Technology Executive Committee

02 November 2020

Twenty-first meeting

Virtual meeting, 17–20 November 2020

Monitoring and evaluating the work of the TEC: experiences and lessons learned

Background note

I. Introduction

A. Background

1.   COP 23 requested the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) to carry out monitoring and evaluation of the impacts of the implementation of their respective mandates.[1] COP 24 encouraged the TEC to continue reporting on the monitoring and evaluation of the impact of its activities and to include information on tracking of progress and on methodologies used.[2] COP 25 welcomed the coherent approach of the TEC and the CTCN to developing and enhancing their monitoring and evaluation systems (hereinafter referred to as the M&E system), and encouraged them to use these systems to improve reporting on the outputs and impacts of their work and facilitate the achievement thereof.[3]

2.   At TEC 17, the TEC initiated consideration on this matter and agreed to continue its consideration at TEC 18 so as to link the matter to the development of its next rolling workplan, taking into account outcomes of COP 24 on the technology framework and on the scope of and modalities for the periodic assessment of the Technology Mechanism.

3.   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.

4.   At TEC 19, the monitoring and evaluation expert presented the draft M&E system of the TEC for TEC's consideration. The TEC requested its Chair and Vice-Chair to finalize the M&E system, with the support of the secretariat, following the conclusion of TEC 19. The TEC also agreed to implement the M&E system on a trial basis and revise it, as appropriate, at its second meeting in 2020.

B. Scope of the note

5.   The secretariat implemented the M&E system of the TEC on a trial basis in 2020. This note contains the experiences and lessons learned from the implementation of the M&E system (see annex).

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[1] See decision 15/CP.23, paragraph 5.
[2] See decision 13/CP.24, paragraph 7.
[3] See decision 14/CP.25, paragraph 3.

C. Possible action by the Technology Executive Committee

6.   The TEC will be invited to consider the experiences and lessons learned from the implementation of the M&E system during the trial period and provide further guidance on revising it, as appropriate.

Annex

Monitoring and evaluating the work of the TEC: experiences and lessons learned

I. Introduction

A. Background

1. In response to COP and CMA mandates,[4] the TEC developed its monitoring and evaluation (M&E) framework,[5] in coordination with CTCN, "to report on the activities of the TEC and ensure their contributions to transformational changes envisioned in the Paris Agreement". TEC 19 agreed to implement the M&E system on a trial basis and revise it, as appropriate, at TEC 21.

2. Figure 1 presents the building blocks of the M&E framework starting with the TECs rolling workplan which served as a basis for the Theory of Change (ToC). The ToC presents logical pathways that capture actions and results likely to lead to transformational change, and illustrates how the expected activities, outputs, and outcomes interact in order to achieve the Technology Framework impacts. From this results the Logical Framework Analysis (LFA), which presents the intervention logic of the ToC in a sequential way with corresponding indicators for tracking progress. The next component is the Performance Measurement Framework (PMF), which is aligned with the LFA, but includes additional elements to collect, analyze, and report on the TECs activities and outputs/outcomes data. These building blocks are described in more detail in the Monitoring and Evaluation framework of the TEC, adopted by TEC 19.

Figure 1
Building blocks of the M&E framework
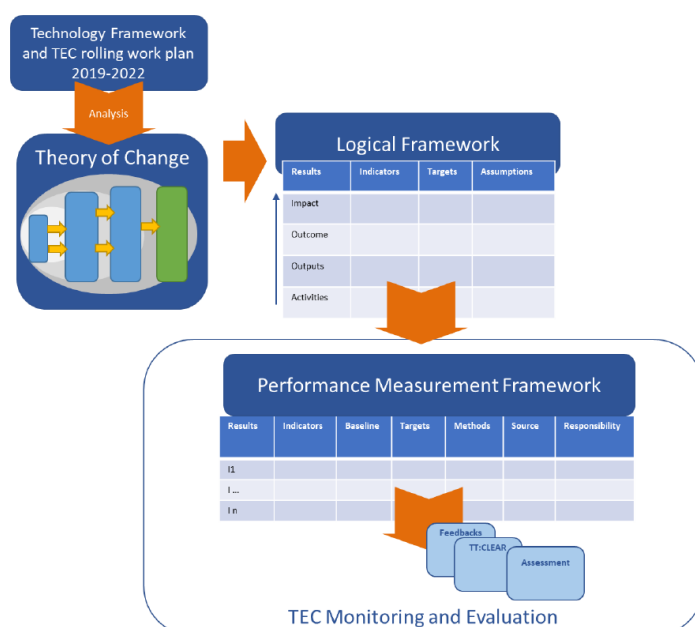
B. Objectives

3. This draft report aims to describe the experiences and lessons learned from implementing the M&E system on a trial basis. As such, it serves as a basis for the TEC to provide guidance on possible revisions to the M&E system, taking into account these experiences and lessons learned. By

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[4] See Decision 13/CP.24 and decision 15/CMA.1, para 25.
[5] Available at https://bit.ly/2Z3zH1h.

describing the approach, analyzing the findings of the performance measurement of the TEC, and reflecting on the experiences and lessons learned from this trial period, it could be assessed if the current M&E system serves its intended purpose. Do the tools currently in place serve the purpose of properly monitoring and evaluating the TECs work?

C.   Approach

4.   The approach taken to implement the M&E system on a trial basis is based on the M&E framework developed by the TEC. The operational part of the M&E system and the basis for testing it are the following:

(a)   monitoring of outputs via the Monitoring Dashboard (e.g. collecting TEC's outputs via indicators in an excel table, see Annex I), and

(b)   assessment of outcomes via a custom made NDE survey and additional information sources for specific workstreams (see Annex II).

5.   Figure 2 illustrates the process that was followed for testing the M&E system, including the actions that were taken and the results of the respective action. Following the adoption of the M&E framework at TEC19 (step 1), the measurement tools were operationalized (step 2). In order to monitor the outputs and outcomes, the Monitoring Dashboard was prepared for data collection. In addition, a NDE survey was prepared in collaboration with CTCN, complemented by additional information sources for individual workstreams. In the data collection phase (step 3), the NDE survey was disseminated to 160 NDEs to collect all available data for the Monitoring Dashboard for the years 2019 and 2020 (until TEC21). After receiving NDE responses to the survey and the completion of output data collection for the Monitoring Dashboard and the additional information sources, the data analysis of all available and received data for the measurement tools took place (step 4). In step 5, the reporting on experiences and lessons learned from the process was conducted, drawing experiences and lessons learned from the data analysis as well as the M&E process as such.

Figure 2
Approach to testing the M&E system
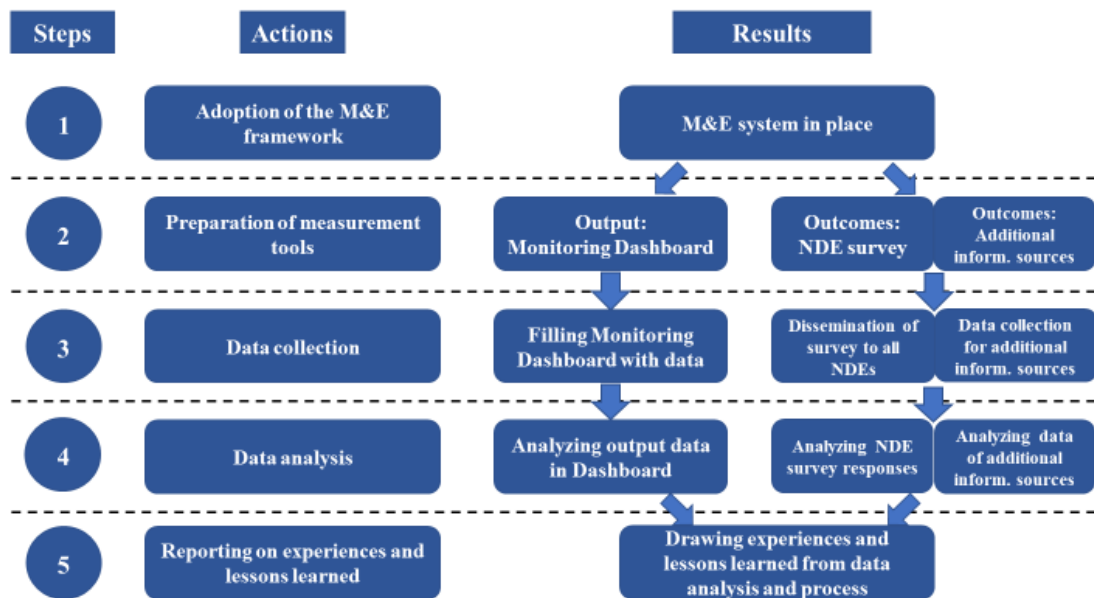
II.   Findings of the performance measurement of the TEC

6.   The performance measurement tools described in chapter 1, including the Monitoring Dashboard and NDE survey, were implemented on a trial basis. This chapter presents the data

gathering process as well as findings of applying these tools to monitor and evaluate the performance of the TEC.

A. Monitoring of outputs

1. Background

7.   The Monitoring Dashboard is a simple Excel file and acts as data repository for all the monitoring indicators, categorized by the workstreams as reflected in the Technology Framework. It is based on the PMF table and includes a column to provide data on TEC outputs on an annual basis, as well as targets for the duration of its current workplan (2019–2022). The data collection period for this report covered 2019 and 2020 (until TEC21). Based on the indicators presented in the PMF, the secretariat collected the respective data for the Monitoring Dashboard (Annex I). Key findings resulting from the analyzes of data for the output indicators are presented in the section below.

2. Key findings

8.   Table 1 summarizes the outputs of the work undertaken by the TEC in 2019 and 2020. The TEC is on track in delivering all of its outputs for the years 2019 and 2020 (until TEC 21), as envisioned in its rolling workplan for 2019–2022. This shows that the impact of the Covid-19 pandemic on the TEC's work in terms of delivering its outputs for 2020 has been minimal. For two indicators, namely the events organized by the TEC and the number of non-TEC events where TEC members provided inputs to TEC-related topics, the TEC already delivered more outputs than envisioned in the targets by 2022.

