience.

Recognizing the pivotal role of digital technologies in climate resilience, the World Bank is increasingly supporting digital solutions for early warning systems, disaster risk management, precision agriculture, and data-driven policy making. For instance, data sharing and digital public infrastructure are enabling better climate-informed planning and service delivery across sectors. Through its work with global partnerships, the Bank is helping countries deploy innovative, scalable, and inclusive climate-smart investments. Looking ahead, the institution aims to mobilize \$200 billion in climate finance and scale up co-benefits between digital transformation and climate resilience, as part of its evolving mission to create a world free of poverty on a liveable planet.

Retrospective analyses of the Technology Needs Assessments (TNA) and Technology Action Plans (TAP) in Least Developed Countries (LDCs)¹ in Asia have identified Agriculture (Crop diversification and new varieties, Rainwater harvesting from rooftops) and Energy (Energy efficiency in transportation, Power generation, Optimal plantation, Solar energy connected to grid) as the most challenging sectors, requiring the largest financial investments to establish and/or enhance existing enabling environments. Following the categorization of the WB, of those eight countries, lower-middle-income countries are Timor-Leste and Laos.

In 2024 analyses of NDCs, 4 countries² in the region expressed their national plan to apply Artificial Intelligence-related technologies for mitigation and adaptation. The call for continued support in building countries' digital capacity and AI knowledge is underscored by the launch of the UNFCCC Technology Mechanism Initiative on Artificial Intelligence (AI) for Climate Action ([#AI4ClimateAction](#)). This initiative, currently operated under a four-year work plan (2024–2027), highlights the timely importance of providing a platform to explore the role of AI in advancing digitalisation and scaling up transformative climate solutions in developing countries.

¹ Afghanistan, Bangladesh, Cambodia, Lao People's Democratic Republic (Laos), Myanmar, Nepal, Timor-Leste

² Cambodia, UAE, Viet Nam, PNG

Objectives of the Joint Programme

The Asia NDE joint programme 2025 will be co-hosted by UN CTCN, NIGT, and World Bank in Korea. It provides an opportunity to review experiences, including sharing of good practices and lessons learned from 2024 and devise ways for further enhancing collaboration in 2025 in line with regional, sub-regional and national priorities. **The key objectives of the Forum are:**

- Present the latest development of CTCN services to developing countries in the region and intra-regional sharing of experiences and best practices from technical assistance in Asia and innovations in climate technologies that are a priority for the region.
- Present the linkage between the CTCN support and National Determined Contributions (NDCs) and the Technology Needs Assessment (TNAs) / Technology Action Plans (TAPs).
- Develop and strengthen the regional NDEs network and enhance its members' capacity and skills for harnessing data and AI for climate resilience.
- Identify opportunities for technical assistance and financing to support the use of digital technologies in enhancing climate resilience.

For the second time, the Forum is held in conjunction with a **capacity-building programme on climate technology and finance**. Centring digitalisation and leveraging the applicability of Artificial Intelligence (AI) in climate action, this programme will foster in-depth discussion between the NDEs and the World Bank's support towards advancing digital transformation. Two **key activities** are planned to achieve this objective:

1. Introduction to the World Bank's projects on advancing resilience, data sharing platforms for climate resilience, energy-efficient data centres, and sectoral solutions
2. Workshop on Scalable Digital Projects: a hands-on workshop aimed at learning tools, techniques, and instruments to design and develop scalable climate technology projects.

Duration: The Asia NDE Forum will be held on 1 September 2025, followed by the Capacity-building Programme from 2 to 3 September 2025.

Hosting country: Republic of Korea, Ministry of Science and ICT

Hosting organisations: The Asia NDE Forum is co-hosted by UN CTCN and NIGT. The Capacity-building Programme is co-hosted by UN CTCN and World Bank in Korea.

