

UN CTCN Partnership and Liaison Office Regional NDE Forum: Asia and the Pacific

Summary Report – Internal

Date & Venue: 1st – 2nd July and 8th – 9th July 2024, Songdo, Republic of Korea (ROK)

Co-hosting organization: National Institute of Green Technology

Partnered organization: UNFCCC TEC

Background and purpose: The mandate of the Climate Technology Centre and Network (CTCN), implementation arm of the UNFCCC Technology Mechanism, is to stimulate technology cooperation and enhance the development and transfer of climate technologies to developing countries. At the request of developing countries, CTCN has been matching climate-demands of the countries to the CTC Network members with most feasible, impactful, and innovative climate technology solutions. To date, CTCN has supported over 110 countries, leading the support of climate technology innovation, transfer, and knowledge sharing for climate action.

Marking the 10th anniversary of the CTCN, these milestone Forums provide an opportunity to review experiences, share good practices, and learn lessons from the past decade. The forum aims to enhance future collaboration in alignment with regional, sub-regional, and national priorities.

Program overview and agenda: Invitations were sent out to all NDEs from the region (N = 40). Of those, 12 from Asia (n = 28) and 10 from the Pacific (n = 12) participated in the Forums delivered independently with a week difference. Three CTCN Advisory Board and two TEC and UNFCCC TM stakeholders were engaged to co-facilitate the Forums. See Annex I for a full participant list.

Started with an opening ceremony addressed by the CTCN Advisory Board and the TEC, 7 sequential sessions covered the following information:

- Ongoing Technology Mechanism work under the Joint Work Programme (2023-2027);
- Reflections on the recent joint session of the TEC and CTCN Advisory Board;
- Overview of technical assistance provided by the CTCN in the regions;
- Insights into capacity-building, collaboration, and stakeholder engagement initiatives;
- Exploring opportunities for South-South or North-South collaborative Research, Development, and Deployment (RD&D) and investment, benefiting both national and global climate change actions.

The detailed agenda for each Forum can be found in Annex II. Table 1 summarises key discussion points shared to the participating NDEs and feedback received from them.

Table 1 Feedback received during each session

Session Title	Topics covered	Forum	Feedback
1) Update on the UNFCCC Technology Mechanism and the intergovernmental process on climate technology development and transfer	- Joint program of work of CTCN-TEC on Digitalisation, AI4ClimateAction, and Gender policy - Workplans of TEC - Outcomes of SB60 on TM, and TM and FM linkage	Asia	Well received
		Pacific	
2) Outcomes from CTCN Advisory Board	- Prioritisation Criteria - Logistical Support - Post-implementation assessment (NDE Survey) 5 Key concepts (Agrivoltaics, SF6, Green hydrogen, Aquaphonics, Net metering and grid codes, and cement)	Asia	- Requested more information on prioritisation criteria – Related to processing duration and template - Requested clarification on the process of logistical support - Requested more examples of logistical support activities
		Pacific	- Requested sample of prioritisation criteria applied request form - Requested more examples of logistical support activities - Requested clarification on approximate duration will take to receive logistical support - Asked whether CTCN supports TNA update
3) Status Update of CTCN in Asia	- TA process - Ongoing TAs 10 years of capacity building - Planned activities 2024	Asia	Well received
		Pacific	
4) Climate Technology Policy	- Knowledge products of TEC - TEC Activity Groups, TNAs, COP29 tech day, AI innovation grand challenge	Asia	- Few informed they did not hear about knowledge products of TEC - Questioned on TNA update – Timeline, duration, and feasibility