Table 1
TEC outputs for 2019 and 2020

Outputs	2019	2020	Targets by 2022
Sets of policy recommendations developed	2 (implementation: 1, enabling environments and capacity-building: 1)	3 (implementation: 2, collaboration and stakeholder engagement: 1)	12
Publications developed and published (in collaboration with stakeholders)	1 (support: 1)	4 (innovation: 1, implementation: 2, collaboration and stakeholder engagement: 1)	20
Events organized (in collaboration with stakeholders)	6 (collaboration and stakeholder engagement: 5, enabling environments and capacity-building: 1)	8 (innovation: 2, collaboration and stakeholder engagement: 6)	9
Participants in events organized by the TEC	>300[6]	>135[7]	300
(Number of) Non-TEC events where TEC members provided inputs to TEC-related topics	11	>4	8
Inputs and recommendations provided to GCF, GEF and SCF in support workstream	2 (support: 2)	0	8

9.   The Monitoring Dashboard, including all output indicators and data for 2019 and 2020 (until TEC21), is available in Annex I.

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[6] Data on participants to the events were only collected for two events in 2019 (only TEC meetings).

[7] Data on participants to the events were only collected for six events in 2020 (without TEC meetings).

B. Assessment of outcomes

1. Background

10. The PMF table also contains indicators for the assessment of the outcomes of the TECs work under each workstream of the Technology Framework. For each workstream, different evaluation tools are used for the respective indicator (table 2).

Table 2
Workstreams, indicators and evaluation tools for the assessment of outcomes of the TECs work

Workstream	Indicator	Evaluation Tool
Innovation	Evidence of stakeholders using TEC policy recommendations and publications on innovative climate technologies and RD&D when developing, deploying or diffusing new and existing climate technologies.	NDE feedback form List of examples
Implementation	Evidence of stakeholders using TEC recommendations and publications to enhance technology development and transfer.	NDE feedback form
Collaboration and stakeholder engagement	Number of stakeholders engaged in the implementation of the TEC workplan.	List of participants to events TT:Clear
Enabling environment and capacity-building	Evidence of stakeholders using TEC policy recommendations and publications on enabling environments and capacity building.	NDE feedback form
Support	Evidence of stakeholders using TEC policy recommendations on support for technology development and transfer.	NDE feedback form GCF, GEF, and SCF annual reports to the COP

11. The following section describes the findings from applying these evaluation tools for the different workstreams.

2. Innovation, Implementation, Enabling Environment and capacity-building and Support workstreams– NDE feedback form

12. The NDE feedback form is the overarching and most resource intensive evaluation tool for the assessment of TEC outcomes, as it covers four of its workstreams. However, it also results in comprehensive feedback from NDEs relevant for the assessment of TEC outcomes, as the source of information are the NDEs themselves. The survey intended to gather information, both quantitative and qualitative, for the indicators under four workstreams: innovation; implementation; enabling environment and capacity-building and support.

13. NDEs were invited to contribute to the process of monitoring and evaluating the impact of the work of the CTCN and the TEC by completing the "UNFCCC Technology Mechanism NDE Survey", which the CTCN conducted in collaboration with the UNFCCC secretariat. The focus of the survey was on long-term impacts and actions taken after support has been provided. The intention of engaging the NDEs in this survey was to strengthen the capacity of the CTCN and the TEC to fulfil their mandate of enhancing climate technology development and transfer, based on experiences, lessons learned and recommendations from the NDEs. The survey was disseminated to 160 NDEs in three UN languages (English, French and Spanish) to increase the response rate.

14.	In response to the NDE survey, the CTCN and the UNFCCC secretariat received 60 responses (44 where submitted in English, 12 in French and four in Spanish). Seven countries submitted their responses to the survey twice and three NDEs did not indicate their country of origin. Therefore, 50 unique NDEs could be identified (response rate of 31 percent). The regional distribution of NDE responses was as follows:

(a)	Africa: 21;

(b)	Asia-Pacific: 14;

(c)	Latin America and the Caribbean: 8;

(d)	Europe: 7.

15.	Of these, 44 of the NDE responses came from non-Annex I (88 percent) countries and 6 from Annex-I countries (12 percent).

Key findings from the NDE form

16.	The comprehensive analysis of the NDE responses, including all quantitative and qualitative results, is available in Annex II. Below an overview of the main findings is provided.

Familiarity with the TECs work in general and specific products:

• More than half of the responding NDEs indicated to be somewhat or very familiar with the work of the TEC in general, while only 5 percent responded not to be familiar at all with the work of the TEC;
• In their individual comments, some respondents indicated to be familiar with the Joint Annual Reports of the TEC and the CTCN, as well as TNA related documents, such as TNA guidelines;
• In the open question for recommendations and suggestions, those NDEs that were not familiar with the work of the TEC or the Technology Mechanism as such, proposed that TEC products, as well as general information about the TEC, could be further disseminated at the level of the NDEs.

Dissemination and use of the TECs products:

• More than half of the responding NDEs indicated that policy recommendations and publications produced by the TEC had low dissemination in their respective country. None of them indicated high dissemination;
• Respondents frequently indicated that the TNA guidance documents have been disseminated in their respective countries, as well as some other TEC related products, such as the Joint Annual Reports of the TEC and the CTCN;
• Responding NDEs answered that most use of TEC products has been made by circulating the products to relevant entities, that they have been read by the relevant governmental body in charge of climate technologies and that they have been used as a reference in other publications;
• Some respondents further indicated that TEC products have been used to drive their respective TNAs, as well as for developing national strategies, such as NAMAs and NAPs;
• Governmental and para-governmental institutions were indicated to make most use of TEC products. Governmental and para-governmental institutions therefore may be most likely to use TEC outputs, according to the NDEs responses;
• In response to how TEC products have been used in the process of preparing technical assistance requests for the CTCN, 35 percent of the respondents indicated that TEC products have been used to prepare such requests. Some respondents indicated that the requests were developed on the basis of TEC products, or that TNA results were used for the preparation.

Contribution of the TECs work to the work of stakeholders:

• 64 percent of responding NDEs answered that TEC's analyses and recommendations contributed to improving the capacity of national stakeholders to develop, deploy and disseminate climate technologies, either a little bit or a lot. Only 14 percent responded that the TEC did not improve capacities of national stakeholders at all;

- In their individual answers, some respondents reported that TEC recommendations contribute to make decisions on climate technology options, developing climate technologies and strengthen analysis and understanding of climate technology related issues.

3. Innovation workstream – List of examples

17.   Besides the NDE feedback form, the innovation workstream contains another information source – list of examples. This list serves to gather evidence of stakeholders using TEC policy recommendations and publications on innovative climate technologies and RD&D when developing, deploying or diffusing new and existing climate technologies. As no system is in place to collect all the publications or projects which use TEC products as a source, a list of examples is intended to display what kind of use has been made of TEC products. Below, a few examples in which the TECs work is used and/ or cited are listed:

(a)   Article: Improving technology transfer through national systems of innovation: climate relevant innovation-system builders;[8]

(b)   Paper: Background paper on Technology Roadmaps;[9]

(c)   Policy Brief: Building Innovation Systems for climate change technology transfer: Perspectives from east Africa;[10]

(d)   Paper: Options for support for technology collaborative research and development;[11]

(e)   Guidebook: For the preparation of science, technology and innovation (STI) for SDG roadmaps;[12]

(f)   Master thesis: 'International technology cooperation: Towards a methodology to assess the contribution of climate related international technology initiatives to the functional dynamics of global innovation systems'- University College London (2020).

4. Collaboration and stakeholder engagement workstream – Lists of participants to events & TT:Clear

18.   The PMF table suggests the assessment of outcomes under the workstream collaboration and stakeholder engagement to be done via lists of participants to events & via TT:Clear. Participants in this sense refers to both active participants, such as moderators, panellists and speakers, as well as viewers of the events. Due to the lack of registration process, the contact details of viewing participants cannot be listed. The number of participants to the TECs events for the years 2019 and 2020 is listed in table 3.

Table 3
TEC events and participants in TEC events 2019 and 2020

Year	TEC events	Participants per TEC events
2019	8	>300[13]
2020	11	>135[14]
Targets by 2022	9	300

5. Support workstream – GCF, GEF, and SCF annual reports to the COP

19.   As information source for the assessment of outcomes for the support workstream, the PMF table indicates the GCF, GEF, and SCF annual reports to the COP. Via these reports, evidence of stakeholders using TEC policy recommendations on support for technology development and transfer may be gathered. The TEC provides inputs to the GCF, GEF and SCF on an annual basis,

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[8]   Available at: https://www.tandfonline.com/doi/full/10.1080/14693062.2015.1052958.
[9]   Available at: https://publications.ecn.nl/BS/0/ECN-O--13-019.
[10]   Available at: https://core.ac.uk/download/pdf/77037744.pdf.
[11]   Available at: https://www.greenclimate.fund/sites/default/files/document/gcf-b18-12.pdf.
[12]   Available at: https://sustainabledevelopment.un.org/content/documents/26937Guidebook_STI_for_SDG_Roadmaps_final_Edition.pdf.
[13]   Data on participants to the events were only collected for two events in 2019 (only TEC meetings).
[14]   Data on participants to the events were only collected for six events in 2020 (without TEC meetings).

through its inputs to SCF on draft guidance for the operating entities of the Financial Mechanism and inputs for the GCF annual meeting with Constituted Bodies. In their annual reports to the COP, the GCF and the GEF report on their actions in response to guidance from the COP. Via these annual reports, the assessment of the outcomes of the TECs work under the workstream support may be conducted.

20. For the year 2019, the inputs of the TEC to the annual meeting of the GCF with the constituted bodies are reflected in the 2019 report of the GCF to the COP.[15] Inputs of the TEC to the draft guidance for the operating entities of the Financial Mechanism are contained in the report of the SCF for 2019.[16] The SCF draft guidance to the operating entities of the Financial Mechanism was considered by Parties at COP 25. Ultimately, some of the TEC inputs were also reflected in the respective decisions on guidance to the GCF[17] and GEF,[18] adopted by COP 25.

