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Report on the third independent review of the effective implementation of the Climate Technology Centre and Network

Summary

This report presents the findings of the third independent review of the effective implementation of the Climate Technology Centre and Network. It provides the main findings for each area that was evaluated (relevance, effectiveness, efficiency, and impacts and sustainability), the conclusions of the review and the recommendations for enhancing the performance of the Climate Technology Centre and Network.

Contents

Abbreviations and acronyms

AFCIA	Adaptation Fund Climate Innovation Accelerator
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CTC	Climate Technology Centre
CTCN	Climate Technology Centre and Network
GCF	Green Climate Fund
GEF	Global Environment Facility
NAP	national adaptation plan
NDA	national designated authority
NDC	nationally determined contribution
NDE	national designated entity
TA	technical assistance
TEC	Technology Executive Committee
TNA	technology needs assessment
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization

I. Introduction

A. Background and mandate

1. The terms of reference of the CTCN stipulate that an independent review of its effective implementation be conducted four years after its inception and every four years thereafter.[1]

2. The first independent review of the CTCN took place in 2017.[2] Following the recommendations arising from the review, COP 23 decided to renew hosting of the CTC for a further four-year period.[3]

3. The second independent review of the CTCN took place in 2021.[4] The recommendations regarding enhancing CTCN performance took into account relevant findings and recommendations from the first independent review.[5] Following these recommendations, COP 26 decided to renew hosting of the CTC for a further five-year period.[6]

4. COP 26 decided to align the periodicity of the independent review of the effective implementation of the CTCN with the periodic assessment of the effectiveness and adequacy of the support provided to the Technology Mechanism in supporting the implementation of the Paris Agreement on matters relating to technology development and transfer by changing the periodicity of the independent review from four to five years until COP 31 reviews the functions of the CTC and decides whether to extend its term.[7]

5. COP 26 requested the secretariat to commission the third independent review of the effectiveness of the CTCN for consideration at COP 31 and to organize a dialogue, to be held in conjunction with COP 31, to consider the findings of the review.[8]

6. COP 29 decided that COP 30 would conduct a review of the functions of the CTC and decide whether to extend the term of the CTC.[9] COP 30 and CMA 7 adopted revised functions of the CTC.[10]

7. Following a procurement process consistent with United Nations regulations, the secretariat selected Ernst & Young AG (hereinafter referred to as the consultant) to conduct the third independent review of the effective implementation of the CTCN.

B. Possible action by the Conference of the Parties

8. The COP will be invited to consider the findings and recommendations of the third independent review of the effective implementation of the CTCN and determine any appropriate follow-up actions for enhancing the performance of the CTCN.

II. Methodology

A. Scope of work

9. The third independent review of the effective implementation of the CTCN included an analysis of the organization, governance, operations and services of the CTCN, as defined

[1] Decision 2/CP.17, annex VII, para. 20.
[2] See document FCCC/CP/2017/3.
[3] Decision 14/CP.23, para. 5.
[4] See document FCCC/CP/2021/3.
[5] Pursuant to decision 14/CP.23, para. 10.
[6] Decision 11/CP.26, para. 9.
[7] Decision 11/CP.26, para. 22.
[8] Decision 11/CP.26, paras. 24–25.
[9] Decision 10/CP.29, para. 3.
[10] Decisions 10/CP.30, para. 2, and 17/CMA.7, para. 4.

at its inception and having evolved since then, both from the perspective of how the CTCN has responded to guidance from the COP and the CMA and considering the positioning of the CTCN with regard to international climate-related policies, the needs of developing countries and the global macroeconomic situation.

10. In determining the scope of the review and shaping its findings, all activities undertaken by the CTCN, including those relating to the role of the CTCN in serving the Paris Agreement,[11] were taken into consideration. Decisions of the COP and the CMA relevant to the CTCN were assessed to determine the extent to which they were considered in the design of the third programme of work (for 2023–2027) of the CTCN[12] and how CTCN activities have contributed to a transformational change in technology development and transfer, as envisaged in the Paris Agreement. Linkages between the CTCN, as part of the Technology Mechanism, and the Financial Mechanism were also analysed.

11. The third review covers CTCN operations and activities conducted from 1 January 2021 to 31 December 2025. The impacts of CTCN activities implemented before 2021 are also considered. The review covers activities of the CTCN included in its second[13] and third programme of work.

12. The third independent review is global in scope (see annex II for evaluation questions).

B. Workplan

13. The consultant organized the third independent review into three phases: inception, data collection and analysis, and review. Data collection and analysis comprised three activities:

(a) A literature review focusing on strategy, governance, operations, services, and outcomes of activities under the CTCN, covering both internal CTCN documents and external CTCN publications (see annex III for a list of the documents reviewed);

(b) Stakeholder interviews conducted with 22 individuals (see annex IV for a list of the interviewees), to gather qualitative feedback on CTCN performance and associated challenges and improvement opportunities;

(c) An electronic survey, targeting NDEs, Network members and beneficiaries,[14] to gather information on CTCN operations and achievements; assess the relevance, effectiveness and efficiency of CTCN activities; identify stakeholder needs; and collect feedback on areas for improvement of CTCN effectiveness (see annex V for details on the survey methodology and annex VII, chapter II, for its results).

14. The work was undertaken between September 2025 and August 2026.

III. Review findings

15. The main findings of the third independent review of the effective implementation of the CTCN, presented in this chapter, come from the data sources listed in paragraph 13 above. The findings are based on the detailed review of the performance of the CTCN presented in annex VII and constitute the professional judgment of the consultant.

A. Relevance

16. **Third programme of work**: the third programme of work of the CTCN represents a substantive shift from the broad, activity-oriented approach under its second programme of

[11] Pursuant to Article 10, para. 3, of the Agreement.
[12] Available at https://pow.ctc-n.org/programme.html.
[13] Its second programme of work (for 2019–2022) is available at https://www.ctc-n.org/sites/www.ctc-n.org/files/ctcn_programme_of_work_2019-2022.pdf.
[14] Local institutions and organizations that have benefited from CTCN technical assistance.

work towards a programmatic approach to supporting countries with technology development and transfer, in accordance with the CTCN mandate (see annex VI), and is included in the joint work programme of the Technology Mechanism for 2023–2027. It introduces five thematic areas of systems transformation supported by two technology enablers: digitalization and national systems of innovation. This redesign reflects the lessons learned from the first two programmes of work, including the need for a clearer strategic direction for CTCN activities, more targeted indicators for measuring the impact of its activities, streamlined TA modalities and stronger prioritization criteria. While the narrowed scope was seen by many stakeholders as enabling CTCN TA to have greater impact, some noted that it may limit options for delivering TA and aligning it with specific country needs, though a few funding agencies expressed the view that the scope remains too broad, as a result of which the strategic direction of the CTCN has become unclear. Development of the programme of work relied on extensive information gathering (in line with recommendation 6 from the second independent review) through consultations with the CTCN Advisory Board, NDEs, donors, United Nations entities including the UNFCCC, and Network members. The needs of NDEs, including recurrent needs, were identified from information collected through TEC–CTCN surveys and at NDE forums; and translated into an estimation of funding requirements for different scenarios, from 'business as usual' to enhanced delivery of CTCN activities. The robustness of the needs assessment process was recognized by interviewees for the third independent review, even if some had limited awareness of the details of the programme of work and noted the lack of a platform for NDEs to regularly provide feedback beyond TEC–CTCN surveys.

17. **Recommendations from previous reviews**: recommendations from the first and second independent reviews have been progressively addressed by the CTCN, but some more than others, constrained by limited financial and human resources. Although most survey respondents did not have much awareness of work on implementing the recommendations, some saw the recommendations as having been implemented and generating improvements (see annex VII, figures 13, 26 and 41). Interviewees reported progress in implementing some recommendations while noting bottlenecks in others. Resource mobilization efforts (relating to recommendation 1 from the second review) have intensified, and NDE capacity-building has been expanded (recommendation 5), although CTCN staff and Advisory Board members stressed that tangible results remain limited. Recommendation 2 from the second review led to the development of a post-implementation impact assessment form for TA, which was introduced at the 23rd meeting of the CTCN Advisory Board in April 2024 and piloted in 2025, but insufficient financial and human resources, staff turnover and the difficulty of assessing TA outcomes have hindered the full implementation of the recommendation. Recommendation 3 from the second review called for improved communication between the host and the secretariat of the CTC, but feedback was mixed on whether this has been achieved following the transition to full management of the CTCN by UNEP. CTCN staff highlighted that coordination has improved as a result of more frequent meetings and more joint events between the CTCN and UNEP. Some stakeholders highlighted that strengthened information flows between the host and the CTC secretariat ensures the effective performance of the CTCN. More details regarding the actions taken by the CTCN in response to the recommendations from the second review are available in annex I.

18. **Response to guidance from the COP and the CMA and alignment of the CTCN with the Paris Agreement**: changes between the second and third programmes of work of the CTCN were guided by mandates from the COP and the CMA to strengthen the Technology Mechanism, enhance linkages and collaboration between the TEC and climate funds serving the Convention and the Paris Agreement, improve monitoring and evaluation of the impact of its activities, reinforce gender-responsiveness and support NDE engagement, including through the provision of technical and logistical support for all those purposes. Some interviewees confirmed that the theory of change, pillars of systems transformation and criteria for prioritizing TA requests underpinning the third programme of work were directly informed by COP and CMA guidance. They also confirmed that TEC–CTCN collaboration has improved through the joint work programme of the Technology Mechanism and coordinated knowledge-sharing. However, other interviewees noted the need for deeper alignment between the two constituted bodies, particularly in operationalizing COP guidance on implementation pathways and in strengthening the linkages between the Technology

Mechanism and the Financial Mechanism. On general responsiveness to guidance, interviewees noted that human and other resource limitations, which can arise from the COP and the CTCN Advisory Board requesting the CTCN to do more with no additional resources, constrain the ability of the CTCN to respond swiftly to emerging priorities.

19. **Needs of Parties**: CTCN interventions were widely viewed as highly relevant to countries' needs, although it was noted that delays following the submission of requests caused interventions to no longer be relevant by the time they were implemented in some cases. The country-driven approach to TA helps to ensure that it aligns with national priorities set out in TNAs and NDCs and, more broadly, national climate change strategies. The survey results confirm that CTCN activities mostly align with national plans and priorities set out in, for example, TNAs and NDCs. Interviewees highlighted that the flexibility and responsiveness of the CTCN make it well suited to addressing the diverse technology needs of developing countries, particularly the least developed countries. The feedback from interviews and the survey shows that TA is mostly perceived as relevant, although some feedback refers to the thematic focus of the third programme of work as a "top-down" approach, hindering the response of the CTCN to specific needs. The CTCN Advisory Board revised the prioritization criteria for TA requests in 2024. While these criteria further narrowed the types of request countries can submit, they emphasize that requests should deliver clear benefits for the requesting country and align with national policies and action plans.[15] Collaboration with NDEs is essential for the CTCN to ensure that its activities are aligned with countries' needs. In 2025, the CTCN provided follow-up TA to NDEs, upon request, for projects that had concluded. In addition, the CTCN developed modalities for NDEs to receive logistical support for engaging with national actors to identify project opportunities or to monitor projects after implementation: as at the end of 2025, the CTCN had received three requests for and 15 expressions of interest in logistical support.[16] Survey respondents rated the relevance of TA to countries' needs at, on average, 3.2 on a scale from 1 (low) to 4 (high). Lower individual relevance ratings were explained by limited budget, insufficient local partner involvement, misalignment in expectations between beneficiaries and network members delivering TA, and a focus on remote work rather than local fieldwork.

20. **Coherence between the work of the CTCN and the TEC**: CTCN activities were broadly consistent with those of the TEC, largely as a result of the implementation of the first joint work programme of the Technology Mechanism. The CTCN engaged with the TEC through joint objectives and strategy, coordination of annual reporting, participation in events and open-ended activity groups of the TEC, and the joint development of shared knowledge products and initiatives (e.g. the Technology Mechanism initiative on artificial intelligence for climate action[17]). The CTCN promoted the Technology Mechanism gender and climate technology expert roster, encouraging NDEs to mobilize experts from the roster.[18] This engagement indicates strengthened alignment between the policy-oriented guidance of the TEC and the implementation role of the CTCN. The review suggests strong alignment at the strategic level and in the function of reporting. However, alignment was less visible in terms of integrated delivery of TA and other activities, coherence and common implementation pathways. In some areas, progress in collaboration between the TEC and the CTCN has been less than expected, for example in their joint development of an integrated monitoring and evaluation framework, as suggested in recommendation 3 from the first periodic assessment of the Technology Mechanism.[19]

21. **Complementarity with the Financial Mechanism**: CTCN activities were coherent with activities under the Financial Mechanism, with strong complementarities with GCF, GEF and Adaptation Fund activities, but with some room for improving effective collaboration. Cooperation between the CTCN and the operating entities of the Financial Mechanism remains sporadic, with differences in operational modalities and timelines for providing support to developing countries, and insufficient collaboration between NDEs, NDAs and other relevant focal points, limiting systematic coordination. Interviewees

[15] See CTCN Advisory Board document AB/2023/22/23.
[16] See document FCCC/SB/2025/6, para. 84.
[17] See https://unfccc.int/ttclear/artificial_intelligence.
[18] See document FCCC/SB/2024/3, para. 72.
[19] See document FCCC/SBI/2022/13, para. 71.

highlighted persistent challenges in strengthening linkages between the Technology Mechanism and the Financial Mechanism, including insufficient visibility of CTCN activities at the country level and limited structured engagement between the CTCN and financial institutions. Outcomes of CTCN TA have proven difficult to align with GCF and GEF criteria for scaling up projects owing to the operating entities' evolving strategic priorities. As a consequence, CTCN collaboration with the operating entities has not resulted in many larger-scale projects being financed (despite examples like the GCF Project Preparation Facility for a Kenya Commercial Bank project and the GEF-funded projects in the United Republic of Tanzania and Uganda that built on priorities identified through TNA).[20] Parties have on many occasions requested that the CTCN increase its engagement with the GCF, particularly with respect to its Readiness and Preparatory Support Programme and Project Preparation Facility; in this context COP 27 encouraged the CTCN to report annually on the use of the Facility.[21] The GCF participated in NDE forums and invited the CTCN to its regional dialogues in recent years. Regarding the GEF, the CTCN and the GEF also participated in several of each other's events, including regional NDE forums. In 2020–2025, AFCIA, an Adaptation Fund programme that includes the CTCN as an implementing partner, supported 25 TA pilot projects on innovative adaptation solutions in 23 countries and unlocked USD 17 million for scaling up adaptation initiatives by facilitating access to Adaptation Fund resources for many innovators. However, other initiatives involving the CTCN, such as partnerships with regional development banks under the GEF-funded Poznan strategic programme on technology transfer,[22] have led to limited cooperation.

B. Effectiveness

22. **TA**: the CTCN performed generally effectively in terms of providing TA and was able to fulfil the functions assigned to it under the Technology Mechanism. Evidence from the literature and interviews indicates that the CTCN supported a broad range of TA projects aligned with its mandates, including projects related to policy development, institutional strengthening and creating enabling environments for climate technology deployment. Interviewees noted that CTCN interventions frequently address country-defined priorities and contribute to strengthening national frameworks for climate technology development and deployment. In 2021, 48 per cent of TA requests supported mitigation goals, 29 per cent supported adaptation goals and 23 per cent supported a combination of adaptation and mitigation goals.[23] In 2025, 42.5 per cent of TA requests supported adaptation goals and 42.5 per cent a combination of mitigation and adaptation goals,[24] showing that the CTCN has shifted its priority towards adaptation. The timeliness of TA delivery was described by stakeholders as mixed, with delays attributed to procurement constraints, staffing shortages and transitions in leadership within the CTCN. Despite these challenges, interviewees emphasized the overall effectiveness of CTCN TA, and the survey results confirm this, with average satisfaction with TA rated 3.2 on a scale from 1 (low) to 4 (high) for both NDEs and beneficiaries (see annex VII, figures 6 and 36). Programmatic approaches to the delivery of TA, such as under AFCIA and the new multi-country assistance modality of the CTCN, were also positively perceived by the majority of NDEs (63 per cent; see annex VII, figure 9). An analysis of the CTCN portfolio of TA projects is available in annex VII (table 1).

23. **Capacity-building**: several capacity-building activities were successfully carried out by the CTCN, notably the regional NDE forums, which continue to be held annually and are attended by many NDEs. In 2025, four regional NDE forums were held, with about 150 participants in total.[25] Furthermore, TA projects often include capacity-building components; for example, some TA projects are aimed at creating enabling environments (25 per cent of all TA projects in 2024; 21 per cent in 2025[26]), meaning they help countries to generate

[20] Project information and statistics on CTCN activities can be found in its 2021–2025 operating plans and other annual reports; see annex III for links to the source documentation.
[21] Decision 18/CP.27, para. 25.
[22] See documents FCCC/SBI/2022/INF.13 and FCCC/SBI/2026/9.
[23] See document FCCC/SB/2021/5, para. 75.
[24] See document FCCC/SB/2025/6.
[25] See CTCN Advisory Board document AB/2025/26/7.1.
[26] See document FCCC/SB/2025/6.

policies, strategies, plans, laws, agreements and regulations: 22 were generated in 2023, 21 in 2024 and 68 in 2025, against a target of 10 per year.[27]

24. **Knowledge-sharing**: the knowledge-sharing activities of the CTCN have improved thanks to events with the specific purpose of sharing knowledge with stakeholders and aligning knowledge products with stakeholder needs. Network members and the CTCN Partnership and Liaison Office have participated in these activities. Survey questions on the results of CTCN activities (based on the third programme of work) show that knowledge-sharing activities are perceived positively overall.

25. **Collaboration among NDEs**: the efforts of the CTCN to promote collaboration among the NDEs in developing countries and strengthen their capacity have been partially successful. The survey results show that NDEs perceive strengthening collaboration with and capacity-building support for NDEs as the recommendation from the second independent review (recommendation 5) most noticeably responded to. Regional NDE forums, thematic training sessions and multi-country TA initiatives have expanded opportunities for peer exchange and generated early examples of peer learning. Multi-country TA, however, remains rare within the scope of CTCN activities (2 of 147 TA projects completed in the review period – 1 in 2022 in Latin America and the Caribbean and 1 in 2025 in Africa[28]) and 38 per cent of the survey respondents did not see it as more effective than single-country TA. This view is reflected in the demand for multi-country TA, with only two requests made between 2021 and 2024.[29] Participation in TA remains uneven across and within regions and several NDEs reported continuing challenges in mobilizing stakeholders in order to formulate high-quality requests and ensuring post-implementation follow-up. Interviewees acknowledged that the CTCN has reinforced its provision of support to NDEs, including by introducing a new modality for logistical support, but emphasized that structured and sustained capacity-building would be required to ensure sufficient long-term capacity of NDEs. They also noted the need for a clear mechanism to support NDEs in coordinating with relevant national entities. Collaboration between NDEs from Parties included in Annex I to the Convention and Parties not included in Annex I to the Convention remains limited, according to some CTCN Advisory Board members and NDEs interviewed, and knowledge-sharing between the two could be further facilitated.

26. **Network engagement**: some improvement in CTCN engagement with Network members (relating to recommendation 4 from the second independent review) has been achieved, although linkages between Network members and partnership-building remain limited. Increased Network engagement activities led to an increase in Network membership, by 7 per cent in 2024 and 8 per cent in 2025. However, interviewees noted that the size of the Network does not always translate into deeper expertise or better quality of support. While the Network offers broad thematic and geographical coverage through its large pool of individual experts and partner organizations, participation in TA remains geographically uneven, with many members not involved in bidding for TA. Although survey responses show that most members join the Network for tendering and networking opportunities, only 29 per cent of respondents reported having formed partnerships with NDEs as a result. In 2025, Network members collaborated with 15 international organizations, private sector entities, academic institutions, civil society organizations and other Network members on CTCN activities, including conducting training workshops and developing knowledge products (compared with 29 collaborations in 2024).[30] The CTCN has developed a Network Engagement Strategy,[31] appointed a Network engagement and capacity-building specialist and expanded tendering opportunities for Network members, all of which are aimed at strengthening matchmaking, enhancing the visibility of the Network and promoting structured collaboration between Network members. However, while this represents progress, operationalization of these mechanisms is still under way. Interviewees emphasized

[27] As footnote 20 above.
[28] As footnote 20 above.
[29] As footnote 20 above.
[30] As footnote 20 above.
[31] See CTCN Advisory Board document AB/2025/26/16.2.

the need for clearer tiers of Network membership and stronger incentives to actively engage with other Network members.

27. **Climate technology matchmaking**: progress in reinforcing the role of the CTCN as a climate technology matchmaker (recommendation 7 from the second independent review) is limited but apparent. Surveyed Network members perceived the CTCN as having improved in reinforcing its role as a climate technology matchmaker, with an average rating of 3.2 on a scale from 1 (low) to 4 (high). Global networking events organized by the CTCN provided opportunities for matchmaking; for example, the Voluntary Technology talks held at the World Climate Industry Expo 2024 resulted in 23 matchmaking opportunities. Although the CTCN expanded its Network membership and undertook activities to increase interaction between technology providers and countries requesting TA, interviewees noted that matchmaking often remains at an early stage, typically ending at initial introductions without advancing to financing or implementation pathways. Persistent barriers in this regard include limited human resources within the CTCN and low visibility of the CTCN at the country level, as well as the lack of a fully developed matchmaking strategy. Nonetheless, interviewees highlighted that efforts of the CTCN such as in strengthening collaboration under AFCIA and developing the thematic multi-country TA modality indicate the potential for it to have a greater matchmaking function, provided that additional resources are mobilized for this purpose.

28. **Monitoring and evaluation**: practices for monitoring and evaluation of the impact of CTCN activities have been established, but remain partially followed. The CTCN updated its monitoring and evaluation framework, refined its performance indicators and piloted a post-implementation impact assessment form. Moreover, the CTCN has demonstrated enhanced reporting and transparency thereof, such as by issuing annually a document detailing the responses of the CTCN to guidance from Parties to facilitate tracking of mandate implementation. CTCN Advisory Board members and donors acknowledged progress in reporting clarity, including the development of enhanced dashboards for performance metrics. However, systematic ex post evaluation of TA remains limited. Resource constraints, staff turnover and the inherent difficulty of assessing long-term impacts of upstream TA and interventions targeting creation of enabling environments continue to hinder more comprehensive evaluation.

C. Efficiency

29. **Governance**: the efficiency of the CTCN, which is shaped by governance arrangements, resource availability, staffing structure and operational processes, has been gradually improving. The interviews and literature review indicate that the transition from joint hosting of the CTC by UNEP and UNIDO to sole management by UNEP brought both efficiency gains and disruptions. Interviewees noted that consolidating hosting responsibilities provided greater clarity in relation to institutional leadership and improved the alignment of CTC secretariat administrative and operational processes with those of the UNFCCC secretariat. However, they also noted that communication channels between UNEP and the CTC secretariat have at times (e.g. in 2022–2023) lacked clarity and that communication through those channels has sometimes lacked speed. Moreover, fundraising and the fund allocation and project approval processes of UNEP were perceived as more lengthy and less agile than under the joint hosts. Persistent capacity gaps, particularly in relation to governance and operations, continue to constrain the overall efficiency of the CTCN. Interviewees reported overall satisfaction with the CTCN Advisory Board's structure and functioning, although some observed that the Board's size, while consistent with UNFCCC guidelines, is large for a small entity such as the CTCN, resulting in slower decision-making. Some CTCN Advisory Board members from Parties not included in Annex I to the Convention stated that they would like greater representation for their voices to be heard at Board meetings.

30. **Funding**: a limited budget remains the central challenge for the CTCN, but efficient use of the available financial resources is evident. Insufficiency of funding was reported in all CTCN annual reports to the COP during the review period. Stakeholders consistently described the availability of resources as insufficient and unpredictable. The CTCN relies

heavily on voluntary contributions from a limited number of Party donors and those contributions are expected to decrease over the next few years. Interviewees highlighted the difficulties in mobilizing private sector and philanthropic funding, which are partly attributable to administrative and fiduciary constraints within UNEP, and noted the increasing competition for climate finance in the global context. While the CTCN has taken steps to diversify its funding base, the longer-term outcomes of these efforts are difficult to assess. The multi-country delivery of TA was frequently cited as a promising approach to optimizing costs and scaling up project results, although its applicability varies across regions. Detailed information on funding can be found in annex VII (table 2).

31. **Staffing**: lack of human resources, internal expertise and local presence has been a significant challenge in relation to CTCN operational efficiency. The review found that the CTCN has been frequently understaffed, with high staff turnover and extended periods of interim leadership contributing to fluctuating capacity that impeded continuity of support and caused interruptions to and changes in regional presence and operations. Several interviewees noted the pressure placed on staff working with minimal resources, while also acknowledging the continued commitment of CTCN staff and consultants. The transition to UNEP hosting resulted in the loss of certain specialized technical profiles previously available through UNIDO, affecting institutional memory and contributing to shifts in regional presence and operations, including in Latin America and Asia and the Pacific. At the same time, the establishment of the CTCN Partnership and Liaison Office in Songdo, Republic of Korea, has provided an additional platform for partnership facilitation, collaborative research, development and demonstration, GCF collaboration and capacity-building support in Asia and the Pacific and beyond. Moreover, new positions were created in the CTCN in 2024–2025, such as donor engagement and resource mobilization and partnership specialist, and adaptation global lead.

32. **NDEs**: NDEs are essential for coordinating CTCN TA, and the overall efficiency of the CTCN depends heavily on their capacity and visibility. While many NDEs effectively facilitate the formulation of requests and coordinate with national entities (e.g. policymakers, ministries, NDAs and GEF focal points) on implementing projects once approved, the level of institutional support they receive varies widely. Interviewees highlighted persistent gaps in NDE capacity, resources and coordination, which hinders high-quality request formulation, effective follow-up after TA delivery and additional funding mobilization. The CTCN has strengthened NDE capacities through training, regional forums and peer exchange, but sustained support is needed for consistent NDE engagement in all regions. The survey showed that most NDEs feel their role has been clearly defined and they are aware of their mandate, yet they overwhelmingly reported insufficient financial and material resources to fulfil that role and mandate, a finding that is similar to that of the previous review.

33. **Internal processes**: the internal processes, communication flows and monitoring and evaluation framework of the CTCN have gradually improved, although systemic challenges persist. Updates to reporting tools, enhancements to performance indicator dashboards and refinements to the structure of planning mechanisms have contributed to improving oversight and transparency. At the same time, efforts to streamline TA have been hindered by procurement delays, staffing shortages and inconsistent follow-up mechanisms. While tendering opportunities have increasingly been opened to Network members and the multi-country approach to delivering TA has supported more efficient project implementation, the systematic identification of best practices and the integration of feedback from beneficiaries into operations remain areas requiring further development.

D. Impacts and sustainability

34. **Innovation**: CTCN interventions (e.g. under AFCIA) provide meaningful contributions to innovation but persistent challenges limit transformative, sustainable outcomes. The stakeholder interviews and literature review indicate that CTCN innovation-related activities have enabled countries to advance early-stage technology development, pilot technology solutions and strengthen strategies in emerging areas such as digitalization and green hydrogen. In 2025, 15 countries strengthened their national system of innovation as a result of CTCN support (compared with 9 in 2024, against a target of 4–5

per year), and the CTCN held 23 events related to climate technology research, development and demonstration and innovation (compared with 11 in 2024, against a target of 5 per year).[32] According to feedback from interviewed CTCN staff and NDEs, several countries have leveraged this support to accelerate innovation across the technology cycle. The factors that hinder progress in innovation are limited national capacity, misalignment between countries' road maps and delivery timelines, staff turnover within institutions and CTCN timelines, resource constraints and the absence of clear pathways guiding the transition from upstream assistance to financing and deployment. While CTCN innovation-related activities have generated substantive early-stage results, interviewees emphasized that sustained impact will depend on predictable mechanisms for comprehensive follow-up.

35. **Implementation**: CTCN implementation-related activities have contributed significantly to strengthening planning processes for mitigation and adaptation. These contributions strengthen planning frameworks, with long-term results depending on the degree to which countries can maintain momentum after TA has been delivered. Support provided to countries for developing NDCs or TNA outcomes and technology road maps helped to clarify pathways for climate action. The number of TA projects that the CTCN implemented in the review period aligns with its target of 30 per year[33] (details about the number of TA projects implemented can be found in annex VII, table 1). The number of TNAs funded through the GCF Readiness Programme decreased over the review period, owing to the strategic shift in UNEP programming and the new GCF readiness modalities requiring countries to submit a GCF readiness national strategy prior to accessing readiness funding: in 2022, 11 TNA projects were completed, resulting in technology action plans; in 2023, 4 TNA projects were completed; and 1 TNA project was completed in each of 2024 and 2025.[34] While the new multi-country approach to TA promotes regional alignment and peer learning, only two multi-country TA projects have been completed. Interviewees noted that the CTCN progressed in promoting inclusiveness and gender-responsiveness, in particular by updating its Gender Policy and Action Plan for 2023–2027 and integrating gender considerations into the TA design phase (with the target of 100 per cent of TA projects supported with a gender analysis being achieved in both 2024 and 2025[35]). The integration of Indigenous knowledge into the design of TA projects has been sporadic.

36. **Capacity-building**: CTCN activities contributed to strengthening the capacity of countries to develop, transfer and deploy climate technologies, and also contributed to the creation of enabling environments in this regard. Support delivered through targeted training and the multi-country approach to TA helped to reinforce national policy and regulatory frameworks. The number of policies, strategies, plans, laws, agreements and regulations for which development was supported by TA grew from 22 in 2023 and 21 in 2024 to 68 in 2025 (against a target of 10 per year). The number of participants attending CTCN training also increased, from 889 in 2021 to 3,067 in 2025,[36] well above the target of 1,000–1,500 participants per year.[37] Interviewees noted that capacity-building activities not only improved institutional capacity, but also raised institutional awareness of technology options. However, owing to countries' different levels of institutional stability, resources and technical expertise, capacities were developed differently among them.

37. **Stakeholder engagement**: stakeholder engagement activities have produced meaningful yet underwhelming outcomes. The CTCN expanded its engagement with national planners, local communities, academia and the private sector through regional forums, knowledge-sharing events and the multi-country approach to TA, helping to strengthen dialogue about and increase awareness of technology options. Interviewees noted that the depth of engagement varies across regions, with depth linked to resource constraints and different national capacities. While interaction between NDEs and local stakeholders has improved, sustained collaboration remains challenging where institutional support is limited. The number of partnerships slightly decreased (from 6 in 2022 and 2023 to 5 in 2025),

[32] As footnote 20 above.
[33] As footnote 20 above.
[34] As footnote 20 above.
[35] As footnote 20 above.
[36] As footnote 20 above.
[37] As footnote 20 above.

although still meeting the target of 5–10 per year, showing that the Network is large but not necessarily being used to its full potential. The establishment of the CTCN Partnership and Liaison Office has resulted in engagement opportunities with the GCF and Network members with research, development and demonstration capacity, and contributed to the impact on the key performance indicators for CTCN engagement.

38. **Support**: support-related activities of the CTCN have contributed to overall positive outcomes. They have, for example, contributed to expanding access to TA and financial support for the development and transfer of gender-responsive technologies, notably through improved analysis of gender considerations in the design phase of TA projects.[38] Support-related activities have led to strengthened collaboration with the GCF, the GEF and the Adaptation Fund. The CTCN continues to co-organize events with financial institutions and the operating entities of the Financial Mechanism (3 in 2023, 4 in 2024 and 11 in 2025, against a target of 3–5 per year). New opportunities for funding have been unlocked, but some countries are better positioned than others to take advantage of this opportunity. Of the total funding that was mobilized for the second programme of work of the CTCN, 66 per cent had been mobilized as at the beginning of 2026, making it equivalent to the previous period and therefore showing no improvement. Interviewees stressed that clearer links between upstream TA and ex post financing opportunities are necessary to improve long-term impact.

39. **Unintended outcomes**: unintended outcomes of CTCN activities, both positive and negative, have been observed. CTCN activities contributed to, for example, strengthened stakeholder networks, increased visibility of climate innovation and the emergence of external follow-on initiatives inspired by CTCN-supported pilots. At the same time, interviewees reported several unintended negative outcomes, including elevated expectations that exceed CTCN resources, uneven geographical benefits and challenges in sustaining progress after the delivery of TA. Interviewees stated that addressing these challenges would require clearer communication on the role and scope of the CTCN, targeted support for follow-up on TA (as suggested in recommendation 5 from the first periodic assessment of the Technology Mechanism) and more efficient integration of TA outputs into national decision-making processes.

40. **Added value and systemic change**: the shift in the third programme of work of the CTCN towards systems transformation has begun to sharpen its strategic focus, enabling coherent, impact-oriented activities. CTCN activities have contributed to early elements of systemic and sustainable change, particularly by improving planning processes, supporting the creation of enabling environments and fostering regional cooperation. Some TA has catalysed follow-on investments and policy uptake, demonstrating the potential for long-term outcomes. Nevertheless, systemic change remains constrained by resource limitations and insufficient post-implementation support. Interviewees, in particular CTCN Advisory Board members, stated that a more robust monitoring and evaluation system and clearer pathways to scale-up are needed to sustain any gains.

