

UN CTCN Partnership and Liaison Office Network Engagement Program

Summary Report

Voluntary Technology Talk and Matchmaking for SIDS and LDCs

Date & Venue: 4th – 6th September 2024, BEXCO, Pusan Republic of Korea (ROK)

Hosting organization: Ministry of Trade, Industry and Energy and International Energy Agency (IEA)

Partnered network member: Korea Technology Guarantee Fund (KIBO) and Green Energy Institute (GEI)

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 marrying the climate-demands of countries to the Network members with the 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.

Of all developing countries, Small Island Developing States (SIDS) and Least Developed Countries (LDCs) hold the highest potential to benefit from climate technology transfer and innovation. Technology innovation requires collective efforts from countries and technology solution providers, namely Network Members of the CTC. Following CTCN's 3rd Programme of Work (PoW) 2023-2027 system transformation areas, facilitation of the co-creation process on future scalable technical assistance projects will benefit countries in high demand for collaboration opportunities to make first contact with the most appropriate climate technology solution providers. The World Climate Industry Expo 2024, organised by MOTIE and IEA hosted over 180 climate-resilient and energy technologies across four exhibition halls (i.e. Carbon-Free Energy, Future Energy Zone, Weather & Climate Industry, and Future Mobility). The Expo also provided multiple side events and seminars to welcome collaboration among climate technology stakeholders.

CTCN delivered a Voluntary Technology Talk (VTT, refer to Annex I for program agenda) and matchmaking with network members for four SIDS and LDCs representatives¹ (i.e. NDEs) from the globe.

¹ Fiji, Jamaica, Mauritius, Saint Kitts and Nevis

Approaches and activities: By participating in the international exhibition program, CTCN facilitated the discussion on sharing potential collaboration opportunities with various climate and net-zero energy technology providers. This program took a five-step co-creation process as the main approach to enable active NDE-Network member discussion on climate technology for transformative change in countries of need. Four sequential methods were applied namely segmentation, information distribution, participatory sessions, and evaluation, to fully activate the participating NDEs' voluntary engagement with the potential partner seeking and ideating for scalable Technical Assistance (TA) projects (see Table 1).

Table 1 Summary of CTCN PALO Network Engagement Program on Co-creating scalable TA project

Process	Methods Applied	Program Activities	Outputs
1. Planning	Co-creating UNFCCC mechanisms-linking TA projects	Segmentation	Pre-program survey and TA analyses
2. Sensitizing		Information distribution	Free Hall Tour
		Seminar	Global Climate & Energy Forum, Symposium on Climate Technology
3. Facilitating		Participatory sessions	Voluntary bilateral with Exhibited companies, pre-arranged bilateral, a field trip
4. Engaging			Networking and future partner seeking to co-create TA project(s)
5. Analyzing		Evaluation	Post-program survey
			Reaffirmation of insights gathered from NDEs and follow-up on the bilateral results

Step 1. Planning: By applying a segmentation approach, this step involved three sub activities to plan the country representatives' visit to WCE 2024, namely:

- 1) Pre-screening of Network members with high climate-resilient technology solutions;
- 2) Pre-program survey, to facilitate national discussion on prioritizing technology options;
- 3) Pre-arrangement of the site visit with the most profound, applicable, and scalable technology solution provider.

Technology innovation requires sufficient and long-term finance. Working with partners who have full access to incubating MSMEs with proven technology and funds increases the chances of TA being scaled up after its completion. Korean Network member KIBO, provides a guarantee to 8000+ Korean climate tech MSMEs who are exporting their solutions globally. Thus, in collaboration with KIBO², we identified 7 climate technology providers who have shown the highest potential to co-create a TA project with participating countries.

² <https://www.kibo.or.kr/english/work/work010100.do>

A week before the program, these 7 climate technology providers' solution details were then shared with participating NDEs and their representatives. Selection of one of 7 providers was encouraged. SKN and Mauritius selected Kenvinlab, the intelligent energy management platform, thus bilateral meetings were pre-arranged (see Table 2).

