Programme of Work 2019-2022

Climate Technology Centre and Network

April 17, 2019

Acronyms

AOP	Annual Operating Plan
COP	Conference of the Parties to the UNFCCC
CTCN	Climate Technology Centre and Network
FTA	Fast Technical Assistance
GEF	Global Environment Facility
GCF	Green Climate Fund
GHG	Greenhouse Gas
LDC	Least Developed Country
NDA	National Designated Authority
NDE	National Designated Entity
PFAN	Private Financing Advisory Network
PoW	Programme of Work
RD&D	Research, Development and Deployment
SIDS	Small Island Developing States
SDG	Sustainable Development Goal
SME	Small-and Medium-sized Enterprise
TA	Technical Assistance
TEC	Technology Executive Committee
TF	Technology Framework
TM	Technology Mechanism
UNFCCC	UN Framework Convention on Climate Change

Contents

The CTCN Programme of Work 2019-2022

I. Introduction

1. The Climate Technology Centre and Network (CTCN) is the implementation arm of the Technology Mechanism of the United Nations Framework Convention on Climate Change (UNFCCC). The CTCN stimulates technology cooperation and enhances the development and transfer of technologies. It assists developing country Parties to strengthen their capacity to identify technology needs, to facilitate the preparation and implementation of technology projects and strategies for low emissions and climate-resilient development. Created by Parties to the UNFCCC in 2010, it is hosted by UN Environment and UNIDO and began operations in 2013.

2. This document presents the second Programme of Work (PoW) for the CTCN and covers the period 2019-2022. Its term aligns with the extension of the hosting agreement of the CTCN agreed in December 2017.

3. The first PoW, approved by the CTCN Advisory Board in 2013, provided a roadmap for the start-up phase of the CTCN through the establishment of its three core service areas: responding to country requests for technical assistance; building local capacity and networks; and increasing information flows and knowledge-sharing. Five years after becoming operational, the CTCN is working alongside 500 network members and 160 national climate technology focal points to meet the needs for climate technology identified by developing countries. The CTCN completed approximately 70 technical assistance interventions – its principal service offering – during the term of its first PoW, with approximately one hundred additional interventions underway as of Q1 2019.

4. The second PoW aligns the country-driven services provided by the CTCN with the actions and activities specified in the technology framework of the Paris Agreement. AOPs will set targets on an annual basis in line with resources available to support its operations, and provide detail on the activities of the CTCN that fall within its mandate as the implementation arm of the Technology Mechanism – such as its work to support the needs of developing countries, in particular Least Developed Countries and Small Island Developing States.

II. Operational Context

5. The technology framework of the Paris Agreement was adopted at the 24th meeting of the Conference of the Parties to the UNFCCC (COP). The technology framework was established to provide overarching guidance to the work of the Technology Mechanism in promoting and facilitating enhanced action on technology development and transfer in order to support the implementation of the Paris Agreement in pursuit of the long-term vision referred to in its Article 10, paragraph 1: "Parties share a long-term vision on the importance of fully realizing technology development and transfer in order to improve resilience to climate change and to reduce greenhouse gas emissions".

6. To further accelerate the development and transfer of climate technologies, the framework establishes principles and puts forward actions and activities across five key themes: (a) innovation; (b) implementation; (c) enabling environment and capacity-building; (d) collaboration and stakeholder engagement; and (e) support. The CTCN Programme of Work organizes the activities of the CTCN, and those undertaken collaboratively with the TEC, according to this structure and ensures coherence with corresponding guidance from Parties to the UNFCCC and its Advisory Board.

7. The Programme of Work of the CTCN is guided by the principles of the framework included in decision 15/CMA.1, Annex I, paragraph 3, namely:

a. Align with the long-term vision for technology development and transfer and other provisions of the Paris Agreement, national plans and strategies under the Convention and actions undertaken by relevant institutions in the international climate regime and beyond;

b. Be designed and implemented in a manner that facilitates the active participation of all relevant stakeholders and takes into account sustainable development, gender, the special circumstances of the least developed countries and small island developing states, and the enhancement of indigenous capacities and endogenous technologies;

c. Be results-oriented in terms of output, outcome and impact;

d. Address the transformational changes envisioned in the Paris Agreement; and

e. Be designed and implemented in a manner that enhances the transparency of the results, costs and process, such as through planning, resource management and reporting on activities and support.

8. The PoW reflects the agreed scope and modalities for the periodic assessment (PA) of the Technology Mechanism, the outcome of which should guide improved effectiveness and enhanced support to the Technology Mechanism in supporting the implementation of the Paris Agreement. The PoW also reflects all other COP decisions and AB guidance as appropriate.

III. Implementation of the Programme of Work

9. Paragraph 2 of the technology framework of the Paris Agreement notes that it can play a strategic role in improving the effectiveness and efficiency of the work of the Technology Mechanism and includes specific actions and activities under each of its five themes that are to be addressed by the TEC and CTCN.

10. The actions and activities identified in the technology framework fall into three categories: those for implementation by the CTCN; those for implementation by the TEC; and those to be implemented collaboratively by both the TEC and CTCN. The PoW captures some of the areas with a role for the CTCN, either independently or in partnership with the TEC[1]. Additional actions and activities in support of the implementation of the technology framework will be considered in future Annual Operating Plans.

11. In the tables that follow, the actions and activities of the framework are presented as intended outcomes in the first column. The types of services provided by the CTCN or collaboratively with the TEC that are anticipated to lead to the desired outcomes - and their associated outputs, as appropriate – are included in the second column. The third column presents indicative performance indicators. Targets and specific quantifiable and measurable indicators will be established on an annual basis according to Advisory Board guidance and available funding for the CTCN. Indicators may be subject to adjustment based on the work of the monitoring and evaluation consultant.

Theme 1: Innovation

12. The CTCN will actively engage in areas where it can deliver meaningful impact while continuing to provide technical assistance across the technology innovation cycle. The CTCN will also continue to organize and categorize its technical assistance so as to more effectively share knowledge and build capacity across the full breadth of available and appropriate climate technology solutions. The CTCN will continue to engage with

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[1] Actions and activities to be implemented collaboratively with the TEC and agreed by the Chairs of the TEC and CTCN will be Annexed to this document.

international organizations involved in science, technology and innovation in support of climate objectives and country Nationally Determined Contributions (NDCs) and Sustainable Development Goals (SDGs).