IV. Conclusions

41. The main successes regarding the effective implementation of the CTCN during the review period are as follows:

(a) The strategy of the CTCN and its activities remain highly relevant to country priorities and needs, with interventions largely aligned with national contexts and climate priorities as a result of following a demand-driven approach;

(b) The third programme of work of the CTCN represents a substantive shift in strategic positioning, from a broad, activity-oriented approach to a programmatic approach focused on systems transformation, in response to guidance from the COP and the CMA and building on lessons learned from previous reviews;

[38] See CTCN Advisory Board document AB/2023/22/24.

(c) The CTCN has demonstrated effective cooperation with the TEC, including by co-developing and co-implementing with the TEC the joint work programme of the Technology Mechanism for 2023–2027 and by participating in TEC events;

(d) The governance of the CTCN has been somewhat streamlined with the change in host organization, resulting in more frequent communication and better coordination between the host, the CTC secretariat and the CTCN Advisory Board;

(e) The CTCN has demonstrated generally effective delivery of TA, thus fulfilling its core function under the Technology Mechanism, with interventions widely perceived as producing positive outcomes;

(f) The CTCN has strengthened its provision of capacity-building for and engagement with NDEs, notably through continuation of the regional NDE forums, contributing to improved coordination with local stakeholders and formulation of requests for TA at the country level;

(g) The CTCN has made notable progress in relation to knowledge-sharing, as evidenced by increased stakeholder participation in knowledge-sharing activities with an increased Network size and sustained delivery of knowledge products and information-oriented events, supported by the CTCN Partnership and Liaison Office;

(h) The CTCN has contributed to meaningful upstream results, particularly by strengthening planning processes, enabling environments and institutional capacities for climate technology development and transfer, as well as by fostering stakeholder collaboration;

(i) The CTCN has demonstrated an ability to adapt its activities to evolving guidance from the COP and the CMA and to changes in the international climate landscape, reflecting a degree of flexibility and agility despite operational constraints;

(j) Despite having limited financial resources, the CTCN has delivered its activities with relatively efficient use of available resources, reflecting strong value for money given the scope and diversity of its services.

42. The main challenges regarding the effective implementation of the CTCN are as follows:

(a) Significant constraints in financial and human resources, including insufficient and unpredictable funding, staffing fluctuations and reduced regional presence, which affect the scale, speed and sustainability of CTCN interventions;

(b) Delays in implementing TA, a recurring issue often linked to inefficient procurement processes and persistent structural constraints related to funding, staffing and administration, which can reduce the relevance and timeliness of CTCN interventions;

(c) Lengthy processes related to TA arising from complex procedures of the host organization for selecting consultants delivering TA and commencing implementation, as well as staffing constraints, causing delays for countries and leading to a mismatch between their national agendas and the services provided by the CTCN;

(d) Partnerships and networking activities not yet translating into financing opportunities or large-scale implementation outcomes, arising from insufficient capacities of NDEs and lack of visibility of the CTCN, limiting progress in strengthening the role of the CTCN as a climate technology matchmaker;

(e) Disparate mobilization and engagement of Network members and other CTCN stakeholders, limiting the full exploitation of expertise and partnerships across regions and sectors;

(f) Insufficient linkages with the operating entities of the Financial Mechanism, limiting the capacity of the CTCN to support the transition from upstream TA to downstream financing and implementation;

(g) Partially operationalized monitoring and evaluation practices, alongside limited systematic ex post evaluation and difficulties in measuring long-term impacts;

(h) Varying impacts of CTCN interventions that are largely concentrated on upstream outcomes, with limitations on scaling up and replicating outcomes and ensuring their long-term sustainability, in part owing to insufficient follow-up support and different levels of national capacity.

V. Recommendations

43. This chapter presents the recommendations for enhancing the performance of the CTCN.

A. Funding

Recommendation 1: strengthen resource mobilization by institutionalizing the ex post impact evaluation of technical assistance outcomes and diversifying funding, especially from private sector sources

44. The CTCN, in collaboration with the host organization and in consultation with its Advisory Board, is recommended to institutionalize ex post impact evaluations of TA as a permanent service supported by sufficient resources. This recommendation is based on findings that monitoring and evaluation systems remain only partially operationalized and do not yet allow for systematic demonstration of long-term outcomes. It also addresses the persistent challenge of insufficient and unpredictable funding, as well as donor expectations for clearer evidence of results. The CTCN is encouraged to standardize and systematize ex post impact evaluation, including follow-up assessments several years after project completion. The CTCN is also recommended to consolidate and communicate evidence of results in reporting formats aimed at donors and financial partners, highlighting pathways from upstream TA to downstream financing. In addition, it can aim to diversify funding towards more private sector sources.

B. Governance and organization

1. Recommendation 2: strengthen and stabilize human resources so as to improve operational performance

45. The CTCN is recommended to continue strengthening and stabilizing its human resources, particularly in procurement, resource mobilization and technical functions. This recommendation is based on findings highlighting persistent constraints related to understaffing, staff turnover and loss of specialized expertise (although progress was made by establishing new positions in 2024–2025), which directly affect the timeliness and consistency of delivery of TA. Strengthening human resources is expected to reduce delays in implementation, improve continuity and quality of delivery, and reinforce institutional knowledge and technical capacity.

2. Recommendation 3: streamline processes that involve the host organization at all stages of technical assistance

46. The CTCN is recommended to ensure its governance and operational frameworks support efficient, transparent and well-coordinated processes that are able to respond to future hosting and management decisions. This recommendation is based on findings that previous co-hosting arrangements created challenges related to procedural efficiency. The CTCN is also recommended to enhance the transparency and efficiency of its operational procedures, particularly procurement processes, and strengthen mechanisms for communication and coordination within the CTCN, between the CTC secretariat, the CTCN Advisory Board and the host organization.

3. Recommendation 4: strengthen operational linkages between the Climate Technology Centre and Network and the operating entities of the Financial Mechanism

47. The CTCN is recommended to further operationalize its linkages with the operating entities of the Financial Mechanism (the GCF and the GEF) in order to better support the progression from upstream TA to downstream financing and implementation. This recommendation is based on findings that existing cooperation remains insufficiently structured and does not yet consistently enable countries to translate TA outcomes into bankable proposals, financing pipelines or implementation-ready projects. The CTCN is encouraged to strengthen coordination with relevant financial actors at both the institutional and the country level, including by engaging more systematically with NDAs, GEF focal points and accredited entities, and to develop clearer operational modalities for connecting TA with financing opportunities. In doing so, the CTCN could reinforce its role within the broader climate-finance architecture and enhance the implementation potential and long-term impact of its support.

C. Mobilization of stakeholders and positioning

1. Recommendation 5: strengthen Network mobilization by applying a structured engagement model

48. The CTCN is recommended to further structure the mobilization of its Network by defining and applying a model for engagement that takes into account different levels of and clearer expectations for member participation. This recommendation responds to findings that the engagement of Network members remains disparate and does not consistently translate into operational support for delivering TA. The CTCN is encouraged to define the roles and levels of engagement of Network members, introduce appropriate incentives to promote active participation and strengthen monitoring of the contribution of Network members to CTCN activities.

2. Recommendation 6: adopt a tailored, responsive approach to building national capacity

49. The CTCN is recommended to adopt a more tailored and responsive approach to the design and follow-up of its capacity-building support to better address the varying levels of national capacity that affect the uptake, implementation and sustainability of the results of TA. This recommendation is based on findings that, while CTCN interventions have generated meaningful upstream outcomes, their impacts vary across countries, in part because national institutional, technical and coordination capacities differ significantly. The CTCN is encouraged to tailor its TA, capacity-building and follow-up support systematically to country-specific readiness levels and implementation conditions, including by identifying capacity gaps at an early stage, sequencing support more strategically and strengthening engagement with national institutions. By doing so, the CTCN could improve the effectiveness, sustainability and replication potential of its interventions across a wider range of country contexts, even if that means intervening in fewer projects overall owing to budgetary constraints.

3. Recommendation 7: further develop the multi-country approach to delivery of technical assistance and define the conditions under which it would be appropriate to apply the approach

50. The CTCN is recommended to apply the multi-country approach to TA in a targeted manner. This recommendation is based on findings indicating that, while the multi-country approach presents potential efficiency gains and opportunities for knowledge-sharing, its effectiveness depends on context and implementation modalities. The CTCN is encouraged to prioritize the multi-country approach where strong regional alignment exists, and allocate sufficient resources initially to support meaningful peer exchange and joint implementation, ultimately generating more impact for the same budget.

4. Recommendation 8: enhance national-level visibility of the Climate Technology Centre and Network and the national designated entities to sustain and amplify impacts

51. The CTCN is recommended to enhance its national-level visibility, particularly in supporting NDEs. This recommendation reflects findings that limited visibility in some countries, and insufficient structured engagement with financial stakeholders constrain demand generation for TA and the development of financing pipelines. The CTCN is encouraged to support NDEs in their communication and coordination with NDAs, GEF focal points and other stakeholders, develop outreach activities targeted at financial institutions and private sector actors, and increase the visibility of results and impacts of TA at the national and regional level. The CTCN is also encouraged to retain regional managers on staff or identify local partners where the CTCN is not locally present, facilitating regional operations and cooperation.

5. Recommendation 9: strengthen the matchmaking function of the Climate Technology Centre and Network to support countries in accessing finance for follow-up projects

52. The CTCN is recommended to strengthen and refine its matchmaking function to enhance its contribution to implementation and financing outcomes. This recommendation is based on findings that current matchmaking activities largely remain limited to initial connections and do not consistently lead to operational partnerships, financing opportunities or large-scale implementation. The CTCN is encouraged to clarify the objectives and scope of its matchmaking function and establish mechanisms for tracking outcomes of matchmaking activities. This recommendation is aimed at strengthening the engagement of the CTCN with financial actors and orienting matchmaking activities towards measurable outcomes in terms of partnerships, financing and project deployment.

Annex I

Recommendations from the second review of the Climate Technology Centre and Network, with implementation status*

[English only]

The recommendations from the second independent review are listed below. The CTCN has reported annually on actions taken in response to these recommendations as part of its annual report to the COP.

Detailed analysis of the implementation status

2nd Review Recommendations	*CTCN Response*
Recommendation 1: Encourage the CTC, in collaboration with UNEP and in consultation with the CTCN AB, to further enhance resource mobilization so as to meet the costs associated with the CTCN.	• Adopted a Resource Mobilization and Partnership Strategy for 2023–2027. • Created a dedicated position to support resource mobilization. • Expanded engagement with climate finance partners, notably the Adaptation Fund.
Recommendation 2: Encourage the CTCN to allocate dedicated resources to pursue its efforts to conduct regular ex post impact evaluations of TA.	• Presented a Post-Implementation Impact Assessment Form to the 25th Advisory Board meeting in April 2024. • A post implementation follow-up form was piloted in 2025 with roll-out in 2026.
Recommendation 3: Encourage the CTCN to further streamline communication between the host agencies and the CTC secretariat.	• Shifted from a co-management arrangement to UNEP as the sole managing entity. • Held more regular coordination through UNEP–CTCN meetings and joint events. • Reported governance and coordination matters regularly to the Advisory Board.
Recommendation 4: Encourage the CTCN to further engage with and improve synergies among Network members.	• Prepared a Network Engagement Strategy for Advisory Board consideration in 2025 (26th AB meeting). • Conducted a Network Survey in 2025 to assess engagement and identify gaps. • Delivered a number of co-created outputs leveraging the expertise of Network members.
Recommendation 5: Encourage the CTCN to enhance efforts to stimulate active collaboration between NDEs and reinforce its capacity-building support for NDEs to provide improved TA.	• Organized regional NDE forums in multiple regions each year. • Introduced logistical support modalities for non-Annex I NDEs in 2024 and began implementation in 2025. • Tested multi-country technical assistance approaches in Latin America and Africa.
Recommendation 6: Encourage the CTCN to collect relevant information for preparing its third PoW, including an evaluation of potential beneficiary needs that could be addressed with the available budget.	• Prepared the third Programme of Work through consultations with NDEs, the Advisory Board, donors, UN partners and Network members. • Used NDE surveys and NDE forums to collect information on country needs.
Recommendation 7: Encourage the CTCN to reinforce its position as a climate technology matchmaker.	• Organized Voluntary Technology Talks in 2024 as Network engagement events. • Facilitated technology matchmaking during the World Climate Industry Expo 2024. • Established the Partnership and Liaison Office in Songdo to catalyse partnerships and engagement.

* Not formally edited or formatted.

Annex II

Evaluation questions used to review the relevance, effectiveness, efficiency, and impacts and sustainability of the Climate Technology Centre and Network*

[English only]

I. Relevance

1. Question: Are the strategy and the resources of the CTCN relevant and appropriate regarding priorities given by the Parties and the country-driven needs for support?

2. Sub questions:

(a) What are the key differences in the priorities and operation of the CTCN compared to the second PoW? How was relevant information collected to prepare the third PoW? To what extent have NDE needs been assessed, and how was the financial plan prepared (cf. Recommendation 6)? Were lessons from the first and second Programmes of Work identified and taken into account?

(b) To what extent is the third PoW of the CTCN aligned with the guidance from the Parties pertaining to the work of the Technology Mechanism and the CTCN mandate (COP or Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) decisions)? Are revisions needed to respond to the guidance by the Parties?

(c) How relevant were CTCN interventions to the country's context and needs for support (at the time of the review and project development), and within the CTCN mandate? What could be improved in this regard?

(d) To what extent have recommendations from the Second Independent Review been considered? To what extent have recommendations from other evaluations over the last five years been considered (including findings on the PATM)? Are you aware of any additional reviews or evaluations by the United Nations Industrial Development Organization (UNIDO) regarding the operation of the CTCN from 2021 to 2025? [For donors only] Has your organization conducted any evaluations or reviews during this period?

(e) How complementary are CTCN services to policy guidance from the TEC (within third PoW and annual operational plans), the UNFCCC Financial Mechanism (Global Environmental Facility (GEF) and Green Climate Fund (GCF)), and other related climate support programs (provided by bilateral cooperation agencies, development banks, universities and research centres, Non-governmental Organizations (NGOs) or private sector technology providers)?

(f) To what extent have partnerships been developed? Have potential synergies (whether on-going or completed) been optimized, and how can they be improved?

3. Indicators and Data sources:

1. Identification of the main changes in the PoW of the CTCN (comparison between the second and the third PoW, the annual operational plans and CTCN theory of change) and the main decisions of the COP and CMA regarding the CTCN.

2. Review of the existing and new COP/CMA mandates and guidance to the CTCN.

3. Review of the information provided by the CTCN related to action taken in response to the guidance by the Parties, including in its annual reports to the COP/CMA.

* Not formally edited or formatted.

4. Listing of recommendations from the different evaluations and identification of answers provided by the CTCN.
5. Flow charts mapping procedures and processes (for TA, network, etc.), including changes from 2021 to 2025.
6. Mapping of linked international climate change policies and comparative matrix for objectives and activities (analysis of other funding documents).
7. Identification of non-annex 1 countries' needs for support regarding climate change mitigation and adaptation technologies (through preliminary literature review, and comparison with the CTCN services).
8. Global analysis of macroeconomic technological and geopolitical context changes (through preliminary literature review, including costs of climate technologies and aspects of intellectual property rights and trade).
9. Perception of partners (consortium partners, network members, donors, etc.) on the program's relevance in addressing these issues (through interviews and survey).
10. Perception of NDEs and beneficiaries on the program's relevance in addressing their needs (through interviews and survey).

II. Effectiveness

4. Question: Have the mission and functions of the CTCN been effectively performed in terms of TA, knowledge management, capacity building, scaling up, and stakeholder engagement related to technology development and transfer?

5. Sub questions:

(a) To what extent has the CTCN effectively supported actions and activities aligned with its mandate? How timely and cost-effective have the following activities been deployed:

- TA on policies, institutional and regulatory frameworks, and planning processes for innovation?
- TA in developing technological transition pathways for the uptake of climate technologies?
- Promoting collaboration and partnerships in climate technology R&D activities?
- Prioritizing climate technologies and facilitating the development and implementation of NDCs?
- Identifying and developing recommendations on approaches, tools and means for the assessment of technologies?
- Designing policies, regulations, and standards that create enabling environment for climate technologies and achieve technological transformation.
- Strengthen knowledge and engagement in an inclusive manner and facilitate collaboration among relevant international organizations, the private sector, academia, and civil society.
- Facilitating access to Financial Mechanism of the UNFCCC and mobilize various type of support including pro-bono and in-kind support.

(b) To what extent have efforts to enhance collaboration between NDEs and strengthen capacity-building support for improved TA been successful? (cf. Recommendation 5)

(c) To what extent has the CTCN reinforced its role as a climate technology matchmaker between technology providers within the CTCN and existing centres, networks and institutions, over the past five years? (cf. Recommendation 7)

(d) To what extent has the CTCN improved reporting and evaluation of its impact (e.g., through a monitoring and evaluation (M&E) framework and ex-post evaluations of

TAs)? How effectively had it communicated its impacts to the AB (e.g., through quarterly dashboards on progress on strategic KPIs) and donors (e.g., during an annual donor forum)? Have ex-post evaluations of TA been conducted? Have resources been allocated for regular ex post impact evaluations? (cf. Recommendation 2)

(e) What major factors have influenced the achievement/non-achievement of targeted output (successes and challenges)? How can the organization of events, training, TA, and information dissemination be enhanced for greater impact?

(f) Has the CTCN been flexible so that it can learn, adapt and adjust its scope and reach over time in response to the technology needs of developing countries and the demands of the emerging international climate change regime? To what extent has the CTCN taken action to respond to the guidance by the Parties to enhance its effectiveness (see previous COP and CMA decisions), including in supporting the implementation of the Paris Agreement (as part of the PATM)? How can it be adapted in the future to such changes?

(g) Which challenges and lessons learned have emerged from the implementation of CTCN's PoWs and the performance of its functions? To what extent has the CTCN overcome challenges and incorporated lessons learnt in its work and how?

6. Indicators and Data sources:

11. Analysis of M&E related documents (CTCN M&E framework and reports, case study from UNEP, annual reports and other reporting documents).

12. Review of output indicators values and reliability.

13. Review of the challenges and lessons learned reported by the CTCN in its annual report to the COP/CMA.

14. Quantitative analysis of services provided by the CTCN: TA requests/answers/projects, trainings, events, etc. (via database analysis).

15. Thorough analysis of available documents related to a sample of sub-projects (e.g., participants & calendar of events, content of TA, participants and program of training, evaluation forms, web-statistics of the CTCN information portal, etc.).

16. Perception of partners (consortium partners, network members, etc.) on the program's deployment and achievement in terms of outputs (through interviews and survey).

17. Perception of NDEs and beneficiaries regarding the deployment and the usefulness of different services (TA, Knowledge Management System (KMS), training, etc.) (through interviews, surveys and feedback).

18. Strength, Weaknesses, Opportunities and Threats (SWOT) analysis of the CTCN services (TA, network, etc.).

III. Efficiency

7. Question: Has the CTCN been efficient in its mission, the performance of its functions and the deployment of its activities and services?

8. Sub questions:

(a) To what extent have CTCN governance structures (AB, hosting organization, etc.) ensured responsiveness to COP decisions and improved communication with UNFCCC, TEC, and between host agency and CTC Secretariat – cf. Recommendation 3)? How have the changes in governance (from co-hosting by UNEP and UNIDO to a single hosting entity and the launch of the CTCN Partnership and Liaison Office in Songdo) impacted CTCN's operations and performance?

(b) To what extent were enough financial resources mobilized? How effectively has the CTCN identified additional financial resources (e.g., UNEP collaboration, private sector and philanthropic opportunities)? To what extent has it increased technical and

financial support and facilitated access to the UNFCCC Financial Mechanism (i.e., GCF and GEF)? How well has the CTCN mobilized pro-bono and in-kind support? Were financial resources allocated efficiently, and was the resource mobilization strategy effective? To what extent have funding sources been diversified (cf. Recommendation 1)?

(c) To what extent was the CTCN appropriately staffed to meet its needs and possess the right expertise? How have recent changes in management (e.g., interim directors, new leadership) affected CTCN's operations and performance? How were you informed about the change in hosting institutions (split between UNEP and UNIDO), and what is your perception of this governance change?

(d) To what extent was the network (including consortium and knowledge partners) mobilized to provide valuable expertise, knowledge and support? Does the network size support quality outcomes, and would different tiers of membership be beneficial? How has the CTCN engaged Network members and the private sector in its activities (e.g., TA solicitations, networking events)? Has a network engagement plan been developed (cf. Recommendation 4)?

(e) To what extent is the role of the NDE clear for country representatives, and is it efficient for project coordination? How have countries enhanced the visibility of their NDE and supported them through national institutions and cooperation with other UNFCCC focal points (e.g., annual UNFCCC focal point forums, consultation process for TA requests, sharing of material through electronic and print media)? Were active partnerships established, and were collaborations facilitated for fund access and mobilization (cf. Recommendation 5)? To what extent has collaboration between NDEs from Annex I and non-Annex I parties been reinforced (cf. Recommendation 5)? How has the CTCN enhanced NDEs capacity to plan, monitor, and achieve technological transformation?

(f) To what extent have the CTCN management structure, processes and procedures, communication and M&E optimized operations? How has the efficiency of the CTCN's TA provision improved (e.g., number of TAs received/completed, deadline control, more tenders opened to Network members, pools of expertise within the Network, identification of best practices, promotion of multi-regional TA, level of satisfaction of beneficiaries)?

(g) To what extent has the CTCN provided value for money regarding costs and outputs? Could results have been achieved with fewer resources without compromising quality? What could improve cost-effectiveness?

(h) To what extent has the CTCN promoted inclusive collaboration within its governance structure and with stakeholders?

9. Indicators and Data sources:

19. Achievement of outputs given by the answers to the questions related to effectiveness.

20. Review of information on requests received and activities carried out by the CTCN in response to them.

21. Quantitative analysis of direct resources and costs: fund raising, expenses, CTC staff and associated expenses, etc. (through database analysis).

22. Ratio between benefits achieved (technology transfers, partnership, training, knowledge) and funds disbursed for different activities.

23. Analysis of indirect resources and costs: partners' contributions, NDEs resources, time consumption for request applicants, etc. (through interviews, surveys and the analysis of a sample of projects).

24. Simplified benchmarking with comparable initiatives (through interviews with partners and a preliminary literature review): assessment of resources vs. performances, review of the organization and identification of best practices.

25. Perception of partners (consortium partners, network members, etc.) on the program's efficiency (through interviews and survey).

26. Perception of NDEs and beneficiaries regarding the deployment (TA, training, etc.) (through interviews, surveys and feedback).

IV. Impacts and sustainability

10. Question: Did the CTCN reach its expected outcomes and provide long term positive results towards the objective of enhanced action on technology development and transfer?

11. Sub-questions:

(a) To what extent did CTCN innovation-related activities achieve expected outcomes in facilitating the development, transfer, and deployment of climate technologies in developing country Parties? How effectively are countries accelerating innovation through collaboration at various stages of the technology cycle?

(b) To what extent did CTCN implementation-related activities contribute to the expected outcomes by supporting countries in establishing clear pathways for mitigation and adaptation action (using planning tools and processes such as NDC or National Adaptation Plans (NAP), LEDS, Technology Needs Assessment (TNA), technology roadmaps (TRM), etc.)? How has the CTCN enhanced the inclusiveness, gender responsiveness, and the integration of indigenous technologies?

(c) To what extent did CTCN enabling environment and capacity building related activities (including policy and regulatory environments to develop, transfer and deploy climate technologies) achieve outcomes? How effectively did the CTCN support countries build capacity and develop frameworks for climate technology deployment?

(d) To what extent did CTCN collaboration and stakeholder engagement activities achieve outcomes? How effectively did the CTCN enhance collaboration with stakeholders, including local communities, national planners, and the private sector? How well did it facilitate engagement between NDEs and stakeholders and support collaboration international organizations, institutions and initiatives, including academia and the scientific community?

(e) To what extent did CTCN support-related activities achieve outcomes? How effectively did the CTCN enhance access to TA and financial support for the development and transfer of gender responsive technologies?

(f) What major factors have influenced the achievement/non-achievement of outcomes, the replicability of the programme, and the likelihood of lasting positive impacts? (e.g., Adaptation Fund Climate Innovation Accelerator (AFCIA) approach vs. CTCN other activities)

(g) What unintended outcomes (positive and negative) and changes (direct and indirect) have resulted from the CTCN? What could improve impact and sustainability?

(h) To what extent have changes in the third PoW, including the five system transformations, led to sustained or enhanced results aligned with the CTCN's mandate and guidance? Has the current M&E framework captured these changes?

(i) To what extent do CTCN-supported activities foster systemic and sustainable change? How are such changes monitored and evaluated? Is the current organization/format necessary to expect/implement long-term effects?

(j) Could any other existing program / tool replace the CTCN effectively? What are the strengths and added value of the CTCN compared to other organizations/programmes?

(k) To what extent and how has the CTCN incorporated lessons learned and best practices gained from previous work to enhance the impact and sustainability of its results?

12. Indicators and Data sources:

27. Analysis of M&E related documents (case study from UNEP, annual reports and other reporting documents).

28. Analysis of network partners mobilization (list of participants, contributions, etc.) and relations.

29. Review of outcome indicators values and reliability. Benchmark (added value of the CTCN).

30. Thorough analysis of available documents related to a limited sample of sub-projects (e.g. evaluations and other assessments, press review, etc.).

31. Global literature review regarding climate change policies, collaboration and investments (impacts, changes, etc.).

32. Global analysis of climate change context changes in terms of mitigation and adaptation (through preliminary literature review).

33. Perception of partners (network members, etc.) on the program's effects and impacts (through interviews and survey).

34. Perception of NDEs and beneficiaries regarding the benefits of the CTCN and the effects of their projects and policies (through interviews, surveys and feedback).

Annex III

Documents reviewed for the third review of the Climate Technology Centre and Network*

[English only]

COP decisions:

UNFCCC. 2021. Decision 1/CP.26. Glasgow Climate Pact – section V on Finance, technology transfer and capacity-building for mitigation and adaptation. Available at https://unfccc.int/sites/default/files/resource/cp2021_01_adv%20..pdf#page=47

UNFCCC. 2021. Decision 9/CP.26. Enhancing climate technology development and transfer through the Technology Mechanism. Available at https://unfccc.int/sites/default/files/resource/cp2021_01_adv%20..pdf#page=557

UNFCCC. 2021. Decision 10/CP.26. Review of the constitution of the Advisory Board of the Climate Technology Centre and Network. Available at https://unfccc.int/sites/default/files/resource/cp2021_01_adv%20..pdf#page=58>

UNFCCC. 2021. Decision 11/CP.26. Second review of the Climate Technology Centre and Network. Available at https://unfccc.int/sites/default/files/resource/cp2021_01_adv%20..pdf#page=61

UNFCCC. 2022. Decision 1/CP.27. Sharm el-Sheikh Implementation Plan. Available at https://unfccc.int/sites/default/files/resource/cp2022_10a01E.pdf#page=7

UNFCCC. 2022. Decision 18/CP.27. Enhancing climate technology development and transfer through the Technology Mechanism. Available at https://unfccc.int/sites/default/files/resource/cp2022_10a02_adv.pdf#page=30

UNFCCC. 2023. Decision 9/CP.28. Enhancing climate technology development and transfer through the Technology Mechanism. Available at https://unfccc.int/sites/default/files/resource/cp2023_11a01_adv.pdf#page=44

UNFCCC. 2023. Decision 10/CP.28. Linkages between the Technology Mechanism and the Financial Mechanism of the Convention. Available at https://unfccc.int/sites/default/files/resource/cp2023_11a02_adv.pdf#page=2 >

UNFCCC. 2024. Decision 9/CP.29. Poznan strategic programme on technology transfer. Available at https://unfccc.int/sites/default/files/resource/cp2024_11a01_adv.pdf#page=34

UNFCCC. 2024. Decision 10/CP.29. Enhancing climate technology development and transfer through the Technology Mechanism. Available at https://unfccc.int/sites/default/files/resource/cp2024_11a01_adv.pdf#page=35

UNFCCC. 2025. COP Decisions booklet (2021 – 2025). Available at https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/NEG_key_doc/d1249040ab9c45568e55589a07196284/7f7a2bfd5db7471c8bfc50628994e504.pdf

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UNFCCC. 2021. *Analysis and Synthesis of Technology Components in Nationally Determined Contributions.* Available at https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/tn_meetings/2908f3b0dfb24bf38e21e76b6bc8c9b5/47e31c6820c34af7bf4fcc12b4a0eb64.pdf

UNFCCC. 2021. TECHNOLOGY AND NATIONALLY DETERMINED CONTRIBUTIONS - Stimulating the Uptake of Technologies in Support of Nationally Determined Contribution Implementation. Available at bdc9d4fab72f44c283a0f35fb72ecc8e.pdf

UNFCCC. 2022. *Activities undertaken by the TEC, the CTCN and the operating entities of the Financial Mechanism to strengthen linkages between the Technology Mechanism and the Financial Mechanism.* Available at https://unfccc.int/sites/default/files/resource/sbi2022_inf06_0.pdf

UNFCCC. *Technology Needs Assessments. Pathways for climate tech implementation.* Available at https://unfccc.int/ttclear/tna

UNEP CCC. *Technology Needs Assessment Project*. Available at https://tech-action.unepccc.org/

UNFCCC. 2022. *Status and successes of, challenges in and lessons learned from projects undertaken through the regional climate technology transfer and finance centres.* Available at https://unfccc.int/sites/default/files/resource/sbi2022_inf13.pdf

UNFCCC (TEC). 2022. Synthesis report for the technical assessment component of the first global stocktake: Information on matters related to technology development and transfer, including the information referred to in Article 10 of the Paris Agreement, barriers and challenges faced by developing countries and good practises, experiences and potential opportunities to enhance international cooperation on mitigation and adaptation. Available at https://unfccc.int/documents/461611

UNFCCC. 2024. *Synthesis report on Maintaining and enhancing collaboration and cooperation between the Technology Mechanism and the Financial Mechanism.* Available at https://unfccc.int/documents/637479

UNFCCC. 2024. *In-session workshop on linkages between the Technology Mechanism and the Financial Mechanism. Summary report by the Technology Executive Committee.* Available at https://unfccc.int/documents/640968

Other relevant publications:

Lee, W.J.; Juskenaite, I.; Mwebaza, R. Public–Private Partnerships for Climate Technology Transfer and Innovation: Lessons from the Climate Technology Centre and Network. *Sustainability* 2021, *13*, 3185. https://doi.org/10.3390/su13063185

CTCN. Introduction to the Linkages with Financial Mechanism. Available at https://www.ctc-n.org/sites/default/files/Session%203_GCF%20-GEF-AF_0.pdf

UNEP. 2022. *Climate Technology Progress Report 2022*. Available at https://unepccc.org/climate-technology-progress-reports

UNEP. 2023 *Climate Technology Progress Report 2023*. Available at https://unepccc.org/climate-technology-progress-reports

TEC and CTCN. 2023. *Technology and Nationally Determined Contributions (NDCs): Stimulating the Uptake of Technologies in Support of NDC Implementation*. Available at https://unfccc.int/ttclear/tec/techandndc.html

UNEP. 2024 *Climate Technology Progress Report 2024*. Available at https://unepccc.org/climate-technology-progress-reports

UNEP. 2025. *Climate Technology Progress Report 2025*. Available at https://unepccc.org/climate-technology-progress-reports

CTCN. 2024. *Catalysing climate technology as CTCN hits 10-year anniversary*. Available at https://www.unep.org/news-and-stories/press-release/catalyzing-climate-technology-ctcn-hits-10-year-anniversary

CTCN. 2024. *National Designated Entities Forum. A*vailable at https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/tn_meetings/a6ef223a57ba409d9e1e3f73fc15fdb5/9cbf21db4b8040068b4592d6eae579fa.pdf

CTCN. 2024. *Technology Solutions & Innovation for Climate Action*. Available at https://www.ctc-n.org/sites/default/files/resources/CTCN%2010%20year%20progress%20report.pdf

CTCN. 2026. Distribution of request by objective on a yearly basis. Available at https://www.ctc-n.org/technical-assistance?chart=by_objective#charts

Annex IV

Stakeholders interviewed for the third review of the Climate Technology Centre and Network*

[English only]

1. Four **framing interviews** were conducted during Phase 1 to complete data collection and discuss content of the evaluation.