Participants

- NDEs from Asia
- Selected CTCN AB members
- Members of the TEC in Asia
- UNFCCC and CTCN Secretariats
- Selected Network members and other stakeholders

Joint Programme Agenda

Day 1 Asia NDE Forum (1 September)

Registration open from 8am	
Official Opening and Introduction to the Forum	
Moderator: Suil Kang	
09:00~09:05	Welcome Remarks Taeyoung Kim, Director of Ministry of Science and Information Technology <i>Host country, Republic of Korea</i>
09:05~09:15	Opening Remarks Stephen Minas, Chair <i>CTCN Advisory Board</i>
09:15~09:20	Opening Remarks Thibyan Ibrahim, Vice Chair <i>UNFCCC Technology Executive Committee (TEC) (Video)</i>
09:20~09:30	Remarks and Agenda of the Asia NDE Forum 2025 Ariesta Ningrum, Director <i>UN CTCN (Video)</i>
09:30~10:00	NDEs Round of Introductions <ul style="list-style-type: none"> • Quick presentation of each NDE/NDE representative: Name, country • Role of the NDE in their countries Introduction of the CTCN and TEC Teams
Group photo and Coffee break – 20 minutes	
Session 1: Updates by the UNFCCC Technology Mechanism	
Moderator: Hoyoung Jo	
10:20~10:35	Updates on Joint Work Programme of the Technology Mechanism Suil Kang & Taeyoon Kim <i>CTCN & UNFCCC Secretariats</i>
10:35~10:50	CTCN Activities 2025, Priorities, and 26th Advisory Board meeting Woojin Han <i>CTCN Secretariat</i>
10:50~11:05	TEC Activities in 2025 Taeyoon Kim <i>UNFCCC Secretariat</i>
11:05~11:25	Technology Development and Transfer under the UNFCCC process Taeyoon Kim <i>UNFCCC Secretariat</i>

Session 2: Updates on CTCN Procedures and NDE Feedback

Moderator: Taeyoon Kim

11:30~11:45	Updated CTCN Procedures Jeawon Kim <i>CTCN Secretariat</i>
11:45~12:00	CTCN's logistical support: Case of Cambodia Chanthearith Ou <i>NDE of Cambodia</i>
12:00~13:00	Roundtable Discussion with NDEs Moderated by <i>Stephen Minas</i> CTCN Advisory Board and CTCN & UNFCCC Secretariats

Lunch break – 90 minutes

Session 3: Strengthening Technical Assistances - RD&D Collaboration Facilitation

Moderator: Jeawon Kim

14:30~14:45	Key Concept Notes for Technical Assistance for 2025-26 – Global and Asia Hoyoung Jo <i>CTCN Secretariat</i>
14:45~15:00	CTCN Programmes: AFCIA and EC Suil Kang <i>CTCN Secretariat</i>
15:00~15:15	Status of CTCN TAs and TEC policy work related to collaborative RD&D Demand and related programmes Suil Kang & Taeyoon Kim <i>CTCN & UNFCCC Secretariats</i>
15:15~15:30	GCF Incubator and accelerator programming for Asia Hansol Park, Climate Policy Specialist <i>Green Climate Fund (GCF)</i>
15:30~15:45	Q&A

Coffee break – 15 minutes

Session 4: The future of CTCN Technical Assistance and TEC Policy Work

Moderator: CTCN and TEC Secretariats

16:00~17:00	Discussion with NDEs on the future CTCN Technical Assistance (2025-2026) Discussion with NDEs on TEC Policy Work (2026-2027 and next five-year rolling workplan 2028-2032)
-------------	---

Cultural Reception

19:00~	Host country – Jinjinsura (Yeoido), Korean culinary experience
--------	--

Day 2 Capacity Building on Climate Finance - Data and AI for Climate Resilience (2 September)

