Framework Convention on Climate Change

TEC/2022/24/13

TEC 24 (Virtual/In-person meeting, 22-25 March 2022

15 March 2022

Joint session TEC and CTCN (Virtual, 28 March 2022)

Proposed new joint activities of the TEC and CTCN and comparison of TEC rolling workplan and CTCN Programme of Work

I. Background

1. In a virtual joint session convened on 13 September 2021 during the twenty-third meeting of the Technology Executive Committee (TEC) and the eighteenth meeting of the Advisory Board of the CTCN (CTCN AB), the TEC and the CTCN AB considered progress in implementing their joint activities in 2021, namely on technology and nationally determined contributions (NDC) and technology and gender, as decided by the two bodies and reported in their joint annual report to the COP and CMA for 2020.[1] Subsequently, the two bodies completed their joint work on technology and NDCs, the results of which were published in a first joint publication, and joint recommendations submitted to the COP and CMA on how to stimulate the uptake of climate technology solutions.[2]

2. At the same joint session, the TEC and the CTCN AB discussed potential future joint activities. As a result, the two bodies requested the joint TEC and CTCN task force, initially established to support the joint work on technology and NDC, to work inter-sessionally to identify potential new joint activities, taking into account input provided by TEC and CTCN AB members, and to prepare a proposal for consideration by the TEC and the CTCN Advisory Board at their next joint session.

3. Supported by the TEC and CTCN AB secretariats, the joint taskforce virtually met in early 2022 and considered a number of potential activities that could be undertaken jointly in the next two-year period. Activities that can be readily implemented, build on past or ongoing work and have the potential to enhance the visibility of the work of the Technology Mechanism were considered. The joint taskforce also took into account the latest COP and CMA decisions, particularly the invitation by Parties for the two bodies of the Technology Mechanism to strengthen their collaboration and synergies.

4. The joint taskforce also initiated a discussion on the potential of developing a work programme for the Technology Mechanism and requested the secretariat to prepare a comparison of the TEC rolling workplan and the CTCN Programme of Work, according to the five themes of the Technology Framework.

II. Scope of the note

5. The document contains a proposal for new joint activities of the TEC and the CTCN to be undertaken in 2022–2023 (annex I), the summary of the views of joint task force members on a possible work programme for the Technology Mechanism (annex II), and an analysis comparing the TEC rolling workplan and the CTCN programme of work (annex III).

6. This document is a meeting document for both TEC 24 and CTCN AB 19 meetings and will be considered at the upcoming joint session of the TEC and CTCN AB on 28th March 2022.

[1] FCCC/SB/2020/4, para. 15 and annex I, available at https://unfccc.int/documents/267476.

[2] https://unfccc.int/ttclear/tec/techandndc.html.

III. Expected action by the TEC and CTCN AB

7. The TEC and CTCN AB will be invited to consider the proposal and provide guidance for finalizing the new joint activities of the TEC and the CTCN, taking into consideration possible resources implications for implementing the new activities.

Annex I

Proposed Joint TEC-CTCN Activities 2022 – 2023

Ongoing joint activities		
Gender and Technology	**Background:** Parties have provided guidance and mandates on gender-related matters to constituted bodies through various decisions. The technology framework also includes provisions referring to gender. In 2019, the TEC agreed to mainstream gender consideration into its workplan and subsequently appointed its gender focal points in 2020. The CTCN has already undertaken extensive work on gender since its inception, including establishing a gender focal point, implementing a gender policy and action plan and developing a gender knowledge hub. This ongoing work presents opportunities for synergies between the two bodies on gender mainstreaming as it relates to technology development and transfer. Further, the Gender adopted at COP25 stipulates an activity in relation to: Promote the deployment of gender-responsive technological solutions to address climate change, including strengthening, protecting and preserving local, indigenous and traditional knowledge and practices in different sectors and for improving climate resilience, and by fostering women's and girls' full participation and leadership in science, technology, research and development.[3] The joint publication on technology and NDCs has shown with some of the featured case studies that gender-responsive technologies bring strong social co-benefits and SDG synergies, contribute to better adoption rates and improve the effectiveness of the climate action. **Activities:** 1. Encourage and generate awareness of countries and their NDEs, TEC members, Advisory Board members on the COP guidance on the need to achieve gender balance in their Boards, in accordance with decisions 36/CP.7 and 23/CP.18, and report annually on the gender distribution of the TEC, the Advisory Board and the CTCN secretariat. 2. Develop and maintain two rosters of (i) female experts on climate change technology and (ii) female and male experts on gender and climate change to call upon for various events, workshops and activities. 3. Collect evidence of the benefits brought by the development of gender-responsive climate technologies, integrating case studies of local and indigenous knowledge and practices and include in the update of the joint publication for 2023.	Implementation period: 2021 – 2022 for activities 1 & 2 2023 for proposed new activity 3
New joint activities		
Technology and NDCs	**Background:** CMA.3[4] invited the TEC and the CTCN to continue their work on technology and nationally determined contributions in 2022–2023, in particular by implementing relevant recommendations in the joint publication on technology and nationally determined contributions.[5] The recommendations from this work for the Technology Mechanism include work on **technology roadmaps** and **regularly updating the joint publication.** **Activities:** 1. Prepare guideline for developing Technology roadmaps (TRMs) • Prepare a concept note or background paper on the possible joint work(s) on TRMs • Identify success stories and lessons learned from experiences in preparing sectoral climate technology roadmaps and their	Implementation period: 2022 - 2023