Table 2 Pre-arranged Bilateral – Matchmaking process

Network members with intention of taking bilateral at VTT program	Invited for the pre-arranged bilateral (country)	Showed up for the pre-arranged bilateral
Kwang Myung Tech - Solar power plants and ESS (Energy Storage Systems)		
Reset Company - End-of-Life Solar Panel Recycling System		
C-MAC - Hybrid Power Generation System for Low and Medium Temperatures		
Sungsan - Heat exchanger, pressure vessel, skid & module		
Thingsfire - Carbon accounting		
Kelvinlab - Intelligent Energy Management Platform	Yes (SKN, Mauritius)	Yes
Blackstone - Smart IoT Clean Cooling System		

Considering the participating SIDS and LCDs characteristics (i.e. GDP, population), CTCN arranged a site visit to the Korean Network Member, Green Energy Institution (GEI), who have track records of developing, implementing, and monitoring the Energy independent village projects using micro-grid, foldable solar PV, and Zero house technologies.

Step 2. Sensitizing: The exhibition hosted over 180+ booths of climate/environmentally-sound technologies. Following the program objectives and agenda briefing, NDEs were invited to attend the Global Climate and Energy Forum hosted by IEA on Day 1 and the Symposium on Climate Technology hosted by MSIT Korea on Day 2 (See Figure 1).



Figure 1 Day 1 - Program Briefing and Seminars

Step 3. Facilitating and Engaging: As participatory sessions, a 1-hour free hall tour was supported to the participating NDEs to browse all exhibiting technologies (see Figure 2, top row). The voluntary technology talk continued on Day 2. With CTCN colleague's support, the NDEs visited selected technology booths and discussed their technologies in depth. In this activity, CTCN focused on empowering NDEs to take an active leadership role in discovering and implementing innovative technologies through potential collaborations.

In parallel to the voluntary technology talk activity, a pre-arranged bilateral with KelvinLab was facilitated for Mauritius and SKN (see Figure 2, bottom row).



Figure 2 Day 1 - Voluntary Technology Talk and ore-arranged bilateral (bottom row)

Lastly, the participatory session was completed with a site visit to Energy Independent Village in Suncheon on Day 3. The participating NDEs were introduced to GEI and U Energy's renewable energy projects supported by the South Jeolla Province. They visited research and development sites on Foldable Agrovoltatics with Smart Farm System³, folder retractable solar power system⁴, and renewable energy systems including solar and wind power, and energy storage system⁵. Then they were invited to visit the site where these technologies are deployed (see Figure 3). The insights gained from this visit are expected to inspire similar initiatives in the participating countries.

³ <https://youtu.be/23vgVt6tq18?si=24ylvl0wy7kIJxTX>

⁴ <https://youtu.be/qNlLV3yyxH0?si=oWnMCuLTRyeLC2Dq>

⁵ <https://youtu.be/l0G4zUaFHUE?si=byVUPI73ADgc3XKH>



Figure 3 Day 3 – Site Visit

Step 5. Analysing: Considering the exhibition program welcomed over 180+ technology providers in Korea, those who are not necessarily our Network members, the extra step of analyzing Network-member matched countries' Nationally Determined Contribution (NDC) and Technology Need Assessment (TNA) is conducted. The list of climate technology priorities of participating countries is cross-checked with the exhibiting technology solution types as Table 3. ensure the participating countries have voluntary bilateral with solution providers aligning to their climate priorities.

Table 3 On-site bilateral request submitted for Voluntary Technology Talk with potential network members

Country	Representative	NDC and/or TNA priorities	Type of voluntarily selected Technology	Alignment to NDC and/or TNA (i.e. No, Yes, To some extent, N/A)	Technology provider	Company Website (Yes only - Current Network member)
Fiji	Mrs Senivasa W	Mitigation - Renewable energy power generation (grid-connected) - Transport, industry and electricity demand-side sub sectors - Climate Smart Agriculture Practices (crop management, livestock and sugarcane farming and fisheries) - Upgrading, repairing, and relocating existing critical public infrastructure Adaptation - Early warning and monitoring systems (specific to flooding and cyclones) - Biodiversity wealth (carbon sequestration potential) - EEZ as Marine Protected Area (implementation of the National Ocean Policy) - Healthcare system	Carbon accounting, energy management solution, Decarbonization AI	Yes (Climate Smart Agriculture)	Thingspire	https://www.thingspire.com/
			Base stations, repeaters, data base system	To some extent (early warning and monitoring)	Sungsan	https://www.rfzone.com/
Mauritius	Mr B. B. Dhunoo	Mitigation - Energy, transport, waste and Industrial Processes and Product Use (IPPU) - Energy specific to coal phase out, development of biomass - Measures on LULUCF and Agriculture sectors	Electric vehicles	To some extent (transport)	Hyundai Motors	https://www.hyundai.com/worldwide/en
			BiPV (Panel system, renewable, lighting system)	To some extent (coal phase out)	Abm	http://eng.abmarch.co.kr/html/00_main/main.html