	Actor	*Position*	*N°*
Framing interview	UNFCCC	Director, Means of Implementation	1
	CTCN	Director	2
	CTCN	Chair, AB	3
	CTCN	Vice-Chair, AB	4

2. The consultant conducted 22 **detailed interviews** with stakeholders as part of Phase 2.

Type of Actor	*Actor / Country*	*Position*	*N°*
Current and former CTCN directors and staff	CTCN	Former Interim Director	1
	CTCN	Climate Technology Specialist, AFCIA and EC Programmes Coordinator	2
	CTCN	Governance and Communications Specialist	3
Advisory Board	Annex I	Annex I country representative	4
	Non-Annex I	Non-Annex I country representative	5
	NGO	Environmental non-governmental organizations (ENGO)	6
	Constituted body	TEC Chair	7
		TEC Vice-Chair	8
UN partners	UNEP	Director, Climate Change Division	9
	UNIDO	Director, Division of Climate Innovation and Montreal Protocol	10
	UNFCCC	Manager, Technology Sub-Division	11
Funds and development banks	Global Environment Facility	Senior Climate Change Specialist, Programming Division	12
	Asian Development Bank	Advisor, Climate Change and Sustainable Development Department	13
	AfDB	Manager, Climate and Environment Finance Division	14
	GCF	Climate Policy and Governance Specialist	15
	Adaptation Fund	Lead, Programming and Innovation Unit	16
Donors	Government of Denmark	Chief Advisor, Ministry of Foreign Affairs	17
	European Commission	Policy Officer – International Climate Finance, DG CLIMA, and AB member	18
NDEs	Developing country in Africa	National Focal Point	19
	Developing country in Asia	National Focal Point	20
	Developing country in LAC	National Focal Point	21
	Developing country in SIDS	National Focal Point	22

Note: Interviewed NDEs were identified among those that had participated in the survey and expressed interest in engaging in follow-up exchanges.

* Not formally edited or formatted.

Annex V

Methodology of the electronic survey*

[English only]

I. E-survey elaboration

1. The e-survey collected data from multiple interlocutors from three categories: NDEs, network members, and beneficiaries (recipients of CTCN technical assistance). The data was collected to get inputs on the operation and achievements of the CTCN and the relevance, effectiveness, and efficiency of the CTCN's action. The survey was used to understand the needs of beneficiaries, countries and partners; and to gather proposals for improvement. It targeted network partners, NDEs, and beneficiaries (TA request applicants, participants to events, etc.).

2. The format of the survey was adapted to the context of the different respondent categories, and the text was translated in English, French, and Spanish. The survey required ten to fifteen minutes to be completed. It included a majority of closed questions (multiple choice) and few open questions (text; all optional only).

3. The survey design built on the structure used in the previous CTCN review, which achieved a notably high response rate and provided valuable insights for the report. Leveraging this proven approach, we developed the survey for the third review period with key enhancements: it is more concise, tailored to the current CTCN context, and refined to ensure greater consistency and comparability.

4. The survey was elaborated by the end of December 2025. This includes a first draft in English in a Word Document form sent to UNFCCC for comments. Then, surveys were set-up in an e-survey tool.

II. E-survey administration and analysis

5. The three sets of surveys were set-up in the e-survey tool Qualtrics in English with translated versions in French and Spanish. Before survey launch, test runs were conducted to ensure proper display of questions and tool functionalities.

6. The survey was sent to the email addresses given by the UNFCCC and CTCN. Survey invitations were sent out on the 29th of January 2026 and surveys were closed on 20th February 2026, with a set of three reminders sent out in between this period.

7. Results of each survey were exported from Qualtrics for analysis. Relevant statistical parameters and graphs were extracted directly from the survey tool while some additional analyses were conducted via Excel.

8. The survey contains a few open questions (optional) that allow contextualization of answers. This qualitative information was also analysed and fed into the report to provide further insights into the statistical results of the survey.

9. The table below provides an overview of the outreach and number of responses to the e-survey:

Overview of survey distribution and response rates

Respondent category	*No. of emails sent*	*No. of email bounces*	*No. of responses (question 1)*	*Response rate*	*No. of survey completed*	*Response rate - complete*
NDEs	242	55	64	34%	57	30%

* Not formally edited.

Respondent category	*No. of emails sent*	*No. of email bounces*	*No. of responses (question 1)*	*Response rate*	*No. of survey completed*	*Response rate - complete*
Network members	1912	582	239	18%	186	14%
Beneficiaries	105	18	25	29%	22	25%

10. Detailed results of the survey can be found in Annex VII in the form of graphs and tables.

Annex VI

Context and background of the Climate Technology Centre and Network*

[English only]

1. **Mandate of the CTCN:** In 2010, the Conference of the Parties (COP) established the Technology Mechanism with the objective of enhancing action on climate technology development and transfer. The mechanism consists of two bodies: the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN). The CTCN is the implementation arm of the Technology Mechanism, hosted by UNEP. The Advisory Board provides strategic oversight to the CTCN by guiding priorities, approving key frameworks and programmes of work, endorsing leadership, budget and financial statements, and ensuring fiduciary, legal and ethical integrity while monitoring the quality and timeliness of responses to country requests. The constitution of the AB was amended in 2021 to ensure its effective functioning[12]. At COP30/CMA7 in Belém, the Parties decided to extend the term of the CTCN until 2041, and the launch of the process for designating a new host. For extended information on the background and context of the CTCN's mandate, please refer to the Report on the second independent review of the effective implementation of the CTCN (UNFCCC. 2021. Available at https://unfccc.int/sites/default/files/resource/cp2021_03E.pdf).

2. **Organizational structure of the CTCN:** The CTCN was originally hosted by a UNEP-led consortium co-managed with UNIDO, following a competitive selection at COP18 (2012), which formally confirmed UNEP as a host of the Centre. In 2023, the full management was transferred to UNEP, with a subsequent reorganization from the previous collaboration with UNIDO. The CTCN Partnership and Liaison Office (PALO) was established in 2022 in Songdo. Its role is to strengthen coordination, collaborative research, development and demonstration, capacity-building, partnerships, alignment with the Technology Mechanism and collaboration with GCF. It forms part of the CTCN's updated organizational structure intended to improve responsiveness and operational performance. Over the evaluation period, the Network experienced substantial expansion, growing from approximately 600 members in 2020 to 840 members in 2022–2023, and reaching 929 members by mid-2025. The composition of the Network evolved as well, with private-sector organisations progressively representing around half of its membership. In parallel, the Network Engagement Plan adopted in 2020 became fully operational between 2021 and 2025, contributing to more structured and active participation across members. Reflecting this shift, an increasing share of technical assistance was implemented directly by network members, with the already high involvement rate of 75% in 2020 sustained in subsequent years. A new position within CTCN has been open, dedicated to the finding of new sources of funding. For extended information on the background and context of the CTCN's organisation, please refer to the Report on the second independent review of the effective implementation of the CTCN (UNFCCC. 2021. Available at https://unfccc.int/sites/default/files/resource/cp2021_03E.pdf).

3. **Programme design and Strategic Framework:** The Third Programme of Work (PoW) of the CTCN (2023–2027) represents a strategic shift from the broader, activity-oriented approach of the second PoW toward a more programmatic, transformational, and system-focused model. It introduces five system transformations – including the water-energy-food nexus, sustainable mobility, buildings and infrastructure, energy systems, and business and industry – as well as two cross-cutting technology enablers: national systems of innovation and digitalization, which are central pillars of the new delivery

* Not formally edited or formatted.

[1] UNFCCC. 2021. COP 26 Decision 10. Review of the constitution of the Advisory Board of the Climate Technology Centre and Network.

strategy. The programme design also integrates diversified support and delivery modalities, including multi-country technical assistance, umbrella programmes (e.g., AFCIA), and dedicated logistical support mechanisms, to enhance scalability and operational efficiency. The AB guided the revision of the TA's prioritization criteria in the period of 2023-2024, taking into account the third PoW. This contrasts with the second PoW, which emphasized discrete technical assistance interventions and lacked the same level of thematic consolidation. Overall, the third PoW marks a shift from a collection of activities to a structured, transformation-driven strategy designed to generate scalable outcomes across sectors and regions. (For more detailed information regarding the 3rd Programme of work, please refer to the dedicated CTCN website: https://pow.ctc-n.org/programme.html). This Programme of Work was adopted under the first joint work program of the TEC and CTCN. The CTCN and the TEC jointly advanced the development of a common monitoring and evaluation system, which had been initiated in 2019 and was further strengthened during the evaluation period, with discussions still ongoing. In addition, the CTCN developed and adopted the Resource Mobilization & Partnership Strategy 2023–2027, endorsed by the AB and welcomed by the COP28, to guide more strategic and diversified engagement with financial and implementation partners. A Network Engagement strategy is currently being developed.

Annex VII

Results of the desk review, electronic survey and interviews used as sources for the third review of the Climate Technology Centre and Network*

[English only]

I. Desk review

1. The documents listed in Annex III – Bibliography were systematically reviewed against the evaluation grid. The following section provides an overview of the reviewed documents, supporting the findings presented in Section III.

A. Relevance

2. The findings of the desk review show that the CTCN remains relevant to the priorities and guidance of Parties under the UNFCCC and the Paris Agreement. The Third Programme of Work (PoW) for 2023–2027 reflects a clear strategic evolution compared to earlier phases of CTCN implementation, moving from an initial focus on establishing operational capacity and responding to individual requests towards a more programmatic and transformational approach to climate technology development and transfer.[1] This evolution responds directly to Party guidance calling for increased scale, coherence and systemic impact, while maintaining the demand driven nature of CTCN support.[2] Evidence from CTCN monitoring data and NDE surveys shows that technical assistance requests are anchored in national climate priorities, particularly NDC implementation, and that demand remains strongest from least developed countries and small island developing states.[3] This development was also driven by CTCN updated prioritization criteria.[4]

3. The relevance of the Third PoW is further reinforced by its alignment with the Technology Framework under the Paris Agreement and its integration within the first TEC–CTCN Joint Work Programme for 2023–2027.[5] The focus on five system transformation areas - water–energy–food systems, buildings and infrastructure, sustainable mobility, energy systems, and business and industry - supported by the cross-cutting enablers of national systems of innovation and digitalization reflects both scientific evidence and emerging country needs.[6] The Third PoW was developed through consultations with Advisory Board members, NDEs, donors and other stakeholders and explicitly draws on lessons from the first and second independent reviews, further supporting its relevance to Parties' expectations.[7]

4. The CTCN Third PoW set out a clear intention to prioritize partnerships and foster synergies with financial institutions and technical partners as central to flexible, country-driven delivery of technical assistance.[8] Some partnerships, notably the Adaptation

* Not formally edited or formatted.

1 CTCN. 2022. Programme of Work 2023-2027. CTCN. 2025. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2024.

2 UNFCCC. 2021-2024. COP and CMA decisions 2021–2024.

3 CTCN. 2022. Monitoring and evaluating the work of the CTCN: Results of the NDE survey. CTCN. 2024. Results of the third Technology Mechanism NDE Survey. UNEP. 2023 Climate Technology Progress Report 2023. UNEP. 2022. Climate Technology Progress Report 2022.

4 UNFCCC. 2024. Responses from the TEC and the CTCN to guidance from Parties in 2024

5 TEC and CTCN. 2022. Joint Work Programme of the UNFCCC Technology Mechanism for 2023–2027.

6 CTCN. 2022. Programme of Work 2023-2027. UNFCCC. 2024. Joint annual report of the TEC and the CTCN for 2024. UNFCCC. 2023. Joint annual report of the TEC and the CTCN for 2023.

7 CTCN. 2022. Programme of Work 2023-2027.

8 CTCN. 2022. Programme of Work 2023-2027.

Fund Climate Innovation Accelerator (AFCIA) and collaboration with the GCF under its Readiness Programme, demonstrate value added by linking innovation support and upstream technical assistance with scaling opportunities.[9] Further, the establishment of the CTCN partnership and liaison office in Songdo, Republic of Korea were additional efforts.[10] The objective of the PALO is to enhance the links between the Technology Mechanism and Financial Mechanism under the UNFCCC and to facilitate matchmaking with CTCN members from the private sector and academia.[11] Further, its functions include capacity building for NDEs and serving as a liaison with the GCF.[12] One of the key barriers identified in the CTCN Network Survey is the difficulty in identifying and connecting with relevant partners for Network members, which shows that there is room for improvement for the CTCN in creating synergies. Further findings point to a need for stronger integration with UNIDO and UNEP initiatives.[13] The Terminal Evaluation further highlights that linkages with other initiatives are not consistently developed and recommends enhanced outreach to key country actors, including UNIDO field offices, to improve synergy. In this context, the CTCN has articulated an approach centred on focusing on fewer, more strategic partnerships, strengthening linkages with climate finance, and adopting a more systematic approach to brokering synergies across the Network, as reflected in the CTCN's Resource Mobilization and Partnership Strategy 2023–2027.

B. Effectiveness

5. Across the period reviewed, the CTCN has delivered a substantial portfolio of technical assistance, capacity building and knowledge sharing activities addressing a wide range of mitigation and adaptation priorities, including policy and regulatory frameworks, technology roadmaps, feasibility studies- and pilot initiatives.[14] Survey evidence from the third UNFCCC survey for NDEs indicates that a majority of NDEs consider CTCN technical assistance to be timely and appropriate, with many reporting that recommendations have been taken forward into national policies, strategies or project pipelines.[15] CTCN support has played a role upstream in the project development process, with technical assistance contributing to the formulation of project concepts and, in some cases, supporting access to follow-on financing from the GCF, the GEF and the Adaptation Fund.[16] Nevertheless, there have been challenges related to access to follow up funding, alongside delays across multiple stages of the technical assistance process, with response planning, competitive bidding, overall preparation, and implementation timelines exceeding expected benchmarks, reflecting cumulative extensions from initial- request acknowledgement through to implementation.[17]

[9] CTCN. 2022. Meeting Report for the 18th Meeting of the Advisory Board to the CTCN (September 2021). GCF. 2024. 13th Report of the GCF to the Conference of Parties.

[10] UNFCCC. 2021. COP 26 Decision 9. Enhancing climate technology development and transfer through the Technology Mechanism.

[11] CTCN. 2023. CTCN Progress report 2022-2023.

[12] CTCN. 2025. Draft CTCN Annual Operating Plan and Budget for 2026. CTCN. 2022. Meeting Report for the 19th Meeting of the Advisory Board to the CTCN (March 2022).

[13] UNEP-UNIDO. 2022. Promoting accelerated transfer and scaled-up deployment of mitigation technologies through the CTCN – Independent terminal evaluation.

[14] CTCN. 2024. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2023. CTCN. 2023. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2022. CTCN. 2023. CTCN Progress report 2022-2023. CTCN. 2022. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2021. CTCN. 2021. CTCN Progress Report 2021.

[15] TEC and CTCN. 2024. Monitoring and Evaluation of the work of the Technology Mechanism: Results of the third UNFCCC Survey for NDEs.

[16] CTCN. 2024. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2023. CTCN. 2023. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2022. CTCN. 2023. CTCN Progress report 2022-2023. UNDP. 2026. Adaptation Fund Climate Innovation Accelerator Impact Report 2020-2025.

[17] CTCN. 2025. Status update on TA portfolio and its implementation – 26th CTCN Advisory Board Meeting.

Table 1
Overview of TAs and NDE Forums

Year	*TA request in review phase*	*TA in design phase*	*TAs in implementation phase*	*TAs completed*	*Adaptation/ Mitigation/ Adaptation & Mitigation*	*NDE Forum*
2021	10	69	83	23	49.0%/ 23.5%/ 27.5%	2[b]
2022	27	23	47	46	26.5%/ 30.6%/ 42.9%	2[c]
2023	n/a	53	39	25	48.6%/ 22.9%/ 28.6%	3[d]
2024	19	25	37	24	19.5%/ 29.3%/ 51.2%	4[e]
2025	17	54	62	29	31%/ 14%/ 31%/	4[f]

[a] CTCN. 2026. Distribution of request by objective on a yearly basis.
[b] CTCN. 2021. CTCN Progress Report 2021.
[c] CTCN. 2023. CTCN Progress report 2022-2023.
[d] CTCN. 2023. CTCN Progress report 2022-2023.
[e] CTCN. 2024. National Designated Entities Forum.
[f] CTCN. 2026. CTCN Annual Operating Plan Report 2025.

6. The adoption of the TEC–CTCN Joint Work Programme for 2023–2027 contributed to the effectiveness of collaboration within the Technology Mechanism. Joint activities on technology and NDCs, gender and technology, digitalization and artificial intelligence for climate action have improved coherence between policy guidance and implementation, responding to long-standing Party requests for stronger synergies between the TEC and the CTCN.[18] At the same time, longer-term impacts depend on effective follow-up and sustained national ownership, which vary across countries, and the realization of potential synergies is affected by challenges in partner identification and engagement, limited integration with related initiatives, and ongoing capacity and resource constraints.[19] In this context, continued collaboration with the operating entities of the Financial Mechanism and other relevant financial institutions, as well as attention to regional balance, remains an ongoing consideration.[20]

C. Efficiency

7. The desk review indicates that the CTCN has generally operated with a relatively lean and cost-conscious delivery model, particularly in view of its limited and unpredictable funding base. The CTCN relies extensively on its Network members to mobilize technical expertise, allowing it to deliver technical assistance without maintaining large in-house capacities. In addition, the increasing use of regional and multi-country technical assistance approaches has contributed to efficiency gains by addressing common challenges across countries and reducing duplication of effort.[21] The CTCN has progressively strengthened the mobilization of its global Network.[22] At the same time, the review notes that Network

[18] UNFCCC. 2025. SBI conclusions booklet (2021-2025). TEC and CTCN. 2022. Joint Work Programme of the UNFCCC Technology Mechanism for 2023–2027.
[19] TEC and CTCN. 2024. Monitoring and Evaluation of the work of the Technology Mechanism: Results of the third UNFCCC Survey for NDEs. UNEP-UNIDO. 2022. Promoting accelerated transfer and scaled-up deployment of mitigation technologies through the CTCN – Independent terminal evaluation. 2023 Climate Technology Progress Report 2023. UNEP. 2022. Climate Technology Progress Report 2022.
[20] UNFCCC. 2023. COP 28 Decision 9. Enhancing climate technology development and transfer through the Technology Mechanism.
[21] CTCN. 2022. Programme of Work 2023-2027. CTCN. 2023. CTCN Progress report 2022-2023. UNFCCC. 2024. Joint annual report of the TEC and the CTCN for 2024. UNFCCC. 2023. Joint annual report of the TEC and the CTCN for 2023. UNFCCC. 2022. Joint annual report of the TEC and the CTCN for 2022. UNFCCC. 2021. Joint annual report of the TEC and the CTCN for 2021. CTCN. 2025. Results of the CTCN Network Survey.
[22] CTCN. 2023. CTCN Progress report 2022-2023. CTCN. 2025. Meeting Report for the 26th Meeting of the Advisory Board to the CTCN (September 2025). CTCN. 2025. Meeting Report for the 25th Meeting of the Advisory Board to the CTCN (April 2025). CTCN. 2024. Meeting Report for the 24th Meeting of the Advisory Board to the CTCN (September 2024). CTCN. 2024. Meeting Report for the 23rd Meeting of the Advisory Board to the CTCN (April 2024). CTCN. 2023. Meeting Report for the 22nd Meeting of the Advisory Board to the CTCN (September 2023). CTCN. 2023. Meeting Report

engagement remains uneven across regions and sectors, and that further strategic prioritization and systematic follow up- are needed to fully realize the Network's potential as a platform for sustained collaboration and scaling of results.[23]

8. The CTCN has undertaken sustained efforts to mobilize resources in response to Party guidance and independent review recommendations, notably through the adoption of the Resource Mobilization and Partnership Strategy 2023–2027, which clarifies funding needs and seeks to diversify the funding base beyond traditional contributors.[24] Resource mobilization has focused on continued engagement with Party donors, strengthened collaboration with the operating entities of the Financial Mechanism (GCF, GEF and the Adaptation Fund), and exploratory outreach to non-traditional partners such as multilateral development banks, philanthropies and the private sector.[25] While these efforts have increased strategic positioning, partnerships and in-kind or pro bono contributions, funding remains heavily dependent on short-term and often earmarked contributions, limiting planning certainty and increasing administrative complexity.[26] Several evaluations note that procurement timelines and the management of multiple funding streams can delay implementation, despite recent efforts to streamline procedures and improve internal planning.[27]

Table 2
Overview of Cash Receipts and Funds available at year end

Year	*Cash Receipts*	*Funds available at year end*	*Of which unearmarked*
2020[a]	12,427,701	23,108,765 USD	15%
2021[b]	12,097,159 USD	24,461,859 USD	16%
2022[c]	14,203,667 USD	27,478,033 USD	32%
2023[d]	9,398,430 USD	20,386,037 USD	47%
2024[e f]	4,728,634 USD	32,495,898USD	44%
2025[g]	9,811,016USD	21,251,068 USD	51%

[a] CTCN. 2021. Meeting Report for the 17th Meeting of the Advisory Board to the CTCN (April 2021).

[b, c] CTCN. 2022. Financial Overview 19th Advisory Board meeting, 28-30 March 2022 CTCN Financial Statement 2021.

[d] CTCN. 2024. 2023 Final Statement of Income and Expenditure (AB/2024/23/17.1)

[e] CTCN. 2025. CTCN Advisory Board composition and nomination process for the Advisory Board of the CTCN.

[f] CTCN. 2025. Advisory Board to the Climate Technology Centre and Network Twenty-fifth meeting (AB/2025/25/16.4).

[g] CTCN. 2025. Financial Report by CTCN Sas and Statement of Income and Expenditure.

for the 21st Meeting of the Advisory Board to the CTCN (March 2023). CTCN. 2025. Results of the CTCN Network Survey.

[23] CTCN. 2025. Proposal for the Network engagement strategy. UNEP. 2024. Terminal Evaluation of the UNEP Projects. Joint UNEP-UNIDO Programme to host and manage the CTCN (PIMS 01626) and Support to Climate Technology Transfer Services and Partnership.

[24] CTCN. 2022. Programme of Work 2023-2027. CTCN. 2023. CTCN Resource Mobilization and Partnership Strategy for 2023-2027.

[25] CTCN. 2023. CTCN Progress report 2022-2023. UNFCCC. 2024. Joint annual report of the TEC and the CTCN for 2024. UNFCCC. 2023. Joint annual report of the TEC and the CTCN for 2023. UNFCCC. 2022. Joint annual report of the TEC and the CTCN for 2022. UNFCCC. 2021. Joint annual report of the TEC and the CTCN for 2021.

[26] CTCN. 2023. CTCN Resource Mobilization and Partnership Strategy for 2023-2027. UNFCCC. 2021. Report on the second independent review of the effective implementation of the CTCN.

[27] CTCN. 2026. CTCN Annual Operating Plan Report 2025. CTCN. 2025. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2024. CTCN. 2024. Annual Operating Plan and Budget for 2025. CTCN. 2024. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2023. CTCN. 2023. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2022. CTCN. 2022. Annual Operating Plan Report, including reporting on Performance Measurement Framework indicators - 2021. UNEP-UNIDO. 2022. Promoting accelerated transfer and scaled-up deployment of mitigation technologies through the CTCN – Independent terminal evaluation.

9. For changes in organizational structure please refer to Annex VI – Background of the CTCN.

D. Impacts and sustainability

10. The desk review indicates that the CTCN has largely achieved its intended outcomes at the level of outputs and intermediate results, particularly in strengthening national capacities for climate technology planning, policy development and institutional coordination. Technical assistance has contributed to clearer pathways for mitigation and adaptation by supporting NDCs, NAPs, TNAs and technology roadmaps, primarily as upstream enablers rather than direct implementers.[28] Impacts are considered to depend on follow-on uptake, financing, and national ownership after CTCN support ends. Increasing attention has been paid to inclusiveness and gender through updated policies, gender-responsive design criteria and reporting frameworks, although evidence of sustained gender-transformative impacts beyond individual interventions remains limited.[29]

11. The achievement of outcomes has been positively influenced by the demand driven model, alignment with national priorities and access to a diverse global Network, while constrained by limited and unpredictable funding, capacity constraints, long implementation timelines- and insufficient resources for postimplementation follow up. Evidence of systemic change is emerging - particularly where CTCN support has informed policy reforms or larger funded programmes - but remains uneven and highly dependent on financing and national ownership, limiting conclusions on long-term sustainability.[30] Longterm sustainability is also closely linked to resource availability. Multiple sources note that without adequate, predictable and flexible funding, the CTCN's ability to scale up successful approaches, sustain -partnerships, and maintain- engagement with NDEs is at risk.[31] Stakeholder engagement has been a core feature of CTCN delivery, with NDEs coordinating involvement of public institutions, academia, civil society and Network members, supported by regional forums and thematic programmes. However, engagement depth and continuity vary across countries and regions, and private sector- and financial actors are often involved late in the process.[32]

[28] CTCN. 2022. Programme of Work 2023-2027. CTCN. 2023. CTCN Progress report 2022-2023. UNFCCC. 2024. Joint annual report of the TEC and the CTCN for 2024. UNFCCC. 2024. Responses from the TEC and the CTCN to guidance from Parties in 2024. UNFCCC. 2023. Responses from the TEC and the CTCN to guidance from Parties in 2023. UNFCCC. 2023. Responses from the TEC and the CTCN to guidance from Parties in 2023. UNFCCC. 2022. Joint annual report of the TEC and the CTCN for 2022.

[29] CTCN. 2022. Monitoring and Evaluation System, including CTCN's Performance Measurement Framework (2023-2027).

[30] CTCN. 2023. CTCN Progress report 2022-2023. UNFCCC. 2024. Joint annual report of the TEC and the CTCN for 2024. UNFCCC. 2023. Joint annual report of the TEC and the CTCN for 2023. UNFCCC. 2022. Joint annual report of the TEC and the CTCN for 2022. UNFCCC. 2021. Joint annual report of the TEC and the CTCN for 2021. CTCN. 2025. Interim Financial Report and Briefing. CTCN. 2025. Post-implementation follow-up and monitoring of TA outcomes – 25th Advisory Board. CTCN. 2025. Results of the CTCN Network Survey. UNEP-UNIDO. 2022. Promoting accelerated transfer and scaled-up deployment of mitigation technologies through the CTCN – Independent terminal evaluation.

[31] CTCN. 2022. Programme of Work 2023-2027. CTCN. 2025. Meeting Report for the 26th Meeting of the Advisory Board to the CTCN (September 2025). CTCN. 2025. Meeting Report for the 25th Meeting of the Advisory Board to the CTCN (April 2025). CTCN. 2024. Meeting Report for the 24th Meeting of the Advisory Board to the CTCN (September 2024). CTCN. 2024. Meeting Report for the 23rd Meeting of the Advisory Board to the CTCN (April 2024). CTCN. 2023. Meeting Report for the 22nd Meeting of the Advisory Board to the CTCN (September 2023). CTCN. 2023. Meeting Report for the 21st Meeting of the Advisory Board to the CTCN (March 2023). CTCN. 2025. Results of the CTCN Network Survey. CTCN. 2025. Post-implementation follow-up and monitoring of TA outcomes – 25th Advisory Board. UNEP-UNIDO. 2022. Promoting accelerated transfer and scaled-up deployment of mitigation technologies through the CTCN – Independent terminal evaluation.

[32] CTCN. 2024. Results of the third Technology Mechanism NDE Survey.

Table 3
Table of consolidated AOP Indicators across 2021 – 2025

Thematic Area	*Indicator*	*2021*	*2022*	*2023*	*2024*	*2025*
Innovation	Countries developing/deploying technologies	39	44	n/a	n/a	n/a
Innovation	Collaborations facilitated	26	12	n/a	n/a	n/a
Innovation	RD&D events	18	4	n/a	n/a	n/a
Innovation	RD&D participants	289	127	n/a	n/a	n/a
Innovation	Knowledge resources produced	32	114	n/a	n/a	n/a
Innovation	Countries supported for regulatory frameworks	3	14	n/a	n/a	n/a
Innovation	Countries with strengthened NSI	9	9	n/a	n/a	n/a
Implementation	TA processes underway	332	385	127	105	162
Implementation	TA completed	23	46	25	24	29
Implementation	Policies/strategies supported	33	34	22	21	68
Capacity Building	Capacity-building events	26	27	15	15	17
Stakeholder Engagement	Network members (total)	~700	796	835	894	975
Stakeholder Engagement	New members added	n/a	n/a	39	59	71
Support	Finance pipeline maturity (qualitative)	limited	moderate	growing	strong	very strong
Support	Concept note / scale-up integration	limited	moderate	embedded	systematic	strong

Note: Direct comparison across years is subject to limitations due to evolving indicator definitions and reporting structures. From 2023 onwards, reporting shifted towards outcome-oriented system transformation metrics, reducing direct comparability with earlier years. Indicators were aligned to best extent possible to enable cross-year comparison. The data is available in each year's Annual Operating Plan report.

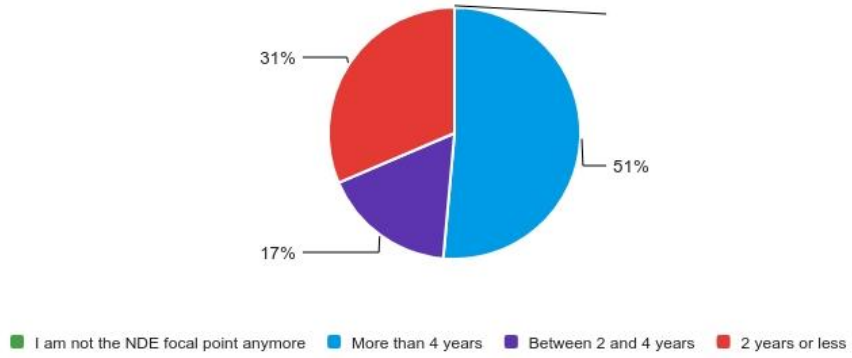
II. Results of E-surveys

12. E-survey were administered according to the methodology described in Annex V. Results of each e-survey are presented using graphs and tables in the sub-sections below, per stakeholder category. Three surveys have been sent: a survey to NDEs, a survey to Network Members and a survey to Beneficiaries. Please note that these results are based on the number of respondents presented in table 1 in Annex V. Some questions were automatically skipped when not relevant, based on the respondent's previous answers; therefore, certain graphs reflect a smaller subset of respondents.

A. Results of E-Survey - NDEs

1. Respondent profiles

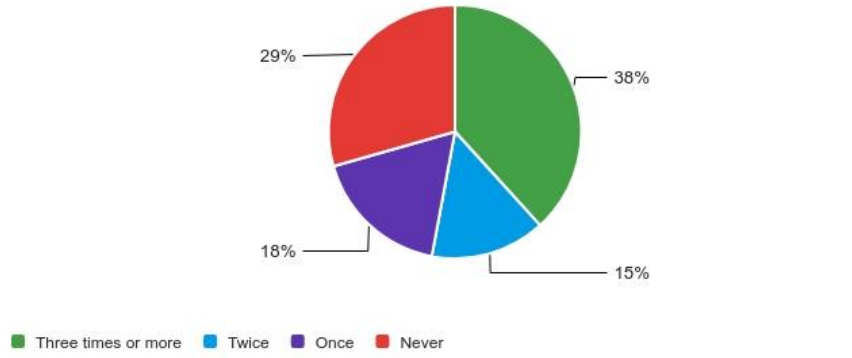
Figure 1
Distribution of respondents by length of time serving as the NDE focal point.



Note: Number of respondents = 35

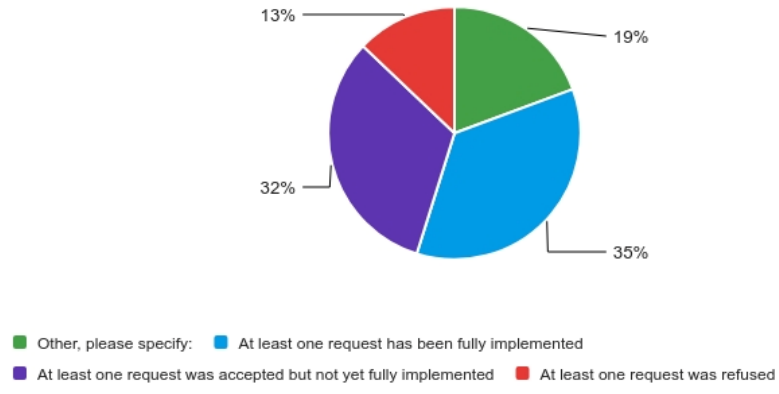
2. Use of CTCN services

Figure 2
Distribution of responses by how many technical assistance requests they submitted over the past five years.



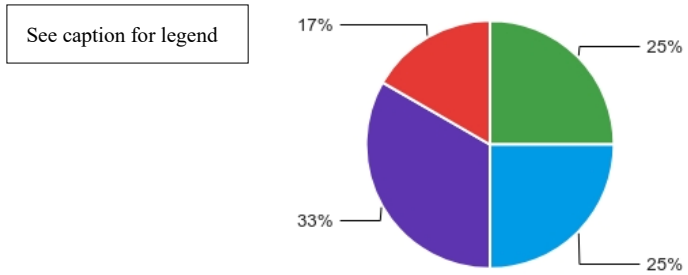
Note: Number of respondents = 34

Figure 3
Distribution of responses to the question "What has been the status of the technical assistance request(s) you submitted to the CTCN? (Select all that apply)"



Note: Number of respondents = 24

Figure 4
Distribution of responses to the question "Why have you not applied for technical assistance in the past five years (Select all that apply)"



Note: The options given were: "There are no potential beneficiaries that approach me with technical assistance requests." (red segment); "I do not have the resources to support potential beneficiaries to apply for CTCN services" (purple segment); "I do not feel that the technical assistance provided by the CTCN is appropriate to my country's needs" (blue segment); "Other" (green segment).