13. Activities identified in the Innovation theme of technology framework that will be addressed by the CTCN include:

Intended outcomes *(aligns with technology framework activity)*	Actions and activities by the CTCN	Indicative Performance Indicators[2]
Countries are supported to incentivize innovation, including National Systems of Innovation (NSI) (a)	Technical Assistance is delivered to improve policy environments, strategies, legal and regulatory frameworks. Capacity building to strengthen institutional arrangements	Number of countries receiving support for national systems of innovation Climate impact of technical assistance delivered (including gender-differentiated data) [3] Number of institutions receiving training on climate innovation Number of women receiving training on climate innovation
Providing information and facilitating the sharing of information on international technology RD&D partnerships and initiatives, good practices and lessons learned from countries' climate technology RD&D policies and activities (b)	The CTCN's knowledge-sharing activities and online knowledge platform will be supplemented with best practice and lessons learned from countries' climate technology RD&D policies and activities, including through links to additional external databases and other resources	Number of case studies presented on the CTCN knowledge management platform Number of beneficiaries accessing the CTCN knowledge management platform
Countries are supported for the development, deployment and dissemination of existing innovative technologies and the scale-up and diffusion of emerging climate technologies (c)	Technical Assistance is focused on priority technologies with the potential for transformative impact. Knowledge related to innovative technologies and best-practice examples are sourced and promoted through CTCN knowledge platform and media channels.	Number of countries receiving support for the development, deployment and dissemination of existing technologies Number of countries receiving support for the diffusion of emerging technologies Climate impact of technical assistance delivered[1] Number of emerging and existing technologies promoted Number of GCF proposals based on CTCN support Value of GCF proposals based on CTCN support
Countries are receiving support for long-term technological transition pathways towards the	Technical Assistance is delivered in support of Technology Needs Assessments, Technology Action Plans, NDCs, and NAPs	Number of countries integrating long-term technological transition pathways into planning processes and documents

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[2] Quantitative goals and targets will be included in Annual Operating Plans for the CTCN with projections for the remaining period of the PoW.

[3] The impacts of CTCN technical assistance are measured at the end of the intervention based on information from two documents: 1. The TA closure report which combines both qualitative and quantitative assessment of the impacts of the technical assistance itself, including gender-disaggregated data, but also assumptions of anticipated impacts; 2. The NDE feedback form that includes commitments on post-intervention actions by the country. The products of these two documents are compiled in a monitoring table, allowing the CTCN to report on specific indicators on an annual basis.

widespread uptake of climate technologies (d)		Number of countries receiving support for the development of long-term technological transition pathways Climate impact of technical assistance delivered[1]
Countries are receiving support for initiating joint climate technology RD&D activities (f)	CTCN promotes the engagement of countries in RD&D activities through South-South, North-South and triangular collaboration and within selected international initiatives	Number of countries participating in South-South, North-South and triangular collaboration
Partnerships are built between the public and private sector in the development and transfer of climate technologies (i)	Technical Assistance is increasingly implemented by Network Members Capacity building is delivered to small and medium sized enterprise Knowledge Sharing initiatives focused on private sector partners are enhanced and an online platform for private sector engagement is created	Number of Technical Assistance interventions implemented by Network Members Number of private sector stakeholders benefitting from training, including gender-disaggregated data Number of public-private partnerships events Number of institutions, organizations and entities engaged in public-private partnerships

Theme 2: Implementation

14. The Implementation theme will be a principal focus of the CTCN as it aligns very closely with its operational priority to respond to country requests for technical assistance. While these requests are determined by the developing countries themselves, the CTCN will be mindful of applying the principles of the framework to ensure maximum scalability, replicability and impact of its actions. The CTCN and its expert implementing partners will continue build on the findings of Technology Needs Assessments (TNA) and Technology Action Plans (TAP), as appropriate, and seek to partner with countries and multilateral funding agencies to help them determine the approach best-suited to the national situation and stage of industrialization of the requesting country.

15. In order to make more efficient use of internal resources, the CTCN has been prioritizing smaller, swifter, more targeted responses designed to respond in a timely manner to requests that clearly address a barrier impeding effective technology transfer. In these cases the CTCN will also increase its delivery of smaller-scale and Fast Technical Assistance (FTA; <$15K), reserving larger TA implementation for funding by partner institutions, including the Financial Mechanism of the Convention. FTA requests will allow the CTCN to increase the number of requests to which it can respond as well as the number of countries it can serve, and can be promoted as an option to countries as a standalone option or in conjunction with a larger request.

16. This approach may also reduce the amount of time the CTCN spends refining requests and can lead to subsequent requests for CTCN support for larger efforts – including at the regional level – that increase the leverage ratio of the initial investment, reduce transaction costs and deliver more clearly defined impact. This focus on impact will be supported by enhanced monitoring and evaluation, as noted in the Annual Operating Plan for 2019, including scheduled follow-up in 2-4 years to ensure anticipated impacts materialize through the appropriate implementation of the technical assistance.

17. The CTCN continues to design and implement technical assistance at the request of developing countries in line with their Nationally Determined Contributions as its principal implementation activity. The table below captures a representative summary of the activities to be implemented by the CTCN that align with the specific actions identified by the technology framework, including:

Intended outcomes	Actions and activities by the CTCN	Indicative Performance Indicators
Countries are supported to undertake and update TNAs, as well as enhance the implementation of their results and strengthen links to NDCs and NAPs (a, b)	Technical Assistance is provided to countries to develop TNAs and TAPs, delivered in close collaboration with the GEF and GCF Capacity Building is delivered to countries to make effective use of TNA findings and Technology Action Plans and roadmaps Learning from experiences in developing and implementing TNAs is facilitated through the sharing of information on the CTCN knowledge platform which will be supplemented with best practice and lessons learned on TNAs, at regional forums, and at UNFCCC meetings	Number of countries receiving support for TNA and technology action plan undertaking, updating and implementation Value of Technical Assistance directly implementing TNAs and technology action plans Number of information sources related to TNAs and technology action plans included in the CTCN knowledge management systems Number of TNA and technology action plan-related webinars
Recommendations have been identified and developed to provide stakeholders with access to approaches, tools and means for the assessment of technologies that are ready to transfer (d)	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	Number of countries receiving support for approaches, tools and means for the assessment of technologies that are ready to transfer Climate impact of Technical Assistance delivered[1] Number of stakeholders receiving training on assessing technologies that are ready to transfer Number of approaches, tools and means to assess technologies that are ready to transfer in CTCN knowledge portal
Countries are able to enhance enabling environments and address barriers to the development and transfer of socially and environmentally sound technologies (e)	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	Number of countries receiving support Climate impact of Technical Assistance delivered[1] Number of policies, regulations and legal frameworks enhanced The number of gender and socially-responsive policies, regulations and frameworks

Theme 3: Enabling environment and capacity building

18. The CTCN has found that virtually all of its technical assistance interventions, which represent three-quarters of its operational budget, contain a capacity-building component. The work it has done to create appropriate enabling environments, such as the development of national strategies for energy efficiency or technology

feasibility studies, has been the most transformational in terms of long-term potential deviation from Business-as-Usual scenarios.

19. Capacity-building is an important building block of the CTCN's work and remains a high priority throughout the period covered by this PoW. This includes building or strengthening the capacity of developing countries, in particular Least Developed Countries and Small Island Developing States, to identify technology options, make technology choices and operate, maintain and adapt technology that will help increase resilience and mitigate GHG emissions in line with national priorities.

20. The CTCN's geographic approach benefits the separate but interlinked objectives of increasing domestic capacity to create enabling environments for technology transfer and tapping into expert organizations best-positioned to implement solutions that deliver on objectives of the project proponent. CTCN experience has demonstrated that the most effective TA services are implemented when undertaken in conjunction with well-positioned local partners. Additionally, CTCN engagement via events such as UNFCCC regional climate weeks or at sector-specific events target a wide range of stakeholders with common regional interests that are well placed to partner, share information, and collaborate.

21. Additionally, the CTCN has enjoyed great results when convening regional focal points – not just for technology transfer, but for climate change, GEF, and GCF as well. These officials often play many roles within their national governments. This creates opportunities not just for sharing common experiences but to build relationships. It also leads to more active focal points and higher quality requests for technical assistance.

22. Activities identified in the Enabling environment and capacity building theme of technology framework that will be addressed by the CTCN include:

Intended outcomes	Actions and activities by the CTCN	Indicative Performance Indicators
Stakeholders and the general public are increasingly aware of climate technology development and transfer tools, approaches and methods (a)	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 Knowledge-sharing through continuously updated and relevant resources in the CTCN knowledge platform, webinars and targeted communications	Number of participants in webinars Number of information resources targeting the general public available on the knowledge platform Stakeholders engaged through climate weeks, COP and other meetings
Countries build investment-friendly environments, including national strategies and action plans, policy environments, legal and regulatory frameworks and other institutional arrangements (b)	Technical Assistance is delivered to identify and develop efficient financing options for climate technologies, and to strengthen policies, plans and legal regulatory frameworks Capacity Building to support the development of national strategies and action plans, supportive policy environments, and legal and regulatory frameworks	Number of countries receiving support to enhance investment friendly environments Climate impact of Technical Assistance delivered[1] Number of stakeholders trained, including gender-disaggregated data Value of national investment mechanisms launched
Countries enhance enabling environments to promote endogenous and gender-	Technical Assistance implementation fully incorporates the CTCN gender guidelines and support is provided	Number of Network Members with gender expertise increased

responsive technologies for mitigation and adaptation actions (c)	to requesting countries to develop their own gender-responsive initiatives, frameworks, policies and programs. <u>Capacity building</u> is delivered to <u>public, non-governmental, and private sector</u> and fully incorporates the CTCN gender guidelines. <u>Capacity building</u> to develop gender-responsive and endogenous technologies in developing countries is delivered.	Number of developing country Network Members receiving gender-focused training Number of resources in the Gender Hub and Endogenous Technologies Hub on the CTCN knowledge platform Number of gender-responsive policies regulations and tools supported Number of countries receiving support for the promotion of endogenous technologies
Countries have developed/implemented policies and enhanced enabling environments which incentivize the private and public sector to fully realize the development and transfer of climate technologies (d)	<u>Engagement</u> initiatives focused on private sector partners are convened <u>Capacity building</u> is delivered to small- and medium-sized enterprises and public sector institutions to enhance their understanding of efficient tools, policy instruments and incentives to support technology transfer	Number of private sector stakeholders receiving training, including gender-disaggregated data Number of public-private partnerships events on the development and transfer of technologies Number of public-private technology development and transfer agreements put in place Number of publications targeting the private sector Number of policies and enabling environments developed, enhanced or implemented which incentivize private or public sector actors
Governments are fostering private sector involvement by designing and implementing policies, regulations and standards that create enabling environments and favourable market conditions for climate technologies (e)	<u>Capacity</u> is built within the private sector to carry out market assessments of climate technologies Capacity is built in the public sector to understand the needs and appropriate incentives to spur adoption of climate technologies by the private sector	Number of countries receiving support for the creation of favourable market conditions for climate technologies Climate impact of Technical Assistance delivered[1] Number of companies receiving training on climate technology markets Number of private sector actors implementing climate technology projects Number of policies or plans adopted in support of the creation of favorable markets Number of public-private events on the enhanced participation of the private sector in climate technology markets
Information is shared and networking enhanced to create synergies and to enable the exchange of best practices, experience and knowledge on technology development and transfer (f)	<u>Learning</u> is facilitated based on good practices and lessons learned from countries' climate technology policies and activities and shared online	Number of resources and case studies included in the CTCN knowledge platform Number of beneficiaries accessing the CTCN knowledge management platform