Opening and scene-setting: Climate finance for Resilience	
Moderator: Jeawon Kim, CTCN	
09:00~09:05	Opening Remarks Zaki Khoury, Senior Digital Specialist <i>World Bank</i>
09:05~09:10	Congratulatory Remarks Sang-Hyup Lee, President <i>National Institute of Green Technology (NIGT), CTC Network member</i>
09:10~09:15	Overview of the programme and expected outputs Jeawon Kim <i>CTCN Secretariat</i>
09:15~10:25	Global Movement Towards Climate Resilience– Asia Moderated by Zaki Khoury, with panelists <ul style="list-style-type: none"> - GCF (Pattabiraman Subramanian, Senior Readiness Specialist) - ADB (Martin Okata, Senior Climate and Disaster Risk Specialist) - KDB (Eugina Kim, Lead Climate Negotiator) - KOICA (KIM Gyungah, Manager - Climate and Economic Development)
Group Photo and Coffee break – 15 minutes	
Session 1: World Bank’s financing models, modalities, and support for impact	
Moderator: Jeawon Kim, CTCN	
10:40~11:00	World Bank’s Financing models, modalities including Asia portfolio Narae Choi, Senior Urban Specialist <i>World Bank</i> Q&A
11:00~11:20	Digital Infrastructure: Green Data Centers, Smart Stations, and Data Hosting Platforms Zaki Khoury, Senior Digital Specialist <i>World Bank</i> Q&A
Session 2: Sub-regional and national FIs: Financing models, modalities, and support for impact	
Moderator: Ahyoung Shin, WB	
11:20~11:40	Korea Development Bank: Strategic plan, financing models, and regional portfolio Eugina Kim, Lead Climate Negotiator <i>Korea Development Bank</i> Q&A
11:40~12:00	KOICA’s Strategic plan, financing models, and regional portfolio

	KIM Gyungah, Climate and Economic Development Team / Manager <i>Korea International Cooperation Agency (KOICA)</i> Q&A
--	--

Lunch break - 90 minutes

Session 3: Harnessing the Tech–Finance–Policy Nexus to Accelerate Digital Transformation
Moderator: Jeawon Kim, CTCN

13:30~13:50	Platforms for efficiency Kyuhan Yoon, Director of DX Solution Business <i>Naver</i> Q&A
13:50~14:10	Green Card Initiative: Utilization of data and AI Sungsu Oh, Director of AI & Data Business <i>BC Card</i> Q&A
14:10~14:30	Role of government: Case of South Korea in transforming systems through AI Taewon Kim, Director <i>National Information Society Agency (NIA)</i> Q&A

Session 4: Collaborating for Impact: Aligning Technology with Financial Sector Priorities Through Multi-Stakeholder Engagement
Moderator: Ahyoung Shin, WB

14:30~15:15	Partnerships and Private Sector involvement – Asia Moderated by Ahyoung, with discussants from [Private sector] <ul style="list-style-type: none"> ○ Naver - Kyuhan Yoon, Director of DX Solution Business ○ SK Ecoplant – Junho Lee, Pro ○ BC Card – Sungsu Oh, Director of AI & Data Business [Philanthropists] <ul style="list-style-type: none"> ○ Global Industry Hub – Adam Bornstein, COO ○ Hyundai Motor Chung Mong-Koo Foundation – Sunbin Cho, Manager [Research and Academia] <ul style="list-style-type: none"> ○ Korea University – Jaehong Park, Professor, Department of Future Science and Technology Business
-------------	--

Coffee break – 15 minutes

Session 5: Building Digital Trust: Leveraging Tools to Transform the Finance–Technology Landscape
Moderator: Jeawon Kim, CTCN

15:15~15:40	Diagnostic Tool for Data Sharing for Climate Resilience: Data Assessment for Policymaker Decision-Making and Climate Prioritization Seth Ayers, Senior Digital Specialist <i>World Bank (video)</i> Q&A
15:40~16:05	Handling assumptions: Digital platform to assess integrity, accountability, and trust in climate projects Albert Lihalakha, Integrity Expert & Climate Tech Enthusiast (virtual) Q&A
Coffee break – 25 minutes	
Parallel Clinic Session – NSI and Digitalization including Artificial Intelligence <i>CTCN and UNFCCC secretariats</i>	
16:00~17:00	Bilateral with NDEs upon request (as indicated through the pre-programme survey) <i>In participation of world bank and other stakeholders</i>

Day 3 Capacity Building on Climate Finance - Data and AI for Climate Resilience (3 September)