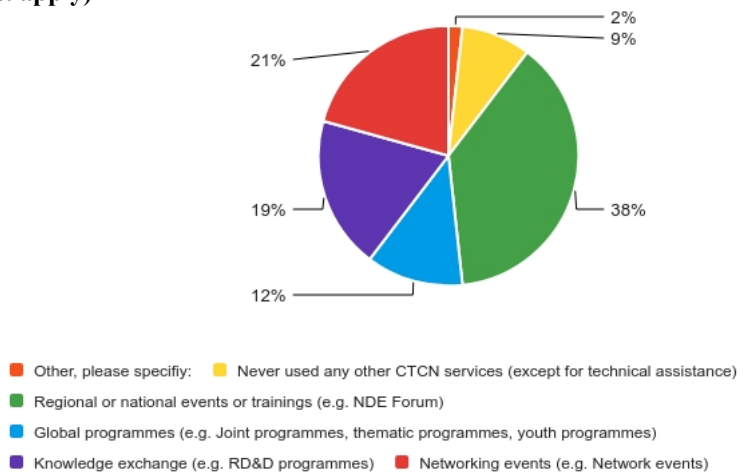
Number of respondents = 10

Table 4
Summary of answers to optional open-ended questions in the "Use of CTCN Services"

Question (and number of responses)	*Summary of Answers*
How often do you receive technical assistance requests from potential beneficiaries? (22 responses)	Overall, technical assistance requests are infrequent for most NDEs. The typical reported frequency is: 1 request per year, or 1–2 requests per year, with a smaller subset receiving 2–3 requests per year. Only one respondent receives approximately 4 per year
How do you identify priorities and areas for formulating requests for technical assistance? (18 responses)	Most respondents identify priorities by aligning proposed technical assistance with national climate strategies: NDCs (primary) NAPs Technology Needs Assessments National climate and sectoral policies This alignment is complemented by consultation with line ministries, CTCN guidelines, and occasionally considerations such as innovation or feasibility.
Why have you not applied for technical assistance in the past five years? Other, please specify (3 responses)	Out of three respondents, two explain that they did not apply because they are from an Annex I country, which is not eligible for CTCN technical assistance. One respondent noted that when potential beneficiaries do approach, the type of work required does not fit well with CTCN's technical assistance modality, citing: - Needs are very specific (e.g., software improvements) - No national implementing agents exist for such specialized tasks - Participation requires network engagement, which is a barrier - There is sometimes unnecessary pressure to extract additional GCF funds

Figure 5
Distribution of responses to the question "Did you use any of the following other services of the CTCN in the past five years which are related to networking,

partnership and capacity building or knowledge and information sharing? (Select all that apply)"

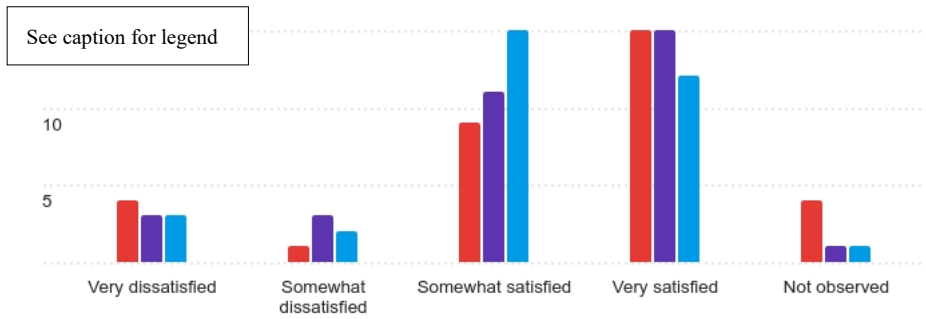


Note: Number of respondents = 33

3. Satisfaction regarding CTCN services

Figure 6

Graphical overview of responses to the question "Overall, how satisfied are you with the CTCN core services in terms of the following?"

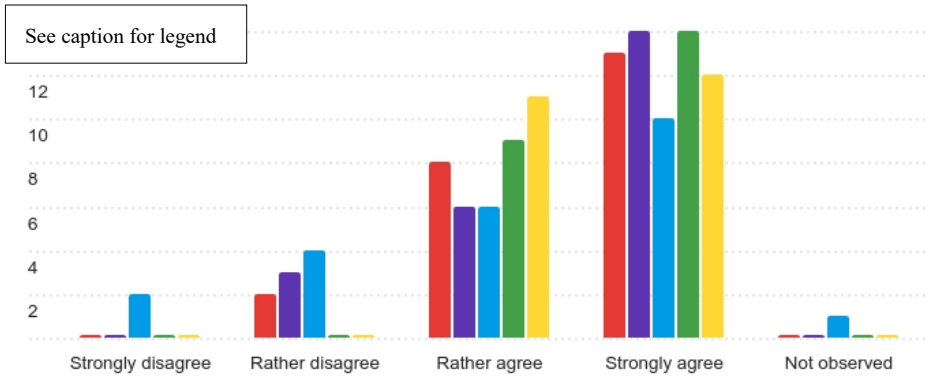


Note: The statements given were: "Technical assistance: responding to country requests to help identify, design, pilot, deploy, and scale climate technology solutions" (red segment); "Knowledge and information: providing access to vetted information, tools, repositories, best practices and facilitating knowledge-sharing and training" (purple segment); "Networking, partnership and capacity building: connecting, facilitating collaboration, and building capacity among a global network of public, private, research, and civil-society actors to accelerate technology transfer" (blue segment).

Number of respondents = 33

Figure 7

Graphical overview of responses to the question "Based on your experience with the technical assistance request process, please indicate how much you agree with the following statements (2021-2025)"

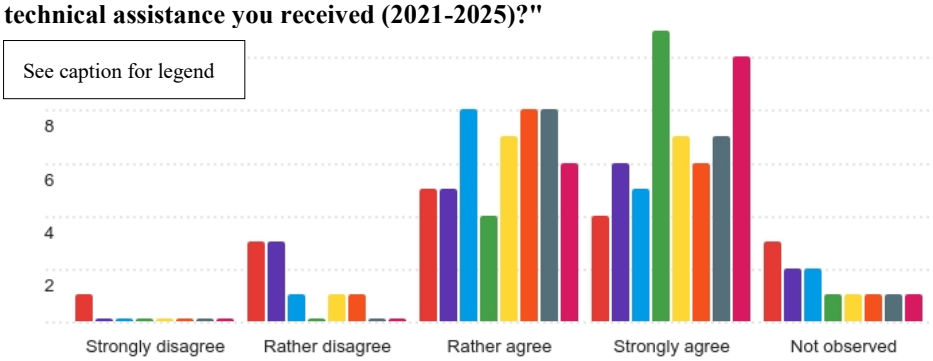


Note: The red segment refers to the statement “The prioritization criteria for the assessment of technical assistance requests by the CTCN were available and clear”. The purple segment refers to the statement “Enough information was available on the submission process”. The blue segment refers to the statement “You received an answer to your request in short-enough time”. The green segment refers to the statement “CTCN staff were available for questions and guidance when needed”. The yellow segment refers to the statement “Collaboration with the beneficiary during the application process was smooth”.

Number of respondents = 23

Figure 8

Graphical overview of responses to the question " What would you say about the technical assistance you received (2021-2025)?"

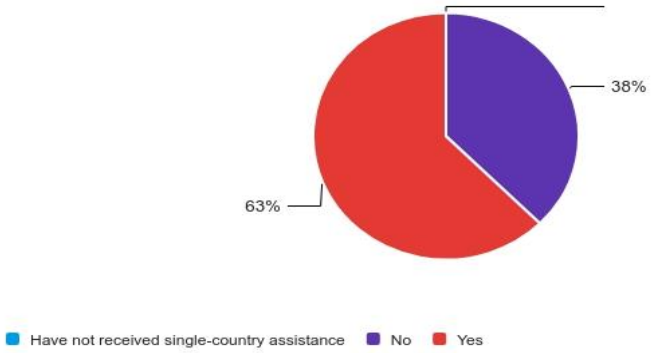


Note: The given statements were: “Was implemented on-time” (red segment); “Mobilised the appropriate resources (in terms of capacity and skills of technical assistance providers)” (purple segment); “Was smoothly implemented (good communication and cooperation with CTCN and stakeholders)” (blue segment); “Fully responded to my initial request” (green segment); “The CTCN provided the necessary administrative and infrastructural support for the effective functioning” (yellow segment); “The support from the designated CTCN network member played an effective role in the implementation” (orange segment); “The expectations of the final beneficiaries corresponded to the Response Plan and terms of reference tendered by the CTCN” (grey segment); “The technical assistance corresponded to an important need of the country in terms of technology transfer” (magenta segment).

Number of respondents = 17

Figure 9

Graphical overview of responses to the question " Would you say that the multi-country assistance model is a more effective way to deploy solutions than single-country assistance?”

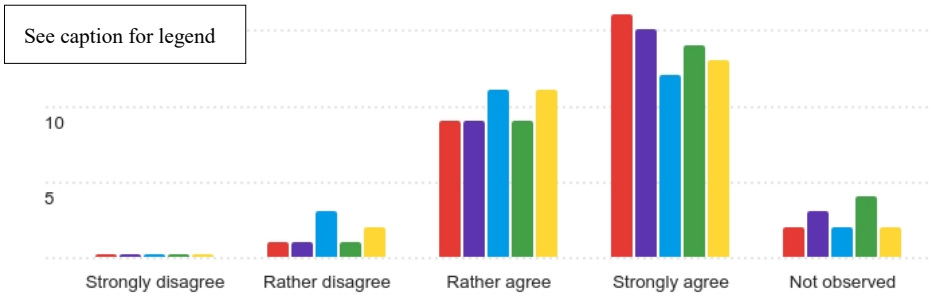


Note: Number of respondents = 8

Figure 10

Graphical overview of responses to the question “Following your attendance in one or several events, trainings or participation in programmes organised by the CTCN,

please indicate how much you agree with the following statements (2021-2025)"

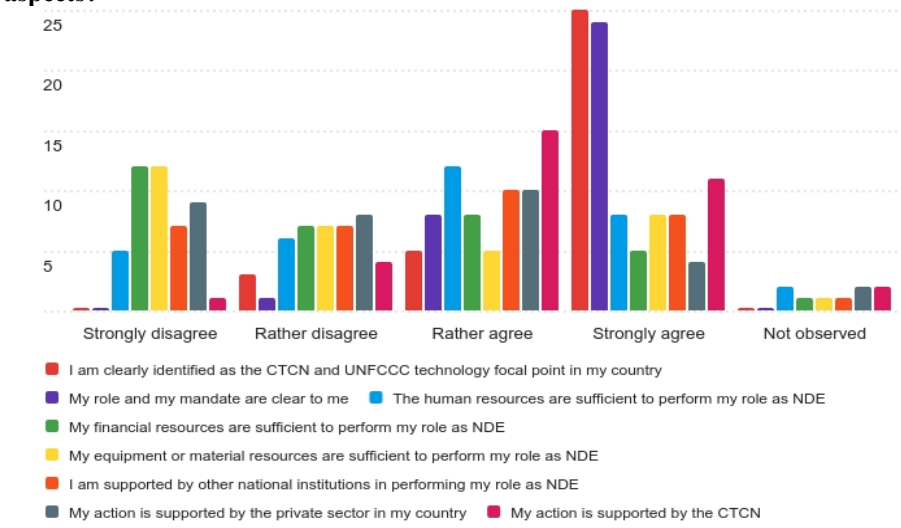


Note: The given statements were: "CTCN's knowledge-sharing activities effectively addressed your organisation's needs" (red segment); "The capacity-building support provided by the CTCN strengthened your organisation's ability to plan, implement, or scale climate-technology solutions" (purple segment); "Participation in CTCN's networking opportunities facilitated meaningful connections or collaborations that are valuable to your work" (blue segment); "The knowledge and skills gained from CTCN services have had a lasting impact on your organisation's activities or decision-making processes" (green segment); "CTCN's services were delivered efficiently and made good use of your time and resources" (yellow segment).

Number of respondents = 28

Figure 11

Graphical overview of responses to the question "How would you assess your experience in engaging as a NDE with the CTCN with regard to the following aspects?"



Note: Number of respondents = 33

Table 5

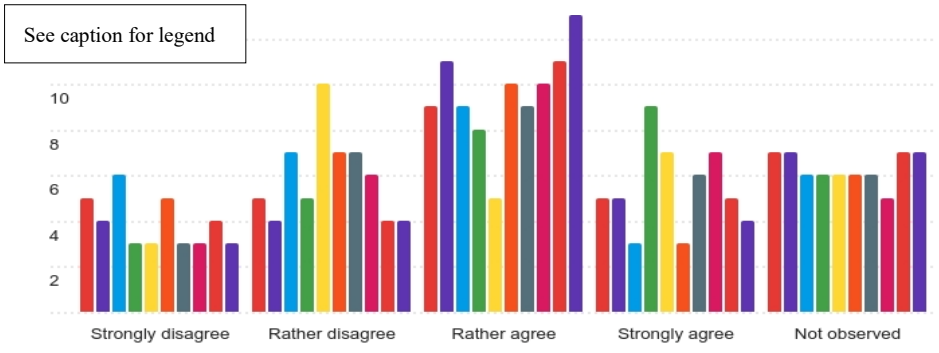
Summary of answers to optional open-ended questions in the "Satisfaction regarding CTCN's Services" Section

Question (and number of responses)	*Summary of Answers*
What are the main factors of success you identified during the technical assistance request process? (13 responses)	Overall, the responses point to a range of elements that participants associated with successful experiences during the technical assistance request process. These include the availability and support provided by CTCN staff, smooth collaboration among CTCN, NDEs and project proponents, and clear or well-structured submission procedures. Several respondents also highlighted the importance of alignment with national priorities, the involvement of relevant public and private stakeholders, and the quality of experts engaged. Others mentioned positive aspects such as capacity-building opportunities or noted that they could not yet identify success factors due to early stages of implementation.

Question (and number of responses)	*Summary of Answers*
What are the main difficulties you identified during the technical assistance request process? (11 responses)	Across the responses, participants described a variety of difficulties encountered during the technical assistance request process. These included challenges with data collection, limited contributions from relevant ministries or project proponents, and difficulties bringing stakeholders together due to funding constraints or expectations of allowances. Several respondents mentioned issues related to analysis timelines, selection of local partners without NDE involvement, and concerns about CTCN response time, budget sufficiency, and the duration of approval processes. Additional difficulties included payment-related complications, slow procurement procedures, lack of influence over the selection of consulting teams or network members, and the need to navigate many different options, requiring extensive stakeholder discussions to determine priorities.
What are the main factors of success you identified during the implementation of technical assistance? (1 response)	When requests are based on needs, this helps with ownership and acceptance from the relevant stakeholders.
What are the main difficulties you identified during the implementation of technical assistance? (8 responses)	Across the responses, participants mentioned several difficulties experienced during implementation. These include challenges with data collection at country level, delays in project activity execution, and situations where subcontracting by CTCN Network members led to sub-standard work. Some respondents noted that administrative procedures can be complicated and slow, and one indicated that implementation has not yet begun, limiting their ability to comment. Additional difficulties mentioned include delays and misunderstandings, slow responses and procurement delays from contracted procurement parties, and communication challenges when the implementation partner comes from another country.
Please elaborate why you rated the multi-country assistance as more or less effective (5 responses)	Some noted that requests proceed more easily, and that multi-country approaches can help scale solutions to common problems using available CTCN resources. Others highlighted challenges, such as situations where the slowest participating country sets the pace for all, which can hinder progress and disrupt schedules. Additional difficulties included limited funding, which in one case made it impossible to carry out an expected benchmark and required doing everything online, as well as comments that multi-country assistance is helpful when relevant technologies exist only in developed countries.

4. Results of CTCN Services and implementation of recommendations from the Second Independent Review

Figure 12
Graphical overview of responses to the question "Within your country, would you consider that CTCN activities in the last five years supported the following?"



Note: Policies institutional and regulatory frameworks and planning processes on innovation and strengthening National Systems of Innovation (NSI)" (red segment); "Developing technological transition pathways and options for uptake of climate technologies" (purple segment); "Promoting collaboration and partnerships in climate technology RD&D activities" (blue segment); "Prioritising climate technologies and facilitating the development, implementation of NDC's, TNA's, roadmaps and pilot studies and alignment with the NAPs" (green segment); "Identifying and developing recommendations on approaches, tools and means, for the assessment of technologies at national level" (yellow segment); "Designing policies, regulations and standards that create enabling environments for climate technologies and deliver Capacity building" (orange segment); "Enhancing the capacity to plan, monitor, and achieve technological transformation" (grey segment); "Strengthening knowledge and engagement in an inclusive manner and facilitating collaboration among relevant international organisations, the private sector, academia, and civil society" (magenta segment); "Facilitating access to Financial Mechanism of the UNFCCC and mobilising various types of support including pro-bono and in-kind support" (red segment); "Incorporating gender, youth and indigenous peoples' needs and priorities in climate technology developments"(purple segment).

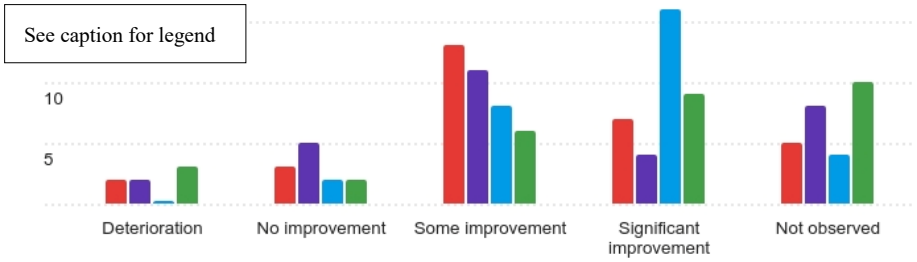
Number of respondents = 31

Table 6
Summary of answers to optional open-ended questions in the "Satisfaction regarding CTCN's Services" Section

Question (and number of responses)	*Summary of Answers*
What are the major factors that prevented the achievement of outcomes of the services provided by the CTCN in your country to date? (11 responses)	Across the responses, several factors were mentioned as preventing progress or limiting outcomes. These include lack of knowledge about the technical assistance offerings, low coverage of services, and perceptions that assistance is too soft, with a preference for demonstration-type projects. Respondents also referred to low budgets and insufficient financial support to NDEs, as well as broader structural, political, institutional, financial, and contextual constraints. Some noted limited relevance due to Annex I status or because they were new to the platform and had not yet received assistance. Additional comments highlighted poor engagement with Central Asia, concerns that the CTCN operates more as a managerial rather than technical organization, and that activities aimed at NDEs were sometimes top-down and not based on actual needs. Others pointed to the recent entry of the country into the CTCN, ongoing request reviews, and the need for faster response times. A lack of resources for the NDE was also mentioned as a limiting factor.
What are the major factors that favoured the achievement of outcomes of the services provided by the CTCN in your country to date? (8 responses)	The responses indicate a mix of experiences. Some noted that they have not yet received services from the CTCN, while others highlighted factors that supported progress. These included having the CTCN focal point located in an institution with the capacity to generate projects and align them with national needs, as well as the advantage of leadership familiar with CTCN work, which facilitated discussions about CTCN projects. Additional responses referred to objective evaluation of requests, including the ability to refer them to other funding channels, and descriptions of institutional commitment, alignment with national priorities, technical relevance, partnerships, and adaptive delivery modalities supporting meaningful outcomes in certain contexts. Some also mentioned strong institutional and technical capacity, a history of international cooperation, and engagement of the NDE as enabling factors. One respondent stated that, as the country had not yet received assistance, they could not identify contributing factors.
What could improve the likelihood of lasting positive impact? (9 responses)	The responses mention several elements that could enhance the chances of achieving lasting positive impact. These include greater awareness of the spaces and resources offered by the CTCN, as well as support for submitting higher-impact projects. Some respondents suggested the importance of demonstration or pilot projects, along with objective assessments, appropriate budgets, and suitable experts. Others highlighted the value of

	strong linkages between CTCN outputs and financing, such as pipelines to funding entities, follow-up grants, and mechanisms for handover to implementation partners. Additional suggestions included engaging a broader range of sectors, removing the network requirement for TA implementation, increasing diversity within CTCN teams, and providing more capacity building for NDEs. The availability of financial resources for NDEs to enhance understanding and visibility of the CTCN role was also mentioned.

Figure 13
Graphical overview of responses to the question "To what extent have the CTCN's efforts to implement the recommendations from the Second Independent Review of the CTCN resulted in noticeable improvements from 2021-2025 compared to the 2016-2020 period?"



Note: The given statements were: "The CTCN has enhanced resource mobilization and diversification of funding sources" (red segment); "The CTCN has allocated dedicated resources for the ex-post impact evaluation of technical assistance" (purple segment); "The CTCN has strengthened collaboration with and capacity-building support for NDEs" (blue segment); "NDEs and beneficiaries of technical assistance have been appropriately consulted by the CTCN for the preparation of its current Programme of Work 2023-2027" (green segment).

Number of respondents = 30

5. Overall Feedback

Table 7
Summary of answers to optional open-ended questions in the "Overall feedback and areas for improvement" Section

Question (and number of responses)	*Summary of Answers*
What is the added value/s of the CTCN? (11 responses)	The responses reflect a wide range of perceived added values. Some respondents indicated no added value yet because their countries have not received services. Others highlighted that the CTCN helps implement climate technology action plans, orients countries on climate technology priorities, and provides networking, capacity building, expertise access, and knowledge sharing. Additional comments noted technical capacity building for NDEs, and the benefit of the CTCN being embedded within the UNFCCC system, which offers unique access to governance structures and Party processes. Several responses pointed to the CTCN's role in supporting emerging and innovative technologies in developing countries, as well as offering security and professionalism. One respondent described the added value as the potential to enhance the implementation of climate technologies tailored to country needs, provided the CTCN evolves toward facilitating pilot testing, structuring bankable pipelines, supporting innovation, and attracting investment. Others mentioned the opportunity to access funding sources for implementing climate technologies, while one respondent

	noted that operational costs remain voluntary for focal points.
What other services should the CTCN provide to support technology development and transfer in your country? (10 responses)	The responses suggest a wide range of additional services that could support technology development and transfer. Some noted the need for stronger support in technology transfer analysis for sectoral groups, as well as assistance in integrating technologies into transparency systems and strengthening governance and institutions. Others recommended post-assistance dissemination, such as reporting and holding events to connect technology providers with beneficiaries. Several respondents suggested expanding services to include NSI and TNA development, and implementing pilot projects at the country level. Other ideas included shorter response times, coherent budgets, and improving the technical and financial capacity of NDEs, particularly given costs they voluntarily absorb. A number of responses emphasized interest in supporting emerging technologies, such as Carbon Dioxide Removal (CDR) and Carbon Capture and Storage (CCS), through feasibility assessments, regulatory support, pilot design, and links to research and industry networks. Additional suggestions included more support for matchmaking to help scale TA projects through additional financing, and expanded services such as market and investment facilitation, capacity building for providers and users, knowledge products, digital tools, regional cooperation, and climate finance support. Some respondents proposed that the CTCN take on a more strategic role, shifting from demand-driven technical assistance to a partner for technological transformation, and encouraged fostering technology transfer from developed countries at low or no cost.
Do you have any suggestions for how the structure, delivery of services, and stakeholder engagement of the CTCN could be improved in the future? (11 responses)	The responses suggest a variety of ideas for potential improvement. Some emphasized the importance of encouraging countries to become more aware of the resources offered by the CTCN, as well as sharing success stories to highlight benefits and promote wider uptake. Others recommended strengthening financial coordination with mechanisms under the UNFCCC and promoting the Expert Network, including greater peer learning and national organization participation. Several suggestions related to governance and engagement, including the presence of TEC representatives at NDE forums, maintaining direct communication between NDEs and TEC, and giving greater importance to NDEs in the overall process. There were also proposals to prioritize technologies identified in Technology Needs Assessments, to increase engagement with the private sector, and to enhance use of the Network, which some noted is already being addressed. Additional ideas included opening liaison offices in multiple locations, shifting the CTCN toward deeper technical work, and potentially evolving it into a global technology implementation accelerator capable of supporting pipelines, pilots, and investment mobilization. Respondents also mentioned improving response times, strengthening links between NDEs and Network members, and delivering capacity-building seminars for Network members to clarify the role of NDEs in the process.

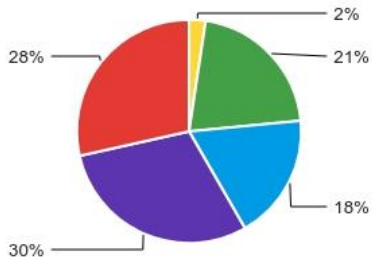
B. Results of E-Survey - Network Members

1. Respondent profiles and contributions to CTCN services

Figure 14

Graphical overview of responses to the question "What were the main reasons for your organisation's decision to join the CTCN? (Select all that apply)"

See caption for legend



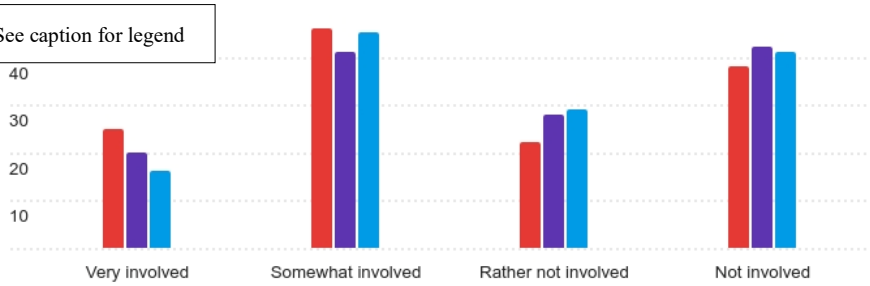
Note: The options were: "Commercial opportunities: getting access to the tenders organised by the CTCN" (red segment); "Connection: networking with other actors involved in climate change mitigation and adaptation" (purple segment); "Visibility: increasing your recognition and showcasing relevant experience, events, reports and tools (blue segment)", "Knowledge: getting access to technical information and trainings on climate technologies (green segment); "Other" (yellow segment).

Number of respondents = 143

Figure 15

Graphical overview of responses to the question "Overall, how much do you consider having contributed to the CTCN services since you joined?"

See caption for legend



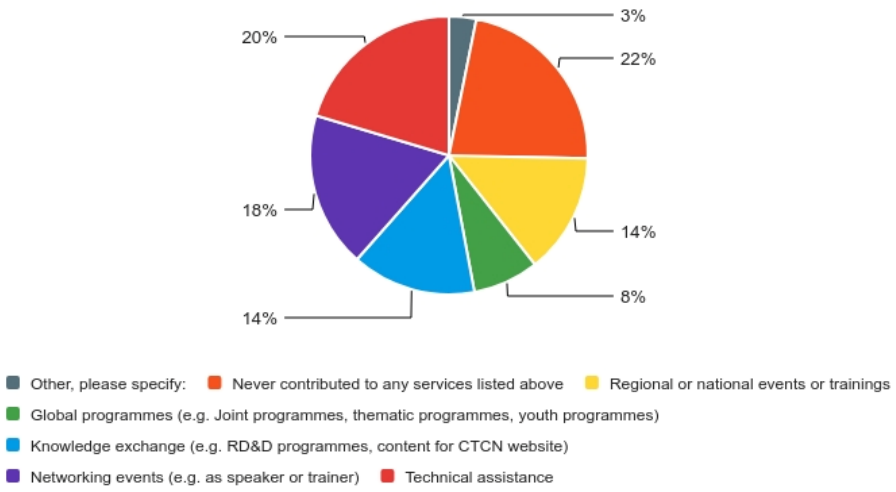
Note: The given statements were: "Technical assistance: responding to country's requests to help identify, design, pilot, deploy, and scale climate technology solutions" (red segment); "Knowledge and information: providing access to vetted information, tools, repositories, best practices and facilitating knowledge-sharing and training" (purple segment); "Networking, partnership and capacity building: connecting, facilitating collaboration, and building capacity among a global network of public, private, research, and civil-society actors to accelerate technology transfer" (blue segment).

Number of respondents = 131

Figure 16

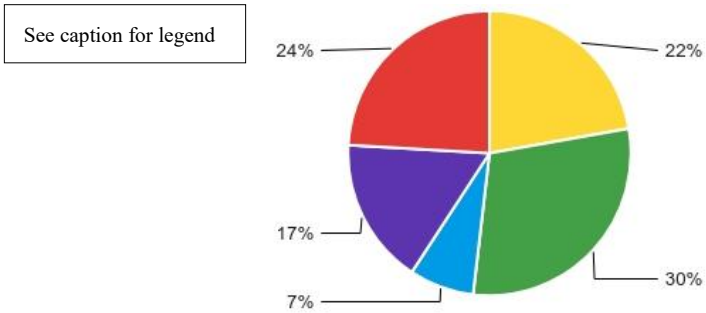
Distribution of response to the question " Please select the different services from the

CTCN to which your organisation has contributed to in the past five years (Select all that apply)"



Note: Number of respondents = 130

Figure 17
Distribution of response to the question "Why did your organisation never contribute to CTCN services?"



Note: The options given were: “My expression of interest to contribute to CTCN services was rejected or not answered” (green segment); “My organisation does not have resources or expertise to contribute to the CTCN services” (blue segment); “My organisation does not know the services provided by the CTCN” (red segment); “My organisation does not find the resources provided by the CTCN as useful” (purple segment) and “Other, please specify” (yellow segment).

Number of respondents = 48

Table 8
Summary of answers to optional open-ended questions in the “Contributions to CTCN services” section

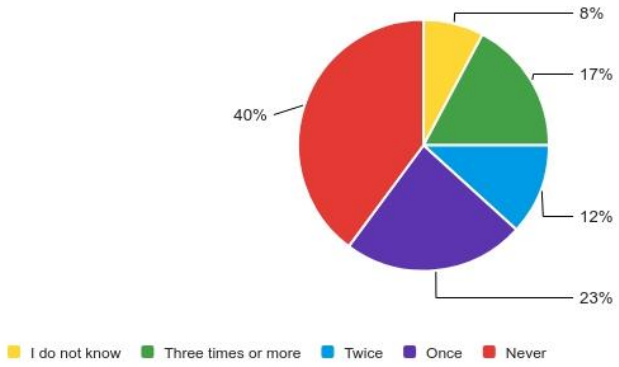
Question (and number of responses)	*Summary of Answers*
What were the main reasons for your organisation’s decision to join the CTCN? Other, please specify (9 responses)	Most responses highlight a mix of motivations related to contribution, collaboration, and strategic opportunities. Key reasons mentioned: -Supporting a multilateral initiative -Providing technical input -Expanding participation in other markets, sharing knowledge and experience, and contributing to environmental and technological efforts -Enhancing South–South technology development and transfer -Seeking or offering technical support -Joining after involvement in a TNA project tendered by the CTCN

	-Appreciation for the Secretariat team -Interest in both accessing and providing knowledge
Why did your organisation never contribute to CTCN services? Other, please specify: (8 responses)	Most responses indicate limited contribution due to lack of opportunities, timing, or relevance. Key reasons mentioned: -Very few opportunities available in the respondent's region -Organisation has not yet offered services officially -No relevant opportunities matching expertise or location -Organisation is new to the CTCN and still familiarizing itself -Lack of time to explore contribution options -Organisation is new in terms of CTCN service engagement -Opportunities that fit both expertise and geography have not yet been identified

2. Satisfaction regarding CTCN services

Figure 18

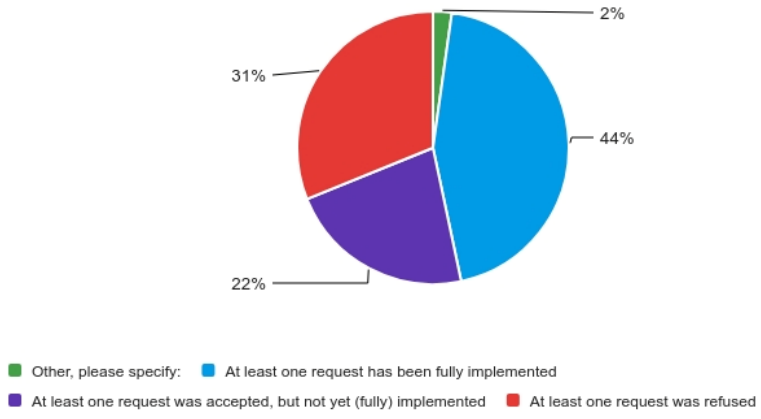
Distribution of response to the question "How many times has your organisation applied to provide technical assistance funded by the CTCN in the last five years? (Select all that apply)"



Note: Number of respondents = 128

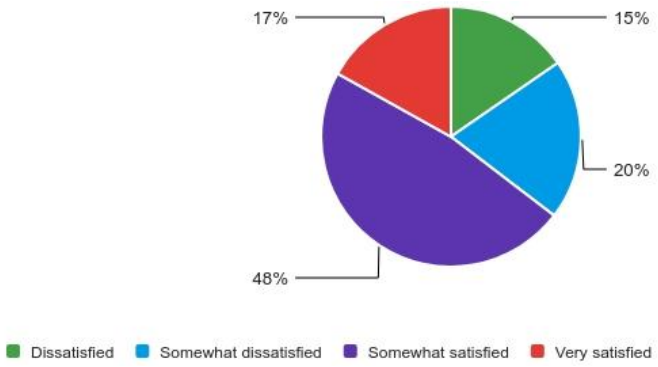
Figure 19

Distribution of response to the question "Following your organisations interest to be the provider for technical assistance in the last five years, which options apply? (Select all that apply)"



Note: Number of respondents = 41

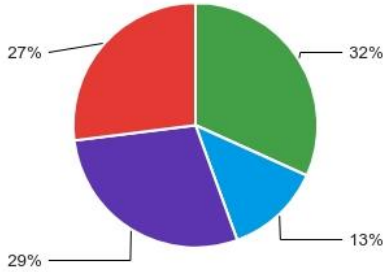
Figure 20
Distribution of response to the question "Were you satisfied with the tendering process?"