Session Title	Topics covered	Forum	Feedback
		Pacific	- Few informed they did not hear about knowledge products of TEC - Commented the importance of making the knowledge products easy to consume
5) Climate Technology Finance Innovation	- AFCIA Phase I and II (call for proposal on phase II) - GCF country	Asia	- Asked process, duration, and key concepts that AFCIA II will support - Asked examples of activities supported by the GCF Readiness programme 2.0 - Addressed the importance of NDE be involved in the nomination of GCF replacement personnel
		Pacific	
6) CTCN Technical Assistance in Asia	- Asia: Cases of Bangladesh, Vietnam, Cambodia - Pacific: Samoa, PNG, Solomon Islands	Asia	- Asked scale up opportunities - Asked the replicability in other countries
		Pacific	
7) CTCN RD&D Collaboration Facilitation in Asia	4 Korean network member's presentation on innovative technology (KIER, KITECH, KRICT, KIST – Biomass gasification, cooling system, PyCCS, Solar-powered Membrane distillation module)	Asia	Well received
		Pacific	

Specific to Session 7, Table 2 indicates pre-program survey results on the preferred type of innovative climate technology that each country hope to explore for RD&D collaboration.

Table 2 Pre-program survey on RD&D collaboration techs preferred by each country

Thinking about your country's NDC, please indicate technology solutions that you wish to explore more through bilateral meeting	Country
KIST: Solar-powered Membrane Distillation Module	Palau
	Marshall Islands
	Fiji
	Nauru
	Cook Islands
	Tonga

Thinking about your country's NDC, please indicate technology solutions that you wish to explore more through bilateral meeting	Country
KIER: Biomass gasification and flowing applications including power generation	Maldives
	Samoa
	Mongolia
	India
	Timor-Leste
	Vietnam
	Sri Lanka
	Nepal
KRICT: Carbon dioxide (CO ₂) hydrogenation technology for e-methanol synthesis	Papua New Guinea
	Cambodia
	Tajikistan
	Thailand
KITECH: Hybrid Solar-Powered Modular Cold Storage with the application of latent heat material	Thailand
Not chosen	Solomon Island
	Jordan
	Lao PDR

During the bilateral sessions, 27 verbal requests on TA projects were collected. 14 were from Asian countries whereas 13 were made by the Pacific countries. Table 3 summarises verbal requests collected by objective, theme, and topic. Empty blocks indicate room for further discussion to clarify demands.

Table 3 Verbal TA requests received during the Forum (Day 1-2)

Region	Objective	System transformation areas	Enabler	Proposed title/topic	Country
Asia	Adaptation	Water-Energy-Food Nexus	Digitalization	Smart agriculture: Irrigation, Aquaponics/Hydroponics, etc.	Timor-leste
	Mitigation	Energy System	Digitalization	Energy systems: Agrivoltaics	Timor-leste
	Mitigation	Sustainable Mobility	Digitalization	Transportation: Integrated bus information system for public transport in Dili.	Timor-leste
	Mitigation	Energy System	National Systems of Innovation	Green Hydrogen	Cambodia

Region	Objective	System transformation areas	Enabler	Proposed title/topic	Country
			National Systems of Innovation	NSI	Mongolia
	Mitigation	Energy System		SF6 Free Technology	Mongolia
	Adaptation	Water-Energy-Food Nexus	Digitalization	Smart agriculture – Livestock, greenhouse gas emission	Mongolia
	Mitigation	Energy System		SF6 Free Technology	Vietnam
	Adaptation	Water-Energy-Food Nexus	Digitalization	Smart agriculture - Aquaponics/Hydroponics, etc.	Vietnam
				TNA update	Tajikistan
		Energy System		Hydrology	Tajikistan
		Water-Energy-Food Nexus		Hybrid solar-powered modular cold storage system in Thailand's agricultural sector	Thailand
				TNA update	Jordan
		Water-Energy-Food Nexus			Jordan
Pacific				Carbon sink water – blue carbon initiative to monitor national coral reef	Palau
	Adaptation	Water-Energy-Food Nexus		Taro flour upland restoration	Palau
	Mitigation	Energy System	National Systems of Innovation	E-methanol (if this technology is applicable to a small-scale vessel) + Capacity building for communities	Marshall Islands
				Coastal management - 3D printing for coastal erosion and protecting coral reefs	Marshall Islands
	Mitigation	Energy System	National Systems of Innovation	Roadmap to greening shipping industry transformation – Solar PV boats (i.e. GIZ funded solar sail boats?)	Marshall Islands