III. Experiences and lessons learned from implementing the M&E system on a trial basis

21. Building on the findings of implementing the M&E system on a trial basis, some experiences and lessons can be drawn, both regarding the M&E framework as a whole, as well as for the various data collection tools. The general experiences and lessons learned for the whole M&E system could provide insights into whether the M&E system served its purpose, whether the tools measured what they intended to measure, as well as identifying possible gaps in the system.

A. M&E system

Experiences with the M&E system

22. A SWOT analysis[19] has been applied to summarize the experiences gained during the trial period of implementing the M&E system. The SWOT analysis lists the strengths, weaknesses, opportunities and threats of the M&E system, which are summarized in table 4.

Table 4
Strengths, weaknesses, opportunities and threats of the M&E system.

Strengths	Weaknesses
• One strength of the M&E system is its simplicity in terms of type and number of indicators, which facilitated the collection and analyses of data for the M&E system; • The M&E system results both in quantitative and qualitative data on the outputs and outcomes of the work of the TEC; • Resource implications for processing data for the Monitoring Dashboard are low, as the number of output indicators is limited and data collection takes place on an annual basis; • Resource implications for processing data for the NDE survey are moderate, depending on the number of responses received from NDEs, noting that the NDE survey only takes place once every 5 year.	• The strength of the M&E system might as well be its weakness. Simplicity in in terms of type and number of indicators may result in an oversimplified picture of the reality, which is particularly relevant when assessing the outcomes; • The current M&E system is based on the rolling workplan of the TEC for 2019-2022. This means that the M&E system may need to be revised in the context of future workplans; • One aspect of the TECs work, namely gender considerations, is not reflected in the current M&E system; • The current system does not cover all stakeholder engagement aspects of the TECs work. For example, communication and outreach (CO) related indicators are not included in the M&E system, thereby

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15 https://unfccc.int/sites/default/files/resource/cp2019_03E.pdf.
16 https://unfccc.int/sites/default/files/resource/cp2019_10-cma2019_03.pdf.
17 Decision 12/CP.25.
18 Decision 13/CP.25.
19 SWOT analysis is a strategic planning technique used to help a person or organization identify strengths, weaknesses, opportunities, and threats related to project planning.

Strengths	Weaknesses
	missing the possibility to monitor CO activities of the TEC.
Opportunities	**Threats**
• The M&E system provides a sound basis for the TEC to communicate the outputs and outcomes of its work to relevant stakeholders; • The M&E system also provides opportunities for the TEC in the medium to long term, as it is a flexible system which can be adjusted to changing circumstances. This flexibility includes adding or deleting indicators, in response to new mandates.	• The NDE survey is an important data collection tool to assess the outcomes of the work of the TEC and depends on the inputs from NDEs. A high turnover rate among NDEs might hamper the ability of new NDEs to respond to the NDE survey, as they may not be familiar with the work under the Technology Mechanism; • The M&E system would need to be revised once the TEC receives new mandates and develops its future workplans.

Lessons learned from implementing the M&E system

23. The following lessons could be learned from the implementation of the M&E system on a trial basis:

(a) Resource implications for collecting and analyzing data for the M&E system are minimal, making the system a practical tool to monitor and evaluate the work of the TEC;

(b) Both quantitative and qualitative data can be collected for the M&E system, allowing for a variety of data assessments to assess the performance of the TEC;

(c) The current M&E system includes possible gaps regarding gender considerations and stakeholder engagement.

B. Monitoring of outputs

24. As stated above, the M&E system is meant to encompass all key building blocks required for the effective monitoring and evaluation of the work of the TEC and expected impacts of the Technology Mechanism. The term 'monitoring' here refers to the continuous process of reporting to the COP and CMA on its activities, outputs and outcomes. This section summarizes experiences and lessons learned from using the Monitoring Dashboard and its ability to support the TECs to report to the COP and CMA on its activities and outputs.

Experiences and lessons learned

25. The application of the monitoring dashboard for monitoring the outputs of the work of the TEC resulted in the following experiences and lessons learned:

(a) Under each workstream of the rolling workplan, the current Monitoring Dashboard captures the number of sets of policy recommendations and the number of launched publications, which are key deliverables of the TEC in accordance with its mandate and functions;

(b) Target numbers for number of events organized by TEC are best estimates based on the original rolling workplan of the TEC for 2019-2022. However, the number of events are of flexible nature and as such hard to predict, both in terms of number of events as well as number of participants;

(c) The allocation of some events to a specific workstream of the workplan is potentially challenging, in particular when they cut across multiple themes of the workplan since they target the general work of the TEC rather than a specific theme (e.g. TEC meetings, Launching event of climate technology publications of the TEC). An additional indicator for general TEC events that cut across multiple thematic areas of the workplan, could avoid misallocation of events in the Monitoring Dashboard;

(d)   The Monitoring Dashboard offers the flexibility to include additional indicators, such as CO or gender indicators. This could prove useful also in case the TEC receives new mandates that need to be reflected in the Monitoring Dashboard;

(e)   The Monitoring Dashboard serves its purpose well in terms of tracking the outputs of the activities undertaken by the TEC, such as policy recommendations and publications.

C.   Assessment of outcomes

26.   From the findings for the assessment of outcomes, categorized in chapter 2.2) for the different evaluation tools for each workstream, several experiences and lessons can be drawn from the implementation of the M&E framework.

Experiences and lessons learned from applying the data collection tools

(a)   NDE feedback form (Innovation, Implementation, Enabling Environment and capacity-building and support workstreams)

27.   The NDE survey is one of the tools used to assess the outcomes of the work of the TEC in four of its workstreams (Innovation, Implementation, Enabling Environment and capacity-building and Support), and as such serves as the evaluation part of the M&E system. The following provides an overview of experiences and lessons learned from applying the NDE survey in practice.

Familiarity of NDEs and other stakeholders with the work of the TEC:

- In the individual comments to questions, some NDEs indicated low familiarity with the general work of the TEC, making it challenging for them to answer specific questions related to e.g. the TECs publications. Information distribution about the general work of the Technology Mechanism and in particular the TECs work could be enhanced in order to receive more precise feedback.
- Some NDEs indicated that other climate technology stakeholders in their countries are dealing with the TECs work in terms of receiving or disseminating outputs, such as e.g. reports or guidelines prepared by the TEC or collaboration partners of the TEC. Expanding the dissemination of the survey beyond "just" NDEs could increase the response rate and eventually the quality of feedback.

NDE response rate:

- The quality and usefulness of the evaluation of the TECs work via a survey depends on the number and quality of responses received from NDEs. The higher the response rates, the higher the likelihood for in-depth evaluation. The NDE response rate is therefore crucial to conduct a representative evaluation and, as such, it is key to enhance the number of respondents to the survey.
- In order to increase the NDE response rate, possible incentives for NDEs could be considered, such as the opportunity of showcasing their success stories through various channels (e.g. Technology Mechanism events, TEC publications, TT:CLEAR, etc.).
- Providing the NDE survey in multiple languages increases the response rate. In the same vein, providing products in several languages would potentially increase dissemination of TEC products and therefore increase familiarity of some NDEs with the TECs work.
- The questions asked in the survey need to be of relevance to the NDEs, have applicable responses and should be easy to understand, in order to tailor the questions in a way to enhance NDEs ability to give quality answers.

Resource implications:

28.   Conducting the NDE survey in close collaboration with the CTCN proved to be beneficial from an efficiency point of view. Resource implications for preparing and disseminating the survey were shared between the CTCN and the UNFCCC secretariat. In addition, targeting the NDEs through one single Technology Mechanism survey, rather than through multiple separate surveys

from the CTCN and the UNFCC secretariat, reduces the burden on NDEs to respond to these surveys.

(b) **List of examples (Innovation workstream)**

Absence of collection tool

29.   The absence of a system to systematically collect publications, articles and other sources of information in which the TECs work has been referred to, poses a challenge to the proper overview of how, who and where the TECs work has been used and how it impacted the work of other stakeholders.

Time delay in impact of TECs work

30.   A delay in observing the impact of the TECs work needs to be taken into account, as TEC products may need time to be recognized and used by other stakeholders. Therefore, immediate assessment of the outcome of the TECs work after publishing output is not realistic.

(c) **Lists of participants to events & TT:Clear (Collaboration and stakeholder engagement workstream)**

Absence of registration process

31.   As (virtual) TEC events are usually open for any interested stakeholders, no registrations are needed. This hampers the ability for the TEC to collect precise lists of the participants attending their events. However, virtual events allow for tracking the number of viewing participants.

(d) **GCF, GEF, and SCF annual reports to the COP (Support workstream)**

GCF and GEF response to COP guidance

32.   The GCF, GEF and the SCF annual reports to the COP are effective data collection tools to assess the outcomes of TEC's activities in relation to its inputs to the work of the GCF, GEF and SCF. Regarding its inputs to the draft guidance to the operating entities of the Financial Mechanism, one additional data collection tool would be the respective COP decisions on guidance to the GCF and GEF to assess the extent to which the TEC inputs have been reflected in these decisions, and how the GCF and GEF has responded to the COP guidance, as reported in their annual reports to the COP.

IV.   Recommendations to enhance the M&E framework

33.   Building on the experiences gained and lessons learned from implementing the M&E system on a trial basis, the TEC may wish to consider the following recommendations to enhance the ability of the current M&E system to assess the outputs and impacts of its work. Since the purpose of this exercise was to implement the M&E system on a trial basis, the recommendations focus on recommendations to enhance the performance of the M&E system to monitor the outputs and assess the outcomes of the work of the TEC. However, this chapter also provides some recommendations to enhance the impact of the work of the TEC.

