

SCOPING WORKSHOP

Supporting First-of-a-Kind Climate Technology **UN City, Copenhagen, Denmark. 22-23 May, 2017**

In order to strengthen the UNFCCC Technology Mechanism and support the implementation of the Paris Agreement, decision 1/CP.21, paragraph 66 requests the Technology Executive Committee and the Climate Technology Centre and Network to undertake further work relating to, inter alia: (a) Technology research, development and demonstration; (b) The development and enhancement of endogenous capacities and technologies.

The objectives of the Scoping Workshop are to:

1) Define the status and potential for matchmaking support of First-of-a-Kind climate technologies to developing countries through the CTCN.

This scoping workshop will explore opportunities for CTCN to support First-of-a-Kind climate technology demonstration. Participants will be drawn from the CTCN Advisory Board, the Technology Executive Committee (TEC), Climate Technology Centre Consortium Partners, Climate Technology Network members, National Designated Entities (NDEs) to the UNFCCC Technology Mechanism, and other expert stakeholders.

The workshop will establish a common basis for the discussion of climate technology piloting and demonstration, consider representative examples, and map the expertise of Climate Technology Network institutions related to innovative, First-of-a-Kind climate technologies. This includes identifying needs of adapting technologies to local contexts that could be facilitated through the CTCN. Discussions will address new business models and market conditions for demonstration and subsequent deployment. The CTCN will act as a matchmaker between countries, Consortium partners, Network members, including the private sector and financial institutions.

The workshop will draw on findings from the special event organised by the Technology Executive Committee (TEC) on May 12th, "How innovation can support implementation of nationally determined contributions and mid-century strategies" as well as proceedings of the 46th meeting of the Subsidiary Bodies to the UNFCCC.

2) Identify means of de-risking public and private sector investment in First-of-a-Kind climate technologies, adapting to local and regional contexts, enabling policies, fiscal instruments and markets.

Discussions will identify local, national and regional needs in developing economies for First-of-a-Kind technology piloting and demonstration, as well as adapting of climate technologies to local and national conditions. Roundtable discussions involving CTCN Advisory Board members, NDEs, CTC Network members, TEC members, Consortium Partners, and other relevant stakeholders, will explore gaps and opportunities towards de-risking financial investment including policies, fiscal instruments, enabling markets and incentives.

Audience

- NDEs from Annex I and non-Annex I countries
- Climate Technology Network members working with First-of-a-Kind climate technologies
- CTCN Consortium Partners
- TEC representatives
- CTCN Advisory Board Members
- UNFCCC Secretariat
- Relevant stakeholders

Methodology

Presentations, panel discussions, group exercises, and group discussions in a roundtable style. All discussions and presentations will be conducted in English.

Day 1

Session

9:00 – 9:10 **Opening of the meeting.**
Welcome and opening remarks from CTCN Director Jukka Uosukainen and Karsten Krause on behalf of the CTCN Advisory Board

9.10 – 10:00 **Session 1 – Setting the stage.**
Supporting First-of-a-Kind Climate Technology: How can the CTCN best match emerging technologies with developing country needs?

Session 1 will give an overview of CTCN processes, linking them with the needs of developing countries, examine existing approaches related to First-of-a-Kind climate technologies and their matching with developing countries' needs, and summarize key findings from CTCN partners and the UNFCCC Technology Executive Committee Special Event on technology innovation.

- **Overview of CTCN processes + needs of developing countries** (15 min)
 - o Jason Spensley and Federico Villatico, CTCN
- **Overview of existing approaches – The CARISMA Project** (10 min)
 - o Heleen de Coninck, CARISMA
- **Key findings from the TEC Special Event on technology innovation** (10 min)
 - o Robby Berloznik, TEC
- **Q&A**

10:00 – 11:00 **Session 2 – Matching needs with solutions.**
Linking First-of-a-Kind technologies to policy development, markets and sustainable business models. (Presentations followed by Panel discussion)

Session 2 is structured as a panel discussion, with keynotes related to First-of-a-Kind climate technologies in the field of energy. Discussions will address policies, new business models and market conditions for demonstration and subsequent deployment in large scale and local contexts.