Region	Objective	System transformation areas	Enabler	Proposed title/topic	Country
				Reduce coastal erosion (Could be multicounty with pacific countries without mangroves)	Nauru
	Adaptation	Water-Energy-Food Nexus	Digitalization	Foldable agrivoltaics with smart farm system (Nauru has a net metering policy and feed-in tariff, They are in the process of conceptualising a smart city designed to accommodate a population of 200 to 300 individuals, Plan to submit a CN to GCF to build this smart city.)	Nauru
				Agrivoltaics	Cook Islands
				Water tank metering technology	Cook Islands
				Reduce coastal erosion (Lack of nature-based solutions. No mangroves)	Cook Islands
	Adaptation	Water-Energy-Food Nexus	National Systems of Innovation	Water and sanitation (Distributing water tanks to vulnerable households that do not have access to drinking water. Rural areas do not have access to underground water, Delivering water tanks is challenging due to the high freight costs (infrastructure))	Tonga
	Mitigation	Energy System	National Systems of Innovation	Pre-feasibility study on 1) the Salinity gradient energy 2) e-OTEC and 3) Blue battery	PNG
	Mitigation	Energy System	National Systems of Innovation	Roadmap to greening shipping industry transformation – Solar PV boats (i.e. GIZ funded solar sail boats?)	Solomon Islands

Actionable items for CTCN:

- Logistical support
 - Develop a submission process for NDEs to follow and communicate with examples/samples of acceptable requests;
 - Email NDEs of the template and guidelines, rather than only display them on our website.
- RD&D collaboration facilitation
 - Cross-check the demand from K-GRIIs and arrange bilateral with matching countries;
 - Consider incorporating the meetings into the upcoming planned programs and events, to facilitate in-person discussion;
 - Develop RD&D collaboration information sheet, including the process to submit an 'Expression of Interest' to CTCN and participate in a 'Learning Visit'.
- Verbal TA requests
 - Lightly apply key prioritisation criteria to list the ideas to-be-followed;
 - Hold extra consultative discussions on leftover (non-prioritised) ideas, by taking a system-thinking approach to facilitate scalable project development;
 - If possible, take a leading role in linking leftovers with partners who may be interested in financing.

Reflection on the program – How would we do it differently if we get a second chance?

- CTCN, for the past 2 years, faced internal changes as well as the countries are under reconstruction of their governance of climate change. Also, some of the participating NDE representatives had zero bases on UNFCCC TM – CTCN and TEC. To best assist participating NDEs in grasping outcomes of key agenda that UNFCCC TM gathered, we may
 - Consider pre-sharing the info on 'Introduction to TM - CTCN' to the confirmed participants OR start the session by covering 'Introduction to CTCN';
 - Consider pre-sharing of the summary page of the country portfolio covering TAs supported to date.
- Due to the sub-grouping of the region, this year's Forum engaged double the amount of NDEs compared to last year. However, specific to the Asian countries, there were last-minute cancellers (i.e. Bangladesh, Bhutan, India, Kazakhstan, Pakistan), rejectors (i.e. Iraq), and non-respondents (i.e. Azerbaijan, Armenia, China, ROK, Lebanon, Indonesia, Malaysia, Kyrgyzstan, Saudi Arabia, Israel, Iran). To reconnect with these countries, we may
 - Consider contacting them via international phone call and/or prioritise rebuilding the connection at COP 29;
 - Consider reaching them via UNEP ROAP.