A.   Recommendations to revise the M&E framework

34.   The following recommendations aim to enhance the ability of the M&E system to monitor the outputs and assess the outcomes of the work of the TEC building on the experiences gained and lesson learned from applying the data collection tools as described in chapter 3:

        (a)   **Increase the response rate of the NDE survey in order to enhance the representativeness and depth of analyses of NDE responses.** This could be achieved by providing the survey in several languages and providing incentives to NDEs for participating in the NDE survey;

(b) **Add a new indicator for collecting data about general TEC events that cover multiple workstreams of the TEC workplan to avoid misallocation of events in the Monitoring Dashboard**;

(c) **Add new indicators to capture gender considerations. The current version of the M&E system does not include any indicators about measuring the output of the TECs work in relation to gender considerations.** The TEC may wish to consider adding indicators that measure gender considerations. This would enable the TEC to report on the implementation of its approach towards gender considerations;

(d) **Add new communications and outreach indicators.** Visibility of the TECs work is crucial in order to support Parties and climate technology stakeholders on their way to achieve the goals of the Paris Agreement. TEC 20 adopted a communication and outreach (CO) strategy aiming to enhance the outreach and increase visibility. As part of the CO strategy, several evaluation indicators were suggested to keep track of CO activities. However, the current M&E system doesn't provide a basis for monitoring and evaluating the TECs outreach activities. Adding new CO indicators to the Monitoring Dashboard in order to monitor the implementation of the CO strategy may create the opportunity to extend the Monitoring Dashboard beyond its original intention and collect further performance data of the TECs work (see box 1);

(e) **Add lists of examples as a data collection tool for all workstreams.** Currently, the M&E system only provides a list of examples of how the TECs outputs have been used by other stakeholders for the innovation workstream. There could be merit in collecting these examples also for other workstreams, as this could provide further information about the use of TEC publications by other stakeholders;

(f) **Expand sources of information for data collection for the list of examples**. The current M&E system does not specify the sources of data collection for the list of examples on how the TEC publications have been used by other stakeholders. Besides a google search, also TEC members themselves maybe a valuable source of information by reporting on publications in which the TECs work is referred to.

Box 1
Communication and outreach indicators
COP 23 requested the TEC to enhance its communication and outreach strategy.[20] Further, COP 24 invited the TEC to continue enhancing its CO strategy with a view to expanding the reach of its outputs to NDEs and other regional stakeholders of the TEC.[21] TEC 19 invited the secretariat, in collaboration with the Chair and Vice-Chair, to develop a communication and outreach strategy to support the implementation of the rolling workplan for 2019-2022, which was adopted intersessionally after TEC20.[22] The CO strategy also included a number of indicators to measure the effectiveness of the CO strategy. The following indicators are derived from the ones proposed in the CO strategy:

- Amount of UNFCCC social media engagement (retweets, shares, views, impressions, likes) regarding various activities (events, publication launches, etc.)
- Pageviews for the TEC's content posted in UNFCCC newsroom
- Pageviews for the TEC's content posted on TT:Clear pages
- Number of stakeholders who followed virtual TEC events

B. Recommendations to enhance the impact of the work of the TEC

35. The following recommendations aim to enhance the impact of the work of the TEC taking into account the experiences and lesson learned from the analyses of outputs and outcomes of its work, as described in chapter 2:

(a) **Increase familiarity of NDEs and climate technology stakeholders with the general work of the TEC.** A proposed way to facilitate this could be the dissemination of

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[20] See Decision 15/CP.23.
[21] See Decision 13/CP.24.
[22] Available at: https://bit.ly/34NdbNr.

information material about the TEC and its work on a regular basis to NDEs and climate technology stakeholders, with a view to increasing their familiarity with the TEC work;

(b) **Make outputs of the work of the TEC available in multiple UN languages.** Providing TEC products in multiple UN languages may be beneficial for increasing the dissemination of the products and therefore increase familiarity of some NDEs and climate technology stakeholders with the TECs work.

Annex I

Monitoring Dashboard

Data of Monitoring Dashboard by theme of the technology framework

Indicator	Baseline	Targets by 2022	Method/Source/Definition	Frequency	2019	2020* *interim results until TEC21
Outcome 1 – Innovation: Various actors develop, deploy, and diffuse new and existing climate technologies						
1. Evidence of stakeholders using TEC policy recommendations and publications on innovative climate technologies and RD&D when developing, deploying or diffusing new and existing climate technologies	N/A	N/A	NDE feedback form List of examples	Every 5 years (before periodic assessment)	*Synthesis of feedback from NDE feedback form*	*Synthesis of feedback from NDE feedback form*
1.1. Number of sets of policy recommendations (comprising multiple policy recommendations) developed on innovative climate technologies and RD&D		3	List of policy recommendations on innovative climate technologies and RD&D	Yearly	0	0
1.2. Number of publications (including policy briefs, executive summaries, papers and compilation of good practices) developed on innovative climate technologies and RD&D		5	TT:CLEAR	Yearly	0	1
1.3. Number of events organised by TEC on innovative climate technologies and RD&D		1	TT:CLEAR	Yearly	0	2

Indicator	Baseline	Targets by 2022	Method/Source/Definition	Frequency	2019	2020* *interim results until TEC21
Outcome 2 – Implementation: Countries have clear pathways with identified support options to enhance technology development and transfer						
2. Evidence of stakeholders using TEC recommendations and publications to enhance technology development and transfer	N/A	N/A	NDE feedback form	Every 5 years (before periodic assessment)	*Synthesis of feedback from NDE feedback form*	*Synthesis of feedback from NDE feedback form*
2.1 Number of sets of policy recommendations (comprising multiple policy recommendations) on TNA and uptake of existing technologies		5	List of recommendations on TNA and TEM-M	Yearly	1	2
2.2 Number of publications developed by TEC on TNA and existing technologies		6	TT:CLEAR	Yearly	0	2

Indicator	Baseline	Targets by 2022	Method/Source/Definition	Frequency	2019	2020* *interim results until TEC21
Outcome 3 - Collaboration and stakeholder engagement: A broad range of stakeholders collaborate in promoting climate technology development and transfer						
3. Number of stakeholders engaged in the implementation of the TEC workplan		N/A	Lists of participants to events TT:CLEAR	Every 5 years (before periodic assessment)		
3.1 Number of events organized by the TEC to enhance collaboration and stakeholder engagement		6	TT:CLEAR	Yearly	5	6
3.2 Number of participants to the events organized		300	Lists of participants to events	Yearly	>300	>135
3.3 Number of non-TEC events where TEC members (men, women) provided inputs on TEC-related topics		8	List of events TEC meetings' reports	Yearly	11	>4
3.4 Number of publications developed by the TEC in collaboration with stakeholders		2	TT:CLEAR	Yearly	0	1
3.5 Number of sets of policy recommendations developed on technologies for coastal zones		1	List of recommendations on technologies for coastal zones	Yearly	0	1

Indicator	Baseline	Targets by 2022	Method/Source/Definition	Frequency	2019	2020* *interim results until TEC21
Outcome 4 - Enabling environment and capacity-building: A broad range of stakeholders have the resources and means to deploy climate technologies						
4. Evidence of stakeholders using TEC policy recommendations and publications on enabling environments and capacity building	N/A	N/A	NDE Feedback form	Every 5 years (before periodic assessment)	*Synthesis of feedback from NDE feedback form*	*Synthesis of feedback from NDE feedback form*
4.1 Number of sets of policy recommendations (comprising multiple policy recommendations) on enabling environments and barriers, and on development and enhancement of endogenous capacities and technologies		2	List of policy recommendations on enabling environment and barriers, and on development and enhancement of endogenous capacities and technologies	Yearly	1	0
4.2. Number of publications developed by TEC on enabling environments and barriers, and on enhancement of endogenous capacities and technologies		4	TT:CLEAR	Yearly	0	0
4.3. Number of events organised by TEC on enabling environments and barriers, and on enhancement of endogenous capacities and technologies		2	TT:CLEAR	Yearly	1	0

Indicator	Baseline	Targets by 2022	Method/Source/Definition	Frequency	2019	2020* *interim results until TEC21
Outcome 5 – Support: Financial and technical resources identified and available to support climate technology development and transfer						
5. Evidence of stakeholders using TEC policy recommendations on support for technology development and transfer	N/A	N/A	GCF, GEF, and SCF annual reports to the COP	Every 5 years (before periodic assessment)		
5.1 Number of sets of policy recommendations (comprising multiple policy recommendations) on support for technology development and transfer		1	List of policy recommendations on support for technology development and transfer	Yearly	0	0
5.2 Number of publications developed on support for technology development and transfer		3	TT:CLEAR	Yearly	1	0
5.3 Number of inputs and recommendations provided to GCF, GEF, and SCF		8	List of inputs and recommendations to GCF, GEF and SCF	Yearly	2	0

Annex II

Findings from the NDE survey

UNFCCC Technology Mechanism NDE Survey – Analysis of responses

General overview of responses

Survey	Responses	Completion rate	Typical time spent
UNFCCC Technology Mechanism NDE Survey – English	44	61%	76 minutes
UNFCCC Technology Mechanism NDE Survey – Spanish	4	100%	150 minutes
UNFCCC Technology Mechanism NDE Survey – French	12	83%	59 minutes