[3] https://unfccc.int/sites/default/files/resource/cp2019_13a01E.pdf.
[4] https://unfccc.int/sites/default/files/resource/cma3_auv_9a_TechPA.pdf.
[5] https://unfccc.int/ttclear/tec/techandndc.html.

	implementation to stimulate the uptake of technologies in support of NDC implementation • Analyse steps of preparation of TRMs, including potential links to TNAs and TAPs (TEC Brief on Roadmapping highlights this link) • Consider 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 the financial resources needed for the development, transfer and deployment of Climate technologies • Prepare guidelines for developing TRMs 2. Regularly update the joint publication • Collect information from updated NDCs not considered in the initial joint publication and analyse them with respect to technology development and transfer and uptake • Continue to identify and share new success stories and update lessons learned • Publish an updated joint publication by mid-2023 3. Disseminate and raise awareness of the joint publication: • As several countries are in the process of updating their NDCs, conduct outreach at the earliest opportunity in 2022 to NDEs and stakeholders involved in the development or update of NDCs and their implementation to raise awareness of the joint publication • Produce outreach materials such as a summary document for Policymakers reflecting the findings and recommendations of the joint publication • Collaborate with other actors supporting the NDCs process (e.g. NDC partnership) to build the capacity of identified stakeholders, based on the findings and recommendations of the joint publication.	
Monitoring and evaluation - Joint NDE Survey	**Background:** In 2019, the TEC and CTCN agreed to jointly develop a consistent and robust monitoring and evaluation system to report on the activities of the two bodies and their contributions to the transformational changes envisioned in the Paris Agreement, in response to decision 15/CP.23 and 15/CMA.1 guidance contained in the Technology Framework paragraph 25. The system includes a Theory of Change, a Logical Framework Analysis and a Performance Measurement Framework. The two bodies implemented the monitoring and evaluation system in 2020 and conducted outreach to National Designated Entities (NDEs) to contribute to the process of monitoring and evaluating the impact of TEC and CTCN activities through a joint survey. The focus of the survey was on long-term impacts and actions taken after support was provided, with the aim of strengthening the capacity of the TEC and CTCN to fulfil their mandate of enhancing climate technology development and transfer, based on lessons learned and recommendations received by the NDEs. Results from the NDE survey[6,7] helps provide more coherent and improved output, outcome and impact data and strengthen learning and reporting of the impact of the work of both bodies.[8] **Activities:** 1. Conduct a joint analysis on the implementation of the biannual survey, taking into account NDE reviews and inputs, and with a view of	Implementation period: biannual Second joint NDE survey to take place in 2022

[6] CTCN results/ Analysis: https://www.ctcn.org/sites/www.ctcn.org/files/AB_2021_17_18.1_CTCN%202020%20NDE%20Survey%20Findings.pdf.

[7] TEC results/analysis: https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/tn_meetings/3c0512ec90584211bea8211fc30e2d37/cc52d3af1ba945399392ea635e5c3eda.pdf.

[8] Para.141 joint annual report TEC and CTCN for 2020 (https://unfccc.int/sites/default/files/resource/sb2020_04E.pdf).