- **Innovative Financial Instruments for First-of-a-Kind, commercial-scale demonstration projects in the field of energy** (15 min)
 - o Jonathan Lonsdale, ICF
- **Collaborative business models for energy research** (15 min)
 - o Matthew Kennedy, International Energy Research Centre
- **Panel discussion** (25 min)
 - o Moderator: Robby Berloznik, TEC
 - o Panellists: Jonathan Lonsdale, ICF
 - o Matthew Kennedy, IERC
 - o Girish Sethi, The Energy and Resources Institute
 - o Nand Kishor Agrawal, International Centre for Integrated Mountain Development
 - o Karsten Krause, European Commission
- **Q&A**

Tea/Coffee Break

11:20 – 12.15 **Session 3 – Financing climate technology and adapting climate technologies to local contexts.**
Linking First-of-a-Kind with Financial Instruments: Definitions, experience, examples and best practices. (Presentations followed by Panel discussion)

Session 3 will feature two speakers who will address emerging approaches to finance climate solutions and how to best incentivise new investment in climate technologies. Panel discussants will build on these themes through sharing best practices and practical examples, and aim to agree a set of common definitions for guide workshop discussions of First-of-a-Kind climate technology finance.

- **Investing in climate solutions – the Global Alliance for Banking on Values** (10 min)
 - o Lars Pehrson, Merkur Cooperative Bank
- **Leveraging new investment in climate technology** (10 min)
 - o Astrid Motta, European Bank for Reconstruction and Development (by videoconference)
- **Panel discussion** (25 min)

- Moderator: Nicolle Anette Mueller, GIZ
- Participants: Lars Pehrson, Merkur Cooperative Bank
- Astrid Motta, European Bank for Reconstruction and Development
- Daniel Buckley, Green Climate Fund
- Rabhi Abdessalem, Institute for Global Environmental Strategies
- Nagaraja Rao, Private Finance Advisory Network

- **Q&A**

12:15 – 13:00

Session 4 – Climate Technology support: a CTCN country and partner perspective.

CTCN partner perspective on First-of-a-kind piloting and demonstration of climate technologies. (Presentations and Discussion)

Session 4 will highlight Non-Annex I NDE and RINGO experiences related to First-of-a-Kind piloting and demonstration of climate technologies and CTCN's role as a matchmaker between countries, Consortium partners and Network members.

Country and RINGO perspectives

- Gabriel Blanco, NDE Argentina (10 min)
- Shikha Bhasin, RINGO rep to CTCN Advisory Board (10 min)
- Elisha N. Moyo, NDE Zimbabwe (10 min)
- Moderator: Ulrich Elmer Hansen, UN Environment/DTU Partnership
- **Q&A**

Lunch

14:00 – 15:30

Session 5 – Mapping expertise.

Defining possible pathways for First-of-a-Kind support within the CTCN core mandate and competencies of technical assistance and capacity building. (Group Exercise)

Session 5 will be conducted in 7 breakout groups in smaller working rooms. Groups will discuss gaps between First-of-a-Kind climate technologies, their subsequent deployment in developing countries, and challenges and opportunities for developing countries to access support for technology adaptation to local contexts.

- How can the CTCN best leverage its matchmaking role in between the needs of developing countries for emerging climate technologies and the providers of those technologies?
- What gaps are there for First-of-a-Kind climate technologies and subsequent deployment in developing countries that CTCN can address?
- What are the challenges for developing countries to access support for technology adaptation to local contexts? Where are the opportunities to deepen engagement? How can the CTCN assist?

Group Discussion Leaders (CTC Network)

1. CATHALAC, Joel Pérez Fernández
2. EURAC Research, Daniele Vettorato
3. IEAGHG, Tim Dixon
4. ERC, Britta Rennkamp
5. NIHORT, David Ojo Olubiyi
6. CTCN, Rajiv Garg
7. Nansen Environmental Research Centre (India), K. Ajith Joseph

15:30 – 15:40

Group photo.