Country overview of responses*

*Countries not listed in the below table did not participate in the survey

Figure 4
Map of countries responding to the NDE survey
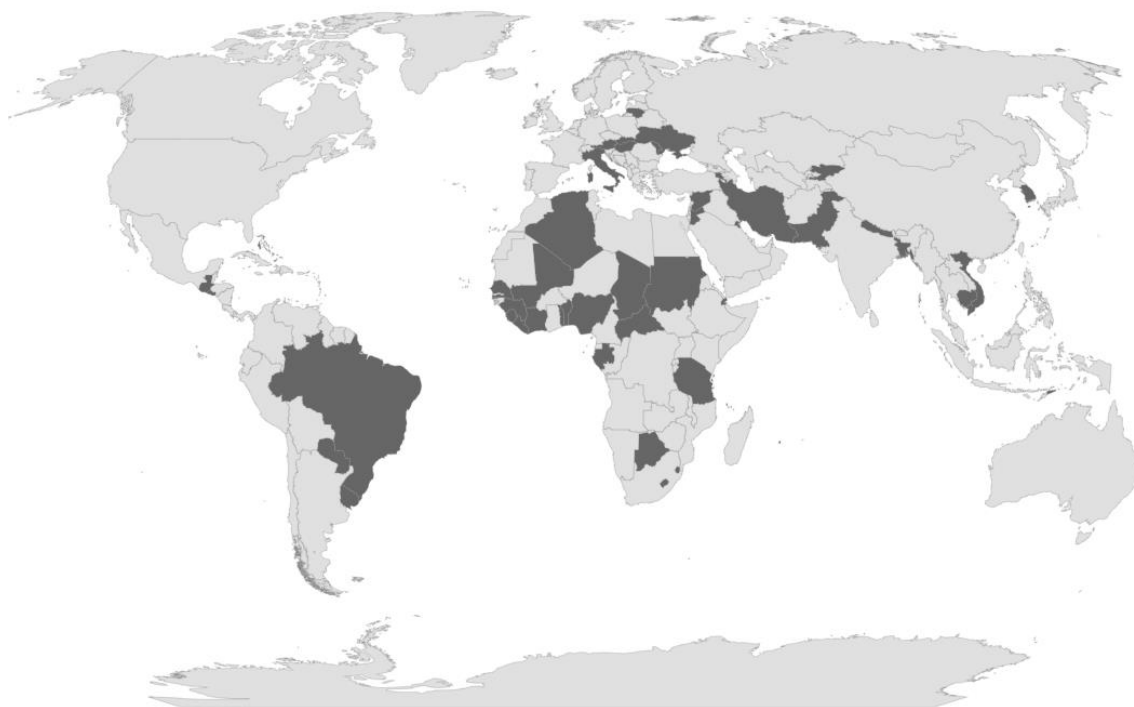
Country	Survey language	Responses
Algeria	French	1
Antigua and Barbuda	English	1
Armenia	English	2
Austria	English	1

Country	Survey language	Responses
Bahamas	English	1
Bangladesh	English	1
Benin	French	1
Botswana	English	1
Brazil	English	1
Cambodia	English	1
Central African Republic	French	1
Chad	French	1
Comoros	French	1
Cote D'Ivoire	French	1
Djibouti	French	1
El Salvador	Spanish	1
Eswatini	English	1
Gabon	French	1
Guatemala	Spanish	1
Guinea	French	1
Hungary	English	1
Iran, Islamic Republic of	English	1
Italy	English	1
Jordan	English	1
Kuwait	English	1
Kyrgyzstan	English	1
Lesotho	English	1
Liberia	English	1
Lithuania	English	1
Mali	French	1
Mauritius	English	1
Nepal	English	2
Nigeria	English	1
Pakistan	English	1
Paraguay	Spanish	1
Republic of Korea	English	1
Republic of Moldova	English	1
Saint Kitts and Nevis	English	1
Senegal	French	1
Sierra Leone	English	1

Country	Survey language	Responses
Slovakia	English	1
State of Palestine	English	2
Sudan	English	2
Syrian Arab Republic	English	2
Timor-Leste	English	1
Togo	French	1
Ukraine	English	2
United Republic of Tanzania	English	1
Uruguay	Spanish	1
Viet Nam	English	2

SECTION IV. Contribution of TEC policy recommendations and publications

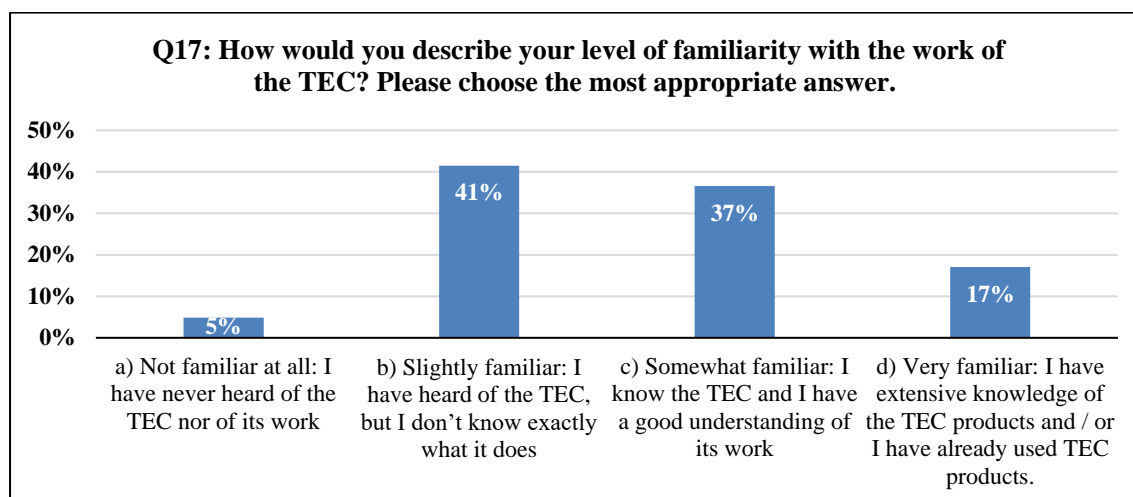(Synthesized from all three surveys)

Q17

How would you describe your level of familiarity with the work of the TEC? Please choose the most appropriate answer. If c) or d): please specify the products you are familiar with.

Answered by: 41
Skipped by: 19

Figure 5
Level of familiarity with the work of the TEC

Q17: How would you describe your level of familiarity with the work of the TEC? Please choose the most appropriate answer.

- a) Not familiar at all: I have never heard of the TEC nor of its work — 5%
- b) Slightly familiar: I have heard of the TEC, but I don't know exactly what it does — 41%
- c) Somewhat familiar: I know the TEC and I have a good understanding of its work — 37%
- d) Very familiar: I have extensive knowledge of the TEC products and / or I have already used TEC products. — 17%

Individual responses / comments:

TEC working modality and relation with CTCN
TEC's annual reports to the COP and other TEC's official documents to de COP and the SBs. - Publications on key issues related to technology development, transfer and innovation - Meeting reports - Workplans of activities
Being National Focal Point for UNFCCC, I have a good understanding of overall Technology Mechanism of UNFCCC as well as various bodies under the Convention dealing with the technology mechanism.
NDC, TNA, Technical expert meetings on adaptation, Gender mainstreaming, Communication and outreach

Technology Mechanism, Technology Framework CTCN, TNA & TAP, Rolling workplan 2019-2022, CTCN TA projects.
Joint Annual Report of TEC and CTCN
Incubators and accelerators
All reports
Mitigation and adaptation
Ukraine participates in the TNA project and is therefore acquainted with the work of the TEC
Joint Annual Report of the TEC and the CTCN, TEC Briefs
Documents and or guidelines have been provided by TEC are used in Iran NDE eg. TNA guideline
Les rapports et les débats lors des COPs / Reports and debates during COPs
Je lis régulièrement les rapports d'activité du TEC et les recommandations souvent formulées pour le CTCN, j'ai été invité plusieurs fois à prendre part aux réunions du conseil d'administration du TEC, mais faute de moyens financiers je n'y parviens pas à faire le déplacement / I regularly read the TEC activity reports and the recommendations often formulated for the CTCN, I have been invited several times to take part in the meetings of the TEC board of directors, but for lack of financial means I am unable to do so to make the trip
Les publications du TEC, les formulaires d'adhésion au réseau, les formulaires de soumission des requêtes et le partage d'informations./ TEC publications, network membership forms, request submission forms and information sharing.
Technology needs assessments Adaptation technologies Mitigation technologies Enabling environments and barriers
Je connais les rapports et publications du TEC/I know the TEC reports and publications
Rapport conjoint TEC et CTCN, financement technologies, renforcement de capacités, recherche/Joint TEC and CTCN report, technology funding, capacity building, research
Soy miembro del TEC/I am a member of the TEC

Q18

Among the policy recommendations and publications produced by the TEC, which ones have been disseminated in your country?

Answered by: 25
Skipped by: 35

Individual responses / comments:

I personally have never accessed TEC publications, but I receive various CTCN products including e-newsletters
Many
Documents might be disseminated through the Focal point
Non
Publications and CTCN's work in Nepal.
None of them
TNA Guidances
None
None
None
I hope that in the future we can learn and ennhance knowlege alot from TEC
INDC and NDC
Some have but cannot recall them at this time. But the Staff of my organization have been reading them and participating in webinars.
No one
All policy recommendations and TEC briefs have been disseminated.
TAP and TNA guidebooks
Aucun/None
DÉVELOPPER ET RENFORCER LES CAPACITÉS ET LES TECHNOLOGIES ENDOGÈNES/DEVELOP AND STRENGTHEN ENDOGENOUS CAPACITIES AND TECHNOLOGIES

| |
|---|
| La sensibilisation, le renforcement des capacités, les formulaires d'adhésion au réseau et les formulaires de soumission des requêtes./Awareness raising, capacity building, network membership forms and request submission forms. |
| -Le développement sur les incubateurs, les accélérateurs pour les entrepreneurs; -Les travaux sur la poursuite du TNA et NDC; -Les politiques sur les pertes et dommages des zones côtières; -les travaux sur les incubateurs et les accélérateurs de technologie climatique et bien d'autres./-Development on incubators, accelerators for entrepreneurs; -Work on the continuation of the TNA and NDC; -Policies on loss and damage of coastal areas; -work on climate technology incubators and accelerators and many others. |
| Évaluation actualisée du Programme stratégique de Poznan sur le transfert de technologies/Updated evaluation of the Poznan Strategic Program on Technology Transfer |
| Les rapports/Reports |
| Rapport annuel du Tec et du ctcn/Tec and ctcn annual report |
| Guidance for preparing a technology action plan |
| No lo se/I do not know |

Q19

To what extent have they (policy recommendations and publications produced by the TEC) been disseminated in your country? Please choose the most appropriate answer.