	improving the design of the survey to allow for better collection of systematic and verifiable data in 2022; 2. Jointly develop and disseminate the second joint NDE survey in the first quarter of 2022.	
Communication and Outreach	**Background:** In response to COP decision 14/CP.25 para 4 and the Technology Framework paragraph 16a which invite the TEC and CTCN to continue joint communication and outreach activities to ensure coherent communication under the Technology Mechanism , the TEC and CTCN have initiated several joint communications and outreach activities, including joint events such as the organisation of a Technology Mechanism event during the June Momentum (June 2020) and Climate Dialogues (Nov 2020) and participation in the Regional NDE forums organised as part of the UNFCCC Regional Climate Weeks. In 2021 the TEC and the CTCN continued to collaborate on joint events (e.g. Technology Mechanism event at COP26) and participated in each other's events. Enhancing joint communication and outreach efforts in order to speak with one voice as the Technology Mechanism was highlighted as an area for potential collaboration in 2022. **Activities:** 1. Promote joint activities in the CTCN's quarterly newsletter 2. Invite contributions from TEC members to the CTCN's quarterly newsletter 3. Develop joint messaging on the strategic added value of the Technology Mechanism as well as the work of the Technology Mechanism for 2022-2023 4. Develop an outreach/promotional activity for Technology Mechanism during COP27 (e.g. joint brochure, Technology Mechanism pavilion - TBD) 5. Utilise NDE Regional Forums organised as part of UNFCCC Regional climate weeks to conduct joint outreach to NDEs, enhance interaction and seek feedbacks on the Technology Mechanism work.	Implementation period: 2022-2023
Enhancing systematic feedback between the two bodies	**Background:** COP26 and CMA 3 invited the TEC and CTCN to strengthen the provision of feedback between the two bodies with a view to ensuring coherence and synergy and effective implementation of the Technology Mechanism. Joint sessions can provide such a venue for the exchange of experiences, knowledge and feedback arising from the work of each body. Beyond joint sessions, the TEC and CTCN AB may wish to establish (an) additional arrangement(s) for a more systemic provision of feedback between the two bodies. **Activities:** 1. Utilize joint TEC/CTCN AB sessions to strengthen mutual feedback: TEC Chair and CTCN AB Chair can share systematic policy and implementation issues they observe from their respective work during the joint meetings. 2. Hold a dedicated session (e.g. annual strategy session) for in-depth discussions between the TEC and CTCN AB on lessons learned, challenges, and opportunities for improving the coherence and synergy of the work of the two bodies. 3. Utilize the joint TEC-CTCN task force to develop a single over-arching work program for the Technology Mechanism. Consider establishing groups within the joint task force to develop collaborative work in areas such as national innovation systems, innovation incubators and accelerators, technology roadmaps, circular economy planning, and digitalization.	Implementation period: pilot in 2022 and adapt accordingly.
Development of work programme for the Technology Mechanism	**Background:** COP 26 and CMA 3 invited the TEC and the CTCN to strengthen their collaboration with a view to ensuring coherence and synergy and effective implementation of the mandates of the Technology Mechanism, inter alia by exploring the preparation of a joint programme. To date, the TEC and CTCN undertake their functions as mandated by Parties through a four-year rolling	(see also annex 2 on summary of views on a possible overarching

	workplan and programme of work, respectively, which are aligned with the Technology Framework of the Paris Agreement and the five themes and activities that Parties defined therein. In addition, the CTCN also implements annual operating plans which set targets on an annual basis in line with the resources available to support its operations and provide detail on the specific activities to be carried out annually, building upon the Programme of Work. An overarching work programme for the Technology Mechanism is proposed to coordinate the work of both bodies and facilitate further coherence, synergy and impact, while allowing flexibility for each body to perform their respective functions. The development of an overarching work programme should also consider the potential guidance from Parties resulting from the first periodic assessment of the Technology Mechanism to be held at COP27 in November 2022 in Sharm-el-Sheik, Egypt. **Activities:** Explore opportunities to develop an overarching work programme for the Technology Mechanism 1. Conduct a comparative analysis of the TEC's rolling workplan, the CTCN's Programme of Work, and relevant documents, according to the five themes of the Technology Framework (as presented in annex 3) 2. Identify gaps, complementarities and synergies that can be built upon 3. Identify impactful activity(ies), taking into account the unique proposition value that the two bodies of the Technology Mechanism could offer to different stakeholders.	work programme of Technology Mechanism)

Annex II

Summary of views of joint task force members on elements of a possible overarching work programme for the Technology Mechanism

Following the circulation of a draft note on joint activities and comparative analysis of the TEC rolling workplan and the CTCN Programme of Work for 2019-2022, prepared by the TEC and CTCN secretariats at the request of the joint task force, some members shared their views and comments in writing ahead of the joint TEC-CTCN session on March 28th 2022. These views are summarised and presented below.

Purpose

- Some members suggested the purpose of a work programme for the Technology Mechanism would be to focus the efforts of TEC and CTCN on defined program areas while allowing for activities to be held jointly and separately;
- Some members suggested the purpose was to ensure the TEC and CTCN implement all the mandates and guidance of the Technology Framework of the Paris Agreement.