Note: Number of respondents = 65

Figure 21
Distribution of response to the question "If your organisation has never participated to any tender organised by the CTCN, what were the main reasons?"

See caption for legend

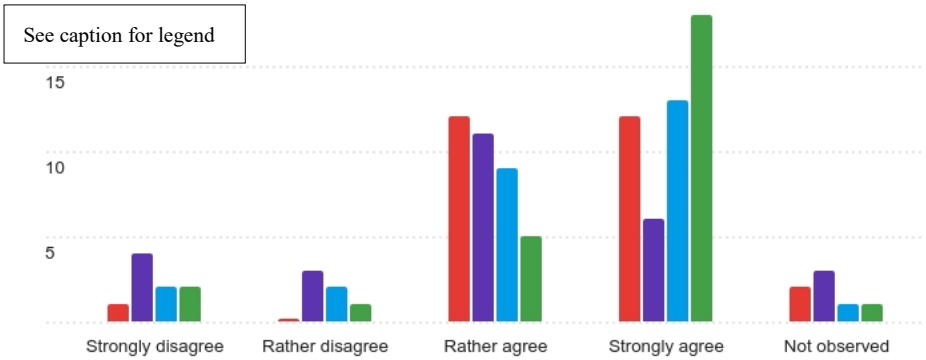


Note: The options given were: "The compensation offered by the CTCN was too low for my organisation to consider the Technical Assistance mission" (blue segment); "My organisation did not get the information that those tenders were open for participation" (red segment); "My organization never felt that we were qualified for any of the tenders (purple segment) and "Others, please specify" (green segment).

Number of respondents = 50

Figure 22
Graphical overview of responses to the question "What would you say regarding the implementation phase of the technical assistance project(s) you participated in (2021-2025)?"

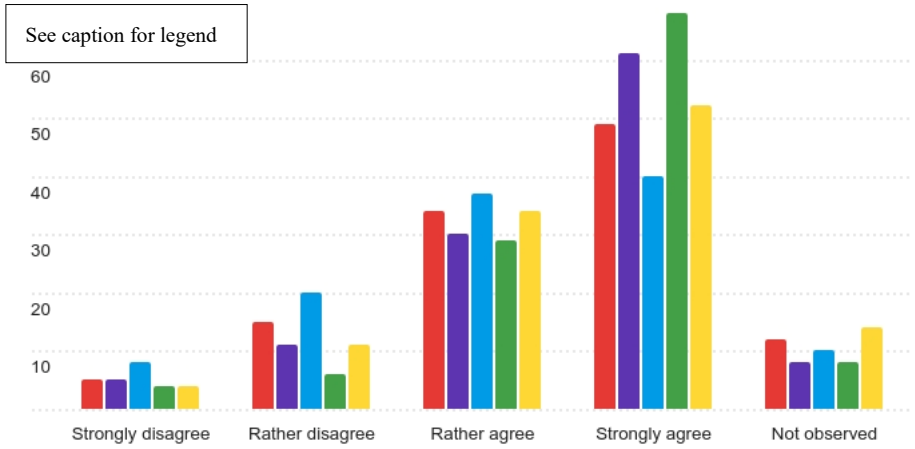
See caption for legend



Note: The given statements were: "The CTCN provided the necessary administrative and infrastructural support for the effective functioning" (red segment); "The country's National Designed Entity (NDE) played an effective role as a coordinator between my organisation and the final beneficiaries" (purple segment); "The expectations of the final beneficiaries corresponded to the Response Plan and terms of reference tendered by the CTCN" (blue segment); "The technical assistance corresponded to an important need of the country in terms of technology transfer" (green segment).

Number of respondents = 27

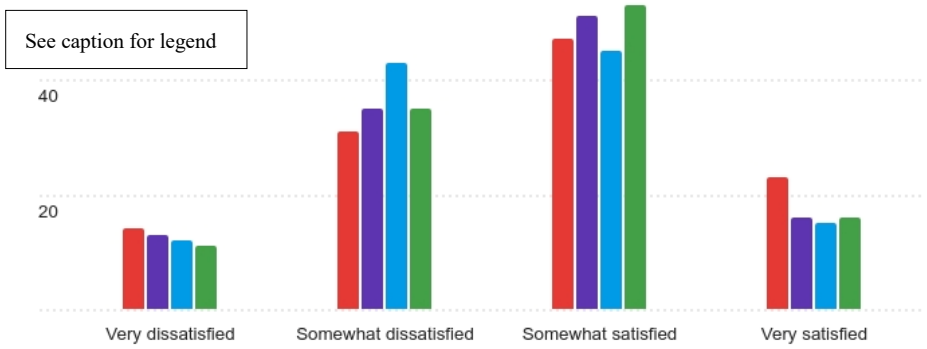
Figure 23
Graphical overview of responses to the question "How would you assess your experience in engaging as a network member with the CTCN with regard to the following aspects?"



Note: The given statements were: "The role of my organisation is clear" (red segment); "My organisation regularly receives information and communications from the CTC secretariat about relevant engagement opportunities" (purple segment); "There is often alignment between needs and priorities expressed by developing countries and the focus and expertise of my organization" (blue segment); "My organisation intends to engage with the CTCN again for additional TA or other services" (green segment); "My organisation would recommend becoming a CTCN network member to other organisations" (yellow segment).

Number of respondents = 115

Figure 24
Graphical overview of responses to the question "Overall, how satisfied are you by the following aspects of the CTCN network for the past five years?"



Note: The given statements were: "Commercial opportunities: getting access to the tenders organised by the CTCN" (red segment); "Connection: networking with other actors involved in climate change mitigation and adaptation" (purple segment); "Visibility: increasing your recognition and showcasing relevant experience, events, reports and tools" (blue segment); "Knowledge: getting access to technical information and trainings on climate technologies, peer learning" (green segment).

Number of respondents = 115

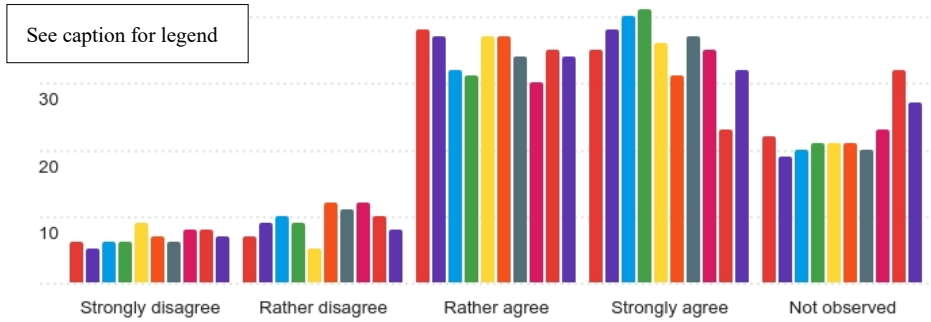
Table 9
Summary of answers to optional open-ended questions in the "Satisfaction regarding CTCN's Services" Section

Question (and number of responses)	*Summary of Answers*
What are the main factors of success you identified during the implementation of technical assistance? (8 response)	The responses point to several factors that supported successful implementation of technical assistance. These include active engagement from the CTCN team, the technical quality of the support received, and strengthened knowledge and stakeholder participation. Some noted that implementation benefited from having good stakeholders involved, improvements such as enhanced production through irrigation, and opportunities for networking and information sharing. Others highlighted the role of clear communication and follow-up from CTCN members, as well as regular collaborative meetings to review progress and address challenges.
What are the main difficulties you identified during the implementation of technical assistance? (12 responses)	The challenges identified during implementation were wide-ranging. Respondents mentioned that independent procurement of consultants by the CTCN created accountability concerns, and that there were issues with delays and unmet timelines, including cases where organisations were selected but never notified or projects were never implemented. Additional difficulties included limited presence of CTCN personnel, the perception that technical assistance was too limited, and concerns about foreign consultants lacking contextual knowledge. Some noted that their area of focus was not fully addressed, or that participation in the process was insufficient. Further challenges involved reports not being delivered in English, institutional and financial constraints, weak communication and transparency, and early-stage coordination difficulties. Others mentioned budget insufficiency, lack of field work, and an overreliance on virtual processes such as remote meetings and data collection.
Please elaborate why you rated the multi-country assistance as more or less effective (2 responses)	One respondent noted that multi-country assistance can create networks beyond borders for future collaboration, while the other noted that budgets are insufficient when spread across countries, suggesting it may be more effective if limited to fewer participants.
What are the main factors of success you identified with regards to CTCN knowledge, networking, and capacity building activities? (3 responses)	The respondents highlighted the strong field experience of experts and approachability of trainers and amount of information sharing.
What are the main difficulties you identified with regards to CTCN knowledge, networking, and capacity building activities? (6 responses)	Most responses point to limited participation, weak communication, and constraints that hinder practical application. Key difficulties mentioned: -Limited participation in activities -Projects never implemented -Excessive information, making it difficult to navigate -Implementation challenges due to lack of funds -Limited project coverage -Capacity-building not sufficiently linked to research or real-world application

3. Results of CTCN services and implementation of recommendations from the Second Independent Review

Figure 25

Graphical overview of responses to the question "Would you consider that the CTCN activities in the last five years supported the following?"

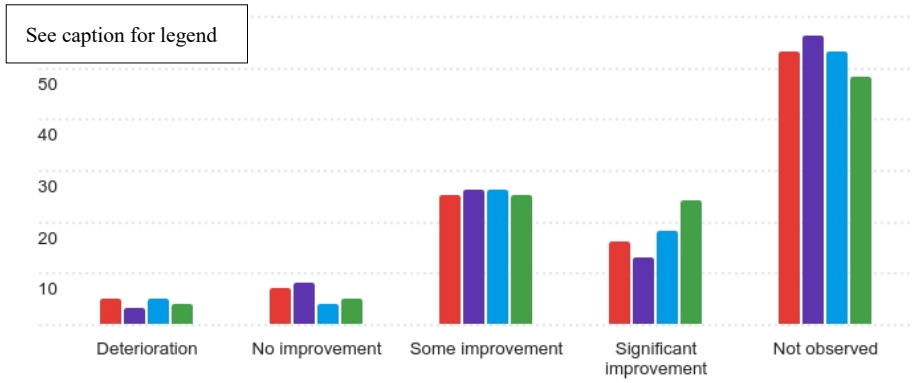


Note: The given statements were: "Policies institutional and regulatory frameworks and planning processes on innovation and strengthening National Systems of Innovation (NSI)" (red segment); "Developing technological transition pathways and options for uptake of climate technologies" (purple segment); "Promoting collaboration and partnerships in climate technology RD&D activities" (blue segment); "Prioritising climate technologies and facilitate the development, implementation of NDC's, TNA's, roadmaps and pilot studies and alignment with the NAPs" (green segment); "Identifying and developing recommendations on approaches, tools and means, for the assessment of technologies at national level" (yellow segment); "Designing policies, regulations and standards that create enabling environments for climate technologies and deliver capacity building" (light red segment); "Enhancing the capacity to plan, monitor, and achieve technological transformation" (grey segment); "Strengthening knowledge and engagement in an inclusive manner and facilitating collaboration among relevant international organisations, the private sector, academia, and civil society" (magenta segment); "Facilitating access to Financial Mechanism of the UNFCCC and mobilising various types of support including pro-bono and in-kind support" (red segment); "Incorporating gender, youth and indigenous peoples' needs and priorities in climate technology developments" (purple segment).

Number of respondents = 108

Figure 26

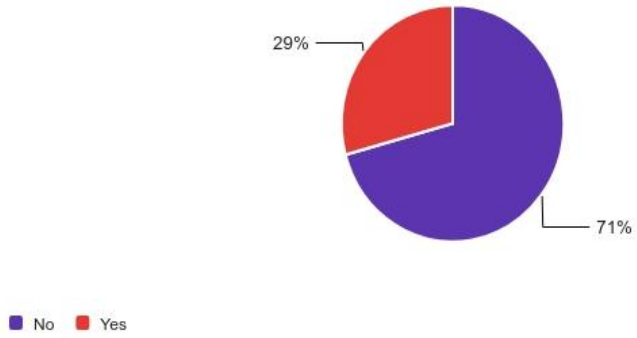
Graphical overview of responses to the question "To what extent have the CTCN's efforts to implement the recommendations from the Second Independent Review of the CTCN resulted in noticeable improvements from 2021-2025 compared to the 2016-2020 period?"



Note: The given statements were: "The CTCN has allocated dedicated resources for the ex-post impact evaluation of technical assistance" (purple segment); "The CTCN has enhanced resource mobilization and diversification of funding sources" (red segment); "The CTCN has strengthened collaboration with and capacity-building support for NDEs" (blue segment) and "The CTCN has reinforced its position as a climate technology matchmaker" (green segment).

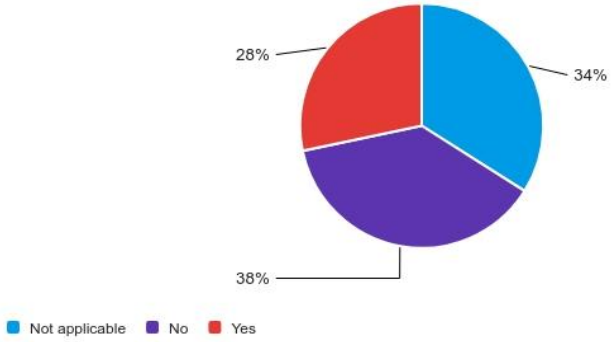
Number of respondents = 106

Figure 27
Distribution of response to the question "Has your organisation engaged/formed partnerships with other network members as a result of being part of the CTCN network?"



Note: Number of respondents = 106

Figure 28
Distribution of response to the question "Has your organisation sustained engagements with the NDEs and/or the beneficiaries they worked with?"



Note: Number of respondents = 106

Table 10
Summary of answers to optional open-ended questions in the "Results of CTCN services" Section

Question (and number of responses)	*Summary of Answers*
What are the major factors that prevented the achievement of outcomes of the services provided by the CTCN in your country to date? (7 responses)	Some noted that requested support (e.g., TNA update, energy adaptation plan) was not received, while others highlighted lack of communication and absence of notification regarding the status of submitted technical assistance proposals. Additional challenges mentioned include resistance to CTCN-recommended plans, limited visibility of services, and the perception that funding is restricted to report preparation without support for implementation. Respondents also referred to weak institutional arrangements, poor follow-up, and administrative or procedural issues that limited the achievement of expected outcomes.
What are the major factors that favoured the achievement of outcomes of the services provided by the CTCN in your country to date? (4 responses)	Elements that helped enable progress were stated to include the knowledge gained following a major cyclone, the existence of experimental areas and target groups such as associations and cooperatives, and the benefits of networking with other countries, which contributed to information acquisition and capacity strengthening. Others highlighted good collaboration with all stakeholders, which supported smoother implementation and enhanced engagement.

What could improve the likelihood of lasting positive impact? (4 responses)	Suggestions to enhance long-term impact included better planning and coordinated networking among project promoters, NDEs, and the CTCN, as well as considering multi-year support to sustain outcomes. Respondents also noted the need to replicate pilot implementation results, contingent on adequate funding, and emphasized the importance of strengthening the NDE and establishing an institutional framework to better support future work.

4. Overall feedback

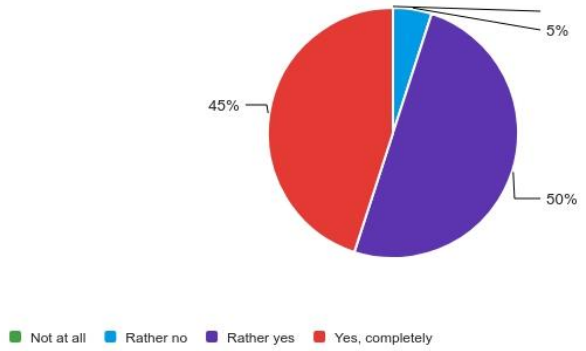
Table 11
Summary of answers to optional open-ended questions in the "Overall feedback and areas for improvement" Section

Question (and number of responses)	*Summary of Answers*
What is the added value/s of the CTCN? (4 responses)	Some noted the contribution of the CTCN to climate-proofing infrastructure and strengthening the resilience of projects. Others emphasized the role of the CTCN in building knowledge, including efforts that support women's empowerment in the agriculture sector, as well as enabling networks, information exchange, and capacity development to support the adoption of technologies. Additionally, respondents pointed to the benefit of networking (réseau age) as a core element of the CTCN's added value.
What other services should the CTCN provide to support technology development and transfer in your country? (3 responses)	Some mentioned the importance of ensuring that the CTCN brings financial or other forms of assistance directly to the communities involved, helping to translate technical work into practical benefits. Others highlighted the need for financial resources to support implementation after reports are completed, noting that assistance often ends at the planning stage. Additional suggestions emphasized greater engagement in sensitization, support for developing institutional arrangements, and the establishment of demonstration centres to help countries better understand, test, and adopt climate technologies.
Do you have any suggestions for how the structure, delivery of services, and stakeholder engagement of the CTCN could be improved in the future? (7 responses)	Respondents highlighted the need for greater clarity in the approval process and noted challenges related to insufficient communication, including the absence of updates on requested technical assistance. Some emphasized the importance of identifying and engaging gatekeepers, while others stressed that leadership roles within consultancies should be assigned to national companies, accompanied by the selection of appropriate in-country partners. It was also suggested that expectations should be clearly defined, thought through during proposal development, and properly documented. Additional feedback called for increased budgets for technological innovation, reflecting a desire for stronger support in advancing technology-related work.

C. Results of E-Survey - Beneficiaries

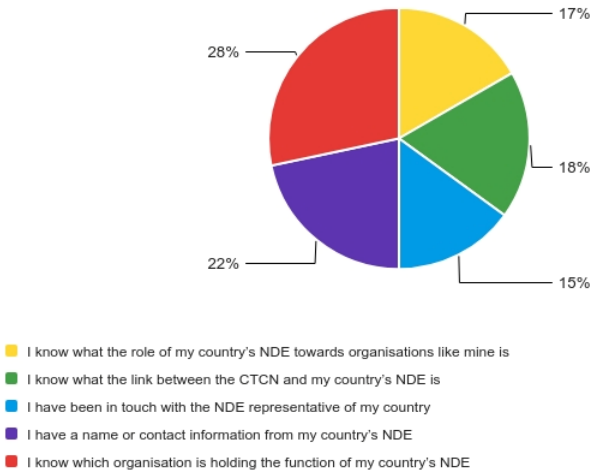
13. Please note that due to the low number of beneficiary respondents, responses may not be fully representative and should be interpreted carefully.

Figure 29
Distribution of response to the question " Do you have a clear understanding of what the CTCN is and what services it provides?"



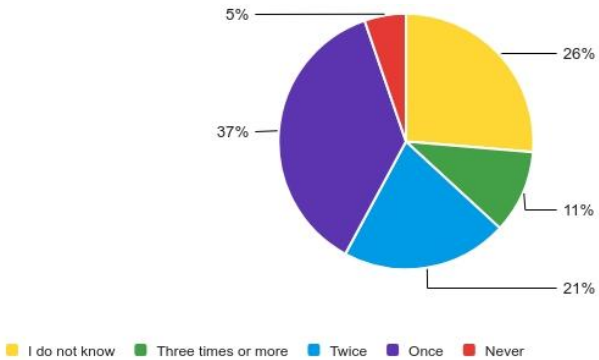
Note: Number of respondents = 20

Figure 30
Distribution of response to the question "What do you know about your country's National Designated Entity (NDE are the focal points for the CTCN action in a given country)? (Select all that apply)?"



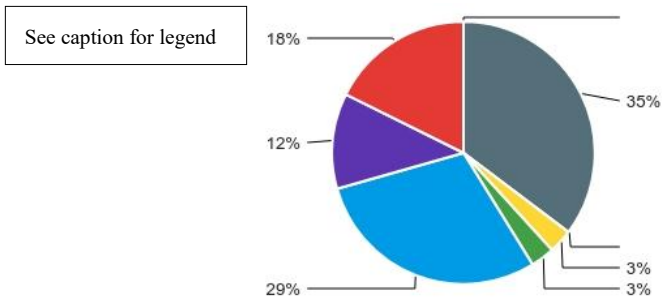
Note: Number of respondents = 20

Figure 31
Distribution of response to the question "How many times has your organisation submitted a request for technical assistance to the CTCN through your National Designated Entity in the past five years?"



14. We did not have enough responses to the question, "Why has your organisation not applied for technical assistance in the past five years? (Select all that apply)". Only one respondent answered selecting the option: "I do not feel that the assistance provided by the CTCN are appropriate to my country's needs".

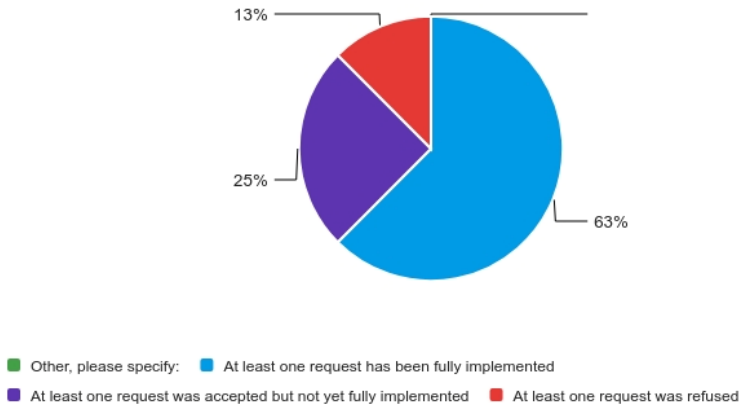
Figure 32
Distribution of response to the question "Why did your organisation request technical assistance from the CTCN? (Select all that apply)"



Note: The options given were: "The CTCN's focus on climate change technologies was well aligned with my own objectives" (grey segment); "I was looking for such technical assistance" (blue segment); "I was strongly influenced and supported by my country's NDE" (red segment); "I was strongly influenced and supported by a partner organisation of the CTCN" (purple segment); "Other alternatives had access criteria that could not or were more challenging to meet" (yellow segment) and "Other alternatives were more costly" (green segment).

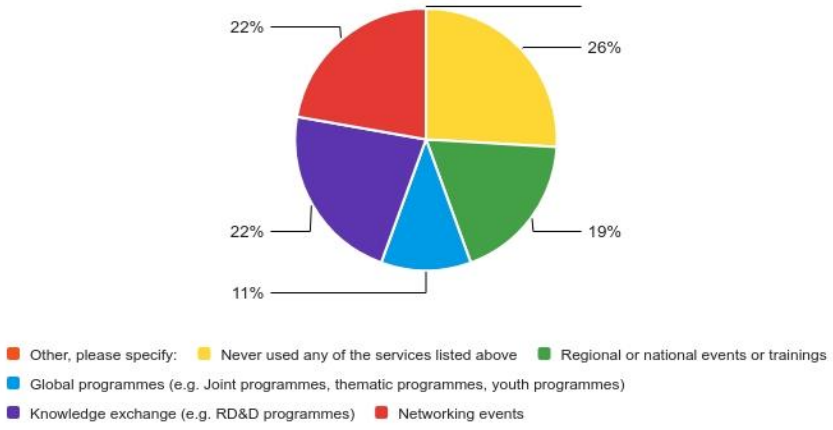
Number of respondents = 15

Figure 33
Distribution of response to the question "What has been the status of the technical assistance request(s) you submitted to the CTCN? (Select all that apply)"



Note: Number of respondents = 15

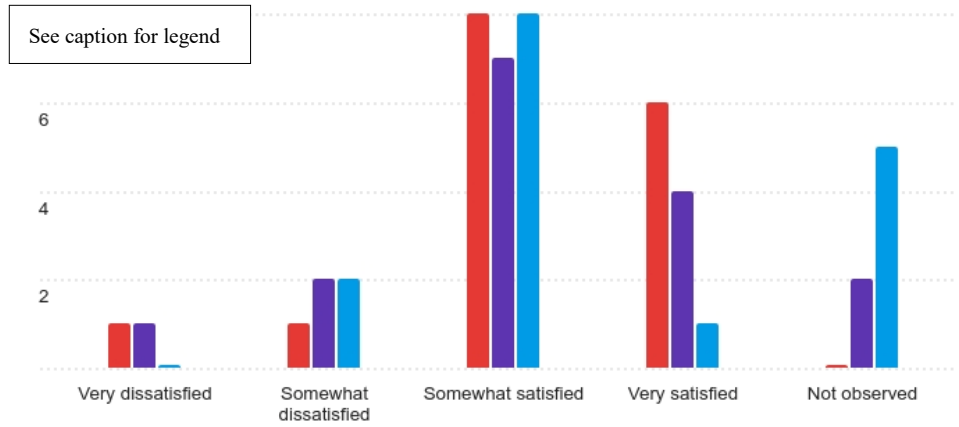
Figure 34
Distribution of response to the question "Did your organisation use any of the following other services of the CTCN in the past five years which are related to networking, partnership and capacity building or knowledge and information sharing? (Select all that apply)"



Note: Number of respondents = 16

Figure 35

Graphical overview of responses to the question "Overall, how satisfied are you with the CTCN core services in terms of the following?"

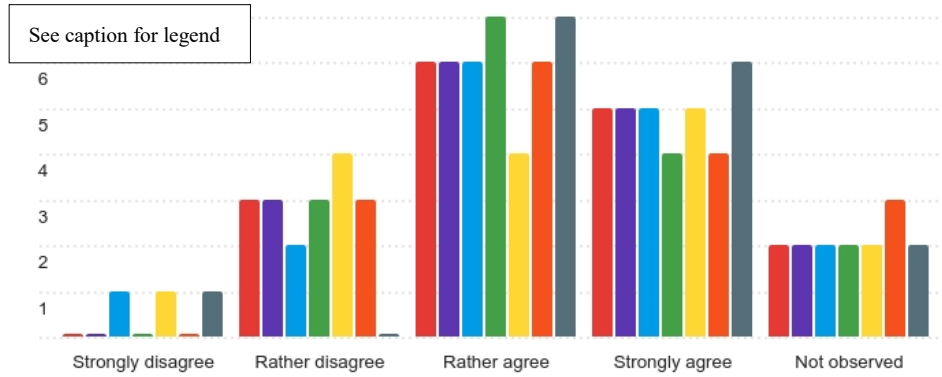


Note: The given statements were: "Technical assistance: responding to country's requests to help identify, design, pilot, deploy, and scale climate technology solutions" (red segment); "Knowledge and information: providing access to vetted information, tools, repositories, best practices and facilitating knowledge-sharing and training" (purple segment); "Networking, partnership and capacity building: connecting, facilitating collaboration, and building capacity among a global network of public, private, research, and civil-society actors to accelerate technology transfer" (blue segment)

Number of respondents = 16

Figure 36

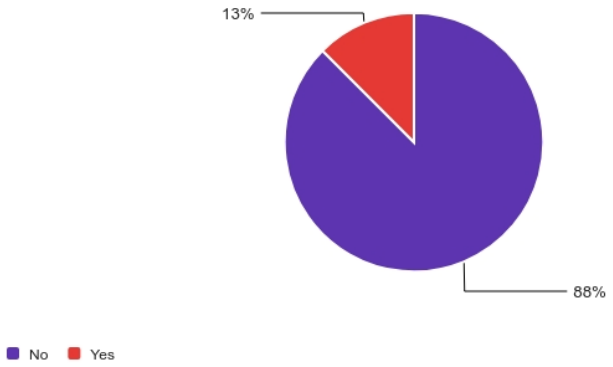
Graphical overview of responses to the question "What would you say about the technical assistance your organisation received (2021-2025)?"



Note: The given statements were: "Was implemented on-time" (red segment); "Mobilised the appropriate resources (in terms of capacity and skills of technical assistance providers)" (purple segment); "Was smoothly implemented (good communication and cooperation with CTCN and stakeholders)" (blue segment); "Fully responded to your initial request" (green segment); "The CTCN provided the necessary administrative and infrastructural support for the effective functioning" (yellow segment); "The support from the designated CTCN network member played an effective role in the implementation" (light red segment); "My organization was supported by the NDE to apply for technical assistance" (grey segment).

Number of respondents = 16

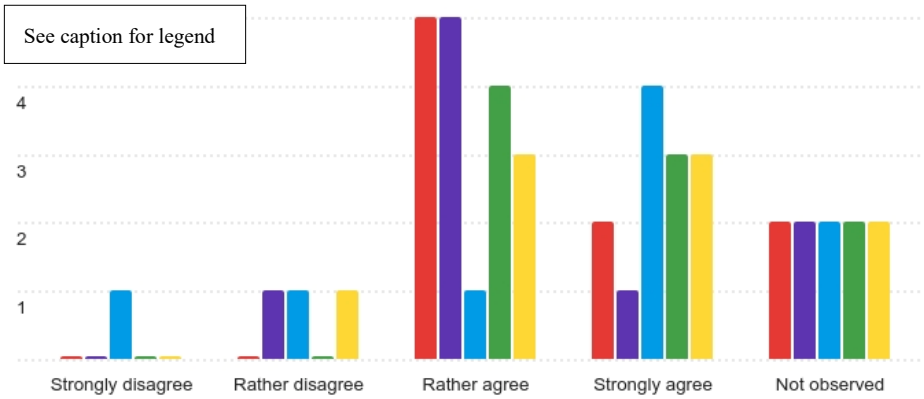
Figure 37
Distribution of response to the question "Did your organization receive multi-country technical assistance?"



Note: Number of respondents = 16

15. We did not have enough responses to the question, "Would you say that the multi-country assistance model is a more effective way to deploy solutions than single-country assistance?". One respondent chose the option ‘Yes’ and the other one chose ‘No’.

Figure 38
Graphical overview of responses to the question “Following your attendance in one or several events, trainings or participation in programmes organised by the CTCN, please indicate how much you agree with the following statements (2021-2025).”

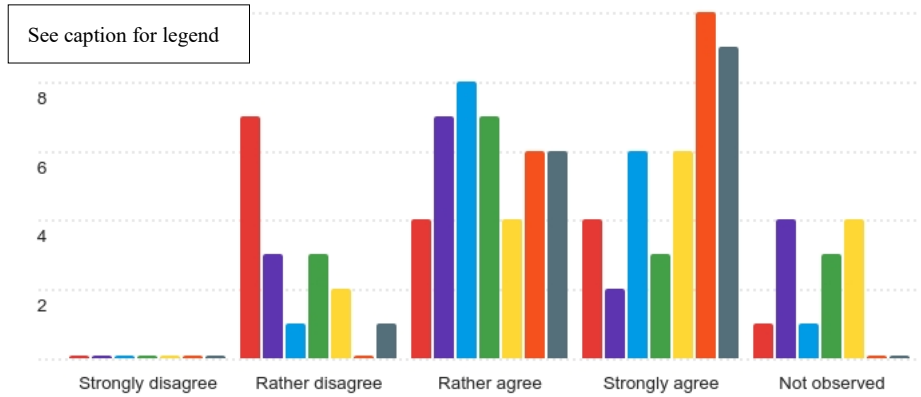


Note: The given statements were: “CTCN’s knowledge-sharing activities effectively addressed your organisation’s needs” (red segment); “The capacity-building support provided by the CTCN strengthened your organisation’s ability to plan, implement, or scale climate-technology solutions” (purple segment); “Participation in CTCN’s networking opportunities facilitated meaningful connections or collaborations that are valuable to your work” (blue segment); “The knowledge and skills gained from CTCN services have had a lasting impact on your organisation’s activities or decision-making processes” (green segment); “CTCN’s services were delivered efficiently and made good use of your time and resources” (yellow segment).

Number of respondents = 9

Figure 39

Graphical overview of responses to the question "How would you assess your experience as a beneficiary in engaging with the CTCN with regard to the following aspects (2021-2025)?"