Answered by: 37
Skipped by: 23

Figure 6
Dissemination of TEC products
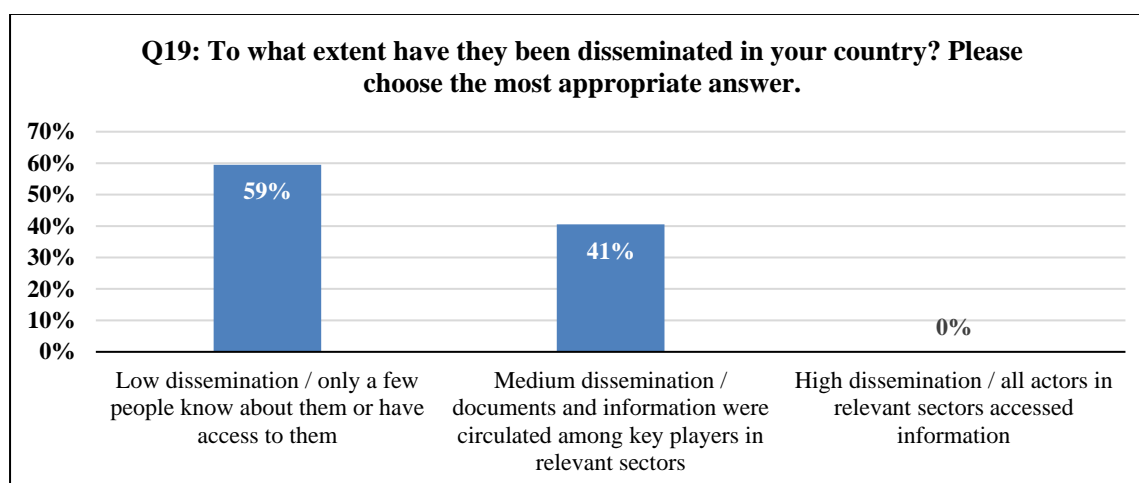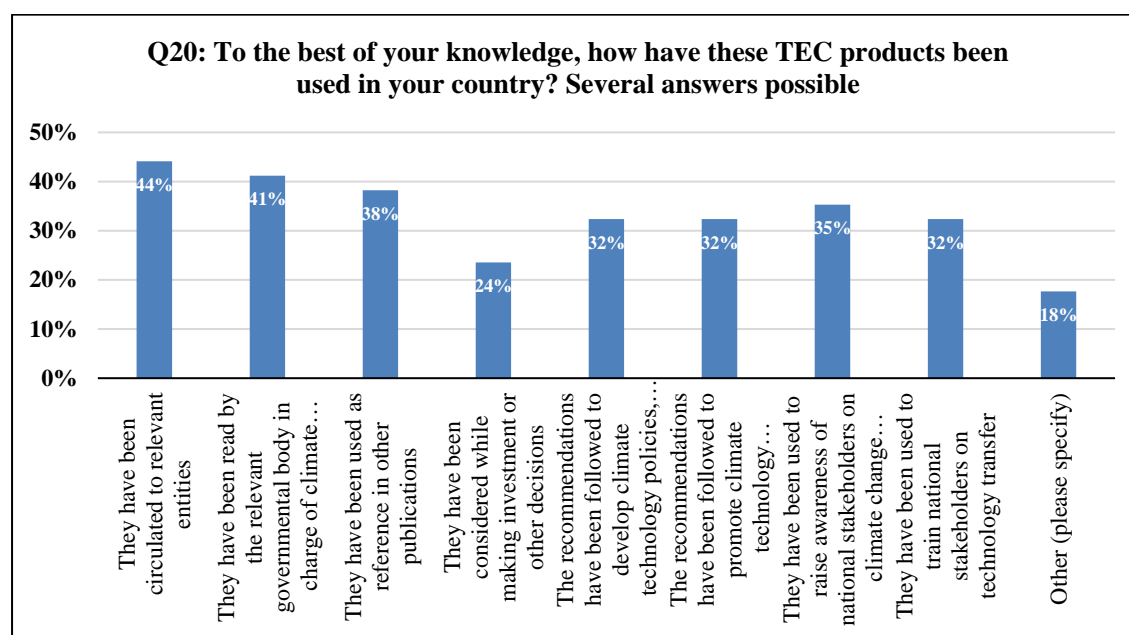

No individual responses / comments option.

Q20

To the best of your knowledge, how have these TEC products been used in your country? Several answers possible. Please explain your answers by providing concrete examples of products used and if possible, provide the type of actors involved.

Answered by: 34
Skipped by: 26

Figure 7
Usage of TEC products

Q20: To the best of your knowledge, how have these TEC products been used in your country? Several answers possible

(Bar chart values: 44%, 41%, 38%, 24%, 32%, 32%, 35%, 32%, 18%)

Categories:
- They have been circulated to relevant entities
- They have been read by the relevant governmental body in charge of climate…
- They have been used as reference in other publications
- They have been considered while making investment or other decisions
- The recommendations have been followed to develop climate technology policies…
- The recommendations have been followed to promote climate technology…
- They have been used to raise awareness of national stakeholders on climate change…
- They have been used to train national stakeholders on technology transfer
- Other (please specify)

Individual responses / comments:

In my office and myself, I have never received TEC products, or I may not know of the products although I received various CTCN documents and I do access CTCN websites, I also receive CTCN e-newsletters. I may be misunderstanding about TEC products.
The Department of Meteorology is the Permanent Representative of Botswana with WMO, National focal point of the UNFCCC and the Montreal Protocol on Substances that deplete the Ozone. The Department has the mandate therefore to disseminate information to various users
We have requested two different projects. Agroforestry policyt is one, that has been completed. Now, different national and international institutions are working on it.
In Brazil, TEC document citations are rare, as well as general knowledge about TEC's performance
The outputs of TNA for both mitigation and adaptation components have been used for: - developing NAMAs, NAP, SAPs. - prioritise climate investments for both mitigation and adaptation components; - develop project investment pipelines for both mitigation and adaptation components.
I think only a few people Know about it.
As mentioned earlier, at the National Level, relevant government agencies are aware of the activities of CTCN as they were engaged in Technical assistance projects/stakeholder consultation. But only handful of officials know about the TEC at the National level.
I with my position now is an official and supporter for NDE in VietNam, I do not have chance to acess with TEC, thus on my opinion, the right channels to public the TEC products are as above
Science and technology policy has refereed to the documents, and currently the Indigenous Knowledge System Policy is also referring to the same concepts. Also there are various awareness campaigns country wide which are intended to improve the waste management. Trees management and how people should take care of the environment at large. Other policies such as environment policy, land management policy etc
TEC products not been used in country
In the framework for examples of the Austrian Masterplan Environmental Technology the government, public administrations, the private sector and scientific institutions work together with the aim to support the positive development of the environmental technology industry as well as the international cooperation. Relevant documents and informations are published on the websides (Internet: www.ecotechnology.at, www.cleaner-production.eu, www.klimaaktiv.at/english.html, http://www.gointernational.at) or forwarded as linkedin posts.
Iran NDE used TEC guidebook for preparing TNA and Also is using to prepare TAP.

Lors des ateliers et séminaires avec les parties prenantes, le END fait le points des négociations sur les transfert de technologies. ainsi un résumé des rapports de TEC est présenté./During workshops and seminars with stakeholders, the END takes stock of the negotiations on technology transfer. thus a summary of TEC reports is presented.
Périodiquement des rencontre entre les parties prenantes et l'END du Bénin, sont organisées suite à la semaine africaine du climat souvent organisée par CTCN qui partage et explique les grandes recommandations du TEC afin d'inciter les parties à soumettre des requêtes et provoquer des orientations de recherche dans les domaines de l'adaptation/atténuation face aux effets néfastes des changements climatiques. Les recommandations du TEC sur les politiques en matière de technologies climatiques sont généralement partagées avec les parties prenantes. Les grandes difficultés dans exploitation des rapports et des publications du TEC résident dans la langue. La diffusion des rapports et des publications du TEC en langue française facilitera plus sa diffusion./Periodically meetings between stakeholders and the NDG of Benin, are organized following the African climate week often organized by CTCN which shares and explains the main recommendations of the TEC in order to encourage the parties to submit requests and provoke orientations. research in the areas of adaptation / mitigation to the adverse effects of climate change. TEC's recommendations on climate technology policies are generally shared with stakeholders. The major difficulties in using TEC reports and publications lie in the language. The dissemination of TEC reports and publications in French will further facilitate its dissemination.
-Organisation des ateliers -partage d'informations et de documents -Élaboration de EBT3 -Formulation des requêtes./Organization of workshops - sharing of information and documents - Development of EBT3 - Formulation of requests.
Les produits du TEC ont bien été diffusés auprès des entités concernées notamment NDE, NDA, GCF, Ministère en charge de la Forêt et de l'Environnent. Ces derniers coordonne la plupart des travaux sur le climat. Aux côtés de la Banque Mondiale, du GEF et des Parcs du Gabon, la Direction Générale de l'Environnement et de la Protection de la Nature conduit actuellement le Projet d'Appui à la gestion durable des Zones Humides (PAZH). A Douala, s'est tenu en octobre 2019 une réunion orientée sur la finance climatique organisé par le CTCN, La BOAD, la BDEAC. Plusieurs acteurs, notamment les NDE et les NDA ainsi que certaines banques accréditées au mécanisme climatique ont pris part à cette initiative. Les recommandations fortes issus des travaux mettent un accent sur la vulgarisation de l'accès au mécanisme fond vert et la promotion du développement des technologies vertes. Les orientations du TEC sont également pris en compte dans le cadre du projet sur la biomasse forestière déployé actuellement auprès des pays d'Afrique Centrale, de l'Ouest et de l'Est sans oublier qu'elles ont été pris en compte dans les activités du TNA qui démarre au Gabon./The TEC products have been distributed to the entities concerned, in particular NDE, NDA, GCF, Ministry in charge of Forests and the Environment. The latter coordinate most of the work on the climate. Alongside the World Bank, GEF and Gabon's Parks, the Directorate General for the Environment and Nature Protection is currently leading the Support Project for the Sustainable Management of Wetlands (PAZH). In Douala, a meeting focused on climate finance was held in October 2019, organized by the CTCN, BOAD, BDEAC. Several actors, in particular NDEs and NDAs as well as certain banks accredited to the climate mechanism have taken part in this initiative. The strong recommendations resulting from the work emphasize the popularization of access to the green screen mechanism and the promotion of the development of green technologies. The orientations of the TEC are also taken into account in the framework of the forest biomass project currently deployed in the countries of Central, West and East Africa, without forgetting that they have been taken into account in the activities. of TNA which starts in Gabon.
Les produits du TEC sont diffusés auprès des acteurs sectoriels. Ils ont servi à la conduite du TNA./TEC products are distributed to sector players. They were used to drive the TNA.
Le lexique sur les définitions des technologies et le guide ont été utilisés lors de la formation des acteurs sur l'évaluation des besoins en technologies et des sensibilisations des membres du comité CDN./The glossary on the definitions of technologies and the guide were used during the training of actors on the assessment of technology needs and the sensitization of members of the CDN committee.
Elaboration des CN et des CDN ainsi que des études relatives aux programmes d'adaptation et d'atténuation des CC, des stratégies de développement du pays/Preparation of NCs and CDNs as well as studies relating to CC adaptation and mitigation programs, the country's development strategies