Climate Technology Centre and Network, Partnership and Liaison Office

32nd Floor, G-Tower, 175, Art center-daero, Yeonsu-gu, Incheon

<http://www.ctc-n.org>, Email: ctcn@un.org

Inquiries related to this document, email: Jeawon.kim@un.org

Country	Representative	NDC and/or TNA priorities	Type of voluntarily selected Technology	Alignment to NDC and/or TNA (i.e. No, Yes, To some extent, N/A)	Technology provider	Company Website (Yes only - Current Network member)
		Adaptation - Nature-based Solution - Fisheries, Tourism, Biodiversity (Marine and Terrestrial), Forestry, Agriculture and Coastal Zone - Health sector with NAP - Governance, disaster preparedness and DRR	Solar PV modules	To some extent (coal phase out)	Hanhwa Qcells	https://qcells.com/kr/
			Blue hydrogen, Solar PV charging station	To some extent (coal phase out)	SK E&S	https://www.skens.com/en/sk/main/index.do
Jamaica	Mr. Vaughn Barnaby	Mitigation Energy sector covering electricity generation and energy consumption in sub-sectors	Carbon accounting, energy management solution, Decarbonization AI	To some extent (energy consumption)	Thingspire	https://www.thingspire.com/
			Cooling system	To some extent (energy consumption)	worldbestech co., ltd	http://worldbestech.com/
		Adaptation - Energy and land-use sectors - Reduce local air pollution for health - Improve water, soil and air quality and reduce soil erosion	Climate change impact assessments in agroecosystem	Yes (Improve water, soil and air quality and reduce soil erosion)	National center for aro-meteorology	http://www.ncam.kr/english.asp
St. Kitts & Nevis	Mr. Jonathan Kelly	Mitigation - Power generation (electricity to renewable) - Transportation (electric vehicles and charging infrastructure)	Renewable energy production and energy efficiency monitoring platform	Yes	KevinLab	http://kevinlab.com/index_en.php
			Solar PV and smart agriculture using AI	Yes (Agriculture)	U-energy	http://uenergy.co.kr/?lang=en (Yes)
		Adaptation Eight sectors (agriculture, coastal and marine ecosystems, forest and terrestrial ecosystems, finance and banking, human health,	Submarine power and communication cable	Yes (Transporation)	Youjin Tech	http://en.yujintechology.com/
			Ceramic galvanized pipe, joint, and volts and nuts with high corrosion and chemical resistance	Yes (Infrastructure and physical development)	KEMP	http://kempkorea.com/en/main/eco-friendly-plating.php

Climate Technology Centre and Network, Partnership and Liaison Office

32nd Floor, G-Tower, 175, Art center-daero, Yeonsu-gu, Incheon

<http://www.ctc-n.org>, Email: ctcn@un.org

Inquiries related to this document, email: Jeawon.kim@un.org

Country	Representative	NDC and/or TNA priorities	Type of voluntarily selected Technology	Alignment to NDC and/or TNA (i.e. No, Yes, To some extent, N/A)	Technology provider	Company Website (Yes only - Current Network member)
		infrastructure and physical development, tourism and water) Five cross-cutting areas (stakeholder capacity building and engagement, information management, research and monitoring, integrated adaptation and disaster risk reduction and inter-sectoral coordination)	SANDI, alliance of solutions for BMS, FMS and fire etc	Yes (Infrastructure and physical development)	S & I corporates	https://sni.co.kr/
			Climate technology standardization	Yes (Stakeholder capacity building and engagement)	Digital ESG Alliance	
			Training opportunities	Yes (Stakeholder capacity building and engagement)	Technology Universities	
			Window strip of solar PV film	Yes (electricity to renewable)	Viewlight	http://viewlight.co.kr/
			Water purification filter	Yes (Infrastructure and physical development)	Drainfilter	https://drain-filter.com/
			Renewable energy production demonstration consortium	Yes (Stakeholder capacity building and engagement)	West ocean	
			Blue hydrogen, Solar PV charging station	To some extent (coal phase out)	SK E&S	https://www.skens.com/en/sk/main/index.do
			Geothermal mixed energy and Smart things App	Yes (electricity to renewable)	Samsung	