Format:

- Some members suggested to develop a single Technology Mechanism work program, while allowing for flexibility through annual or semi-annual operating plans for its implementation;
- Some members suggested that the work programme could be a chapter that links the TEC rolling work plan and the CTCN Programme of Work. The joint programme/chapter would not replace the TEC rolling work plan or the CTCN Programme of work and could be considered as an annex of both.

Implementation period:

- Five-year period: for implementation in 2023–2027.

Overarching theme:

- Some members suggested "Accelerating Climate Action through Technology" as an overarching theme, that could help the TEC and CTCN focus on helping to achieve the goals of the Paris Agreement through accelerated technology deployment, particularly through the development of new NDCs and the implementation of existing NDCs;

- Some members suggested "Accelerating Climate Action through Technology Development and Transfer" to align with the Convention and the Paris Agreement.

Structure/key themes:

- Some members suggested that the work program could have a limited set of focus areas, which support the main themes of the Technology Framework. The structure could highlight how the two bodies of the Technology Mechanism work both jointly and independently to achieve common objectives:

    - Five areas are proposed: 1. NSI; 2. Innovation Incubators and Accelerators; 3. Technology Roadmaps; 4. Circular Economy Planning; 5. Digitalization;

    - For each of the areas: determine common objectives, links to the Technology Framework, TEC activities, CTCN activities, joint activities;

- Some members suggested that the structure of the joint work program could be aligned with the key themes of the Technology Framework since one of its main purpose is to make sure the TEC and CTCN implement all the mandates and guidance of the Technology Framework of the Paris Agreement:

    - Five key themes of the Technology Framework noting that the proposed 5 areas of focus cited above could be incorporated into the Technology Framework themes.

Adoption (timeline for developing the work programme):

- Some members suggested to finalize and adopt the work programme at TEC 25 and CTCN AB 20 (Autumn 2022);
- Some members suggested the adoption in Spring 2023 to allow more time for consideration and coordination

- Some members recommended the alignment with the timeline of development of the CTCN's third Programme of Work: the development of work programme should help identify key areas of strength for the entire Technology Mechanism and in which areas resources may have the most impact;
- Some members suggested to adopt an overarching work programme that is agreeable to both TEC and CTCN AB and able to deliver on the respective mandates in terms of content, structure, and necessary features, once the TEC rolling workplan, the CTCN Programme of Work and a possible joint chapter linking the two are complete.

Annex III

Comparison of TEC rolling workplan and CTCN Programme of Work for 2019-2022

The table below provides a comparison between the rolling workplan of the TEC and the CTCN planning documents (Programme of Work and Annual Operating Plans), including examples of activities and outputs of the work of the two bodies based on their respective planning documents.

	TEC rolling workplan (2019-2022)	**CTCN Programme of Work (2019 – 2022) and Annual Operating Plans 2019,2020, 2021**
Purpose and background	**The rolling workplan of the TEC (WP)** contains activities of the TEC to implement its functions as mandated by Parties and to implement guidance in the Technology framework.[9] Since its inception, the TEC has developed four rolling workplans: • 2012–2013, • 2014–2015, and • 2016–2018 • Ongoing: 2019 - 2022[10] - approved at TEC19 (2019), and updated regularly to reflect latest TEC and COP/CMA decisions	**The Programme of Work of the CTCN (PoW)** is a strategic document outlining the approach and objectives of the CTCN in implementing the three service areas as mandated by Parties: responding to country requests for technical assistance; building local capacity and networks; and increasing information flows and knowledge-sharing, and to implement guidance contained in the technology framework of the Paris Agreement. Since its inception, the CTCN has developed two Programmes of Work: • First PoW: 2013 – 2018 • Second PoW: 2019 – 2022[11] - approved at CTCN AB 13 (2019) The Second PoW aligns with the extension of the hosting agreement of the CTCN with UNEP, agreed in Dec 2017. **Each year, the CTCN develops an Annual Operating Plan (AOP)** which builds on the approved Programme of Work and structures the activities the CTCN will undertake, based on resources available, to deliver on its mandate and contribute to the implementation of the technology framework. The AOP categorizes the activities to be performed in its three service areas across the key themes identified by the technology framework.
Duration	4 years (aligning with CTCN PoW period for 2019-2022)	4 years
Structure of the document	1. Introduction, including gender consideration, monitoring and evaluation, and communication and outreach 2. Innovation 3. Implementation	1. Introduction 2. Operational Context 3. Implementation of the Programme of Work 4. Theme 1: Innovation 5. Theme 2: Implementation 6. Theme 3: Enabling environment and capacity building

[9] https://unfccc.int/sites/default/files/resource/CMA2018_03a02E.pdf#page=4.
[10] TEC rolling workplan 2019-2022.
[11] https://www.ctc-n.org/sites/www.ctc-n.org/files/ctcn_programme_of_work_2019-2022.pdf.