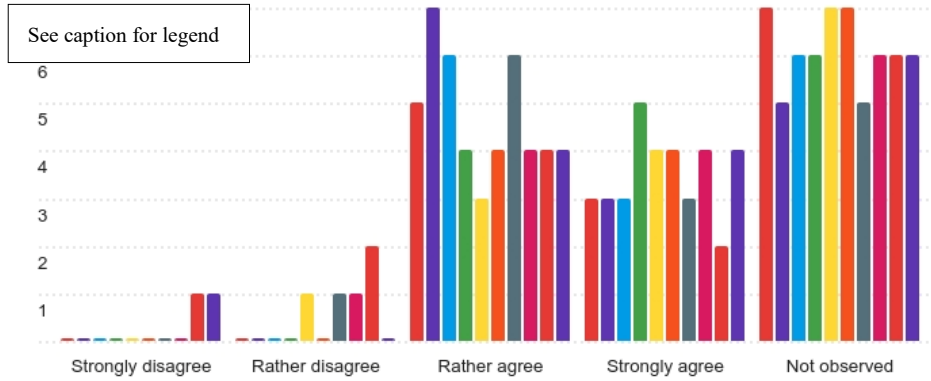


Note: The given statements were: "My organisation regularly receives information from the NDE in my country about CTCN support opportunities and services" (red segment); "The NDE is able to facilitate a smooth interaction with the Network Member from the CTCN" (purple segment); "CTCN services are well aligned with the needs and priorities of my organisation" (blue segment); "The range of CTCN services and its prioritization criteria for the assessment of technical assistance requests is available and clear" (green segment); "Information and updates provided through CTCN digital channels are useful and relevant to my work" (yellow segment); "My organisation intends to engage with the CTCN again for additional TA or other services" (light red segment); "I would recommend other stakeholders to engage with the CTCN for receiving technical assistance and/or other services" (grey segment).

Number of respondents = 16

Figure 40

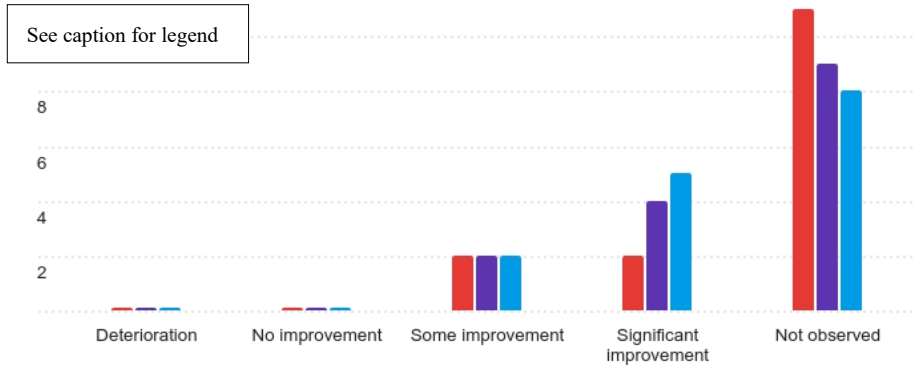
Graphical overview of responses to the question "Within your country, to what extent would you consider that CTCN activities in the last five years supported the following?"



Note: The given statements were: "Policies institutional and regulatory frameworks and planning processes on innovation and strengthening National Systems of Innovation (NSI)" (red segment); "Developing technological transition pathways and options for uptake of climate technologies" (purple segment); "Promoting collaboration and partnerships in climate technology RD&D activities" (blue segment); "Prioritising climate technologies and facilitate the development, implementation of NDC's, TNA's, roadmaps and pilot studies and alignment with the NAPs" (green segment); "Identifying and developing recommendations on approaches, tools and means, for the assessment of technologies at national level" (yellow segment); "Designing policies, regulations and standards that create enabling environments for climate technologies and deliver capacity building" (light red segment); "Enhancing the capacity to plan, monitor, and achieve technological transformation" (grey segment); "Strengthening knowledge and engagement in an inclusive manner and facilitating collaboration among relevant international organisations, the private sector, academia, and civil society" (magenta segment); "Facilitating access to Financial Mechanism of the UNFCCC and mobilising various types of support including pro-bono and in-kind support" (red segment); "Incorporating gender, youth and indigenous peoples' needs and priorities in climate technology developments" (purple segment).

Number of respondents = 15

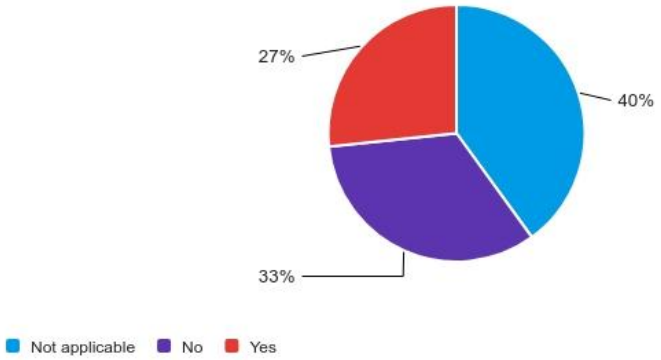
Figure 41
Graphical overview of responses to the question "To what extent have the CTCN's efforts to implement the recommendations from the Second Independent Review of the CTCN resulted in noticeable improvements from 2021-2025 compared to the 2016-2020 period?"



Note: The given statements were: "The CTCN has allocated dedicated resources for the ex-post impact evaluation of technical assistance" (red segment); "NDEs and beneficiaries of technical assistance have been appropriately consulted by the CTCN for the preparation of its current Programme of Work 2023-2027" (purple segment); "The CTCN has reinforced positioning of CTCN as a climate technology matchmaker" (blue segment).

Number of respondents = 15

Figure 42
Distribution of response to the question "Has your organization sustained engagement with the CTCN and/or its Network members after the delivery of the technical assistance?"



Note: Number of respondents = 15

D. Synthesis and comparative results of surveys (2nd vs. 3rd CTCN review and across stakeholder groups)

16. Due to differences in survey design between the 2nd and 3rd CTCN review surveys, including variations in question wording, response scales, and slight differences across stakeholder groups, direct one-to-one comparisons of specific indicators are not always possible. The analysis therefore focuses on identifying broad trends, patterns, and directional changes over time, as well as highlighting consistent findings across stakeholder perspectives where comparability permits. In addition, findings from the beneficiary survey in the 3rd review should be interpreted with particular caution, given the comparatively small and variable number of respondents.

1. Relevance

17. Across both the 2nd and 3rd CTCN review surveys, respondents broadly acknowledge that CTCN services are highly relevant and, in principle, aligned with national priorities and

stakeholder needs. In the 2nd review survey, 85% of NDE respondents considered CTCN activities to be relevant or very relevant, while among beneficiaries 63% assessed activities as rather or very relevant, although 31% indicated that they did not know, pointing to some awareness gaps at the implementation level. Network members in the 2nd review survey also reported strong relevance, particularly in relation to access to tenders, networking opportunities, and the CTCN's technical focus.

18. The 3rd review survey confirms that perceived relevance remains high across stakeholder groups. NDE respondents continue to report strong alignment of CTCN support with national processes and priorities, including NDCs, TNAs, and NAPs. Beneficiaries likewise indicate that technical assistance generally corresponded to important national or organisational needs, and around 95% reported at least a partial understanding of what the CTCN is and the services it provides, although this likely reflects a more engaged subset of beneficiaries rather than a system-wide shift. Network members similarly confirm sustained relevance, with 76% citing commercial opportunities and 79% networking and collaboration as reasons for engagement, broadly consistent with the drivers reported in the 2nd review survey.

19. At the same time, the surveys collectively show that strategic alignment does not always translate into operational relevance in practice. Several respondents across stakeholder groups highlight that budget constraints, surface-level scoping, and limited localisation of technical assistance can weaken practical relevance. Beneficiaries refer to cases where technical assistance was insufficiently adapted to country realities or where foreign consultants lacked contextual knowledge or field presence. NDEs similarly underline a need for more implementation-oriented support, including pilot projects, seed funding, and clearer pathways to finance. Network members also suggest that while the CTCN's vision is relevant and attractive, opportunities to apply expertise remain unevenly distributed and not always well aligned with expressed needs from countries.

20. Some survey findings also point to gaps in practical connectivity and value realisation. Among NDE respondents in the 3rd review survey, around 29% had not submitted a technical assistance request in the last five years, with reasons including lack of resources and perceived misalignment with country needs. Among network members, 38% reported never having contributed to any of the CTCN core services, despite high levels of stated interest in networking and tender opportunities. This suggests that while thematic relevance remains high, practical relevance in terms of activation, access, and actual use of the platform remains uneven.

21. Overall, the survey evidence points to a CTCN that remains strategically well aligned with stakeholder needs across both review periods, but whose operational relevance is not always realised consistently across countries, stakeholder groups, and delivery contexts.

2. Effectiveness

22. The combined survey results paint a picture of mixed but broadly stable effectiveness over time. Across both review periods, respondents consistently recognise that the CTCN contributes positively to capacity building, policy support, planning processes, and enabling environments. In the 2nd review survey, both NDEs and beneficiaries reported contributions to NDC implementation, climate technology planning, and institutional strengthening. For example, around 52% of NDE respondents reported that CTCN activities contributed to NDC implementation and strengthened their ability to support, plan, and monitor climate technology transfer, while beneficiaries reported notable contributions to capacity building and policy and planning processes. Network members also reported positive direct and subsequent effects, such as creating new contacts, developing partnerships, and supporting technology-related planning and enabling environments.

23. The 3rd review survey confirms continued effectiveness across these same areas. Respondents across all three groups report positive contributions to policy and regulatory frameworks, planning and prioritisation processes, capacity development, and stakeholder engagement. Quantitative scores generally fall in the range of 3.3 to 4.1, indicating moderately strong performance. Beneficiaries note good cooperation with CTCN staff, generally appropriate expertise mobilisation, and outputs that broadly correspond to country

needs. NDEs also continue to assess the clarity of request processes and support from the Secretariat positively. Network members highlight continued value in collaboration, matchmaking, and knowledge exchange.

24. However, the surveys also reveal that effectiveness is uneven across levels of intervention and across stakeholder groups. NDE respondents tend to report stronger effectiveness at the system level, especially in relation to national planning, policy development, and enabling conditions. Beneficiaries provide a more mixed picture, with several respondents emphasising that the technical quality of assistance is generally sound but that delivered outputs do not always fully translate into practical implementation benefits. Network members also note that while knowledge-sharing and collaboration functions are useful, opportunities to contribute or engage remain uneven, which limits the breadth of overall effectiveness.

25. A recurring concern across both review periods is that effectiveness is weakened by the same operational factors that affect efficiency: delays, limited localisation, inconsistent NDE involvement, language barriers, and occasional mismatches between expectations and delivered outputs. The 3rd review survey particularly reinforces this point, as respondents repeatedly cite long approval or procurement cycles and insufficient local engagement as factors that reduce the usefulness of outputs or delay their application. While knowledge-sharing and capacity-building activities are generally well received by those who participate, the surveys also suggest that a substantial share of stakeholders do not engage regularly in such services, reducing the breadth of effectiveness.

26. There is also some indication that delivery timelines have lengthened. In the 2nd review survey, just over half of respondents reported that at least one technical assistance request had been fully implemented, while the 3rd review survey suggests that a larger proportion of activities remain ongoing or in the pipeline. This points to a possible shift toward longer implementation periods and more gradual realisation of outcomes.

27. Overall, CTCN effectiveness appears strongest in terms of technical quality, policy relevance, and upstream capacity-building effects, but more uneven at the downstream implementation stage. The overall pattern suggests broad continuity in effectiveness, but with persistent operational frictions that continue to reduce the consistency and depth of realised results.

3. Efficiency

28. Efficiency emerges as the weakest dimension across both survey rounds and across all stakeholder groups. In the 2nd review survey, many respondents already pointed to delays in request processing, procurement, approval, and implementation. At the same time, procedural aspects such as clarity of instructions, prioritisation criteria, and support from CTCN staff were rated positively, particularly by NDE respondents. This suggested that while the process design was understandable and the Secretariat was responsive, the delivery chain was affected by bottlenecks that slowed down implementation.

29. The 3rd review survey confirms and strengthens this finding. Respondents across all three groups continue to rate staff support, availability, and technical guidance positively. NDEs report good experiences with staff responsiveness, clarity of request processes, and support during submission. Network members also rate knowledge-sharing and collaborative support positively, and beneficiaries often acknowledge the quality and helpfulness of technical staff. However, the strongest and most consistent cross-group signal concerns timeliness and process inefficiencies. Delays, slow procurement cycles, long response times, and extended approval periods are repeatedly highlighted as key barriers. These delays often directly undermine effectiveness by making outputs less timely, reducing their relevance to changing contexts, or generating frustration among stakeholders

30. Network members are the most critical group in this regard. Their responses point to persistent inefficiencies in the tendering process, including long processing times, lack of feedback on unsuccessful bids, insufficient transparency on evaluation outcomes, and misalignment between the scope of work and available budget. While many still acknowledge that the process is formally transparent and professionally managed, the repeated references to time lags of several months, limited debriefing, and rigid financial

structures suggest that the current procurement model continues to impose significant transaction costs. Beneficiaries, by contrast, experience inefficiencies more strongly during implementation, including weak communication between stakeholders, delayed initiation of activities, and insufficient clarity regarding follow-up and responsibilities. NDEs emphasise delays in response times and constraints in coordinating requests and implementation under limited resources.

31. Budget–scope mismatch is another shared concern. Beneficiaries and network members frequently report that budgets are too small, too rigid, or insufficiently adapted to on-the-ground realities. NDE respondents also highlight acute resource constraints within their own institutions, including lack of staffing, operational budget, and equipment. These limitations reduce the efficiency of request formulation, coordination, oversight, and dissemination of results. Several network members also point to barriers for smaller organisations and entities from SIDS or underrepresented regions, indicating that inefficiencies are not only procedural but also affect equity of access.

32. Taken together, the survey results suggest that efficiency constraints stem primarily from structural bottlenecks such as procurement systems, budget rigidity, weak NDE resourcing, and under-utilisation of the network rather than from shortcomings in Secretariat staff performance or technical competence. This distinction is important, as respondents across all groups continue to describe CTCN staff as supportive, committed, and technically helpful once services are underway. Overall, survey evidence suggests that efficiency has weakened somewhat between the 2nd and 3rd review surveys, particularly with respect to timeliness, while positive perceptions of process clarity and technical support have remained relatively stable.

4. Impact and Sustainability

33. Across both the 2nd and 3rd review surveys, the CTCN is generally perceived as generating positive impacts, particularly in terms of knowledge, institutional learning, and enabling conditions for climate technology action. In the 2nd review survey, 81% of NDE respondents and 77% of beneficiaries considered that CTCN services had long-lasting and sustainable impacts. Respondents across groups frequently associated CTCN support with stronger technical capacities, improved planning, better understanding of climate technologies, and greater readiness to engage in policy or project development. Network members also reported positive downstream effects in terms of new contacts, partnerships, projects, and exchanges of technical knowledge.

34. The 3rd review survey confirms that these positive impacts continue to be perceived across all stakeholder groups. Beneficiaries report positive lasting effects of knowledge and capacity-building activities, with scores generally in the 3.5–3.8 range. NDEs continue to emphasise CTCN's contribution to national planning and policy processes, especially through TNAs, roadmaps, and climate technology-related support to policy frameworks. Network members similarly report lasting value in knowledge products, capacity-building processes, and collaborative engagement. Respondents also continue to recognise the CTCN as a trusted UN-mandated entry point for technology planning and advisory support.

35. At the same time, both surveys consistently underscore that impact remains positive but limited and uneven. The most recurrent barrier is the absence of implementation financing or structured follow-through after technical assistance. Beneficiaries and NDEs repeatedly stress that many outputs remain "soft", reports, plans, feasibility studies, or advisory products that are useful in themselves but are not linked to funding pathways or concrete implementation mechanisms. Network members echo this concern and call for stronger matchmaking with financiers, more pilot projects, and more operational pipelines from technical outputs to investment. Sustainability is also constrained by limited NDE capacity, high staff turnover, insufficient national coordination, and the lack of systematic post-technical-assistance follow-up.

36. The 3rd review survey also suggests that follow-through remains limited after technical assistance delivery. Among beneficiaries, only a minority report sustained engagement with the CTCN or network members after completion, and similar patterns emerge among network members, where only a limited share report ongoing engagement

with NDEs or beneficiaries after project delivery. This suggests that while the CTCN contributes meaningfully to knowledge uptake, improved institutional coordination, and readiness for climate finance applications, the longer-term durability of these effects often depends on external conditions and follow-up support that remain weak or inconsistent.

37. Overall, the survey evidence suggests that the CTCN clearly adds value in knowledge transfer, policy support, capacity building, and enabling conditions. These are important foundational impacts, and many respondents see them as meaningful and real. However, both review rounds suggest that the translation of these foundational impacts into sustained implementation and scaled transformation remains constrained by structural gaps, especially around financing, implementation support, post-TA follow-up, and country-level institutional capacity. In this sense, the core CTCN model appears to deliver strong enabling impacts, but its long-term transformational potential remains only partially realised.

III. Summary of information gathered during interviews

A. Relevance - Are the strategy and the resources of the CTCN relevant and appropriate regarding priorities given by the Parties and the country-driven needs for support?

1. What are the key differences in the priorities and operation of the CTCN compared to the second PoW? How was relevant information collected to prepare the third PoW? To what extent have NDE needs been assessed, and how was the financial plan prepared (cf. Recommendation 6)? Were lessons from the first and second Programmes of Work identified and taken into account?

38. Interviewees consistently emphasized substantial and meaningful differences between the Second and Third PoW, describing the Third PoW as a structurally clearer, more coherent and more strategically mature framework than its predecessor. Whereas the Second PoW was perceived as broad, activity-oriented, and at times "a list of initiatives without a unifying logic," the Third PoW was repeatedly described as a shift toward a system-level, transformation-focused agenda. Many interviewees noted that its five system transformations, energy systems, industry and business, buildings and infrastructure, mobility, and the water–food–energy nexus, position the CTCN's work more explicitly within the core sectors that countries prioritise in their NDCs, LT-LEDS and national technology roadmaps.

39. Several interviewees stressed that this structural evolution reflects a consolidation of more than a decade of experience: "The Third PoW finally speaks the same language as countries and donors," one interviewee explained, underscoring that the new layout mirrors national planning frameworks, making it easier for NDEs and government ministries to situate CTCN support within national strategies. Respondents also highlighted the introduction of cross-cutting enablers, innovation, digitalisation, and national systems of innovation, as a sign of the CTCN's recognition of systemic barriers that limit climate technology uptake. One interviewee described this as "a move from outputs to enabling conditions," noting that it better captures the realities of implementation.

40. A large number of interviewees viewed the shift toward programmatic and multi-country assistance as one of the most significant differences between the two PoWs. They argued that the CTCN had learned that isolated, single-country technical assistance often struggled to deliver long-lasting transformations: as one respondent noted, "Many countries face the same challenges, and the Third PoW allows the CTCN to work at scale instead of reinventing the wheel every time." Interviewees explained that multi-country work also increases visibility, peer learning, and cross-regional momentum.

41. However, this evolution was not universally welcomed. Interviewees from several stakeholder groups expressed concern that the Third PoW narrows the thematic space too much, limiting flexibility for countries whose needs do not neatly fall within the new clusters. As one interviewee put it, "Some of our real needs fall between the lines of the five transformations." Another noted that "country needs are still only partially integrated,"

arguing that the shift risked making the process more top-down, especially in countries with highly specific or emerging technology needs.

42. Another frequently raised issue was the limited awareness of the detailed content of the Third PoW. A significant number of interviewees admitted they were only familiar with the broad outline of the document: "If you're not in the AB or the Secretariat, you don't really know what's in it." This lack of visibility was seen as a barrier to building strong country ownership and to ensuring that NDEs, network members, and implementing partners can effectively align their engagement with the strategic direction of the PoW.

43. Finally, several interviewees raised more fundamental concerns about the underlying theory of change. One respondent stated that "the biggest issue is that the CTCN theory of change still doesn't fully match country realities," pointing to financial, institutional and political constraints that limit the transformational potential of upstream technical assistance. Others warned that, despite the stronger conceptual foundations, the Third PoW's implementation remains challenged by insufficient and unpredictable funding, staff shortages, and the loss of certain technical capacities following governance changes.

44. Overall, interviews depict the Third PoW as a strategically stronger, more coherent and more forward-looking framework than its predecessor, but one whose realisation depends heavily on improved communication, adequate resourcing, and maintaining sufficient flexibility to meet the diverse and evolving needs of developing countries.

2. To what extent is the third PoW of the CTCN aligned with the guidance from the Parties pertaining to the work of the Technology Mechanism and the CTCN mandate (COP or Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) decisions)? Are revisions needed to respond to the guidance by the Parties?

45. Interviewees widely agreed that the Third PoW is substantively aligned with COP and CMA guidance, reflecting a deliberate effort by the CTCN to integrate expectations expressed by Parties over several negotiation cycles. Many respondents described the Third PoW as "much closer to what Parties have been asking for," citing elements such as strengthened collaboration with the TEC, enhanced support to NDEs, a greater emphasis on innovation, and explicit integration of gender and just transition considerations.

46. A recurrent theme in interviews was the perception that the Third PoW follows the direction provided in key COP/CMA decisions by prioritising systemic transformation and enabling environments. One interviewee stated that the PoW "captures the shift in global discussions from isolated technology deployment to system-wide enabling conditions," referencing mandates from recent CMA decisions encouraging Parties to strengthen innovation ecosystems, digitalisation, and climate-related national systems of innovation.

47. Interviewees repeatedly highlighted the importance of the joint TEC–CTCN Work Programme as evidence of strong alignment with COP/CMA guidance. Several respondents described it as "the clearest signal yet that the two arms of the Technology Mechanism are expected to work together," noting that this joint programme responds directly to guidance issued at COP26–COP29 calling for strengthened coordination and complementarity between the TEC (policy) and the CTCN (implementation). As one interviewee put it, "For the first time, it really feels like a single mechanism with two complementary functions rather than two parallel institutions."

48. However, despite this broad alignment, many interviewees pointed out that implementation capacity remains a critical bottleneck. Several highlighted that "alignment is stronger on paper than in practice," explaining that the Secretariat's limited staffing and unpredictable funding streams make it difficult to operationalise all COP/CMA mandates at the expected scale. One respondent noted that new mandates emerging from COP29 and COP30, particularly those related to the Technology Implementation Programme (TIP), will require further adjustments that the current PoW does not yet fully reflect.

49. A number of interviewees underscored that while the PoW aligns well with high-level guidance, some thematic mandates remain insufficiently captured. For example, respondents pointed to gaps in areas such as support for implementation pathways, private-sector

mobilisation, and the visibility of the Technology Mechanism within broader climate-finance discussions. One interviewee explained that "there is alignment on priorities, but not always on operational modalities," highlighting the need for improved coordination with the Financial Mechanism, especially the GCF and GEF.

50. Despite these challenges, the majority of interviewees expressed confidence that the Third PoW represents a meaningful translation of COP/CMA guidance into a strategic framework. Nonetheless, they emphasised that its success would depend on adequate resourcing, continued strengthening of partnerships, and clearer articulation of how the CTCN will fulfil new mandates emerging from the evolving international climate regime.

3. How relevant were CTCN interventions to the country's context and needs for support (at the time of the review and project development), and within the CTCN mandate? What could be improved in this regard?

51. Interview evidence overwhelmingly confirms that CTCN interventions remain relevant to country needs, primarily because of the request-based and country-driven model at the heart of the mechanism. Across interviews, respondents repeatedly emphasised that "the country-driven model works," noting that the requirement for NDE validation ensures that TA aligns with nationally determined priorities, such as NDCs, NAPs, TNAs and sectoral development plans.

52. Many interviewees highlighted that the CTCN's flexibility allows it to respond to highly diverse country contexts, with interventions ranging from adaptation planning to mitigation technology roadmaps, and from early-stage feasibility assessments to enabling-environment reforms. As one interviewee explained, "The CTCN can work on things that no other actor will fund at an early stage," underscoring the perceived value of upstream, early-phase support.

53. However, interviewees also identified several factors that can weaken relevance in practice. A frequently mentioned challenge relates to delays in procurement and implementation. Several respondents described cases where "by the time the TA starts, the context has changed," noting that new political leadership, revised sectoral strategies, or shifts in donor priorities can reduce the usefulness of TA that is delivered too late. These delays were described as particularly problematic for adaptation-related interventions, where local conditions evolve quickly.

54. Three of the interviewees, noted that country needs are still only partially integrated and priorities driven by top-down processes, even more so with the narrowing of scope of the 3rd PoW, with gaps in alignment between PoW direction and real country needs. Areas for improvement identified by interviewees include the need for more systematic early engagement with national stakeholders during project design, stronger follow-up mechanisms to adapt support as needs evolve, and improved regional inclusion, particularly in Eastern Europe and Central Asia. Some interviewees also noted occasional tendencies to steer countries toward certain themes following capacity-building activities, though such cases were described as infrequent.

55. Another barrier commonly raised was the quality and specificity of requests submitted by countries. Some interviewees noted that the Secretariat sometimes receives weakly formulated requests that do not clearly articulate the problem to be solved or the expected outcomes. As one NDE pointed out, "Countries know what they want, but they don't always know how to express it in a request format." This can result in TAs that are relevant in principle but misaligned with operational realities. Several respondents argued that the CTCN's capacity-building support for NDEs has improved this situation, but gaps remain.

56. Interviewees also noted an emerging concern regarding the influence of broader CTCN programming on the choice of TA requests. A minority of respondents observed that training programmes or thematic initiatives sometimes "shape the demand," creating situations where countries request assistance in areas introduced during regional trainings rather than based on existing national priorities. While interviewees stressed that these cases remain limited, they warned that this dynamic could undermine the purity of the country-driven model if not monitored.

57. Despite these concerns, respondents consistently stressed that CTCN interventions remain highly relevant because they fill a unique niche in the climate-technology landscape. The mechanism's ability to support readiness-type interventions, conceptual studies, enabling frameworks, and feasibility assessments was described as "critical for unlocking larger finance," with one interviewee emphasising that "if the CTCN didn't do this, no one would." The dominant view across interviews is that relevance is strong and structurally embedded, but operational delays, request-formulation challenges, and occasional top-down influences can affect its practical expression.

4. To what extent have recommendations from the Second Independent Review been considered? To what extent have recommendations from other evaluations over the last five years been considered (including findings on the PATM)? Are you aware of any additional reviews or evaluations by the United Nations Industrial Development Organization (UNIDO) regarding the operation of the CTCN from 2021 to 2025? [For donors only] Has your organization conducted any evaluations or reviews during this period?

58. Interviewees consistently acknowledged that the CTCN has taken meaningful steps to address recommendations from the First and Second Independent Reviews, as well as from the Performance Assessment of the Technology Mechanism (PATM). However, they equally stressed that progress remains uneven and, in several areas, slower than Parties expected.

59. Across interviews, respondents widely recognised improvements in resource mobilisation efforts. The hiring of a dedicated resource mobilisation specialist, the development of donor-mapping exercises, and the establishment of task forces were repeatedly cited as evidence that the Secretariat "took the recommendations seriously." Yet, many interviewees noted that results have been limited due to systemic constraints: unpredictable funding cycles, competition with other UN bodies, and insufficient visibility of the Technology Mechanism. One respondent stated plainly: "The structure for resource mobilisation now exists, but the money does not yet follow."

60. Interviewees also observed progress in strengthening support to NDEs, which had been highlighted in earlier reviews as a priority. Respondents mentioned expanded regional forums, more targeted training, and clearer communication materials. Nonetheless, many noted that the improvements remain uneven across regions: "Some NDEs receive excellent support; others still feel alone," explained one participant. Several emphasised that language barriers, staff turnover in ministries, and differing levels of national capacity continue to impede full uptake of NDE-related recommendations.

61. A recurring theme was the persistent gap in ex-post impact assessment. Almost all interviewees highlighted this as "the recommendation that remains largely unimplemented." Although templates and pilot impact-tracking initiatives were developed, these efforts have not yet become systematic. Interviewees pointed to limited staff capacity and competing priorities, particularly the surge in demand for new TA, as the primary reasons. One respondent commented: "The CTCN barely has the staff to deliver current TAs; how can they evaluate old ones?"

62. Governance-related recommendations showed a more mixed picture. Many respondents welcomed the establishment of UNEP's Climate Division, describing it as a positive step toward clearer accountability and communication. Several interviewees noted improved coordination, greater transparency in decision-making, and clearer channels between UNEP and the CTCN. However, residual tensions linked to the UNEP–UNIDO split were cited repeatedly. Some interviewees felt that "the scars of the split are still visible," particularly in relation to institutional memory gaps, staffing disruptions, and unequal clarity of responsibilities.

63. Interviewees also highlighted that several recommendations concerning monitoring, reporting, and the articulation of a clearer theory of change remain only partially implemented. Respondents noted that while the Third Programme of Work offers improved strategic coherence, operational tools, such as results frameworks and indicators, have not yet been fully aligned or updated. One interviewee summarised this as: "The strategy moved forward, but the monitoring system is still catching up."

64. Overall, interview evidence paints a picture of partial but meaningful progress. The CTCN has acted on many recommendations, especially those related to resource mobilisation, collaboration with the TEC, and NDE support. Yet, core structural issues, ex-post evaluation, stable funding, staffing capacity, and certain governance aspects, remain unresolved. These long-standing challenges continue to limit the full implementation of recommendations from earlier reviews.

5. How complementary are CTCN services to policy guidance from the TEC (within third PoW and annual operational plans), the UNFCCC Financial Mechanism (Global Environmental Facility (GEF) and Green Climate Fund (GCF)), and other related climate support programs (provided by bilateral cooperation agencies, development banks, universities and research centres, Non-governmental Organizations (NGOs) or private sector technology providers)?

65. Interviewees consistently described the CTCN as a key complement to other components of the Technology Mechanism and the wider climate-finance architecture. Respondents agreed that the CTCN occupies a unique space in the technology landscape, providing upstream TA, enabling-environment support, and conceptual groundwork needed to unlock larger-scale investments from entities such as the GCF, the GEF, multilateral development banks (MDBs), and bilateral donors. One interviewee summarised this succinctly: “The CTCN helps countries get ready, without that upstream work, the big financiers cannot move.”

66. The AFCIA was cited repeatedly as the strongest example of strategic complementarity. Interviewees highlighted clear roles, well-defined funding windows, and collaborative governance arrangements as reasons why AFCIA is “the partnership that works best.” This partnership was described as particularly successful in supporting smaller-scale or innovative interventions that would be too risky or early-stage for larger financiers.

67. In contrast, collaboration with the GCF and GEF was consistently described as limited or underdeveloped. Several interviewees pointed to structural and institutional barriers, including differing focal-point systems, lengthy approval cycles, and the absence of clear operational linkages between CTCN outputs and investment pipelines. As one respondent explained, “There is complementarity in theory, but in practice the pathways from TA to finance are weak.” Some interviewees emphasised that while national partners appreciate the conceptual studies produced by the CTCN, these deliverables are not always translated into GCF- or GEF-compatible project formulations. Consequently, interviewees noted that the potential for the CTCN to serve as a feeder into major finance windows “remains largely unrealised.”

68. Partnership with the TEC was widely viewed as one of the most positive and strengthened areas of complementarity. Interviewees highlighted the joint TEC–CTCN work programme, co-development of knowledge products, and aligned thematic priorities as important steps forward. One interviewee noted: “For the first time, TEC and CTCN feel like two parts of the same mechanism.” Respondents added that joint messaging, shared events, and structured coordination have improved visibility of the Technology Mechanism overall.

69. Interviewees also mentioned synergies with regional and thematic initiatives, including UN agencies, research institutions, and technical networks. However, partnerships with the private sector and philanthropic organisations remain at an early stage. Several respondents described this as “an untapped opportunity,” noting that innovation and climate-tech ecosystems increasingly rely on private-sector leadership that the CTCN has not fully engaged.

70. Despite these advances, many interviewees stressed the need for a more systematic approach to matchmaking between CTCN-delivered outputs and potential financiers. A frequently repeated observation was that “the CTCN delivers good studies, but the follow-through is missing.” Respondents argued that clearer guidance, closer engagement with national focal points of the GCF/GEF, and stronger coordination with MDBs would significantly improve the pathway from TA to implementation.

71. Overall, interview evidence shows that complementarity between the CTCN, TEC, Financial Mechanism and other initiatives is conceptually strong and improving, but

operational linkages, particularly those related to finance mobilisation, remain weak. Interviewees emphasised that strengthening these pathways is essential to unlocking the full transformational potential of CTCN support.

6. To what extent have partnerships been developed? Have potential synergies (whether on-going or completed) been optimized, and how can they be improved?

72. Interviewees consistently highlighted that while the CTCN has established a broad network of partners and collaborations, there remains substantial untapped potential to strengthen partnerships, deepen synergies, and expand the mechanism's strategic reach. Respondents described the partnership landscape as "rich but underleveraged," noting that many actors view the CTCN positively but engage only intermittently or at a technical level.