Climate Technology Centre and Network, Partnership and Liaison Office

32nd Floor, G-Tower, 175, Art center-daero, Yeonsu-gu, Incheon

<http://www.ctc-n.org>, Email: ctcn@un.org

Inquiries related to this document, email: Jeawon.kim@un.org

Annex I – Final program concept note



UN CTCN Network Engagement Event 2024: Voluntary Technology Talk

The Future of Climate Technology Transfer

Haeundae Centum Hotel, Sapphire Room
BEXCO, Busan, Republic of Korea, September 4-6

Background

For the past 10 years, the Climate Technology Centre and Network (CTCN) promoted accelerated transfer of environmentally sound technologies for low carbon and climate resilient development at the request of developing countries. Implementing the mission of CTCN, we have focused on the stimulation of technology cooperation and enhancement of the development and transfer of climate technologies to developing countries. Taking its mandate, CTCN has supported over 110 countries benefited from climate technology innovation, transfer, and knowledge sharing to date.

The Network member, as an implementing partner of CTCN's service areas, provides technology solutions to developing countries. Following CTCN's 3rd Programme of Work (PoW) 2023-2027 system transformation areas, there is a need to facilitate the co-creation process on future scalable technical assistance projects. The process requires both country's and Network members' efforts, thereby welcoming 'Voluntary Technology Talk' to facilitate collaboration opportunities between NDEs and Network members.

To date, CTCN supported 75+ NDEs globally to seek and discuss with potential technology partner those who are CTC's Network members. During the World Climate Expo (WCE), CTCN will provide a platform for a voluntary bilateral and/or multilateral discussion with countries for a TA project ideation.

Objectives

This year, CTCN will organise the NDEs participation to the exhibition showcasing promising environmentally sound and green energy technologies.

Duration/Format: The event will take place for a 2-day, welcoming in-person participation of up to 10 NDEs.

Participants

- NDEs from SIDs and LDCS
- Selected Network members and other stakeholders.

Climate Technology Centre and Network, Partnership and Liaison Office

32nd Floor, G-Tower, 175, Art center-daero, Yeonsu-gu, Incheon

<http://www.ctc-n.org>. Email: ctcn@un.org

Inquiries related to this document, email: Jeawon.kim@un.org

Day 1 (September 4, Wednesday)

Introduction to the program	
MC: Jeawon Kim, Capacity Building and Network Engagement Specialist Haeundae Centum Hotel, Sapphire Room	
09:30~10:15	Introduction to CTCN and program
10:15~10:20	Group photoshoot
Relocation to Convention Hall, 3rd floor, Grand Ball Room	
Session 1: World Climate Industry Expo	
BEXCO Convention Hall, 3rd floor, Grand Ball Room	
10:30~11:30	High-level Opening Ceremony <i>Fatih Birol, IEA</i> <i>James Bacchus, University of Florida</i>
11:30~12:00	Bilateral with CTCN – Upon request
Lunch break	
Session 2: Carbon Free Energy Initiative	
BEXCO Convention Hall, 3rd floor, Grand Ball Room	
13:30~15:30	Global Climate & Energy Forum <i>MOTIE & IEA & CF Alliance</i>
15:00~17:00	Climate Free Global Marine City <i>Busan City</i> In parallel, Pre-arranged Bilateral with Network Members <i>Haeundae Centum Hotel, Sapphire Room</i>

Day 2 (September 5, Thursday)

Session 3: Technology Exhibition and Matchmaking	
09:30~13:30	Voluntary Technology Talk <i>BEXCO Hall 1 & 2</i> In parallel, Pre-arranged Bilateral with Network Members <i>Haeundae Centum Hotel, Sapphire Room</i>
Lunch Break	
14:00~17:00	Symposium on Climate Technology <i>MSIT, Room 205</i>

Day 3 (September 6, Friday)

Session 4: Site Visit	
08:00~17:00	Energy Independent Village & Zero Energy Community, Jellanamdo - U Energy - Energy Independent Village
	- Suncheon Palma Sports Centre & Village Market (Solar installation)