	4. Enabling environment and capacity building 5. Collaboration and stakeholder engagement 6. Support 7. Joint activities of the TEC and the CTCN 8. Inputs to UNFCCC process	7. Theme 4: Collaboration and stakeholder engagement 8. Theme 5: Support 9. Approach 10. Cross-cutting themes 11. Gender 12. Monitoring, Evaluation and Reporting 13. Financing the Second Programme of Work
Description of activities	The WP activities are presented in five tables reflecting five key themes of the technology framework. Each activity corresponds to a workstream identified by the TEC: mitigation, adaptation or cross-cutting. The tables also detail outputs and deliverable, timelines, and stakeholder groups the TEC intends to reach out to for different activities and possible modalities for engaging them, which shows the commitment of the TEC to being inclusive and transparent.	The second PoW is organized according to the five themes of the technology framework and represents a departure from the previous programme of work, which was structured according to the CTCN service areas. These services are now distributed across the various framework themes. Each of the five themes includes a table of broad actions (e.g. technical assistance is delivered to improve policy environments, strategies, legal and regulatory frameworks) and indicative performance indicators (e.g. number of institutions receiving training on climate innovation) that lead to intended outcomes which are aligned with the technology framework activities (e.g. countries are supported to incentivize innovation). The annual operating plan models the PoW in its alignment with the five themes of the technology framework. Similarly, to the PoW, the CTCN's three service areas are distributed across the various framework themes. Specific planned activities are referenced according to the particular technology framework activity to which they contribute. The AOP also includes targets and specific quantifiable and measurable indicators
Remarks	TEC and CTCN planning documents incorporate five key themes of the Technology framework and took into consideration the principles of the Technology framework, namely: coherence, inclusiveness, results-oriented approach, transformational approach and transparency. While both WP and PoW describe types of services/activities to be undertaken associated with relevant technology framework guidance, the TEC WP is more concise – and lists activities and outputs/deliverables for each type of activity by year. The CTCN PoW is more general, highlighting overall strategy/ambition and serves to align the technology framework with the CTCN Service Areas, which are complemented with AOPs that contain details of specific activities and outputs on yearly basis. The CTCN PoW lists indicators that fall within each technology framework objective but does not provide targets, which are instead included in the AOPs. The CTCN PoW briefly considers aspects related to financing the 4 your period for the PoW which are detailed in a dedicated Resource Mobilization Strategy[12] to accompany the PoW. Annual Operating Plans provide detailed annual budgets by CTCN Service Areas in line with the resources available. The TEC WP does not contain such information as the budget for activities of the TEC is incorporated into the UNFCCC biennium budget.	

Other documents

[12] AB/2018/11/11.2: https://www.ctc-n.org/sites/www.ctcn.org/files/ab201811_11.2_ctcn_resource_mobilization_strategy_v2_clean.pdf.

	TEC	CTCN
Monitoring and Evaluation	At TEC 18, the TEC and the CTCN Advisory Board agreed to collaborate on developing a system for monitoring and evaluating the activities of the Technology Mechanism. After TEC 18, the TEC and CTCN engaged the services of a monitoring and evaluation expert and worked together to develop a monitoring and evaluation framework, including a Theory of Change exercise, a logical framework, indicators and accompanying methodologies.	
	- Monitoring and Evaluation Framework of the TEC, adopted by TEC 19[13] - TEC Theory of Change[14] - TEC performance measurement framework details the baseline and indicators to be achieved by 2022 - TEC tools: • Monitoring dashboard • NDE Feedback form	- M&E system[15] completed in 2020 - CTCN Theory of Change[16] - CTCN Performance Measurement Framework – 45 qualitative and quantitative indicators - details the baseline (2018) and indicators to be achieved by 2022 - CTCN data collection tools: 6 data collection forms • Technical assistance M&E plan and impact statement form • Technical assistance closure report • National Designated Entity (NDE) feedback form • Post-implementation NDE survey • Training feedback forms • Event reporting templates
Resource Mobilization Strategy	N/A	CTCN Draft Resource Mobilization Strategy – February 2018[17]
Communication and Outreach	The TEC develops communication and outreach strategy to support the implementation of the rolling work plan - 2019 – 2022[18]	The CTCN maintains and updates a communication and outreach strategy on a yearly basis.
Annual Operating Plans (AOP)	N/A	Annual Operating Plans and Budgets (from Jan – Dec each year): 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022[19] -
Annual narrative and financial reporting	N/A	Annual Financial Statements:[20] 2015, 2016, 2017, 2018, 2019, 2020

[13] https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_key_doc/5a364c97ee4c408ba0283a5f0d7f98a5/de841e11b4444a86bb11d4a260590865.pdf.