Collaboration is enhanced with existing capacity-building organizations and institutions, including those under the Convention (i)	Engagement is enhanced through workshops and meetings with capacity-building institutions through UNFCCC Climate Weeks, inputs to GCF regional Dialogues, and other relevant meetings	Number of joint events supported Number of participants in CTCN events from capacity-building organizations and institutions Number of joint publications
Capacity of NDEs of all Parties, especially those in developing countries, is increased (j)	Learning is provided to NDEs including through regional forum, thematic training workshops, online knowledge platform and support for national events	Number of NDEs receiving training Number of national events supported Number of NDEs accessing online guidance, capacity building and training material
Capacities of Parties to plan, monitor and achieve technological transformation in accordance with the purpose and goals of the Paris Agreement is increased (k)	Technical Assistance is delivered to support the identification of efficient technologies and assessment methods Capacity is built through training of relevant government officials to plan, monitor and achieve technological transformation	Number of countries receiving support to plan, monitor and achieve technological transformation Climate impact of Technical Assistance delivered[1] Number of government officials receiving training Number of planning tools for technological transformation developed

Theme 4: Collaboration and stakeholder engagement

23. The activities undertaken under this theme are designed to enhance the number and quality of interactions between NDEs and all stakeholders critical to accelerating the transfer of climate technologies. This theme also addresses barriers to the adoption of climate technologies by the private sector, including through supporting the development of low-emissions policies and standards and partnering with the TEC on areas of mutual interest and expertise. The work of the CTCN will also focus on enabling developing country stakeholders to produce higher quality, investible proposals for technology adoption, sharing best practice on de-risking climate technologies for sub-regional markets, and technical assistance interventions that test the feasibility and appropriateness of specific climate technologies.

24. Communication and strategic engagement are critical elements to the CTCN's service delivery. The Centre will continue to broaden awareness of its technology services, share information, and demonstrate its value. With a broad range of stakeholders, spread across geographic and linguistic areas, the CTCN's communication activities demand tailored messaging and dynamic methods, including a strong visual identity.

25. Sharing technology knowledge through the CTCN knowledge portal will amplify the CTCN's efforts. For this purpose, the CTCN utilizes a Knowledge Partners network. It supports the CTCN's mandate to foster collaboration and access to information and knowledge. Through this network, the CTCN generates, manages and shares knowledge, experience and good practices at the national, regional and global levels, and traditional knowledge and practices. In support of these efforts the CTCN developed a world class knowledge management system throughout its first five years. During the next four years, the focus must shift to engagement and learning, building on its knowledge management experience.

26. Going forward, the CTCN will expand its efforts to deepen awareness of its services at the national level through direct outreach to academic and innovation centres as well as non-governmental organizations and municipal governments. It will continue its efforts to reach out to Least Developed Countries and Small Island Developing

States through its incubator programme, with a particular focus on those most vulnerable countries[4] with little awareness or engagement thus far with its services. In addition, the CTCN will begin to extract and aggregate information from its technology assistance and capacity building work with the TEC to better highlight the informative outputs to a broader stakeholder group. In this way, CTCN will be able to create additional value from its original investment and multiply its utility including through enabling South-South, North-South and triangular cooperation.

27. Prior to adopting a geographic model, stakeholder engagement was predominantly achieved through interaction with NDEs. Over the next four-year period, however, it will be deepened through the CTCNs geographic teams. As part of this strategy, CTCN teams will develop and maintain stronger relationships with the private sector in countries under their purview. Engagement will occur directly with business and industry in order to identify and respond to challenges in overcoming technology barriers and helping to support emerging technologies and the adaption of existing technologies. This will be accomplished through to two key business lines: (1) Supporting governments to develop policies that incentivize the adoption of climate technologies, and (2) Facilitating the integration of climate technologies into business operations. CTCN will work to position itself as a de-risking facility for attracting private sector finance by providing due diligence to investment in regional markets. The proven experience of CTCN and the initial positive impacts of its activities can be used as points of entry to help develop markets for proven and emerging climate technologies. In addition, the teams will build relationships with regional development banks and local financial institutions, where possible and appropriate, to ensure closer coordination with other ongoing sub-national and regional programmes/projects.

28. Activities identified in the Collaboration and stakeholder engagement theme of technology framework that will be addressed by the CTCN will include:

Intended outcomes	Actions and activities by the CTCN	Indicative Performance Indicators
Enhanced collaboration and engagement with relevant stakeholders, including local communities and authorities, national planners, the private sector and civil society organizations in the planning and implementation of Technology Mechanism activities (a)	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.	Number of participants in collaborations and partnerships with local stakeholders, including local communities and authorities, national planners, the private sector and civil society organizations Number of Network members with gender expertise Number of new Network members Number of individuals and organizations attending CTCN events including gender balance Number of social media followers Number of recipients of CTCN newsletter Number of Technical Assistance implemented by Network Members
Enhanced engagement and collaboration with the private sector to leverage expertise, experience and knowledge regarding effective enabling environments that support the	CTCN to partner with Regional Development Banks, local financial institutions and private sector associations. Technical Assistance will focus on strengthening private sector access to finance through scale-	Number of private sector stakeholders engaged Number countries receiving support for private sector engagement

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4 http://pubs.iied.org/10189IIED/

implementation of the Paris Agreement (b)	up of pre-feasibility studies to define market barriers and enable investors to access those markets. Capacity Building will also be provided to assist stakeholders with technology identification, and regional forums will provide opportunities for matchmaking with relevant partners.	Number of private sector stakeholders and organizations attending CTCN events Number of women-led private sector organizations and entities receiving support through technical assistance
Enhanced engagement between NDEs and relevant stakeholders, including by providing guidance and information (c);	Events, including specific thematic workshops at sub-regional level will be organized with NDEs to empower them in their role as technology focal points of the UNFCCC	Number of new collaborations between NDEs and relevant stakeholders Number of guides prepared to facilitate stakeholder engagement Number of NDEs using CTCN communication material to engage with relevant stakeholders
Enhanced collaboration and synergy with relevant international organizations, institutions and initiatives, including academia and the scientific community, to leverage their specific expertise, experience, knowledge and information, particularly on new and innovative technologies[5] (d)	The expertise of academia, research institutions and relevant international organizations will be leveraged through knowledge partnerships and at CTCN events and regional forums to assist beneficiaries on new and innovative technologies. Those actions will prepare the ground for scale-up purposes. These activities include also new and innovative technologies that require an initial assessment to verify their potential for growth and deployment.	Number of collaborations in place with international organizations, institutions and initiatives including those with gender expertise Number of new information resources available on the CTCN knowledge platform related to 'new and innovative' technologies Number of beneficiaries accessing the CTCN knowledge management platform

Theme 5: Support

29. Article 10 of the Paris Agreement states that support, including financial support, shall be provided to developing country Parties for its implementation, including for strengthening cooperative action on technology development and transfer at different stages of the technology cycle. The understanding of support under this key theme is broader than just financial support. It should include all aspects of support for all key themes of the technology framework.