| Se ha llevado a cabo el TNA en Uruguay y se ha puesto en conocimiento de las partes interesadas y los consultores los documentos correspondientes./The TNA has been carried out in Uruguay and the relevant documents have been made known to interested parties and consultants. |
| --- |
| Sin conocimiento/Without knowledge |
| Desconozco la respuesta/I don't know the answer |

Q21

How would you best describe the use made of these TEC outputs by the different stakeholders in your country?

Answered by: 34
Skipped by: 26

Figure 8
Usage of TEC products by stakeholders
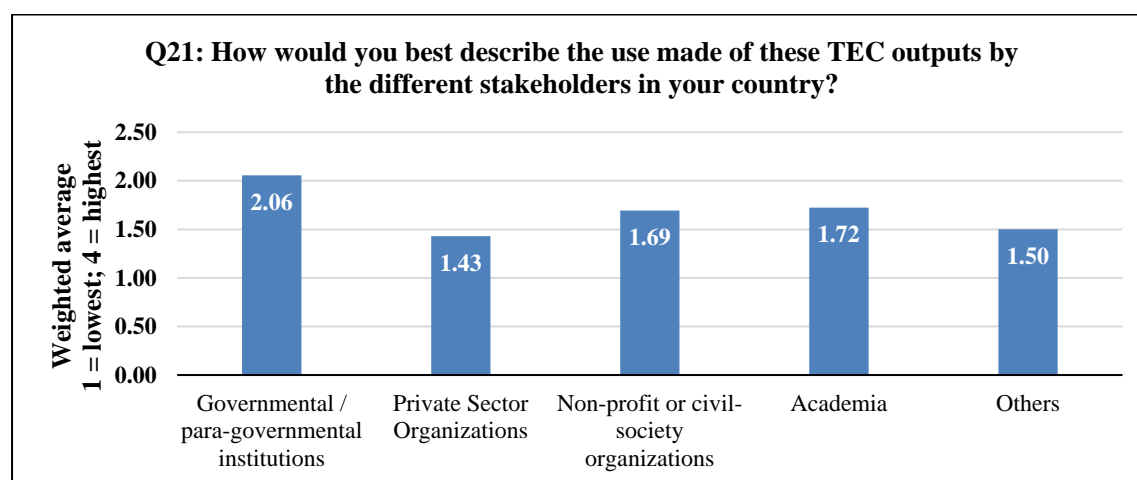
	NO USE - THEY DID NOT ACCESS NOR REVIEW THE INFORMATION	ACCESS – THEY HAD ACCESS TO THE INFORMATION AND MAY HAVE READ IT	CONSIDERED – THEY TOOK THE INFORMATION INTO ACCOUNT WHILE MAKING INVESTMENT OR OTHER DECISIONS	CENTRAL TO DECISION-MAKING – DECISIONS WERE MADE BASED ESSENTIALLY ON INFORMATION PROVIDED BY TEC	TOTAL	WEIGHTED AVERAGE
Governmental/ Paragovernmental institutions	29 % 10	35 % 12	35 % 12	0 % 0	34	2.06
Private Sector Organizations	57 % 17	33 % 10	7 % 2	0 % 0	30	1.43
Non-profit or civil-society organizations	50 % 13	31 % 8	19 % 5	0 % 0	26	1.69
Academia	45 % 13	38 % 11	17 % 5	0 % 0	29	1.72

	75 % 9	8 % 1	8 % 1	8 % 1	12	1.50
Others						

Individual responses / comments:

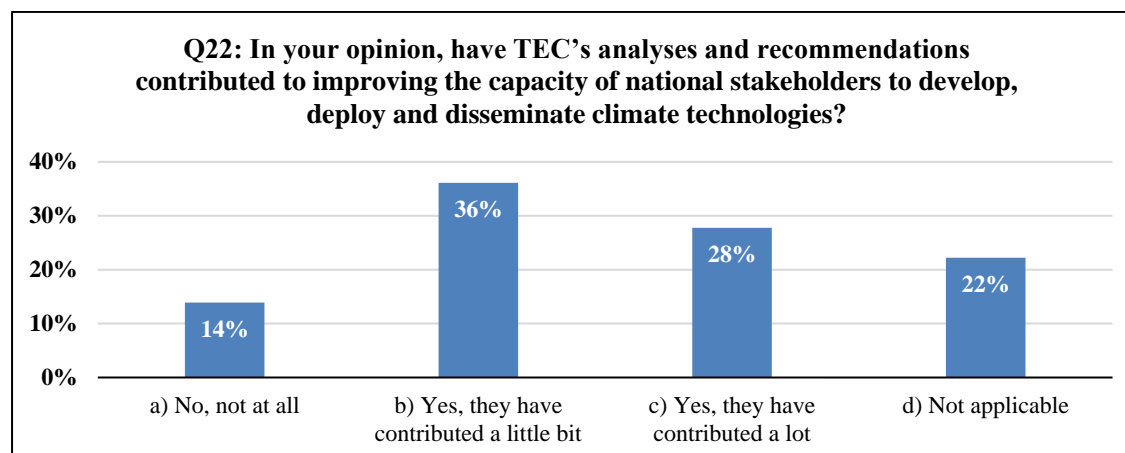| |
|---|
| I have never been informed about the use of TEC products by any stakeholder in my country |
| As indicated in the answer above, the Department of Meteorology disseminate information and therefore would be better placed to give better information. |
| The government used the outputs in developing the Republic of Moldova Enhanced NDC; LEDS.; Contribution to the development of NDC, NAP; Contribution to the development of LEDS. |
| As mentioned earlier, officials are aware of the Technology Mechanism, CTCN and TEC and may have accessed the information from UNFCCC.; Some leading academic institutions may have accessed the information as part of the course curriculum, especially Environmental science, Environmental Engineering and similar disciplines. Still low interest in technology transfer issues. CTCN activities (especially TA projects) are somewhat popular to civil society/NGO and others. |
| I with my position now is an official and supporter for NDE in VietNam, I do not have chance to acess with TEC |
| NDC by Department of Energy and meteorology; Private Sector Foundation of Lesotho; Technology for Economic Development in Lesotho; Innovation Hub at the National Universty of Lesotho; Government Institutions of Lesotho |
| Innovative approaches to accelerating and scaling up climate technology implementation for mitigation and adaptation Catalysing Finance for Incubators and Accelerators implementation of NDCs and NAPs Working paper on enhancing financing for RD&D Background paper on technology roadmaps these outputs have used by Iran NDE, Iran DOE, ministry of power. ministry of Oil.; Innovative approaches to accelerating and scaling up climate technology implementation for mitigation and adaptation used by some private companies.; Guidance for preparing a technology action plan used by Iranian society of environmentlists; Climate Technology Incubators and Accelerators. |
| Climate action now: Summarye for policymackers 2018 dans le cadre de l'élaboration de la politique des changements climatiques Ministère du Cadre de Vie et du Développement dirable/Climate action now: Summary for policymakers 2018 as part of the development of the climate change policy Ministry of the Living Framework and Sustainable Development |
| Réunion d'informations, les parties prenantes (IRAG) par exemple.; Réunion d'informations, les parties prenantes (VICERAG) par exemple.; Réunion d'informations, les parties prenantes (CERE) par exemple./Information meeting, stakeholders (IRAG) for example .; Information meeting, stakeholders (VICERAG) for example .; Information meeting, stakeholders (CERE) for example |
| Mise en place du PAZH, Ministère en charge de la Forêt et de l'Environnement Elaboration des requêtes au CTCN, NDE & NDA; Accréditation au Fonds Vert, Banque de Développement des Etats de l'Afrique Centrale (BDEAC); Brainforest Gabon, examen sur les défis de l'environnement favorable et les défis et possibilités d'inciter les secteurs privé et public à développer et à transférer des technologies.; Chercheurs de l'Université Omar Bongo, Collaboration avec les parties prenantes concernées dans la planification et la mise en oeuvre des activités du Mécanisme technologique./Establishment of PAZH, Ministry in charge of Forestry and Environment Preparation of requests to CTCN, NDE & NDA; Accreditation to the Green Fund, Development Bank of Central African States (BDEAC); Brainforest Gabon, review on the challenges of the enabling environment and the challenges and possibilities of inducing the private and public sectors to develop and transfer technologies .; Researchers from Omar Bongo University, Collaboration with relevant stakeholders in the planning and implementation of Technological Mechanism activities. |
| Ministere de l'environnement; AMADER, AGENCE DES ENERGUES RENOUVELABLES, IER, Le réseau climat du Mali, plusieurs ONGs; Université du Mali, IPR, ENI; Atelier et conference/Minister of the Environment; AMADER, RENEWABLE ENERGIES AGENCY, AND, The climate network of Mali, several NGOs; University of Mali, IPR, ENI; Workshop and conference |

Q22

In your opinion, have TEC's analyses and recommendations contributed to improving the capacity of national stakeholders to develop, deploy and disseminate climate technologies?