Annex I - Participant List

Forum	Country/Org	Name	Position
Asia	CTCN Advisory Board	Stephen Minas	Vice-Chair
	CTCN Advisory Board	Ketevan Vardosanidze	Member
	UNFCCC Secretariat	Taeyoon Kim	Program Officer
	Cambodia	Ou Chanthearith	National Designated Entities
	Jordan	Sara Qais Al Haleeq	National Designated Entities
	Kazakhstan	Rustam Nassirkhan	National Designated Entities
	Lao PDR	Sakounsit Sengkhamyong	NDE representative
	Mongolia	Choikhand Janchivlamdan	National Designated Entities
	Nepal	Himal Shivakoti	NDE representative
	Sri Lanka	T. G. W. Thiranagamage	NDE representative
	Tajikistan	Sunatullo Pirov	National Designated Entities
	Thailand	Jitsuna Darachai	NDE representative
	Thailand	Asira Chirawithayaboon	NDE representative
	Timor-Leste	Luis dos Santos Belo	National Designated Entities
	Vietnam	Tran Thi Bich Ngoc	NDE representative
	Green Climate Fund (GCF)	Satya Shiva Saswat	Regional Manager - South Asia
	Korea National University of Transportation (KNUT)	Sangwon Lee	Principal Researcher (IP for Bangladesh TA)
	Korea Institute of Energy Research (KIER)	Moon Ji Hong	Principal researcher
	Korea Institute of Industrial Technology (KITECH)	Jeong Yeol Kim	Principal researcher
	Korea Institute of Energy Research (KIER)	Jiho Yoo	Principal researcher
	Korea Research Institute of Chemical Technology (KRICT)	Hyung-Ki Min	Principal researcher

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Forum	Country/Org	Name	Position
Pacific	CTCN Advisory Board	Christian Lohberger	Member
	Technology Executive Committee	Thibyan Ibrahim	Chair
	Cook Islands	Yvette Turua	NDE representative
	Fiji	George Langman	NDE representative
	Marshall Islands	Warwick Harris	NDE representative
	Nauru	Reagan Moses	National Designated Entities
	Palau	Ophelia Ongalibang	NDE representative
	Papua New Guinea	Emily Mulina Pomoh	NDE representative
	Samoa	Ueligitone Enosa	NDE representative
	Solomon Islands	Thaddeus Siota	National Designated Entities
	Tonga	Margaret Moala	NDE representative
	Maldives	Fathimath Nashwa	NDE representative
	GCF	Diane McFadzien	Regional Manager – Pacific
	GCF	Samantha Rabine	Regional Officer – Pacific
	National Institute of Green Technology	Jooyeon Moon	Researcher (IP for Samoa TA)
	Korea Institute of Energy Research (KIER)	Hanki Kim	Principal researcher (IP for PNG TA)
	Korea Environment Institute	Sang In Kang	Principal researcher (IP for Solomon Islands TA)
	Korea Institute of Industrial Technology (KITECH)	Jeong Yeol Kim	Principal researcher
	Korea Institute of Science and Technology (KIST)	Seongpil Jeong	Principal researcher
	Korea Research Institute of Chemical Technology (KRICT)	Hyung-Ki Min	Principal researcher

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Annex II – Final program concept note (Asia and the Pacific, sequentially)

NDE Forum		
Day 1 (Monday, July 1st)		
Time (KST)	Dur.	Content / Speaker
Opening Ceremony		
MC: Suil Kang, CTCN Secretariat		
10:00~10:05	05'	• Opening Remarks Rajiv Garg, Director a.i. CTCN
10:05~10:10	05'	• Welcome Remarks Stephen Minas, Vice-Chair, CTCN Advisory Board
10:10~10:15	05'	• Congratulatory Remarks Sook Kyung Hwang, Deputy Director of ECPD, Incheon City Hall
10:15~10:20	05'	• Congratulatory Remarks Sanghyup Lee, President, NIGT
10:20~10:30	10'	• Group photoshoot
[Session 1]		Update on the UNFCCC Technology Mechanism and the intergovernmental process on climate technology development and transfer
Moderator: Jeawon Kim, CTCN Secretariat		
10:30~10:50	20'	• Technology Mechanism Joint Work Programme (2023-2027) - Stephen Minas, TEC member
10:50~11:10	20'	• Technology Development and Transfer under the UNFCCC (COP 28 and SB 60) - Taeyoon Kim, UNFCCC Secretariat
11:10~11:30	30'	• Reflection on the last joint session of the TEC and CTCN Advisory Board - Suil Kang, CTCN Secretariat
Lunch Break (11:30~13:00)		
[Session 2]		Outcomes from CTCN Advisory Board
Moderator: Jeawon Kim, CTCN Secretariat		
13:00~14:00	60'	• Outcomes of CTCN 23rd Advisory Board - Rajiv Garg, Director a.i. CTCN
14:00~14:30	30'	• Key Concept Notes for Technical Assistance Reviewed - Rajiv Garg, Director a.i. CTCN
14:30~15:00	30'	• Discussion with NDEs
Coffee Break (15:00~15:30)		
[Session 3]		Status Update of CTCN in Asia
Moderator: Jeawon Kim, CTCN Secretariat		
15:30~16:00	30'	• Overview of CTCN activities - Hoyoung Jo & Jeawon Kim, CTCN Secretariat
16:00~16:30	60'	• Biannual NDE Survey • Bilateral with CTCN
Congratulatory Reception		
18:00~		• 10 Year Anniversary of the CTCN