30. The activities of the CTCN provide a wide range of support, and its actions across all themes can strengthen the ability of countries to access financial resources to undertake actions related to climate technology that align with their national priorities, including through closer collaboration with the Financial Mechanism of the UNFCCC.

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[5] The CTCN will abide by any agreed definition of this term agreed by Parties to the UNFCCC or, absent such a definition, by its Advisory Board.

31. Activities identified in the Support theme of technology framework that will be addressed by the CTCN include:

Intended outcomes	Actions and activities by the CTCN	Indicative Performance Indicators
Collaboration of the Technology Mechanism with the Financial Mechanism is enhanced and support for technology development and transfer is strengthened (a)	Events and Workshops will be convened that connect NDE with UNFCCC climate focal points with focal points for the GCF and GEF. Technical Assistance will be undertaken that is funded by the GCF Readiness and Preparatory Support Programme. 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.	Number of technology proposals developed through CTCN technical assistance that are supported by the GEF/GCF Value of proposals implemented by the CTCN supported by the GCF Number of GCF-related workshops and training sessions supported by the CTCN Number of participants in joint events
Enhanced technical support is provided to developing country Parties in a country-driven manner (b)

Access to financing for innovation, including for RD&D, enabling environments and capacity-building, developing and implementing the results of TNAs, and engagement and collaboration with stakeholders, including organizational and institutional support are facilitated (c) | Technical Assistance will be provided to developing countries upon their request. Capacity Building designed to raise awareness of funding opportunities for climate technologies will be undertaken. 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. | Number of countries receiving support for innovation Value of financing leveraged by CTCN support Number of events on financing attended by NDE Number of guides and plans on financing for climate technologies developed |
| Mobilization of various types of support, including pro bono and in-kind, from various sources for the implementation of actions and activities in each key theme of the technology framework is enhanced (d) | Donor engagement strategy of the CTCN to be implemented Modalities and opportunities for pro bono and in-kind support to be communicated to countries and institutions with available resources and expertise, including through their NDEs. Partnerships with organizations with complementary skills, networks, and resources will be developed. | Number of follow-up actions based on CTCN work that have been undertaken, scaled-up, or implemented via pro bono and in-kind support Value of pro bono and in-kind support secured for CTCN activities |

IV. Approach

32. To help deliver the transformational impact envisioned by the Paris Agreement, the CTCN reorganized its operations along a geographic model in 2018. From an operational standpoint, country focal points for climate technology (National Designated Entities) now have a single point of contact within the CTCN rather than multiple focal points based on the type of service requested (e.g. technical assistance, capacity building, network outreach). This approach enables the CTCN to deepen its engagement through more integrated delivery of its core services and to better leverage multi-country solutions to mutual challenges faced within regions.

33. Multi-country technical assistance is an effective way to deploy proven solutions across a group of similarly-positioned countries while reducing the administrative burden and diminishing the marginal cost of the intervention. Additionally, in cases where recipient countries share, for example, similar legislation, regulation, energy systems or agricultural conditions, multi-country approaches expand the number of beneficiaries and multiply the impact of the intervention.

34. The geographic approach is enabling CTCN geographic teams to foster greater cooperation and collaboration with national (including sub-national) and regional entities, in particular with the private sector on a national or regional basis. This new structure is already making more effective use of UN Environment's and UNIDO's regional resources – experts with established contacts in the region that are more familiar with local customs and business practices – and reducing the risk of overlap with similar initiatives.

35. The PoW also reflects lessons learned and actions undertaken based on consideration of recommendations from multiple external reviews of its operations. In response, in addition to the priority actions and activities identified by the technology framework, over the next four-year period the CTCN plans to:

- Deliver faster, targeted TA linked to developing countries' priorities identified in their NDCs;
- Seek to identify and strengthen support for Technical Assistance interventions with transformational impact;
- Help to strengthen the contribution of climate technology to national climate processes;
- Reinforce network and private sector engagement;
- Strengthen linkages among NDE and other national climate focal points;
- Mobilize in-kind and pro bono support and additional financial resources through alignment with bilateral and multilateral funding institutions, including the Green Climate Fund and the Global Environment Facility.

36. CTCN activities during the second PoW will broadly occur at three levels (see Figure 1). In all cases, the CTCN will work to adapt and adopt new long-term planning techniques and best practices to reflect the urgency of the transformation emphasized in the IPCC Special Report on Global Warming of 1.5°C:

    - The **national or sub-national** level where activities directly support stakeholders in innovation and enabling environments. Activities at this level are span the entire technology cycle and also include support for market formation, endogenous technologies and private sector engagement.
    - **Regional** activities include supporting collective action on climate technology deployment by national governments. These actions focus on strengthening technology-related policy frameworks, including for innovation, research, development and learning.
    - Activities at the **global** level will strengthen collaboration aimed at engaging, informing or supporting climate technology actions by governments and stakeholders.

37. CTCN activities will also take into account the findings of a theory of change exercise initiated in 2018. The initial theory of change identifies the conditions for effective action by the CTCN and provides focus on the activities and areas in which the CTCN can have the greatest impact. Such conditions include: facilitating strengthened work with in-country partners, deepening engagement with an expanded network, and increasing collaboration with stakeholders, including the private sector. The finalization of the theory of change will to be completed following the adoption of the Programme of Work and the conclusion of the work of the Monitoring and Evaluation consultant in Q2 2019 in order to best position the organization to deliver on the transformational changes envisioned in the Paris Agreement.

V. Cross-cutting themes

38. CTCN activities related to the promotion of gender engagement and support as well as for Monitoring & Evaluation are crosscutting themes across all activities of the CTCN.