Answered by: 36

Skipped by: 24

Figure 9

TEC products' contribution to improving capacities of national stakeholders

Q22: In your opinion, have TEC's analyses and recommendations contributed to improving the capacity of national stakeholders to develop, deploy and disseminate climate technologies?

Individual responses / comments:

I do not know
There is no disclosure of TEC's work in Brazil.
Stakeholders' capacity for Technology transfer and deployment are to be significantly improved.
I am unaware of Agencies using the products and as such it is difficult to say
As mentioned earlier, TEC issues are little known at the National level
I with my position now is an official and supporter for NDE in VietNam, I do not have chance to acess with TEC
CTCN capacitates the NDE but it is not sure if the knowledge has been disseminated to the community because the NDEs do not have any funding to transfer the training to others.
NDE coordinators do not have the necessary training and knowledge in this area of activity
TEC recommendations help national stakeholders decide on key issues related to climate technology eg. policies, laws, global trends and progressives and etc.
En terme d'information/In terms of information
Les grandes décisions en matière des options technologiques climatiques s'appuient sur ces recommandations/Major decisions on climate technology options are based on these recommendations
Les cadres formés ont la capacité de formuler les projets bancables./The trained managers have the capacity to formulate bankable projects.
Les analyses du TEC sont pertenantes et constituent une référence pour les parties prenantes activant dans le domaine des technologies climatiques./TEC analyzes are relevant and constitute a reference for stakeholders activating in the field of climate technologies.
Elles contribuent, aux côtés d'autres recommandations, à développer les technologies climatoiques/They contribute, alongside other recommendations, to developing climate technologies.
Les technologies climatiques ne sont pas encore déployées et diffusées en République Centrafricaine. On en parle mais il existe beaucoup de barrières à leur déploiement et diffusion. Notre objectif est de réussir le transfert des technologies climatiques dans le pays et renforcer les capacités nationales dans le domaine technologique./Climate technologies are not yet deployed and disseminated in the Central African Republic. We talk about it but there are many barriers to their deployment and dissemination. Our objective is to successfully transfer climate technologies in the country and strengthen national capacities in the technological field.
La majorité des acteurs ne se sont pas appropriés les résultats des analyses et recommandations/The majority of actors did not appropriate the results of the analyzes and recommendations
Renforcer les analyses et les comprehensions /Strengthen analyzes and understandings
El conocimiento es escaso. /Knowledge is scarce.

Q23

Have you used the TEC products to prepare technical assistance requests for the CTCN? Please explain your answer:

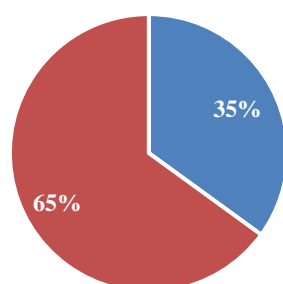**If yes, please provide details on the recommendation/publication used and the TA request. If no, why not?**

Answered by: 40
Skipped by: 20

Figure 10
TEC products usage to prepare TA requests CTCN

Q23: Have you used the TEC products to prepare technical assistance requests for the CTCN?

■ **Yes** ■ **No**

Individual responses / comments:

I have never accessed TEC products.
The relevant ones pertaining to SIDS
It has not been widely distributed
I have worked on a multi country Technical Request to date and with the Department of Meteorology on their Technology Needs Assistance using a template from CTCN
We have had limited idea of how to use TEC product to prepare a TAR.
The NDE did not prepare a proposal for technical assistance to the CTCN.
I am not familiar enough with the products.
Not aware about it
Bangladesh submitted 5 CTCN projects 4/5 years, back, at that time, stakeholders and relevant officials consulted the necessary information from the CTCN website for getting ideas of TAs. Due to low number of support for technology transfer, the interest is low, stakeholders may have forgot about the relevant information. When we shall update our TNA & TAP and go for second round of CTCN TA project, hopefully we shall request various government agencies and stakeholders to look into TEC products.
There was alot of conditions that made some delays internally in submitting a technical assisstance to the CTCN, so hopefully this year we could submitted, and for sure after reading carefully TEC documents.
I read generally in the TEC website when we were preparing the first technical assistance request to submit to the CTCN in last year.
I with my position now is an official and supporter for NDE in VietNam, I did not have chance to acess with TEC
Slovakia is Annex 1 country
The NDC is used extensively as a guide to properly implement the climate related projects.
I do not have all of the information with me. My team members have the details and with Covid 19 they are working form home. so I cannot specify at this time.
NDE coordinators do not have the necessary training and knowledge in this area of activity

TEC recommendations were used to focus CTCN TA in the development of the Road Map to facilitate the accelerated transfer of environmentally sound technologies developed in Armenia for low carbon and climate resilient development and introducing it worldwide, as well as transfer of innovative technologies to Armenia. It was also aimed at the strengthening of collaboration between GCF national designated authorities (NDA) and CTCN national designated entities (NDE).
I don't used directly TEC products prepare technical assistance. because TA requests have submitted to CTCN had been generated by private sectors/companies.
Le TEC est perçu comme une entité politique/The TEC is seen as a political entity
Le Bénin ne dispose pas encore du TNA, pour des orientations de choix de technologies, nous sommes appuyés sur les pratiques et technologies d'atténuation à fort potentiel qui présentent d'importants co-bénéfices de développement durable et qui pourraient accroître l'ambition d'atténuation de l'action climatique/Benin does not yet have the TNA, for technology choice guidelines, we rely on high potential mitigation practices and technologies which present significant co-benefits of sustainable development and which could increase the ambition of mitigation of climate action
Les requêtes soumises par l'END./The requests submitted by the SNE.
C'est sur la base des produits du TEC que les requêtes ont été élaborées./It is on the basis of TEC products that the requests were developed.
Dans le cadre de l'assistance technique en cours sur la biomasse forestière et le TNA./As part of the ongoing technical assistance on forest biomass and TNA.
Le travail est en cours./The work is in progress.
On s'est basé sur les orientations sur les technologies sobre en carbone pour préparer la requête sur le déploiement de la technologie d'énergie solaire./The low carbon technology guidance was used to prepare the solar energy technology deployment request.
Auprès du FVC pour le readness pas de financement à ce jour./From the FVC for readiness no funding to date.
Se ha usado el resultado del TNA. El uso es indirecto./The TNA result has been used. The use is indirect.

Q24

We would appreciate your feedback on this survey. Did you experience any challenges? What type of questions would you recommend for future surveys? Do you have any other general comments regarding the survey?

Answered by: 31
Skipped by: 29

Individual responses/comments:

It is the first time I interact with TEC, I just used to hear it. Perhaps you may consider to share your information in my emails too.
We need a more comprehensive brief on the ctcn and tec to refresh our mind
Some questions not so understand.
No further recommendation
NA
The research reveals the need for TEC to promote greater dissemination of its work, making it accessible to different stakeholders.
No
Some of the questions did not applicable responses. In preparation, one must assume that there may be some people who is not aware of the products and services offered.
I think it seems OK for me
Some of the survey questions are not relevant for the NDE, especially, whether the stakeholders have consulted the TEC website or products that cannot be answered by the NDE.
I don`t have any other general comments regarding the survey
I experienced challenges especially on the information relating to the work of the TEC.
My comment: In Sudan, a request has been submitted to the CTCN, and is currently being implemented as first steps, in this survey. There are only two options, did you receive help from the CTCN or not? all the Questions in survey if yes that is reply requires completed implementation of technical assistance. so I selected No

I hope that I would have chance to learn and work with TEC
Very big challenges, because this survey is too academic. It needs someone who is only focused and concentrated more on the climate change issues on a daily bases.
Unlike other types of activities (register, inventory, trading system ...), the NDE activity does not have clear instructions and regular training courses. In the case of the departure of specific performers or government restructuring, there is no basis for continuing activities. It needs to be fixed.
I was pleased to participate in the survey and get more enhanced knowledge and information about TEC and its recommendations
I propose that TEC engage with NDEs forum in order to provide their activities.
Très bien et nous souhaiterons souvent ce genres de plateforme/Very good and we often want this kind of platform
Non
J'adhère à ce sondage.Il consistitue un mécanisme de sensibilisation des END à prendre donnaissance des recommandations du TEC aux fins de son exploitation pour impulser les politiques et stratégies en matière de gestion des CC/I adhere to this survey. It consists of a mechanism for sensitizing NDTs to take note of the recommendations of the TEC for the purpose of its exploitation to drive policies and strategies in terms of CC management
Pas de problèmes majeurs/No major problems
Des difficultés? Pas vraiment. Mais à partir des questions posées, il apparaît nécessaire de conduire d'avantage d'actions de vulgarisation sur le mécanisme technologique. Des questions à recommander? Recevez-vous régulièrement les recommandations/Comptes rendus issus des différents travaux du TEC? Ce qui conduit naturellement à d'autres commentaires sur une demande: celle de recevoir les conclusions des travaux du TEC./Difficulties? Not really. But from the questions asked, it seems necessary to carry out more popularization actions on the technological mechanism. Questions to recommend? Do you regularly receive recommendations / Reports from the various works of the TEC? This naturally leads to other comments on a request: that of receiving the conclusions of the work of the TEC.
Je n'ai pas évalué l'utilisation faite des résultats du TEC par les parties prenantes, c'est pourquoi je ne peux pas fournie des détails de réponse./I have not assessed the use made of the CET results by stakeholders, therefore I cannot provide response details.
Je recommande que les produits du TEC soient davantage diffusé au niveau des entités nationales désignées/I recommend that TEC products be further disseminated at the level of designated national entities
Les questions sont trop générales et par ailleurs le TEC s'insère dans les décisionsd'ensemble de Unfccc et non une utilization unilatérale./The questions are too general and moreover the TEC fits into the overall decisions of Unfccc and not unilateral use.
Non, Je n ai pas des difficultés/No, I don't have any difficulties
Ninguno