NDE Forum

Day 2 (Tuesday, July 2nd)

Time (KST)	Dur.	Content / Speaker
[Session 4]		Climate Technology Policy
		Moderator: Hoyoung Jo, CTCN Secretariat
09:00~09:15	15'	• Ongoing and upcoming work of the TEC on climate technology policy in 2024 - Stephen Minas, TEC member
09:15~09:30	15'	• Latest TEC knowledge products on climate technology policy - Taeyoon Kim, UNFCCC Secretariat
09:30~10:15	45'	• Reflections and feedback from NDEs on the work of the TEC
		Coffee Break (10:15~10:30)
[Session 5]		Climate Technology Finance Innovation
		Moderator: Hoyoung Jo, CTCN Secretariat
10:30~11:00	30'	• GCF Country Programming for Asia - Satya Shiva Saswat, GCF
11:00~11:30	30'	• Adaptation Fund Climate Innovation Accelerator (AFCIA): Phase II - Nadege Trocellier, CTCN Secretariat
11:30~12:00	30'	• Experiences of NDEs with GCF and AFCIA funding - Roundtable discussion
		Lunch Break (12:00~13:00)
[Session 6]		CTCN Technical Assistance in Asia
		Moderator: Hoyoung Jo, CTCN Secretariat
13:00~13:30	30'	• Bangladesh - Sangwon Lee, KNUIT
13:30~14:00	30'	• Cambodia - Ou Chanthearith, NDE of Cambodia
14:00~14:30	30'	• Vietnam - TRAN Thi Bich Ngoc, NDE rep. of Vietnam
14:30~15:00	30'	• Q&A
		Coffee Break (15:00~15:25)
[Session 7]		CTCN RD&D Collaboration Facilitation in Asia
		Moderator: Suil Kang, CTCN Secretariat
15:25~15:30	5'	• Status of Collaborative RD&D Demand – Asia - Suil Kang, CTCN Secretariat
15:30~16:00	30'	• Biomass gasification and power generation - Moon Ji Hong & Sang Jun Yoon, KIER
16:00~16:30	30'	• Cooling system with latent heat material - Jeong Yeol Kim, KITECH
16:30~17:00	30'	• Carbon negative (PyCCS) management of organic waste: Biochar for agriculture, contaminant remediation and more - Jiho Yoo, KIER
17:00~17:30	30'	• Methanol production - Hyung-Ki Min, KRICT

NDE Forum

Day 1 (Monday, July 8th)