Gender

39. One of the principles of the technology framework that is to guide the Technology Mechanism in implementing the Paris Agreement is that it should be designed and implemented in a manner that facilitates the active participation of all stakeholders. Gender-responsiveness is one of the aspects that is to be taken into account.

40. Mainstreaming gender considerations into the work of the CTCN is a crosscutting priority for the organization. Gender considerations are referenced in numerous Conference of Parties decisions referring to the CTCN, including in the description of the CTCN's mission to facilitate the preparation and implementation of technology projects and strategies taking into account gender considerations to support action on mitigation and adaptation and enhance low emissions and climate-resilient development. Furthermore, in acknowledgement of its gender

work in the areas of climate change mitigation and adaptation, the UNFCCC Gender Action Plan[6] requests the CTCN to facilitate knowledge sharing on gender and to provide a report on how the Centre is taking gender into consideration in executing its modalities and procedures.

41.	To address these considerations, the CTCN Gender Focal Point works proactively with strategic partnerships and gender mainstreaming of CTCN operations through the recently developed CTCN Gender Policy and Gender Action Plan (2019-2022). Gender considerations have begun to be incorporated via internal and external capacity building and training on gender as well as through introducing procedures, tools, and methods for mainstreaming gender into CTCN core service areas.

42.	In the coming years the Centre will focus on implementation of its Gender Action Plan with a focus on gender balance in CTCN governance, gender mainstreaming of each stage of the technical assistance process, network and knowledge sharing, and integration of gender considerations in its capacity building activities. The Centre aims to further engage organizations with gender expertise to assist in ensuring that CTCN technology services create outcomes that benefit a broad range of stakeholders and are thus more impactful and sustainable. In order to measure its outcomes and impacts related to gender equality and gender mainstreaming, the CTCN endeavors to monitor and evaluate its efforts through the use of gender-disaggregated data, application of gender analysis tools on technical assistance, and continual evaluation of its gender mainstreaming efforts.

Monitoring, Evaluation and Reporting

43.	The CTCN continues to refine the procedures in place to monitor, evaluate and report on the effectiveness of its operations in order to ensure that support is targeted towards activities that demonstrate concrete impacts, address the transformational changes envisioned in the Paris Agreement and the long-term vision for technology development and transfer. As such, the CTCN's current efforts can be described in the categories illustrated in Figure 2, below. The figure also includes current and planned actions to strengthen the CTCN's transparency and analysis of impacts. It may be noted that the CTCN and TEC are engaging an M&E specialist in Q2 2019 to review, revise and support the strengthening of the Centre's monitoring, evaluation and reporting processes to ensure appropriate data is being collected, and impacts are clearly reported and contribute to the objectives laid out in Article 2 of the Paris Agreement. The work on the CTCN theory of change will inform the definition of outputs and outcomes as well as associated indicators.

44.	A key priority area will be strengthening CTCN's reporting on technical assistance impacts, especially related to aggregated impact indicators such as anticipated number of beneficiaries, funding leveraged and GHG emissions reduced. The Technical Assistance Closure Report where technical assistance data is gathered has recently been updated to reflect assumptions made and methodologies used and allow for clarification around units and timelines, and are made available online as TA interventions are completed. Further guidance and clarification around methodologies for quantification of core indicators will be provided to implementers and technical assistance proponents in order to strengthen reliability and quality of the data collected.

45.	To strengthen the effectiveness of its TA service offering and the reporting of impacts associated with its key activities, CTCN officials will continue to:

- Work with project proponents to ensure not only strict adherence to the TA impact description, detailed workplan and monitoring and evaluation plan, but also that their relationship to the closure report is understood and how required indicators need to be accounted for up front if they are to be measured and reported upon closure.
- Enforce the agreed and standardized methodologies applied by the implementer to estimate impact.
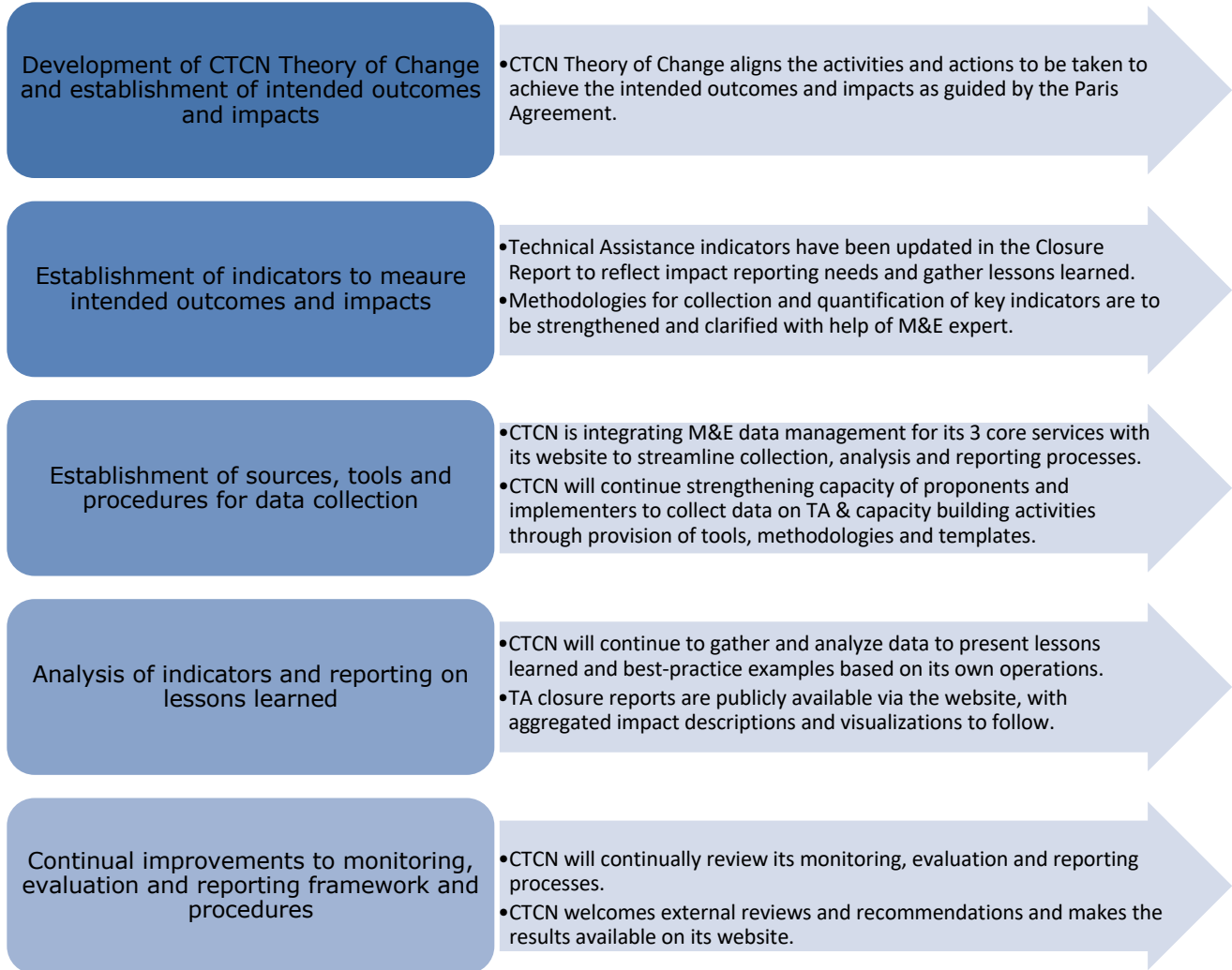
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[6] Decision 3/CP.23