[14] The ToC is based on the TF and on the TEC rolling work plan for 2019-2022. It is organized around the five themes of the TF.

[15] https://www.ctc-n.org/sites/www.ctc-n.org/files/resources/ctcn_me_system.pdf.

[16] The ToC is based on the technology framework (TF) and the CTCN Programme of Work (PoW) 2019- 2022 and is organized to align CTCN activities to feed into the 5 themes of the TF.

[17] https://www.ctc-n.org/sites/www.ctc-n.org/files/ab201811_11.2_ctcn_resource_mobilization_strategy_v2_clean.pdf.

[18] https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_key_doc/f436646ac9044adfa848abf04dcba9a0/77056d017cc846128b58410bb743af25.pdf.

[19] https://www.ctc-n.org/advisory-board/meetings.

[20] https://www.ctc-n.org/advisory-board/meetings.

		Annual Operating Plan Narrative Reports:[21] 2018, 2019, 2020 CTCN annual Progress Reports:[22] 2015, 2016, 2017, 2018, 2019, 2020, 2021
Joint Annual Report to the COP	Joint annual reports submitted to the COP: 2013, 2014, 2015, 2016, 2017, 2018 Joint annual reports submitted to the COP and CMA: 2019, 2020, 2021[23]	

Examples how TEC and CTCN responds to Parties guidance according to five key themes of Technology Framework:[24]

Key themes / Area	**Example of activities/outputs TEC rolling workplan 2019-2022**	**Example of activities/outputs CTCN Programme of Work (2019 – 2022) and Annual operating plans**
Innovation: Technology framework provides guidance on various actions under this theme including those relating to: • national system of innovation • collaborative research, development and demonstration (RD&D) • innovative technologies • emerging technologies • long-term transformational change • private sector engagement in new technologies and innovation • public private sector	Activities: Building on TEC previous work on RD&D with a focus on incubators, accelerators and entrepreneurship, and taking into consideration South-South, North-South, Triangular and regional cooperation: - Identify and analyze overview of international RD&D partnerships and initiatives, and approaches for collaborative RD&D available for countries to participate - Compile countries experiences, good practices and lessons learned, on RD&D policies & activities - Analyze key emerging climate technologies Outputs: - Compilation of good practices and lessons learned on international collaborative RD&D initiatives of climate technology ; - Emerging climate technologies in the energy supply sector Activity: Promote innovative approaches, including through development of scalable business cases, local community participation, gender and culturally sensitive approaches, to deploy, disseminate, and scale up adaptation technologies Outputs:	**Technical Assistance** is delivered to improve policy environments, strategies, legal and regulatory frameworks. **Technical Assistance** is focused on priority technologies with the potential for transformative impact. Outputs: - CTCN Technical Assistance – Identification of a climate research agenda to include collaboration with academia in Jamaica - UNEP-CTCN Adaptation Fund Climate Innovation Accelerator **Capacity building** to strengthen institutional arrangements. CTCN promotes the engagement of countries in RD&D activities through South-South, North-South and triangular collaboration and within selected international initiatives. Outputs: - CTCN Webinar series: Blockchain technologies for climate policy implementation The CTCN's **knowledge-sharing activities** and online knowledge platform include best practice and lessons learned from countries' climate technology RD&D policies and activities, including through links to additional external databases and other resources. **Knowledge** related to innovative technologies and

[21] https://www.ctc-n.org/advisory-board/meetings.
[22] https://www.ctc-n.org/news-events/progress-reports.
[23] https://unfccc.int/ttclear/tec/documents.html.
[24] Decision 15/CMA.1 on Technology Framework.

