



Technology Executive Committee

07 March 2023

Twenty-sixth meeting

21–23 March and 24 March 2023 (TEC-CTCN Joint session)

Background paper on technology roadmaps

Concept note

A. Background

1. Joint TEC-CTCN activities 2022–23 include a joint activity 2.1. to prepare background paper on technology roadmaps, including success stories and lessons learned from experiences, potential links to TNAs and TAPs, and considerations on how to make roadmaps implementable.
2. Joint work programme of the UNFCCC Technology Mechanism for 2023–2027 includes a joint activity on technology roadmaps, including planning tools, catalysing the development and use of technology roadmaps, at international, regional and national levels to support the implementation of NDCs, NAPs and LT-LEDS.
3. At TEC-CTCN joint session the secretariats will present a background paper on technology roadmaps.

B. Scope of the note

4. The annex to this note contains a concept note of a background paper on technology roadmaps.

C. Possible action by the TEC and the CTCN AB

5. The TEC and the CTCN AB will be invited to consider the background paper on technology roadmaps and provide a guidance on further work on this matter.

Annex

Background paper on technology roadmaps

Concept note

I. Joint TEC-CTCN activities 2022–2023

1. Prepare background paper on Technology roadmaps (TRMs) which includes:
 - (a) Success stories and lessons learned from experiences, including from CTCN technical assistance and other international organisation's work on TRMs, in preparing sectoral climate TRMs and their implementation to stimulate the uptake of technologies in support of NDC implementation;
 - (b) Analysis of steps to prepare TRMs, including potential links to TNAs and TAPs, using also the TEC Brief on Road mapping;
 - (c) Considerations on how to make such roadmaps implementable from the start (looking beyond the links to NDCs and long-term low greenhouse gas emission development strategies) and explore the links to financial resources needed for the development, transfer and deployment of climate technologies;
2. TEC & CTCN Secretariats considered preparation of a ToR in 2023, and establishment of a Joint Task Force to approve the ToR;
3. TEC & CTCN secretariats considered commissioning a consultancy for developing a background paper.

II. Joint Work Programme of the UNFCCC Technology Mechanism for 2023–2027

4. Technology planning tools, including TRMs, form the architecture of a strategic approach to maximizing the potential for deployment of technologies to achieve climate objectives. This includes embedding TRMs and other planning tools in NAPs and NDCs, and in plans to implement NDCs and support net-zero development pathways.
5. One of the TEC's functions is to catalyse the development and use of TRMs at the international, regional and national levels to support the implementation of NDCs, NAPs and LT-LEDS.
6. The CTCN, through its provision of technical assistance and capacity building, also facilitates the implementation of mitigation and adaptation actions, including the use of planning tools and processes such as TRMs.
7. Previous joint work of the TEC and CTCN on Technology and NDCs highlighted the potential role of TRMs for different sectors to stimulate the uptake of technologies in support of NDC implementation.
8. As such, both bodies have agreed to further this work as part of their joint activities for 2022-2023, namely through the preparation of a background paper on TRMs, built on, inter alia, the TEC work on roadmaps. This joint work should consist of the following:
 - (a) Analyzing success stories and lessons learned from the work of the TEC on TRMs;
 - (b) Analyzing success stories and lessons learned from CTCN technical assistance, stakeholders' experiences and international organizations' work, in preparing sectoral climate TRMs and implementing them to stimulate the uptake of technologies in support of NDC implementation;
 - (c) Analyzing the various steps of TRM preparation, including potential linkages with TNAs and TAPs;

(d) Giving due consideration to how to make such roadmaps implementable (looking beyond linkages to NDCs and long-term low greenhouse gas emission development strategies) and exploring the links to financial resources needed for the development, transfer and deployment of climate technologies.

III. Possible considerations

9. Preparation of a background paper to identify success stories and lessons learned from experiences, including from the TEC work, from the CTCN technical assistance and other international organisation's work on TRMs, in preparing sectoral climate TRMs and their implementation, in support of NDC implementation including:

(a) TRM examples to try to get the conversation /discussion further, better understand what work could be done, and to identify relevant sectoral focus areas;

(b) Analyse steps of preparation of TRMs;

(c) Identify entry points and possible linkages with TNAs/TAPs; NDCs and LT-LEDS;

(d) Considerations on how to make such TRMs implementable (looking beyond the links to NDCs and LT-LEDS); and

(e) Explore the links to financial resources needed for the development, transfer and deployment of climate technologies identified in the TRMs.

10. Based on the findings of the above initial analysis and exploration of TRMs, further joint activities may be defined and possibly included in the joint work programme.

11. Other considerations (timelines, milestones, responsible bodies, related workshops, events, presentations etc. (to be discussed).

IV. Technology Mechanism experiences in supporting countries with TRMs to be built upon

12. TEC experiences in using road mapping to facilitate the planning and implementation of technologies for mitigation and adaptation:

(a) Background paper on technology roadmaps (2013) including:

(i) Methods used for development and use of TRMs;

(ii) Examples of good practices;

(iii) Recommendations for TEC activities on TRMs.

(b) TEC brief (October 2013) including:

(i) Definition of technology roadmap;

(ii) Analysis of existing roadmaps (inventory);

(iii) Example of planning practices;

(iv) Road mapping forces (support mechanisms; policy frameworks; markets, industries and infrastructure).

13. CTCN experiences in supporting countries in roadmaps development:

(a) The CTCN regional technical assistance has delivered some important elements in several participating project countries, and enabled the development of a general, sectoral and/or process-specific circular economy road maps, partly in response to climate change, that could serve as a management tool for a future implementation phase in order to create new businesses, innovation and technological transfer, generate quality employment, gender equality, and combat climate change in one or more of the participating project countries, while complying with their nationally determined contributions (NDC) and sustainable development goals (SDGs), enabling

project countries to evolve in the field of circular economy. The CTCN technical assistance has in terms of TRMs delivered:

- (i) Examples at regional level: development of Circular Economy roadmaps to transition towards a circular model, aligned to the national strategies for climate change;
 - (ii) Collaboration with 5 countries in Latin America to determine their long-term visions for developing circular economies. This is the first regional programme in the Americas to coordinate a government level intervention in the field of circular economy;
 - (iii) Collaboration with 18 countries in Africa ranging from the development of circular economy roadmaps for abating greenhouse emissions in the waste sector to exploration of the valorisation of biomass waste in national energy systems;
 - (iv) Example of TRM for the Implementation of Climate Action Plans - to embrace activities on: research and innovation; technological development; capacity building; cooperation and partnerships; and knowledge creation and sharing.
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