- Agree on key elements of monitoring and evaluation including:
  - CTCN definition of emissions (direct, indirect), beneficiaries (direct, indirect), and how they should be consistently classified.
  - Protocols for following up on technical assistance to ensure consistency in estimated intended impacts.
- Explore the development of a centralized database for entering, maintaining and analyzing M&E data covering technical assistance, capacity building and knowledge management.

46. Continue to develop the CTCN web portal on outcomes and impacts[7] including by adding aggregated recently gathered impact data as well as further developed visualizations.

47. The CTCN will also explore the assessment of technical assistance within a transformational change framework as to better understand the ways in which they address the long-term transformational changes envisioned in the Paris Agreement, including a review of the Initiative for Climate Action Transparency (ICAT) guidelines for Transformational Change[8,9].

48. The CTCN undertook a Theory of Change exercise in 2018 to better understand how its activities were contributing to the long-term goal of technology transfer in the context of the Paris Agreement. Following the conclusion of the work of the monitoring and evaluation consultant, future Annual Operating Plans for the CTCN will better link the themes of the technology framework, its activities, their outcomes and anticipated impacts.

49. The CTCN will additionally consider the scope of and modalities for the periodic assessment of the Technology Mechanism called for in decision 1/CP.21 in the further development of its monitoring and evaluation tools and activities and in the implementation of this Programme of Work.

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[7] https://www.ctc-n.org/about-ctcn/monitoring-evaluation

[8] https://climateactiontransparency.org/icat-guidance/transformational-change/

[9] The CTCN and TEC are engaging an M&E specialist in Q2 2019 to review, revise and help strengthen its Monitoring and Evaluation system.

Figure 2: Current and planned actions for enhancement of monitoring, evaluation and reporting

Development of CTCN Theory of Change and establishment of intended outcomes and impacts
- CTCN Theory of Change aligns the activities and actions to be taken to achieve the intended outcomes and impacts as guided by the Paris Agreement.

Establishment of indicators to meaure intended outcomes and impacts
- Technical Assistance indicators have been updated in the Closure Report to reflect impact reporting needs and gather lessons learned.
- Methodologies for collection and quantification of key indicators are to be strengthened and clarified with help of M&E expert.

Establishment of sources, tools and procedures for data collection
- CTCN is integrating M&E data management for its 3 core services with its website to streamline collection, analysis and reporting processes.
- CTCN will continue strengthening capacity of proponents and implementers to collect data on TA & capacity building activities through provision of tools, methodologies and templates.

Analysis of indicators and reporting on lessons learned
- CTCN will continue to gather and analyze data to present lessons learned and best-practice examples based on its own operations.
- TA closure reports are publicly available via the website, with aggregated impact descriptions and visualizations to follow.

Continual improvements to monitoring, evaluation and reporting framework and procedures
- CTCN will continually review its monitoring, evaluation and reporting processes.
- CTCN welcomes external reviews and recommendations and makes the results available on its website.
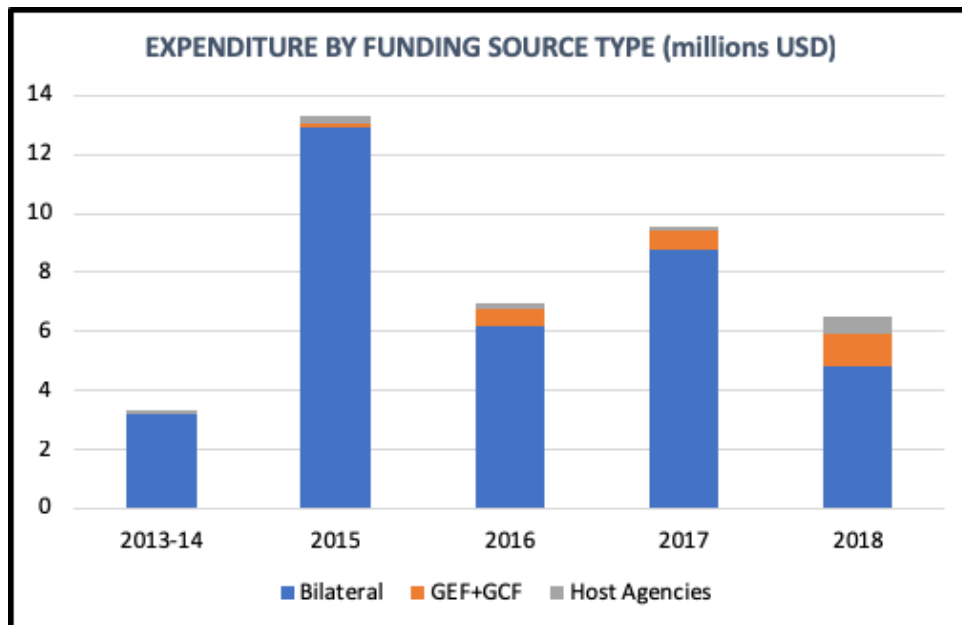
50. The outputs of the M&E system capturing the impact of the work of the CTCN will be reported to the COP and Advisory Board on an annual basis. Strategies to address problem areas will similarly be presented to the Board for its guidance.