	- Technology Day series of events on climate-smart agriculture and strengthening ocean and coastal adaptation https://unfccc.int/ttclear/events/2020/2020_event07	best-practice examples are sourced and promoted through CTCN knowledge platform and media channels.
Implementation Technology framework provides guidance on various actions under this theme including those relating to: • TNA (undertaking, update, implementation, capacity-building) • Link with NDC • Technology that are ready to transfer • Enabling environment and addressing barriers	Activities: - Analyze experiences, lessons learned and good practices in conducting TNAs and implementing their results - Work on linkages between TNA process and NDC process - Identify innovative approaches to stimulate uptake of existing clean technology solutions. Outputs: - TEC Brief 13 Enhancing implementation results of TNA - TEC Brief 14 Innovative approaches to accelerating and scaling up implementation of mature technologies - Paper on Linkages of TNA and NDC	Technical Assistance is provided to countries to develop TNAs and TAPs, delivered in close collaboration with the GEF and GCF. Technical Assistance is delivered to develop and strengthen policies, plans and legal and regulatory frameworks, and to identify barriers to the development and transfer of socially and environmentally sound technologies. Outputs: - CTCN Technical Assistance: Updating of Georgia's technology needs assessment (TNA) through development of technology road maps for prioritized technologies - CTCN Technical Assistance: - Formulation of Kenya's ten year national agroforestry strategy (2020 – 2030) Capacity Building is delivered to countries to make effective use of TNA findings and Technology Action Plans and roadmaps. Capacity is built through on-the-job and curriculum-based training on technology identification and assessment methods. CTCN knowledge portal provides access to updated and relevant tools and resources for technology identification, prioritization and transfer, as well as information on CTCN technical assistance[25] and a library of technology webinars.[26] Outputs: - CTCN Knowledge Portal – Technology Sectors

[25] https://www.ctc-n.org/technical-assistance/data.
[26] https://www.ctc-n.org/news-multimedia/recorded-webinars.

Enabling Environment & Capacity-Building Technology framework provides guidance on various actions under this theme including those relating to: • Public awareness • Enhancing enabling environments (investment-friendly, regulatory, policies, etc) • Endogenous and gender-responsive technologies • Fostering private sector engagement • Information sharing and networking • Capacities of NDEs and Parties • Collaboration with capacity-building institutions	Activities: - Analyse measures that facilitate countries in enhancing enabling environment to promote endogenous capacities and technologies - Examine enabling environments, including challenges and opportunities to incentivize the private and public sector in the development and transfer of technologies Outputs: - Collaborate with PCCB in organizing a A dialogue to promote shared understanding of endogenous capacities and technologies - Understanding gaps, needs, challenges and enablers to promote endogenous capacities and technologies - Paper on enabling environments and challenges, including barriers based on TNA, NDC, CTCN technical assistance, and relevant TEC Briefs	Technical Assistance is delivered to identify and develop efficient financing options for climate technologies, and to strengthen policies, plans and legal regulatory frameworks. Technical Assistance implementation fully incorporates the CTCN gender guidelines and support is provided to requesting countries to develop their own gender-responsive initiatives, frameworks, policies and programs. Outputs: - Assessment of energy efficient street lighting technologies and financing models for Thai municipalities Capacity Building to support the development of national strategies and action plans, supportive policy environments, and legal and regulatory frameworks The CTCN implements its Gender Policy and Action Plan (2019-2022)[27] in order to mainstream gender into its technology services. It likewise partners with the UNFCCC Women and Gender Constituency to deliver the Gender-Just Climate Solutions Awards and Up-Scaling Programme.[28] Examples: - Webinar on Financing mechanisms and business models for energy efficient technologies Knowledge-gathering through leveraging the expertise of Network members including expanding the network and enhancing its connectedness, and Knowledge partners, and gathering lessons learned from technical assistance.
Collaboration and Stakeholder engagement Technology framework provides guidance on various actions under this theme to enhance engagement and collaboration with: • local communities and authorities, national	Activities: - Develop a joint policy brief on technologies for averting, minimizing, and addressing loss and damage in coastal zones, in collaboration with WIM-Excom - Engagement in regional technical expert meetings on mitigation in collaboration with CTCN and partner organizations Outputs:	Technical Assistance will focus on strengthening private sector access to finance through scale up of pre-feasibility studies to define market barriers and enable investors to access those markets. Outputs: - CTCN Technical Assistance: Mapping Contributions from Private Sector to mitigation and adaptation targets in the Dominican Republic

[27] https://www.ctc-n.org/resources/ctcn-gender-policy-and-action-plan-2019-2022.
[28] https://www.ctc-n.org/sites/www.ctc-n.org/files/resources/GJCS_English_Final.pdf.