Session 6: Amplifying Innovation through Impact – Revise and reconfirm	
Moderator: Jeawon Kim, CTCN	
09:00~09:10	Raising ambitions towards climate - Why NDC? Deo Gabinete, Regional Manager, Eastern Europe and Asia Pacific <i>NDC Partnership (Virtual)</i>
09:10~09:15	Introduction to the concept of 'Impact' with systems angle
Session 7: Highlights on key technologies: Digital solutions by Korean Network members	
Moderator: Ami Woo, NIGT	
09:15~09:25	CTC Network: Status and strategy Woojin Han, Senior Advisor and Climate Specialist <i>CTCN Secretariat</i>
09:25~10:15	Pitch presentations <ul style="list-style-type: none"> AI-based environmental monitoring and prediction platform <i>Yeji Choi</i> <i>Director, DI Labs</i> Digital-based real-time integrated watershed climate and hydrological management technology <i>Jaepil Cho</i> <i>Director, Integrated Watershed Management Institute</i> AI algorithm for real-time agricultural solar panel angle adjustment <i>Yongseung Kwon</i> <i>Team Leader, Envelops</i> AI-based automatic waste sorting robot <i>Jaeho Ryu</i> <i>Director, ATE Tech</i>
Group photo and Coffee break – 15 minutes	
Session 8: Phase 1 – Project design: Climate Narrative for a large-scale climate project	
Moderator: Jeawon Kim, CTCN	
10:30~12:00	Introduction to a Climate Narrative and Theory of Change (ToC) <i>All NDEs</i> <i>NDEs Logic Desk – Warm up for change: Development of problem and solution trees</i> Three sequential activities to be covered: <ol style="list-style-type: none"> 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)

	<p>c. 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)</p> <p>In between activities B and C, each group representative will present their idea board to the room for 10 minutes.</p>
--	--

Lunch break – 90 minutes

Session 9: Phase 2 – Project implementation: Improving the quality of project outputs

Moderator: Jeawon Kim, CTCN

13:30~13:45	<p>Tools and techniques to map stakeholders and increase their engagement Hwang Jinsol, CEO <i>The Bridge, CTC Network member</i></p>
13:45~15:00	<p>Segmentation and Stakeholder Orientation <i>All NDEs</i> Building on the group divisions from Session 8, this session will facilitate two focused activities:</p> <p>Activity d. Identifying segments for the project (45 minutes) Participants will be given sticky notes representing various stakeholder types. Working in groups, they will map relevant stakeholders connected to the activities of TA request drafted. The mapping can also be done in the idea board.</p> <p>The session will conclude with each group presenting their discussion outcomes and stakeholder maps to the wider group.</p> <p>Activity e. Reviewing a Response Plan (30 minutes) Participants will ideate on segments missing and orientation of RP provided, focusing on the quality and extent of stakeholder engagement.</p>

Coffee Break – 15 minutes

Session 10: Phase 3 – Project follow-up: Communicating impact stories for longevity

Moderator: Jeawon Kim, CTCN

15:15~15:30	<p>Communicating social impact through ‘Social Return on Investment’ Julia Cairns, Associate Professor <i>Griffith University, CTC Network Member (Virtual)</i></p>
15:30~16:45	<p>Increasing Scale-up Opportunities <i>All NDEs</i> Building on the group discussion from Session 9, this session will facilitate two focused activities:</p>

	<p>Activity f. Understanding SROI formula (45 minutes) As an individual exercise, NDEs will calculate the Social Return on Investment (SROI) by researching indicators of societal costs, gathering evidence of the relationship between impact and outcomes, and estimating the value within their area of action or influence. This activity aims to guide NDEs in estimating both the amount of money invested in their program or project and the monetized value of its outcomes.</p> <p>Activity g. Drafting an email for NDE team, using SROI (30 minutes) In this activity, participants will apply the knowledge gained from the Social Return on Investment (SROI) methodology to draft a professional email addressed to their NDE team. The objective is to communicate the estimated social value generated by a specific program or project, based on their previous analysis.</p>
--	--

Summary and closing	
Moderator: Jeawon Kim, CTCN	
16:45~17:00	Wrap up
17:00~17:10	Closing remark <i>Zaki Khoury, Senior Digital Specialist</i> World Bank
17:10~17:30	Closing and way forward with CTCN Stephen Minas, Chair <i>CTCN Advisory Board</i>