73. Stakeholders repeatedly emphasised that the CTCN's collaboration with the TEC has become one of the most successful partnerships, particularly since the launch of the joint TEC–CTCN Work Programme. Interviewees described this relationship as "the strongest it has ever been," citing improved coordination, co-development of knowledge products, and clearer thematic alignment. One respondent noted that "the TEC sets the policy direction, and the CTCN now follows through more effectively," reflecting an enhanced division of labour across the Technology Mechanism.

74. Beyond the TEC, respondents pointed to numerous partnerships that show promise but remain insufficiently developed. Collaborations with UN agencies, regional climate centres, and research institutions were seen as valuable but lacking structure. Several interviewees stated that the CTCN "needs a more systematic approach to partnerships," explaining that current collaborations often depend on personal relationships or project-level opportunities rather than a strategic framework. This was viewed as a missed opportunity, especially in regions where strong institutions could help scale CTCN activities.

75. Private-sector engagement emerged consistently as the area with the greatest room for improvement. Many interviewees stressed that the CTCN has not yet fully tapped into global climate-tech ecosystems, innovation hubs, or industrial partners. As one interviewee remarked, "If innovation is now central to the PoW, then the private sector must be central too." Respondents argued that deeper private-sector involvement could improve technology matchmaking, enhance innovation pipelines, and strengthen investment pathways, particularly for mitigation-oriented activities.

76. Interviewees also noted significant opportunities for the CTCN to expand its collaboration with philanthropic organisations and global climate initiatives. Some respondents observed that philanthropic actors increasingly fund early-stage innovation, precisely the stage at which the CTCN operates: "There is a natural alignment, but it hasn't been pursued yet," one interviewee commented.

77. A recurring theme across interviews was the need for stronger matchmaking functions. Many respondents argued that although the CTCN produces high-quality technical outputs, these outputs often struggle to connect with actors who can finance or implement follow-on activities. One interviewee summarised this gap by saying: "The CTCN delivers the upstream work, but the downstream bridge is missing." Strengthening relationships with the Financial Mechanism, MDBs, and regional development banks was repeatedly mentioned as essential to closing this gap.

78. Finally, some interviewees highlighted the potential for greater South–South and triangular cooperation through the CTCN's Network membership. Respondents pointed out that many Network members in emerging economies possess world-class expertise, yet their involvement in TA delivery remains limited. Developing structured mechanisms to mobilise this expertise was described as an "underused asset."

79. Overall, interview evidence suggests that while the CTCN maintains a broad and diverse set of partnerships, the transformative potential of these relationships has not yet been fully realised. Stakeholders stressed that the mechanism could greatly enhance its impact by adopting a more strategic, structured, and proactive approach to partnerships, particularly with private-sector actors, financiers, philanthropic organisations, and high-capacity developing-country institutions.

B. Effectiveness - Have the mission and functions of the CTCN been effectively performed in terms of TA, knowledge management, capacity building, scaling up, and stakeholder engagement related to technology development and transfer?

1. To what extent has the CTCN effectively supported actions and activities aligned with its mandate? How timely and cost-effective have the following activities been deployed:

- TA on policies, institutional and regulatory frameworks, and planning processes for innovation?
- TA in developing technological transition pathways for the uptake of climate technologies?
- Promoting collaboration and partnerships in climate technology R&D activities?
- Prioritizing climate technologies and facilitating the development and implementation of NDCs?
- Identifying and developing recommendations on approaches, tools and means for the assessment of technologies?
- Designing policies, regulations, and standards that create enabling environment for climate technologies and achieve technological transformation.
- Strengthen knowledge and engagement in an inclusive manner and facilitate collaboration among relevant international organizations, the private sector, academia, and civil society.
- Facilitating access to Financial Mechanism of the UNFCCC and mobilize various type of support including pro-bono and in-kind support.

80. Interviewees consistently emphasized that the effectiveness of CTCN support depends primarily on the relevance, clarity, and feasibility of the TA request submitted by countries. Respondents noted that well-defined, context-specific requests tend to result in higher-quality outputs, stronger national ownership, and more tangible follow-up actions. As one interviewee summarized, “when the request is clear and grounded in a real national need, the TA almost always works well.”

81. A recurring strength highlighted across interviews is the CTCN’s ability to respond flexibly to diverse country contexts, ranging from least developed countries with limited institutional capacity to middle-income countries seeking advanced technical or sectoral analyses. This flexibility was seen as a distinctive comparative advantage, particularly for early-stage interventions where few other organizations are willing or able to engage. One respondent noted that “the CTCN fills a gap no one else is filling, especially for upstream and conceptual work.”

82. However, several interviewees pointed to constraints that reduce the overall effectiveness of TAs. The most frequently cited issue was the limited scale and duration of support: the small budget envelopes available for each TA often restrict the scope of analysis or limit the depth of engagement with stakeholders. According to one expert, “the TA is usually good, but too small to achieve what the country ultimately needs.”

83. Another limiting factor raised in interviews concerns procurement and implementation delays. Respondents explained that lengthy procurement processes can postpone the start of activities by several months, diminishing the TA’s relevance and sometimes forcing adjustments to the original design. Multiple interviewees indicated that “by the time implementation begins, the country context has changed,” which affects both the effectiveness and perceived impact of the assistance.

84. Interviewees also highlighted variability in the performance of implementing partners. While some partners were described as “excellent, knowledgeable, responsive, and grounded in country realities,” others were criticized for delivering overly generic outputs or insufficiently engaging with national stakeholders. This variability suggests that although the network model enables diversity and specialization, it also introduces inconsistency in delivery quality.

85. Finally, interviewees stressed the importance of national ownership and engagement throughout the TA lifecycle. Effective TAs were consistently associated with strong NDE involvement, robust stakeholder participation, and clear pathways for integrating outputs into ongoing national processes or investment plans. One participant emphasized, "the TAs that work best are the ones where the country team is fully committed and sees the work as part of their national agenda."

86. Overall, interview evidence portrays CTCN support as generally effective, especially when requests are well-formulated and when implementation proceeds without major delays. Yet structural limitations, including small TA budgets, procurement timelines, and inconsistent performance across implementing partners, continue to constrain the mechanism's full effectiveness.

87. Interviewees repeatedly highlighted that timeliness and cost-effectiveness are two of the most significant determinants of how effective CTCN TA is in practice. While many respondents praised the quality and relevance of the outputs, they also stressed that delays in procurement and implementation, combined with the small size of TA budgets, often reduce the overall value and impact of the support.

88. Across interviews, stakeholders emphasised that procurement-related delays remain the most widespread obstacle to timely delivery. Several interviewees described situations where "the procurement phase alone took longer than the TA itself," noting that multi-month delays are common and, in some cases, exceed a year. These delays were seen as particularly problematic for interventions linked to fast-moving policy processes or political cycles. One interviewee explained: "By the time the consultant arrived, the ministry had already changed its priorities." Respondents stressed that these lags undermine the perceived effectiveness of the mechanism, even when the technical quality remains high.

89. Despite these challenges, many interviewees acknowledged that once implementation begins, delivery is generally smooth and efficient. Several respondents described CTCN implementers as "highly competent and responsive," highlighting that the mechanism's small and focused budget envelopes encourage pragmatic, targeted use of resources. As one expert put it: "The TAs are small, but they are lean, they get straight to the point."

90. However, stakeholders consistently noted that the limited budget available for each TA constrains both the scope and the depth of the work. Respondents observed that TA envelopes (typically around USD 150,000 or less) often make it difficult to engage in extensive stakeholder consultations, field visits, or robust modelling work. One interviewee remarked: "The outputs are good, but they could be great with just a bit more money and time." Others stressed that these constraints place pressure on implementers to produce comprehensive deliverables on tight budgets, contributing to variability in quality.

91. Interviewees also emphasized the cumulative effect of delays, small budgets, and rigid timelines on cost-effectiveness. In several cases, delays forced implementers to adjust workplans or compress delivery schedules, reducing the efficiency of the process. As one respondent noted: "A TA that should take six months ends up taking two years, the cost-effectiveness naturally suffers." Stakeholders stressed that improving procurement speed would significantly enhance both timeliness and value for money.

92. Despite these obstacles, a number of interviewees praised the CTCN for delivering outputs that are "excellent value for the cost," particularly when compared to larger multilateral institutions. Respondents highlighted that the mechanism is able to mobilise specialised expertise at relatively low cost, and that the Secretariat's oversight model keeps administrative expenses contained. One participant commented: "You get a high-quality report for a fraction of what the same work would cost under a GEF or GCF project."

93. Overall, interview evidence shows that while CTCN TAs are generally cost-efficient and technically strong, systemic delays and limited budget envelopes often undermine timeliness and reduce the overall effectiveness of delivery. Stakeholders agree that addressing procurement bottlenecks would be the single most impactful improvement to enhance the mechanism's efficiency and performance.

94. Interviewees consistently underscored that collaboration with NDEs is one of the most decisive factors shaping the overall effectiveness of CTCN TA. Strong NDE engagement

was repeatedly described as "the backbone of an effective TA," while weak engagement was cited as the most common reason for implementation difficulties.

2. To what extent have efforts to enhance collaboration between NDEs and strengthen capacity-building support for improved TA been successful? (cf. Recommendation 5)

95. Across interviews, respondents emphasized that TAs tend to be most successful when NDEs take an active leadership role, coordinating national stakeholders, validating outputs, facilitating access to ministries, and ensuring alignment with broader national processes. One interviewee noted, "When the NDE is present and driving the process, everything moves faster and lands better." Another added that NDEs act as "critical translators between the CTCN and the national context," bridging institutional and political realities that external implementers cannot easily navigate.

96. However, interviewees pointed to considerable variability in NDE capacity, authority, and stability across countries. Several respondents explained that in some countries the NDE is a high-level ministry with strong convening power, while in others it may be a single individual with limited mandate or resources. One participant described this disparity as "the difference between having a champion and having a mailbox." This variation has a direct impact on effectiveness: TAs delivered in countries with strong NDEs tend to exhibit higher ownership, smoother implementation, and clearer pathways for follow-on action.

97. Frequent staff turnover within NDEs was repeatedly highlighted as a major obstacle. Interviewees cited cases where an NDE focal point changed mid-TA, resulting in lost institutional memory, delays in decision-making, or diminished political interest. As one respondent put it, "When the NDE changes, the TA almost resets." These disruptions were said to be particularly damaging in interventions involving multiple ministries or requiring sustained political engagement.

98. Interviewees also highlighted challenges experienced by NDEs themselves. Several respondents noted that many NDEs face resource constraints, competing responsibilities, and limited technical expertise in specialised areas. As a result, some NDEs struggle to provide timely feedback, organise stakeholder consultations, or ensure that TA recommendations are integrated into national planning processes. One interviewee observed that "NDEs know what they want, but not always how to guide the process," pointing to continued need for capacity-building.

99. Another frequently mentioned issue was the mismatch between NDE expectations and the reality of CTCN TA budgets and timelines. Respondents reported that some NDEs anticipate project-level interventions or infrastructure investments, leading to disappointment when they receive conceptual or enabling-environment support instead. Managing expectations was therefore identified as essential to maintaining trust and ensuring productive collaboration.

100. Despite these challenges, interviewees expressed strong appreciation for the role of NDEs and emphasized that strengthening NDE capacity would have a disproportionately positive effect on the effectiveness of CTCN support. Suggestions included enhanced training, more regular communication, better onboarding for new focal points, and structured regional peer-learning platforms.

101. Overall, interview evidence shows that NDE engagement is a critical success factor for the effectiveness of CTCN TAs. Effective collaboration enables smoother implementation, stronger national ownership, and greater prospects for follow-on action. Conversely, weak or inconsistent NDE involvement, due to capacity constraints, institutional instability, or misaligned expectations, remains one of the most significant barriers to achieving high-quality and impactful results.

102. Despite these challenges, many interviewees acknowledged that once implementation begins, delivery is generally smooth and efficient. Several respondents described CTCN implementers as "highly competent and responsive," highlighting that the mechanism's small and focused budget envelopes encourage pragmatic, targeted use of resources. As one expert put it: "The TAs are small, but they are lean, they get straight to the point".

3. To what extent has the CTCN reinforced its role as a climate technology matchmaker between technology providers within the CTCN and existing centres, networks and institutions, over the past five years? (cf. Recommendation 7)

103. Interviewees repeatedly emphasized that the CTCN's matchmaking role, connecting countries with appropriate technical expertise, financial partners, and implementation pathways, is one of the most important yet most constrained dimensions of its effectiveness. While respondents expressed appreciation for the Secretariat's efforts to identify qualified implementers, nearly all interviewees agreed that the current matchmaking functions fall short of what countries need to translate TA into tangible implementation outcomes.

104. Across interviews, stakeholders described CTCN matchmaking as strong in identifying technical experts but significantly weaker in linking TA outputs to financing opportunities. One interviewee explained: "The CTCN is good at finding the right consultants, but not at helping countries take the next step." Several respondents highlighted that although TA outputs are often of high quality, they do not consistently feed into GCF, GEF, or bilateral project pipelines because the CTCN lacks structured mechanisms to connect its work to major financiers. This was repeatedly described as "the missing bridge" in the delivery chain.

105. Interviewees consistently cited the absence of sustained engagement with the Financial Mechanism as a key bottleneck. While some initiatives, such as the AFCIA, were praised as promising models, respondents noted that no equivalent, systematic pathways exist for moving TA results toward GCF or GEF funding windows. One participant summarised the issue: "There is no one to catch the ball after the TA ends." Others stressed that differing institutional logics, focal point systems and timelines between the CTCN and the Financial Mechanism impede meaningful alignment.

106. Stakeholders also pointed to challenges in the selection and mobilisation of Network members. While the diversity of the Network was broadly viewed as a strength, several interviewees indicated that the CTCN struggles to actively and consistently mobilise high-quality members, especially in specialised sectors. One respondent noted: "There are excellent organisations in the Network, but many never get called." Others observed that the process for selecting implementers can be slow or insufficiently transparent, contributing to variability in delivery quality.

107. Interviewees further highlighted that the current matchmaking systems do not fully leverage opportunities for South–South and triangular cooperation. Several respondents emphasised that institutions in emerging economies possess substantial technical expertise that could benefit other developing countries. However, these potential partnerships are not systematically promoted. As one interviewee remarked: "There is so much expertise in the Global South, but the system is not set up to use it."

108. Despite these challenges, respondents acknowledged several examples where matchmaking worked well, especially when TAs were linked to broader national strategies or when the CTCN engaged early with relevant ministries. In such cases, interviews indicated that downstream impacts were more likely, as ministries were better positioned to integrate TA outputs into sector plans, regulatory reforms or investment proposals.

109. Overall, interview evidence shows that while the CTCN's matchmaking role has produced positive results in identifying technical expertise, it has not yet fulfilled its potential as a mechanism for connecting countries to finance and implementation partners. Stakeholders consistently emphasised that strengthening this function, through clearer pathways to the Financial Mechanism, more active mobilisation of Network members, improved transparency, and enhanced South–South cooperation, would significantly increase the effectiveness and long-term impact of CTCN support.

4. To what extent has the CTCN improved reporting and evaluation of its impact (e.g., through a monitoring and evaluation (M&E) framework and ex-post evaluations of TAs)? How effectively had it communicated its impacts to the AB (e.g., through quarterly dashboards on progress on strategic KPIs) and donors (e.g., during an annual donor forum)? Have ex-post evaluations of TA been conducted? Have resources been allocated for regular ex post impact evaluations? (cf. Recommendation 2)

110. Interview evidence strongly underscores that monitoring, evaluation, and reporting (M&E) systems within the CTCN remain underdeveloped, inconsistently applied, and insufficiently resourced, significantly limiting the mechanism's ability to systematically track effectiveness, demonstrate results, and support evidence-based improvements.

111. Across interviews, stakeholders consistently described M&E as "the weakest part of the CTCN delivery chain." Respondents noted that although the Secretariat has made efforts in recent years to strengthen M&E, such as developing templates, piloting new reporting tools, and aligning metrics with the Third PoW, these developments remain at an early or incomplete stage. One interviewee summarised this gap plainly: "There is monitoring, but not a real M&E system."

112. A recurrent theme was the lack of systematic ex-post assessment of completed TA. Interviewees repeatedly highlighted that although previous independent reviews recommended establishing a regular, structured approach for tracing outcomes and impacts, this has not yet materialised in practice. As one respondent noted, "Once the TA report is delivered, the CTCN disappears from the story," emphasising that the mechanism does not routinely follow up on whether recommendations were adopted, whether enabling-environment reforms progressed, or whether downstream funding was mobilised.

113. Several interviewees linked this gap directly to staffing and resource constraints. Many observed that the Secretariat's lean structure forces staff to prioritise the delivery of new TAs over follow-up, resulting in reactive rather than systematic M&E. One interviewee commented: "They barely have enough staff to manage ongoing requests; there is no capacity left to track past ones." Respondents emphasised that the absence of a dedicated M&E function at the Secretariat level limits the CTCN's ability to demonstrate long-term contributions and lessons learned.

114. Interviewees also identified challenges in how progress is reported to Parties. Several described reporting as "too activity-focused," noting that current systems highlight outputs (e.g., number of TAs, workshops, participants) rather than outcomes or impacts. A few respondents expressed concern that this creates an incomplete picture of performance: "Counting activities is not the same as tracking change," one participant explained.

115. Another commonly cited issue was the limited integration of M&E into TA design. Stakeholders reported that implementers often develop indicators late in the process or rely on generic metrics that do not capture meaningful progress. This was attributed partly to the small TA budget envelopes, which restrict the time and resources available for robust M&E, and partly to the lack of clear, standardised templates guiding implementers. One interviewee stated: "Every TA reinvents its own indicators, so we cannot compare results."

116. Despite these shortcomings, interviewees acknowledged emerging improvements. Stakeholders praised recent efforts to harmonise reporting under the Third PoW, expand the use of results frameworks, and pilot new impact-tracking tools. Respondents emphasised that these initiatives are promising but remain at an early stage, requiring stronger institutional anchoring, clearer accountability, and dedicated resourcing to be fully effective.

117. Overall, interview evidence paints a consistent picture: the CTCN's M&E systems are improving but remain insufficient to fully support the mechanism's mandate. Strengthening M&E, especially ex-post assessment, standardised indicators, and outcome-level reporting, was consistently identified as one of the highest-impact reforms needed to enhance the effectiveness, transparency, and strategic learning of CTCN support.

5. What major factors have influenced the achievement/non-achievement of targeted output (successes and challenges)? How can the organization of events, trainings, TA, and information dissemination be enhanced for greater impact?

118. Interview evidence highlights several success factors and barriers that influence the overall effectiveness of CTCN TA, cutting across institutional, operational, and contextual dimensions. Respondents consistently emphasised that while the CTCN model is fundamentally sound, its effectiveness is shaped by conditions largely outside the Secretariat's immediate control.

119. A key success factor repeatedly identified in interviews is strong national ownership. Effective TAs almost always occurred in contexts where national stakeholders, including NDEs, line ministries, and technical agencies, were actively engaged. One interviewee noted: "The best TAs are the ones where the country sees the work as theirs, not as a consultant report." High ownership enabled smoother coordination, better data access, and stronger uptake of recommendations.

120. Another major enabling factor is early and continuous engagement with relevant national institutions. Several interviewees explained that when ministries and agencies are involved from the design stage, the TA is more likely to align with ongoing policy processes or forthcoming investment projects. Respondents stressed that early engagement reduces the risk of misalignment or duplication.

121. The selection of capable implementing partners was also cited as essential. Interviewees praised cases where implementers were "technically strong, responsive, and grounded in local realities." These implementers were able to adapt the TA to local contexts, anticipate challenges, and provide practical recommendations. Conversely, weak implementer performance was frequently mentioned as a barrier. Respondents pointed to instances where consultants delivered generic outputs, insufficient consultations, or overly theoretical analyses, reducing the usefulness of the TA.

122. Stakeholder participation emerged as both a success factor and a barrier. Broad and inclusive consultation processes helped ensure that outputs reflected the perspectives of all relevant actors. However, interviewees explained that limited participation, due to political sensitivities, institutional rivalries, or stakeholder fatigue, reduced the TA's relevance and credibility. One respondent explained: "When key ministries are missing from the table, the TA loses half its impact."

123. Resource constraints were repeatedly cited as a major barrier. Small TA budgets limited the depth of analysis, reduced the feasibility of extensive fieldwork, and constrained the ability to produce robust scenario modelling or comprehensive feasibility studies. Interviewees consistently noted that while the CTCN delivers high value for money, "the budget is too small for the ambition." These constraints also affected implementers' ability to provide capacity-building or sustained engagement.

124. Time constraints and procurement delays were also identified as critical barriers. As mentioned across multiple interviews, delayed procurement often pushed implementation into periods when priorities had shifted. Respondents emphasised that timeliness is essential to effectiveness and that delays reduce both relevance and downstream impact.

125. Institutional instability emerged as another recurring barrier. Staff turnover within NDEs, shifting political priorities, and changes within the CTCN's own governance structure created disruptions that undermined continuity. Interviewees highlighted that "political cycles move faster than TA cycles," creating mismatches between national needs and CTCN timelines.

126. Finally, interviewees pointed to systemic constraints linked to the broader climate-finance architecture. Respondents emphasised that even high-quality TAs struggle to translate into implementation when there is no clear pathway to funding. As one interviewee put it: "The TA can be excellent, but if there's no funding after, the impact stops on paper."

127. Overall, interview evidence suggests that the effectiveness of CTCN support depends on a combination of strong national engagement, capable implementers, inclusive processes, and timely delivery. However, persistent barriers, including limited budgets, procurement

delays, institutional instability, and weak financing pathways, continue to limit the transformational potential of otherwise high-quality technical assistance.

6. Has the CTCN been flexible so that it can learn, adapt and adjust its scope and reach over time in response to the technology needs of developing countries and the demands of the emerging international climate change regime? To what extent the CTCN has taken action to respond to the guidance by the Parties to enhance its effectiveness (see previous COP and CMA decisions), including in supporting the implementation of the Paris Agreement (as part of the PATM)? How can it be adapted in the future to such changes?

128. Interview evidence indicates that the CTCN has shown a notable degree of flexibility over time, progressively adapting its scope, processes, and thematic focus in response to evolving Party guidance, shifting technology needs of developing countries, and broader changes within the international climate regime. However, stakeholders consistently emphasized that while the CTCN has demonstrated willingness to learn and adjust, its ability to fully operationalize this flexibility has been constrained by systemic factors, including funding unpredictability, administrative bottlenecks, and limited staff capacity.

129. Across interviews, respondents highlighted that the CTCN has become more responsive to emerging technology needs through a pattern of iterative adaptation. Several interviewees noted that the Secretariat has increasingly incorporated lessons from previous cycles into updated service offerings, improved request-assessment processes, and greater emphasis on system-level transformations introduced under the Third PoW. One interviewee said: “The CTCN has learned to shift with the landscape, it listens more than before.”

130. Stakeholders repeatedly emphasized that Party guidance, particularly through COP and CMA decisions, has played a central role in shaping this evolution. Respondents pointed to several examples of the CTCN responding to guidance, including:

(a) Strengthened collaboration with the TEC and adoption of a joint work programme;

(b) Enhanced focus on innovation, digitalization, and enabling environments;

(c) Greater attention to least developed countries (LDCs), SIDS, and gender responsiveness;

(d) Alignment with the Paris Agreement through the PATM mandate, including support for long-term strategies, NDC implementation, and early-stage technology planning.

131. Interviewees widely recognized that these adaptations reflect genuine institutional learning. They noted improvements in communications, more structured guidance for NDEs, clearer thematic priorities, and the ability to integrate new mandates (e.g., capacity-building on innovation ecosystems). Respondents described the CTCN as “learning by doing,” adjusting technical scopes as new needs emerge.

132. Nevertheless, interviewees consistently stressed that flexibility is limited by external constraints, most notably financing and procedural rigidity. Many explained that short-term, voluntary contributions reduce the Secretariat’s ability to undertake strategic adaptation or expand services. As one respondent put it: “They want to adapt, but the resources don’t follow.” Others highlighted that UNEP administrative procedures hamper agility, slowing the incorporation of new workstreams.

133. Regarding how the CTCN has adapted to support implementation of the Paris Agreement, respondents cited:

(a) Increased focus on long-term planning, including LT-LEDS and sectoral roadmaps;

(b) Greater emphasis on technologies tied to mitigation and adaptation priorities identified in NDCs;

(c) Expanded support for cross-cutting issues such as data systems, MRV, and policy coherence.

134. Interviewees noted that PATM-related mandates strengthened the CTCN's integration with global climate processes, but again emphasized that depth of implementation is limited by financial and staffing constraints.

135. On future adaptation, interview evidence points to several areas where the CTCN could strengthen flexibility and responsiveness:

(a) Establishing more robust and predictable funding to plan multi-year adjustments;

(b) Streamlining administrative and procurement systems to allow faster adaptation;

(c) Enhancing regional presence to better track emerging needs and provide real-time support;

(d) Deepening private-sector engagement, especially for emerging technologies;

(e) Expanding partnerships to leverage finance, innovation, and technical networks;

(f) Strengthening M&E to capture lessons systematically and inform adaptive management.

136. Overall, interview evidence shows that while the CTCN has demonstrated meaningful flexibility and responsiveness to Party guidance and evolving technology needs, its full adaptive potential remains unrealized due to structural constraints. Reinforcing institutional mechanisms for learning, securing stable financing, and expanding regional and partnership capacities were repeatedly highlighted as key priorities for enhancing future effectiveness.

7. Which challenges and lessons learned have emerged from the implementation of CTCN's PoWs and the performance of its functions? To what extent has the CTCN overcome challenges and incorporated lessons learnt in its work and how?

137. Interview evidence shows that implementation of the CTCN's Programmes of Work (PoWs) has generated a consistent set of operational, strategic, and institutional challenges. At the same time, stakeholders acknowledged that the CTCN has progressively incorporated lessons learned, though the depth and consistency of this adaptation vary due to structural constraints such as funding instability, administrative bottlenecks, and limited staffing.

138. A major challenge identified across all PoWs relates to procurement delays and administrative rigidity. Interviewees repeatedly described UNEP's multi-layered approval procedures as a core barrier to timeliness, with several noting that procurement often took longer than TA implementation itself. These delays affected responsiveness, reduced relevance, and constrained the ability to iterate and learn. Stakeholders emphasized that while the Secretariat has streamlined internal coordination, it remains dependent on systems that are not adapted to rapid technical assistance delivery.

139. Another challenge consistently mentioned was unpredictable and insufficient funding. As PoWs expanded in ambition, especially with the Third PoW's focus on system transformations, innovation, and regionalisation, resources did not increase proportionally. Many interviewees noted that "the mandate grew but the budget did not," limiting the CTCN's ability to scale learning-informed improvements or respond flexibly to emerging country needs.

140. Staff capacity also emerged as a persistent lesson. Stakeholders described the Secretariat as highly capable but overstretched, responsible for a growing portfolio of TA, capacity-building, fundraising, partnership management, and reporting functions. High turnover and reliance on temporary contracts weakened institutional memory, making it difficult to embed lessons learned systematically.

141. Interviewees highlighted that earlier PoWs lacked strategic coherence, with TAs delivered as isolated studies rather than integrated components of broader transformation efforts. This lesson directly informed the development of the Third PoW's five system transformations, which stakeholders widely praised as a clearer, more strategic framework.

Several respondents described this evolution as "a direct result of learning from what did not work before."

142. Improving coordination with the TEC was another key area of learning. Earlier challenges related to duplication and unclear division of labour led to the creation of the joint TEC–CTCN Work Programme, viewed as a major institutional improvement that strengthened coherence across the Technology Mechanism.

143. Stakeholders also noted improvements to engagement with NDEs, another domain where lessons have been progressively incorporated. Over time, the CTCN has offered more structured guidance, clearer templates, and enhanced capacity-building to improve request formulation. Multi-country forums, peer exchanges, and targeted workshops addressed earlier gaps in NDE capacity and coordination.

144. However, interview evidence showed that not all lessons have been fully integrated. The absence of systematic ex-post evaluation remains one of the most cited obstacles to institutional learning. Without a structured mechanism to assess outcomes after TAs conclude, learning is often anecdotal and not embedded into standard procedures. Similarly, monitoring frameworks remain output-focused, limiting their usefulness for adaptive management.

145. Partnerships and matchmaking also reflect partial learning uptake. While new approaches such as network fairs and multi-country TAs improved collaboration, many interviewees emphasized that engagement with private-sector and regional institutions remains insufficient, limiting opportunities for scaling and replication.

146. Overall, the CTCN has clearly demonstrated the ability to learn and adapt, reflected in stronger NDE engagement, clearer strategic framing, improved collaboration with the TEC, and more structured processes for TA design. However, its capacity to fully overcome challenges is constrained by structural issues beyond its control. Stakeholders emphasized that institutionalizing learning would require stronger M&E systems, stable multi-year financing, streamlined administrative procedures, and expanded staffing to sustain adaptive practices.

C. Efficiency - Has the CTCN been efficient in its mission, the performance of its functions and the deployment of its activities and services?

1. To what extent have CTCN governance structures (AB, hosting organization, etc.) ensured responsiveness to COP decisions and improved communication with UNFCCC, TEC, and between host agency and CTC Secretariat – cf. Recommendation 3)? How have the changes in governance (from co-hosting by UNEP and UNIDO to a single hosting entity and the launch of the CTCN Partnership and Liaison Office in Songdo) impacted CTCN's operations and performance?

147. Interview evidence consistently shows that governance responsiveness, particularly the clarity, speed, and reliability of decision-making from UNEP and the CTCN Secretariat, has a significant influence on the efficiency of CTCN operations. Stakeholders repeatedly emphasized that governance structures have improved compared to earlier programme cycles, but that persistent bottlenecks still slow down essential processes, especially those relating to approvals, procurement, staffing, and coordination with partner UN agencies.

148. Across interviews, respondents highlighted that the creation of UNEP's Climate Division brought greater strategic coherence and improved internal coordination. Several interviewees described this reform as "a turning point," noting better communication flows, clearer oversight, and more structured interaction between UNEP and the CTCN Secretariat. According to one participant, "decisions are more consistent now, and the Secretariat knows who to go to," reflecting improved organisational clarity.

149. However, interviewees also noted that despite these improvements, governance processes remain slower and more bureaucratic than the mechanism requires. Many respondents pointed out that UNEP's internal procedures, particularly the multi-layered

approval steps, are not well adapted to the CTCN's operational model, which depends on rapid mobilisation of expertise. One interviewee explained: "The system works, but it works at UNEP speed, not at the speed countries need." This was echoed by respondents who stressed that long approval chains lead to delays in contracting, procurement, and hiring.

150. A recurring concern raised in interviews was the persistent lack of sufficient delegated authority to the CTCN Secretariat. Respondents noted that even routine decisions often require escalation within UNEP, contributing to bureaucratic lags. One interviewee remarked: "The Secretariat is accountable for results, but not fully empowered to act," highlighting a mismatch between responsibility and authority.

151. Interviewees also mentioned that the governance relationship between UNEP and UNIDO, following the restructuring of the Joint Implementation Unit, continues to produce inefficiencies. Although the shift to UNEP leadership improved clarity, respondents noted that institutional memory gaps and uneven communication still cause friction. Some interviewees highlighted delays caused by coordination with UNIDO on legacy TAs or network-related processes.

152. On the positive side, several respondents praised the Secretariat's responsiveness once internal approvals were obtained. Stakeholders noted that the small size of the Secretariat allows for swift operational follow-up, efficient troubleshooting, and close engagement with implementers and NDEs. One participant noted: "Once the process is cleared, the Secretariat moves quickly, they are not the bottleneck." This distinction, slow governance but fast Secretariat operations, appeared consistently across interviews.

153. Overall, interview evidence suggests that governance responsiveness is improving, but structural and procedural constraints within UNEP continue to limit operational efficiency. Strengthening delegated authority, streamlining approval chains, and clarifying roles, especially in relation to UNIDO and internal UNEP units, were repeatedly identified as essential steps to enhance efficiency and reduce delays in TA delivery.

2. To what extent were enough financial resources mobilized? How effectively has the CTCN identified additional financial resources (e.g., UNEP collaboration, private sector and philanthropic opportunities)? To what extent has it increased technical and financial support and facilitated access to the UNFCCC Financial Mechanism (i.e., GCF and GEF)? How well has the CTCN mobilized pro-bono and in-kind support? Were financial resources allocated efficiently, and was the resource mobilization strategy effective? To what extent have funding sources been diversified (cf. Recommendation 1)?

154. Interviewees consistently emphasised that the adequacy, predictability, and mobilisation of financial resources constitute one of the central determinants of the CTCN's operational efficiency. While stakeholders widely acknowledged that the CTCN has made significant efforts to diversify funding sources and strengthen resource mobilisation functions, they stressed that financial instability remains a structural constraint that profoundly affects planning, staffing, procurement, and the scope of TA delivery.

155. Across interviews, respondents described the mechanism as operating in a context of chronic underfunding relative to its mandate. Many interviewees stated that "the CTCN is asked to do more every year with the same or fewer resources," noting that the expansion of the Third PoW, including new mandates related to innovation, regionalisation, multi-country approaches, and strengthened coordination with the TEC, has not been matched by proportional increases in core funding. This imbalance was said to limit the Secretariat's ability to plan strategically or invest in improvements to systems, staffing, and M&E.