planners, private sector and civil society organizations • NDEs and relevant stakeholders • international organizations, institutions and initiative particularly on new and innovative technologies	- Joint policy brief on technologies for averting, minimizing and addressing loss and damage in coastal zones - Regional TEMs in 2020 and 2021 held in conjunction with regional climate weeks in Asia-Pacific, Africa, Latin America and Caribbean https://unfccc.int/ttclear/events/index.html	CTCN to foster partnerships and host events with key stakeholders. These partnerships will feature NDEs as pivotal actors to link them to stakeholders, including the private sector, as well as to support enhanced engagement among Network members. Outputs: - CTCN Climate Technology Matchmaking Event Capacity Building is provided to assist stakeholders with technology identification, and regional forums will provide opportunities for matchmaking with relevant partners. Outputs: - CTCN Regional NDE Forums Young people are engaged in partnership with YOUNGO, the UNFCCC youth constituency, in a variety of activities including joint events, a Youth Knowledge Exchange Programme and the CTCN Youth Innovation Labs.[29]
Support Technology framework provides guidance on various actions under this theme including in relation to: • Collaboration with the Financial Mechanism • Innovative financing • Technical support and access to financing • Resource mobilization including in kind and pro-bono • Monitoring and tracking of actions	Activities: - Update the PSP evaluation report to include experiences and lessons learned from PSP climate technology transfer and finance centres and pilot projects of the fourth replenishment of the GEF - Undertake Analysis on the experiences, lessons learned and good practices from GCF/GEF's support for technology with a view to enhancing collaboration with the Financial Mechanism Outputs: - Updated evaluation of PSP https://unfccc.int/documents/194944 - Technical paper on lessons learned and good practices from GCF and GEF support on technology development and transfer	Technical Assistance will be undertaken that is funded by the GCF Readiness and Preparatory Support Programme. Events and workshops will be convened to bring together developing country focal points, including NDE, with Network members possessing project development finance expertise as well as with representatives from international financial institutions Capacity Building, including the Vision to Concept approach developed by the CTCN, will train project developers to prepare climate technology-related submissions to the GCF. Outputs: - Vision to concept capacity-building module
	Monitoring and Evaluation framework: In 2019 TEC and CTCN jointly developed a consistent and robust monitoring and evaluation system to report on the activities of the two bodies. The system includes a Theory of Change, a Logical Framework Analysis and a Performance Measurement Framework. The system has been implemented first on a pilot basis, with a view to improving it over time taking into account experiences of using the system. See also proposed joint activities on joint survey to NDEs to implement M&E system.	

[29] https://www.ctc-n.org/capacity-building/youth-climate-innovation.

Joint activities TEC and CTCN	**1. Technology and NDC (2021)** 1. Jointly analyse technology issues (e.g. needs, challenges, linkage between policy and implementation, link to national adaptation plans) related to NDCs based on an analysis of submissions of revised NDCs (2020), and findings from both the TEC and CTCN's work related to NDCs. 2. Jointly identify success stories and failures on the uptake of technologies, building on the outcomes of pre-2020 technical examination process, previous work of TEC, and sourcing information from technology stakeholders, NDEs, and CTCN network members. 3. Develop a joint publication containing elements of points (1) and (2) above. 4. Provide a joint recommendation to CMA3/COP 26 on how to stimulate the uptake of climate technology solutions, including through the enhancement of enabling environments, to support the implementation of NDCs. Output: Technology & NDC joint publication **2. Gender and technology (2021-2022)** 1. Encourage and generate awareness of countries and their NDEs, TEC members, Advisory Board members on the COP guidance on the need to achieve gender balance in their Boards, in accordance with decisions 36/CP.7 and 23/CP.18 and report annually on the gender distribution of the TEC, Advisory Board and CTCN Secretariat. 2. Support the UNFCCC secretariat in developing and maintaining a roster of gender experts to call upon for various events, workshops, activities and for consultation during technical assistance implementation. Output: Ongoing
Remarks	While the rolling workplan and programme of work are structured according to key themes of the technology framework, the TEC and CTCN ensured that their activities responded to guidance from both the COP and the CMA and that efficiency and effectiveness are achieved through avoiding duplication of activities while still being responsive to specific guidance for each governing body. Particularly when responding to guidance of the technology framework, the TEC and CTCN worked in a complementary manner, according to their respective mandates and functions. It is important to note an activity may respond simultaneously to various guidance by the technology framework. For example, the CTCN's Adaptation Fund Climate Innovation Accelerator programme focuses on innovation but also responds to guidance under key theme Support in terms of facilitating access to financing for innovation. Joint activities focusing on specific topics, such as NDC and gender, have enhanced the collaboration and coherence of the work of the two bodies in these topics. In the four-year period of the WP and PoW, the TEC and CTCN have attempted to cover many areas referenced in the technology framework. However, it is recognized that there are areas that still yet to be covered, including extending collaboration and engagement of relevant stakeholders (for example, engagement of private sector).