Tea/Coffee Break

16:00 – 17:20

Session 6 – Reporting back from working groups.

Moderators of breakout groups report findings to guide plenary discussion.

17:20 – 17:30

Wrap-up Day 1: Impressions + key takeaways.

- Jukka Uosukainen, CTCN and Hartwig Kremer, UN Environment

17:30 – 19:30 Reception and poster session to follow.

Day 2

Session

9:00 – 9:25 Session 7 - Reporting back: Findings of Day 1 and Introductory keynote on de-risking investment in climate technologies.

Session 7 will highlight key findings from the first day of the workshop and introduce approaches to de-risk financial investment in the context of First-of-a-Kind climate technologies. The keynote will explore gaps and opportunities towards de-risking investment including policies, fiscal instruments, enabling markets and incentives.

First Day Summary

- Hartwig Kremer, UN Environment
- Unlocking finance for climate technology**
- Nagaraja Rao, Private Financing Advisory Network (15 min)

9:25 – 10:30 Session 8 – Regional/national/subnational climate strategies and responses – how best to reduce investment gaps and risks? (Presentations followed by Panel discussion)
Identifying regional and country gaps for First-of-a-Kind climate technology and adapting to local, technical, financial and market contexts.

Session 8 aims to identify typical gaps for implementing First-of-a-Kind technologies in different global regions, common issues for adapting existing technologies, and the approaches required to address these issues through business model innovation.

- **Technology transfer for climate change in Kenya** (10 min)
 - o Arthur Onyuka, NDE of Kenya
- **Identifying opportunities and adapting technologies** (10min)
 - o Ambuj Sagar, Indian Institute of Technology, Delhi (10 min)
- **Panel discussion** (30 min)
 - o Moderator: Milan Rusnak, UDP
 - o Arthur Onyuka, NDE Kenya
 - o Ambuj Sagar, Indian Institute of Technology, Delhi
 - o Bastiaan Louman, CATIE
 - o Daniel Buckley, GCF
 - o Mukand Babel, Asian Institute of Technology
- **Q&A**

Tea/Coffee Break

11:00 – 12:30 Session 9 – Regional/national/subnational needs and responses – how best to reduce investment risk?

Identifying regional and country gaps for First-of-a-Kind climate technology and adapting to local technical, financial and market contexts (Group Exercise)

Session 9 will be conducted in 7 breakout groups in smaller working rooms. Groups will discuss practical approaches (including financial instruments and market incentives) that have worked in First-of-a-Kind technology demonstration and adaptation to local contexts. The goal is to identify what is needed from new business models to support First-of-a-Kind technology, instruments required towards de-risking of investment and CTCN's role as a matchmaker in support of these new approaches.

- What practical approaches (including financial instruments and market incentives) have worked in First-of-a-Kind technology demonstration and application to local contexts?
- What are the new business models needed to enable First-of-a-Kind technology piloting and upscaling and how can CTCN be a matchmaker to support those?
- What partnerships, financial and market instruments are required towards de-risking of investment and can CTCN address those in the form of technical assistance and capacity building? In the context of support to First-of-a-Kind technologies, what is the most efficient role for CTCN as climate technology broker?

Group Discussion Leaders (CTCN Consortium Partner)

1. Girish Sethi, TERI (East and South East Asia, Pacific)
2. Gareth Lloyd, DHI (South Africa, East Africa)
3. Libasse Ba, ENDA (West Africa)
4. Sara Trærup, UDP (North Africa, West Asia)
5. Bastiaan Louman, CATIE (the Caribbean)
6. Daniel Bouille, Bariloche foundation (South America)
7. Ron Benioff, NREL (Eastern Europe and Central Asia)

Lunch

13:30 – 15:00 Session 10 – Group reporting and next steps.
Moderators of breakout groups report findings to all participants.
Moderator: Rajiv Garg

15:00 – 15:30 Concluding remarks.
Jukka Uosukainen CTCN

Tea/Coffee Break

16:00 – 17:30 CTCN Open house: discussion, reflections, path forward.