VI. Financing the Second Programme of Work

51. To effectively follow the guidance of the technology framework of the Paris Agreement and implement this PoW, the CTCN will require financial resources[10] for its operations with the potential to scale up in accordance with needs.

52. The CTCN developed a strategy[11] to finance its Second Programme of Work in early 2018. The Strategy establishes the rationale and approach to be adopted by the organization across primary target groups.

53. In its first five years of operations the CTCN was funded primarily through voluntary contributions from developed country parties and regional organizations. It has also received targeted project support from the Global Environment Facility and the Green Climate Fund, from three national governments on a pro bono basis, and from its co-hosts UN Environment and UNIDO. Total funds secured for the activities of the CTCN through the end of 2018 totaled approximately 60 million USD.

54. Figure 3 presents the historical expenditures by source type for the CTCN during the period of its first Programme of Work (2013-2018). Its experience implementing the actions and activities associated with its mandate serve as a basis for the funding estimates presented in Figure 4 to facilitate the implementation of the technology framework.
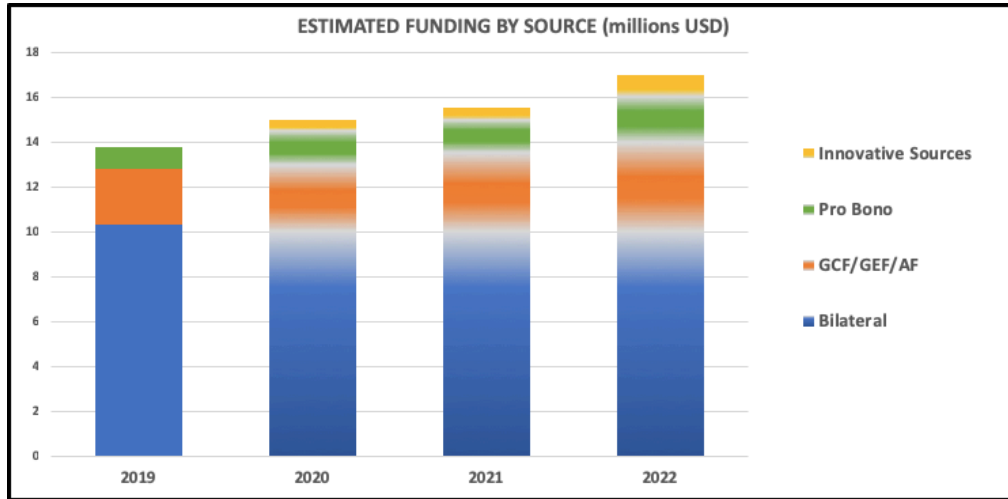
Figure 3: CTCN expenditures by source, 2013-2018[12]

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[10] In accordance with the guidance contained in UNFCCC decision 2/CP.17, paragraph 139

[11] AB/2018/11/11.2

[12] Figures presented are net of Programme Support Costs and do not disaggregate pro bono support received from the governments of Japan and the Republic of Korea

Figure 4: Estimated CTCN funding to deliver the Programme of Work 2019-2022[13,14,15]

ESTIMATED FUNDING BY SOURCE (millions USD)

Legend:
- Innovative Sources
- Pro Bono
- GCF/GEF/AF
- Bilateral

Years: 2019, 2020, 2021, 2022

55. The CTCN engaged a deputy director in February 2019 who will further develop and lead the implementation of a strategy to finance the PoW that will be systematically applied to engage with all donors and potential funding sources for each of the CTCN's core services: Technical Assistance, Knowledge Sharing, and Collaboration and Networking. It will present the value-added of partnership with donors on priority issues and regions while retaining the country-driven nature of the CTCN. It will encourage and benefit from NDE engagement in both developed and developing countries.

56. This renewed approach to resource mobilisation will also entail a mapping of all other potential funding sources: multi-lateral, philanthropic and other innovative sources to be identified. At the same time, matchmaking initiatives to spur South-South, North-South and triangular cooperation, and to continuously share opportunities for pro bono financing, will be sought.

57. The geographic approach implemented by the CTCN in 2018 is expected to enable the CTCN to more easily collaborate with existing and future bilateral donors, building on existing initiatives and better positioning itself to deliver region- or outcome-specific activities earmarked for these purposes. The CTCN will develop donor-specific approaches for primary countries active in a region, and increase its outreach with region-specific multilateral investment facilities such as the Inter-American, African and Asian Development Banks focused on providing country-specific climate technology expertise.

58. The CTCN will also seek to partner with established and emerging initiatives inside and outside the UNFCCC with established sources of funding wherein the expertise of CTCN Network members and Consortium partners may contribute their expertise in support of implementing developing country plans as well as actions identified in the technology framework.

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[13] The blended colours in Figure 4 reflect the flexible nature of the mix of anticipated funding to be sought by the CTCN to implement the Programme of Work. Funding for 2019 is aligned with the 2019 budget approved by the CTCN Advisory Board at its 12th meeting.

[14] The CTCN Advisory Board endorsed a total budget of 9.21 million USD for 2019. Assuming the CTCN implements 100% of this endorsed budget, the projected available cash beyond 2019 will be approximately 8.4 million USD. Of these resources, 74% is either earmarked for specific activities or has an approved budget with utilization restrictions. The remaining 26% is unearmarked.

[15] All planned activities remain subject to the availability of resources and further guidance that may be provided by the Advisory Board of the CTCN.

59. The updated monitoring and evaluation system will complement the funding process to guarantee transparency and accurate accounting of project-specific and aggregated indicators, quantification of climate benefits and narratives prepared in cooperation with financial counterparts, and better reflecting the impact of the interventions. This strengthened M&E process is expected to improve donor reporting by better highlighting the outcomes and impacts of the work of the CTCN.