Time (KST)	Dur.	Content / Speaker
Opening Ceremony		
MC: Jeawon Kim, CTCN Secretariat		
10:00~10:05	05'	• Opening Remarks Suil Kang, Coordination Officer, CTCN
10:05~10:10	05'	• Welcome Remarks Christian Lohberger, CTCN Advisory Board Member
10:10~10:15	05'	• Congratulatory Remarks Thibyan Ibrahim, TEC Chair
10:15~10:20	05'	• Congratulatory Remarks Sanghyup Lee, President, NIGT
10:20~10:30	10'	• Group photoshoot
[Session 1] Update on the UNFCCC Technology Mechanism and the intergovernmental process on climate technology development and transfer		
Moderator: Jeawon Kim, CTCN Secretariat		
10:30~10:50	20'	• Technology Development and Transfer under the UNFCCC (COP 28 and SB 60) - Taeyoon Kim, UNFCCC Secretariat
10:50~11:10	20'	• Technology Mechanism Joint Work Programme (2023-2027) - Thibyan Ibrahim, TEC Chair
11:10~11:20	20'	• Reflection on the last joint session of the TEC and CTCN Advisory Board - Suil Kang, CTCN Secretariat
Lunch Break (11:20~13:00)		
[Session 2] Outcomes from CTCN Advisory Board		
Moderator: Jeawon Kim, CTCN Secretariat		
13:00~14:00	60'	• Outcomes of CTCN 23rd Advisory Board - Jonathan Duwyn, Director a.i. CTCN
14:00~14:30	30'	• Key Concept Notes for Technical Assistance Reviewed - Suil Kang, CTCN Secretariat
14:30~15:00	30'	• Discussion with NDEs
Coffee Break (15:00~15:30)		
[Session 3] Status Update of CTCN in Pacific		
Moderator: Jeawon Kim, CTCN Secretariat		
15:30~16:00	30'	• Overview of CTCN activities - Hoyoung Jo & Jeawon Kim, CTCN Secretariat
16:00~16:30	30'	• Biannual NDE Survey • Bilateral with CTCN

NDE Forum

Day 2 (Tuesday, July 9th)

Time (KST)	Dur.	Content / Speaker
[Session 4]		Climate Technology Policy
		Moderator: Hoyoung Jo, CTCN Secretariat
09:00~09:15	15'	• Latest TEC knowledge products on climate technology policy - Taeyoon Kim, UNFCCC Secretariat
09:15~09:30	15'	• Ongoing and upcoming work of the TEC on climate technology policy in 2024 - Thibyan Ibrahim, TEC Chair
09:30~10:15	45'	• Reflections and feedback from NDEs on the work of the TEC
Coffee Break (10:15~10:30)		
[Session 5]		Climate Technology Finance Innovation
		Moderator: Hoyoung Jo, CTCN Secretariat
10:30~11:00	30'	• GCF Country Programming for the Pacific - Diane McFadzien, GCF Regional Manager
11:00~11:30	30'	• Adaptation Fund Climate Innovation Accelerator (AFCIA): Phase II - Nadege Trocellier, CTCN Secretariat
11:30~12:00	30'	• Experiences of NDEs with GCF and AFCIA funding - Roundtable discussion
Lunch Break (12:00~13:00)		
[Session 6]		CTCN Technical Assistance in Pacific
		Moderator: Hoyoung Jo, CTCN Secretariat
13:00~13:30	30'	• CTCN Technical Assistance Project: Samoa - Jooyeon Moon, NIGT
13:30~14:00	30'	• CTCN Technical Assistance Project: PNG - Hanki Kim, KIER
14:00~14:30	30'	• CTCN Technical Assistance Project: Solomon Islands - NDE-KEI Co-presentation
14:30~15:00	30'	• Q&A
Coffee Break (15:00~15:25)		
[Session 7]		CTCN RD&D Collaboration Facilitation in Pacific
		Moderator: Hoyoung Jo, CTCN Secretariat
15:25~15:30	05'	• Status of Collaborative RD&D Demand – Pacific - Suil Kang, CTCN Secretariat
15:30~16:00	30'	• Cooling system with latent heat material - Jeong Yeol Kim, KITECH
16:00~16:30	30'	• Solar-powered Membrane Distillation Module - Seongpil Jeong, KIST
16:30~17:00	30'	• Methanol production - Hyung-Ki Min, KRICT

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Annex III – Group Photos



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