156. Stakeholders repeatedly identified unpredictability of funding as one of the most serious barriers to efficiency. Interviewees explained that reliance on voluntary contributions creates annual uncertainty that complicates procurement schedules, hinders long-term contracting, and forces the Secretariat to operate with short-term horizons. One respondent remarked: "You cannot run a global mechanism on year-to-year fundraising." Several participants noted that this unpredictability leads to delayed recruitment, pauses in TA pipelines, and conservative decision-making, all of which reduce operational efficiency.

157. Respondents also highlighted that resource mobilisation efforts, though improving, remain insufficiently structured and overly dependent on a small number of donor governments. While the hiring of a dedicated resource mobilisation specialist was broadly praised, many interviewees observed that "the structure is there, but the pipeline is thin." Several interviewees emphasised that without expanded engagement with non-traditional donors, such as climate funds, philanthropic institutions, development banks, and private-sector actors, financial constraints will continue to limit the mechanism's capacity.

158. A recurring insight was that limited financial resources restrict not only the scale of TA delivery but also the Secretariat's ability to strengthen internal systems. Interviewees noted that functions such as M&E, knowledge management, learning, network mobilisation, and outreach require sustained funding but are often deprioritised in favour of TA delivery. As one participant put it: "Everything goes to delivery because there is no space for system-building." This chronic underinvestment in institutional functions was described as a major efficiency barrier.

159. Some interviewees also highlighted inefficiencies created by rigidities in how funds can be used. Respondents explained that earmarked contributions, while helpful in securing resources, reduce flexibility by limiting the Secretariat's ability to allocate funds to emerging needs or cross-cutting priorities. This was viewed as particularly problematic during periods of organisational transition or rapid shifts in global priorities.

160. Despite these challenges, interviewees acknowledged notable positive developments. Many praised the increased visibility of the CTCN within the global climate architecture, noting that strengthened communication, strategic positioning, and collaboration with the TEC have improved donor confidence. Respondents also pointed to the successful AFCIA partnership with the Adaptation Fund as evidence that targeted, well-structured funding windows can enhance delivery efficiency and unlock specialised expertise.

161. Overall, interview evidence indicates that while the CTCN has made progress in resource mobilisation, financial constraints remain one of the primary factors limiting operational efficiency. Stakeholders consistently emphasised that improved predictability, diversification, and flexibility of funding are essential for enabling the CTCN to plan effectively, deliver timely TAs, invest in essential institutional functions, and fully implement the ambitions of the Third PoW.

3. To what extent was the CTCN appropriately staffed to meet its needs and possess the right expertise? How have recent changes in management (e.g., interim directors, new leadership) affected CTCN's operations and performance? How were you informed about the change in hosting institutions (split between UNEP and UNIDO), and what is your perception of this governance change?

162. Interview evidence consistently highlights that staffing adequacy, both in terms of the number of staff and the balance of skills within the CTCN Secretariat, is a central determinant of operational efficiency. Respondents repeatedly noted that the Secretariat is small relative to the scale and diversity of its mandate, especially under the Third PoW, which significantly expanded areas of responsibility.

163. Across interviews, stakeholders described the Secretariat as "highly committed, highly capable, but overstretched." Many interviewees highlighted that staff manage a very large TA portfolio, resource mobilisation, knowledge management, NDE support, partnership engagement, regional coordination, reporting, and governance processes simultaneously. One participant noted: "They are doing the work of a team twice their size." This chronic overstretch was widely viewed as a major source of delays in procurement, slower follow-up with countries, and limited capacity for ex-post impact assessment.

164. Interviewees also stressed that staff shortages create vulnerability to disruptions. Several respondents pointed out that when a single staff member goes on leave, changes roles, or departs, an entire functional area can stall. One interviewee explained: "If one person leaves, a whole line of work goes quiet. The Secretariat is too lean for continuity." These disruptions were described as particularly problematic in relation to procurement, NDE engagement, and knowledge management.

165. Beyond numbers, interviewees highlighted skill gaps as an important constraint. Respondents noted that while technical and climate-policy expertise is strong, there are gaps in specialised areas such as private-sector engagement, innovation ecosystems, monitoring and evaluation, and large-scale partnership development. Stakeholders emphasised that the increasing complexity of the climate-technology landscape requires deeper expertise in finance, investment-readiness, and innovation systems, areas where current staffing is limited.

166. Another recurring theme was the heavy reliance on short-term or project-funded positions. Interviewees expressed concern that such arrangements weaken continuity, institutional memory, and long-term strategic planning. As one participant commented: "You cannot build a stable mechanism on temporary contracts." This staffing model was viewed as a direct consequence of unpredictable and earmarked funding.

167. Several interviewees praised individual staff members for their professionalism, responsiveness, and strong relationships with NDEs and implementing partners. However, they emphasised that effectiveness depends on team capacity, not isolated excellence. One interviewee summarised this point by saying: "The Secretariat has excellent people, but not enough of them."

168. Overall, interview evidence shows that staffing levels and skill mix are critical bottlenecks for efficiency. While the Secretariat operates with dedication and professionalism, limited staffing, skill gaps, reliance on temporary contracts, and vulnerability to disruptions continue to constrain the mechanism's ability to operate efficiently under the ambitions of the Third PoW.

4. To what extent was the network (including consortium and knowledge partners) mobilized to provide valuable expertise, knowledge and support? Does the network size support quality outcomes, and would different tiers of membership be beneficial? How has the CTCN engaged Network members and the private sector in its activities (e.g., TA solicitations, networking events)? Has a network engagement plan been developed (cf. Recommendation 4)?

169. Interview evidence shows that the efficiency of mobilising and engaging Network members remains highly variable, with respondents repeatedly emphasising that the CTCN's large global Network represents an underused asset. While the Network model is widely appreciated for its diversity, breadth of expertise, and global reach, interviewees stressed that current systems for engaging, selecting, and activating Network members are not sufficiently strategic, timely, or transparent.

170. Across interviews, stakeholders consistently noted that only a small subset of Network members actively participate in TA delivery. Several respondents described the Network as "wide but shallow," explaining that although hundreds of institutions are formally registered, only a limited number are routinely mobilised. One interviewee remarked: "There are excellent organisations in the Network, but many have never received a single request." This was seen as a major inefficiency, given the breadth of technical and regional expertise theoretically available.

171. A frequently cited concern relates to the slow and sometimes opaque process for identifying and contracting Network members. Respondents explained that procurement procedures limit the flexibility to select the most suitable organisations quickly. As one participant stated: "The expertise exists, but procurement gets in the way of accessing it." Interviewees highlighted that delays in contracting reduce responsiveness and, in some cases, diminish country interest or political momentum.

172. Interviewees also noted gaps in the strategic curation of the Network. Several respondents reported that the current Network structure does not sufficiently differentiate between highly specialised organisations, generalist institutions, private-sector actors, and purely academic entities. As a result, the matchmaking process can be inefficient: "You get 50 organisations on paper, but only 5 are the right fit," one respondent explained. Many stakeholders felt that clearer categorisation, by sector, region, capacity, and readiness to implement, would improve efficiency.

173. Private-sector participation was repeatedly described as particularly limited. Interviewees observed that despite the Third Programme of Work placing strong emphasis on innovation and market transformation, many private-sector Network members have not been effectively engaged. Respondents identified several reasons for this: unclear opportunities for participation, insufficient communication on upcoming TAs, lengthy contracting processes, and lack of targeted outreach. One interviewee summarised: "The private sector is open to working with CTCN, but the on-ramps are not obvious."

174. Stakeholders also pointed to underutilisation of South–South and triangular cooperation opportunities. Many interviewees emphasised that institutions from emerging economies, some of which are Network members, possess world-class expertise in adaptation technologies, renewable energy, digital tools, and early-stage innovation. However, these institutions rarely receive TA assignments. Respondents attributed this to lack of visibility, language barriers, and uneven communication across regions.

175. Despite these challenges, interviewees recognised improvements in recent years. They noted better communication with Network members, more structured calls for implementers, and more transparent procurement notices. A few respondents also highlighted early efforts to strengthen regionalisation, which they believe could enable more efficient mobilisation of local and regional expertise.

176. Overall, interview evidence indicates that while the CTCN Network is a major strategic asset, its potential is not fully realised due to slow procurement processes, inconsistent engagement, limited private-sector mobilisation, and insufficiently targeted matchmaking. Strengthening systems for categorising, mobilising, and communicating with Network members, alongside streamlined contracting, was repeatedly identified as one of the most important opportunities to enhance operational efficiency.

5. To what extent is the role of the NDE clear for country representatives, and is it efficient for project coordination? How have countries enhanced the visibility of their NDE and supported them through national institutions and cooperation with other UNFCCC focal points (e.g., annual UNFCCC focal point forums, consultation process for TA requests, sharing of material through electronic and print media)? Were active partnerships established, and were collaborations facilitated for fund access and mobilization (cf. Recommendation 5)? To what extent has collaboration between NDEs from Annex I and non-Annex I parties been reinforced (cf. Recommendation 5)? How has the CTCN enhanced NDEs capacity to plan, monitor, and achieve technological transformation?

177. Interview evidence indicates that the role of NDEs is generally understood by country representatives, but the clarity and efficiency of this role vary substantially across countries, regions, and institutional contexts. Stakeholders consistently emphasized that while the NDE model is conceptually strong, providing a single national entry point for technology-related support, its practical effectiveness depends on visibility, institutional anchoring, capacity, and the degree of national cooperation.

178. Across interviews, respondents noted that in countries where the NDE is well-established, institutionally empowered, and properly resourced, its role is clear and efficient. These NDEs act as active coordinators of national stakeholders, facilitators of request development, and key focal points for engagement with the CTCN. One interviewee summarized this by saying: "When the NDE is visible and empowered, the whole process works smoothly." In these contexts, countries often enhance visibility by embedding the NDE within influential ministries, organizing national consultations, participating in UNFCCC focal point forums, and disseminating material through digital and print channels.

179. However, interviewees emphasized that in many countries, particularly where institutional structures are weak, the NDE role is less clear and not consistently efficient. Respondents noted that some NDEs lack sufficient authority, staff, or budget to coordinate stakeholders effectively. As one participant put it: "People don't always know who the NDE is, or what it is supposed to do." These limitations were frequently linked to high staff turnover, competing institutional mandates, and insufficient national-level support.

180. Interview evidence reveals that countries have used a variety of methods to enhance NDE visibility and engagement, though success is uneven. Examples mentioned include:

(a) Participation in UNFCCC focal point forums to strengthen alignment with other national climate processes;

(b) Cross-ministerial consultations during the development of TA requests;

(c) Outreach through workshops, national climate platforms, and sectoral committees;

(d) Dissemination of TA-related information through government websites, newsletters, and social media.

181. Respondents noted, however, that these practices are not systematic across Parties, and that some NDEs remain isolated within their institutions.

182. Regarding partnerships and fund mobilization, interviewees highlighted that Recommendation 5, encouraging stronger cooperation and partnership-building, has been implemented unevenly. In some countries, active partnerships were established between NDEs, finance ministries, development banks, and UNFCCC focal points, facilitating access to funding mechanisms such as the GCF or bilateral donors. One interviewee noted: "Where the NDE collaborates with other focal points, you can see real progress toward mobilizing funds." Conversely, in other cases, such partnerships were limited or informal, reducing the effectiveness of coordinated fund mobilization efforts.

183. Interview evidence also indicates that collaboration between Annex I and non-Annex I NDEs has occurred but remains modest. Respondents mentioned several examples of South–North knowledge exchange through regional forums and peer-learning activities. However, they stressed that these initiatives are ad hoc rather than institutionalized. As one participant stated: "There is potential for much stronger collaboration, but it hasn't been fully realized."

184. With respect to capacity-building, interviewees consistently emphasized that the CTCN has helped enhance NDEs' capacity to plan, monitor, and support technological transformation. They highlighted:

(a) Training on request formulation;

(b) Guidance materials and webinars;

(c) Regional capacity-building forums;

(d) Peer exchanges among NDEs.

185. These efforts were widely appreciated and considered effective. Yet respondents also stressed that continued capacity-building is needed, especially in monitoring and follow-through. As one interviewee put it: "The training is good, but monitoring transformation requires deeper, long-term support."

186. Overall, interview evidence shows that NDE clarity, efficiency, and visibility depend heavily on institutional strength, national coordination, and sustained capacity-building. While the CTCN has strengthened NDE capacities and encouraged inclusive collaboration, gaps remain in institutional coherence, cross-party cooperation, and fund mobilization partnerships. Strengthening long-term support and institutional anchoring will be essential for maximizing NDE effectiveness under the CTCN mandate.

6. To what extent have the CTCN management structure, processes and procedures, communication and M&E optimized operations? How has the efficiency of the CTCN's TA provision improved (e.g., number of TAs received/completed, deadline control, more tenders opened to Network members, pools of expertise within the Network, identification of best practices, promotion of multiregional TA, level of satisfaction of beneficiaries)?

187. Interview evidence indicates that the efficiency of CTCN processes and procedures, especially those related to procurement, contracting, internal coordination, and administrative workflows, remains one of the most significant determinants of overall

operational performance. While stakeholders acknowledged improvements in recent years, they consistently stressed that procedural systems continue to create delays, reduce responsiveness, and limit the Secretariat's ability to deliver TA in a timely and streamlined manner.

188. Through interviews, procurement procedures emerged as the single most frequently cited procedural bottleneck. Respondents described the procurement system as "slow, rigid, and not adapted to technical assistance," highlighting lengthy approval chains, complex documentation requirements, and insufficient flexibility to accommodate the diversity of TA needs. Several interviewees recounted cases where procurement timelines exceeded six months, with one noting: "The TA was ready, the country was ready, but procurement pushed everything back." These delays were viewed as detrimental not only to efficiency but also to relevance, especially in dynamic policy environments.

189. Interviewees also pointed to inefficiencies in contracting processes. They noted that standard contracting templates are often lengthy and overly generic, requiring multiple rounds of revision and legal clearance. Several respondents stressed that "contracting takes too long for the size of the assignments," arguing that short, focused TAs require simplified, fast-track contracting mechanisms that are not yet in place.

190. Internal coordination processes were another frequently cited challenge. Respondents explained that the Secretariat must navigate several layers within UNEP, including administrative services, finance units, and legal teams, to obtain approvals or move forward with implementation steps. One interviewee noted: "There are too many steps for even routine decisions," while another added that each administrative request "starts a chain of emails that can take weeks to resolve." These procedural complexities were seen as incompatible with the fast-moving nature of technical assistance.

191. Several interviewees highlighted that procedures for onboarding consultants, approving budgets, and processing payments are often misaligned with the Secretariat's operational needs. Delays in processing payments to implementing partners were repeatedly cited as a source of frustration, sometimes causing implementers to pause activities or withhold staff time. One respondent commented: "People want to work with the CTCN, but slow payments make it difficult for smaller organisations."

192. Stakeholders also noted inconsistencies in how procedures are applied across projects and regions. Some interviewees explained that the level of scrutiny, documentation requirements, or approval timelines vary depending on the administrative unit or staff member involved, which reduces predictability and complicates planning. This inconsistency was viewed as a barrier to developing efficient standard operating procedures.

193. On the positive side, stakeholders acknowledged that the Secretariat has worked to streamline administrative processes where possible. For example, respondents praised improvements in communication, clearer timelines for procurement steps, and more structured guidance for implementers. Several interviewees also noted that the Secretariat's small size allows it to troubleshoot issues quickly once procedural hurdles have been cleared.

194. Nevertheless, interview evidence overwhelmingly suggests that procedures remain one of the principal constraints on efficiency. To improve operational performance, stakeholders recommended simplifying procurement pathways, delegating greater administrative authority to the Secretariat, establishing fast-track mechanisms for small TAs, updating contracting templates, and harmonising procedures across administrative units.

195. Overall, the interviews paint a consistent picture: while the Secretariat operates efficiently within its sphere of control, procedural and administrative systems, especially those embedded within UNEP, continue to slow delivery, reduce flexibility, and limit the CTCN's ability to fully meet country expectations.

7. To what extent has the CTCN provided value for money regarding costs and outputs? Could results have been achieved with fewer resources without compromising quality? What could improve cost-effectiveness?

196. Interview evidence highlights that value for money (VfM) within the CTCN is perceived as generally strong, particularly when assessed against the mechanism's modest

budget, lean structure, and ability to mobilise high-quality technical expertise at relatively low cost. However, stakeholders consistently emphasised that systemic inefficiencies, especially procurement delays, administrative constraints, and limited internal capacity, undermine VfM by reducing timeliness, inflating transaction costs, and constraining the transformative potential of TA.

197. Across interviews, respondents described the CTCN as delivering "high value for a small investment," noting that TAs often produce outputs comparable to those of much larger multilateral programmes at a fraction of the cost. Many emphasised that the CTCN's lean staffing model keeps overheads low, and that the mechanism is able to mobilise specialised expertise quickly once procurement bottlenecks are cleared. As one interviewee summarised: "What the CTCN produces for $150,000 would cost five times more anywhere else."

198. Despite these strengths, interviewees repeatedly stressed that delays represent the single greatest threat to value for money. Extended procurement and contracting timelines prolong activity cycles, weaken country interest, reduce relevance, and increase indirect costs for both the Secretariat and implementers. One respondent explained: "A TA that takes two years is simply less valuable than one delivered in six months, even if the quality is the same." Several emphasised that lost political windows or shifting national priorities further erode VfM when projects stall.

199. Another frequently cited factor affecting VfM is the uneven performance of implementing partners. While many implementers are viewed as delivering excellent results efficiently, respondents highlighted cases where generic outputs, insufficient contextualisation, or weak stakeholder engagement reduced the usefulness of deliverables. In these cases, even low-cost TAs were perceived as offering limited value. As one participant noted: "If the outputs don't move anything forward, then even a cheap TA is not good value."

200. Stakeholders also identified inefficiencies arising from the CTCN's reliance on small TA budgets. Because budgets are limited, implementers often face tight constraints on fieldwork, data collection, stakeholder consultations, and modelling. Interviewees highlighted that these limitations sometimes force trade-offs between depth and breadth, reducing the robustness of outputs and lowering VfM. A respondent commented: "The TA is efficient, but it could be far more impactful with slightly more resources."

201. Another systemic constraint mentioned was the absence of structured pathways to financing. Even where TAs deliver strong outputs efficiently, the absence of follow-on funding reduces long-term VfM because reports or feasibility studies are not implemented. As one interviewee put it: "Value for money also means value for impact, if nothing happens after, the return is limited." Respondents consistently stressed that connecting TA outputs to investment pipelines is essential for maximising VfM.

202. Nonetheless, several interviewees highlighted positive examples where VfM was high: strong implementer performance, high country ownership, efficient delivery timelines, and alignment with ongoing national processes. These cases demonstrated that when administrative hurdles are minimal and partnerships strong, even modest TAs can yield outsized benefits.

203. Overall, interview evidence shows that the CTCN provides strong value for money relative to its resource base, but persistent delays, administrative constraints, uneven implementer performance, small TA budgets, and weak pathways to financing reduce efficiency and limit long-term VfM. Stakeholders consistently emphasised that streamlining procedures, strengthening implementer selection, modestly increasing TA envelopes, and improving links to finance would yield substantial gains in value for money.

8. To what extent has the CTCN promoted inclusive collaboration within its governance structure and with stakeholders?

204. Interview evidence shows that the CTCN has promoted inclusive collaboration within its governance structure and with stakeholders to a meaningful extent, although the depth and consistency of this inclusiveness vary across regions, institutions, and thematic areas.

Stakeholders consistently emphasized that inclusiveness is both a defining strength of the CTCN model and an area where structural constraints limit full realization.

205. Across interviews, respondents highlighted that the CTCN's governance structure, rooted in the UNFCCC Technology Mechanism, naturally encourages representation from a wide range of Parties, regions, and constituencies. Many interviewees described Advisory Board meetings as "one of the few spaces where everyone has an equal voice," noting balanced participation between developed and developing countries, attention to regional representation, and structured opportunities for observers. This inclusiveness was viewed as strengthening legitimacy, fairness, and trust in CTCN decisions.

206. Interviewees also emphasized the importance of NDEs in promoting inclusive collaboration. They noted that the request-driven model inherently brings national institutions into the governance and operational processes of the CTCN. One interviewee stated: "The mechanism forces you to listen to countries, there is no other option." Respondents described the NDE network as a major channel for stakeholder input, enabling governments, research institutions, and civil society actors to influence the direction of technical assistance.

207. At the operational level, interviewees reported that many TA projects used highly participatory approaches, involving line ministries, technical agencies, research organizations, private-sector actors, and in some cases women's organizations or marginalized groups. Respondents emphasized that inclusive engagement during TA design and delivery enhances relevance, ownership, and the quality of outputs. As one stakeholder noted: "When everyone is at the table, the TA is stronger."

208. However, interview evidence also revealed significant limitations in the consistency of inclusive collaboration. A recurring challenge identified by respondents is the variability in NDE capacity. In countries where the NDE is strong, inclusive engagement expands naturally; in weaker NDE contexts, participation becomes narrower and dominated by a small group of institutions. One interviewee summarized this gap: "Inclusiveness depends on how strong the NDE is, if they don't convene, others don't join."

209. Interviewees also pointed to gaps in private-sector and research institution participation in governance and TA processes. Several respondents noted that systemic barriers, such as lack of awareness, bureaucratic processes, or language limitations, prevent these actors from engaging fully. As a result, knowledge-rich institutions often remain underrepresented.

210. Additionally, respondents highlighted that while Advisory Board structures are inclusive in theory, practical barriers such as travel costs, limited preparation time, and institutional turnover affect the ability of some developing-country representatives to participate meaningfully. These challenges reduce continuity and weaken the collective institutional memory of the Board.

211. A further barrier to inclusive collaboration relates to the limited regionalisation of CTCN operations. Interviewees emphasized that while regional forums and partnerships exist, they are not yet sufficient to ensure strong participation from all relevant actors across regions. Respondents stressed that more permanent regional structures or staff presence could significantly enhance inclusiveness.

212. Despite these challenges, interviewees also identified areas of progress. They praised efforts to strengthen communication, expand stakeholder mapping, improve NDE training, and provide more structured opportunities for engagement during TA design. One interviewee pointed out that "things are better now than five years ago, the CTCN listens more and engages more."

213. Overall, interview evidence suggests that the CTCN has made meaningful efforts to promote inclusive collaboration in both governance and operational processes. The mechanism's foundational design inherently supports inclusiveness, and several improvements have strengthened this further. However, participation remains uneven, with inclusiveness depending heavily on NDE capacity, resource availability, and the level of regional engagement. Strengthening regional presence, improving support to NDEs, and

creating more structured spaces for private-sector and academic participation were the most frequently recommended ways to enhance inclusivity moving forward.

D. Impact and sustainability

1. To what extent did CTCN innovation-related activities achieve expected outcomes in facilitating the development, transfer, and deployment of climate technologies in developing country Parties? How effectively are countries accelerating innovation through collaboration at various stages of the technology cycle?

214. Interview evidence consistently indicates that CTCN TA contributes to innovation outcomes primarily by enabling countries to explore, validate, and adapt new climate technologies and approaches that would not otherwise be accessible due to financial, technical, or institutional constraints. Stakeholders repeatedly emphasised that CTCN support plays a catalytic upstream role, helping countries identify appropriate technologies, pilot innovative concepts, and strengthen enabling environments for innovation.

215. Across interviews, respondents highlighted that one of the CTCN's strongest innovation contributions lies in introducing countries to emerging or underutilised technologies. Examples frequently mentioned include digitalisation tools for early-warning systems, advanced renewable-energy modelling, circular-economy solutions, and nature-based technologies for adaptation. One interviewee explained: "The CTCN opened doors to technologies we had never even considered." Several respondents emphasised that this exposure helps national institutions broaden their technological horizons and develop more forward-looking climate strategies.

216. Interviewees also stressed the CTCN's role in adapting global technologies to local contexts. Many respondents noted that the TA process often includes feasibility studies, contextual assessments, or pilot-scale demonstrations that help countries determine whether a given technology fits their technical, regulatory, or socio-economic conditions. As one participant put it: "The CTCN doesn't just introduce technologies, it helps us figure out if they make sense for our context." This localisation function was widely described as essential for innovation, particularly in lower-capacity countries.

217. Another frequently cited innovation outcome relates to institutional strengthening. Respondents highlighted that CTCN TAs often support the development of guidelines, methodologies, regulatory assessments, or national frameworks that create enabling conditions for domestic innovation. Interviewees explained that these outputs help establish standards, build technical literacy within government agencies, and clarify pathways for scaling technologies, thereby reducing risks for public and private actors.

218. Several interviewees also underlined that CTCN support contributes to innovation by fostering collaboration between ministries, research institutions, and private-sector entities. Respondents described TA processes that brought together actors who had previously worked in silos, helping to build early innovation ecosystems. One interviewee remarked: "The TA connected the right people, after that, they continued working together even without the CTCN." These collaborations were viewed as foundational steps toward longer-term systemic innovation.

219. Despite these positive contributions, interviewees identified several factors that limit the CTCN's innovation impact. The most frequently cited was the absence of funding for prototype development, demonstration projects, or early-stage pilots. Respondents emphasised that while the CTCN provides valuable upstream assessments, countries often lack the resources to advance to the next stage, resulting in stalled innovation pathways. One participant commented: "The CTCN gets us started, but the gap after that is huge."

220. Stakeholders also pointed to weak linkages between TA outputs and national research institutions. While some TAs successfully involved universities or innovation centres, others did not sufficiently leverage national R&D capacities. Interviewees argued that deeper engagement with local research actors could strengthen innovation ecosystems and enhance continuity beyond the TA.

221. Finally, interview evidence highlighted challenges related to sustained follow-up. Several respondents noted that innovation gains, such as enhanced technical knowledge or cross-institutional networks, risk fading over time without continued support or downstream financing. This was particularly true in countries with limited institutional capacity or rapidly changing political environments.

222. Overall, interview evidence shows that the CTCN makes meaningful contributions to innovation outcomes by expanding technological awareness, contextualising technologies to national realities, strengthening enabling environments, and fostering cross-sector collaboration. However, limited downstream financing, weak R&D linkages, and insufficient follow-up constrain the long-term innovation impacts of CTCN support.

2. To what extent did CTCN implementation-related activities contribute to the expected outcomes by supporting countries in establishing clear pathways for mitigation and adaptation action (using planning tools and processes such as NDC or National Adaptation Plans (NAP), LEDS, Technology Needs Assessment (TNA), technology roadmaps (TRM), etc.)? How has the CTCN enhanced the inclusiveness, gender responsiveness, and the integration of indigenous technologies?

223. Interview evidence indicates that CTCN TA contributes to implementation outcomes in several important upstream ways, by strengthening national planning, improving institutional readiness, generating investment-relevant analyses, and laying the groundwork for policies, regulations, or project pipelines. However, interviewees consistently emphasised that these contributions remain predominantly preparatory rather than directly implementation-enabling, due mainly to gaps in downstream financing and follow-on mechanisms.

224. Across interviews, respondents highlighted that one of the CTCN's core strengths is its ability to support countries in developing actionable roadmaps, feasibility studies, and decision-support tools that can later be taken up by ministries, development banks, and donors. One interviewee explained: "The CTCN gives countries the analysis they need to move forward, without those studies, nothing starts." Stakeholders emphasised that these upstream outputs often clarify technology options, identify least-cost pathways, or articulate regulatory and institutional needs required for implementation.

225. Respondents also stressed that CTCN support frequently helps countries make informed decisions about investment priorities. Interviewees reported that TA outputs, such as cost-benefit analyses, pre-feasibility assessments, and scenario modelling, help governments determine which technologies or interventions are viable and worth pursuing. As one participant noted: "It gives us the evidence to go to the finance ministry or donors and argue for the project." These contributions were viewed as directly influencing early-stage implementation readiness.

226. Stakeholders further highlighted that CTCN support often improves enabling environments for implementation. Many interviewees cited examples where TA activities strengthened standards, clarified regulations, improved data frameworks, or supported the development of institutional arrangements. These outcomes were described as "the foundation that implementation needs," especially in countries with limited institutional capacity.

227. However, interview evidence also made clear that CTCN's direct contribution to implementation is constrained by its mandate and by systemic barriers. The most significant limitation cited was the lack of dedicated follow-on financing. Respondents repeatedly emphasised that while CTCN delivers high-quality upstream work, countries frequently lack the financial resources to move from analysis to implementation. One interviewee summarised: "CTCN gets us ready, but there is no one to pick it up after."

228. Interviewees also noted that while some TAs succeed in influencing donor pipelines or shaping national investment proposals, this is not consistent across projects or countries. Some participants explained that outputs sometimes remain unused due to political turnover, shifting ministerial priorities, or the absence of institutional champions to shepherd proposals into implementation. One respondent stated: "If the momentum is lost after the TA, the recommendations stay on paper."

229. Another barrier identified was the short duration of TAs, which limits opportunities for iterative engagement, hands-on support, or capacity-building that would strengthen implementation readiness. Interviewees argued that implementation outcomes require longer-term accompaniment, which lies beyond the CTCN's current financial and operational scope.

230. Despite these challenges, several interviewees shared positive examples of TA outputs that directly contributed to concrete implementation steps, such as the development of national policy instruments, mobilization of external project funding, or preparation of proposals submitted to funds like the GCF or bilateral donors. These examples demonstrate that, under conducive conditions, CTCN support can indeed catalyse downstream implementation.

231. Overall, interview evidence indicates that the CTCN makes substantive and valued contributions to early-stage implementation readiness through analysis, prioritisation, institutional strengthening, and regulatory support. However, systemic barriers, particularly limited financing pathways, inconsistent political follow-through, and short TA durations, constrain the mechanism's ability to generate consistent and sustained implementation outcomes.

3. To what extent did CTCN enabling environment and capacity building related activities (including policy and regulatory environments to develop, transfer and deploy climate technologies) achieve outcomes? How effectively did the CTCN support countries build capacity and develop frameworks for climate technology deployment?

232. Interview evidence indicates that CTCN TA contributes meaningfully to strengthening the enabling environment for climate technology deployment by improving policies, institutional arrangements, regulatory clarity, and stakeholder coordination. Respondents consistently emphasized that these enabling-environment outcomes, though upstream, are among the most tangible and valued results of CTCN support.

233. Across interviews, stakeholders described CTCN TAs as particularly effective in generating regulatory and policy improvements. Many cited examples where the TA contributed to drafting or updating national guidelines, sectoral strategies, standards, and regulatory frameworks. One interviewee noted: "The CTCN helped us put structure to a sector that previously had no clear rules." These improvements were widely seen as essential foundations for future implementation, especially for adaptation technologies and complex mitigation interventions.

234. Institutional strengthening was another commonly mentioned outcome. Respondents explained that TA processes often expose ministries and agencies to new tools, technical knowledge, and organisational processes. As one interviewee stated: "The TA gave us a model for how to work, not just a report." These gains included clearer institutional mandates, enhanced coordination mechanisms, and improvements in the technical literacy of government teams.

235. Interviewees also highlighted improvements in stakeholder engagement and coordination. Many TAs brought together actors who had not previously collaborated, such as environment ministries, energy regulators, meteorological services, academia, and private sector associations. This was described as a significant contribution to enabling environments because it fostered shared visions, reduced fragmentation, and created new channels for information exchange. One respondent summarized: "Before the TA, everyone was working alone. Now there is at least a platform for discussion."

236. Several interviewees pointed to strengthened data systems and analytical capacity as enabling-environment outcomes. Respondents described TAs that introduced assessment methodologies, scenario models, digital tools, or monitoring frameworks that ministries continue to use after the TA. These tools were seen as improving decision-making and reducing uncertainty for technology projects. As one participant remarked: "The TA improved the data we have to plan with, that makes everything easier afterwards."

237. Despite these positive outcomes, interviewees noted several factors that limit the sustainability and depth of enabling-environment impacts. The most frequently cited challenge was insufficient follow-up after the TA ends. While TAs often produce new regulations or institutional arrangements, stakeholders explained that limited capacity or political turnover can hinder long-term adoption. One interviewee commented: "The TA created momentum, but without support afterwards it slowed down again."

238. Another limiting factor relates to gaps in coordination with other national or donor initiatives. Respondents noted that while CTCN TAs often align with national priorities, they are not always integrated into broader programmes financed by multilateral banks or bilateral donors. This misalignment reduces the likelihood that enabling-environment reforms will be taken forward to later stages.

239. Finally, interview evidence underscored that enabling-environment outcomes are particularly vulnerable in low-capacity contexts. Ministries with limited staff or unstable structures struggle to maintain new processes introduced through the TA. Stakeholders stressed that sustained capacity-building and stronger institutional anchoring are required for enabling-environment outcomes to persist.

240. Overall, interview evidence shows that CTCN support plays an important upstream role in strengthening enabling environments through regulatory improvements, institutional capacity-building, data enhancement, and stakeholder coordination. However, the long-term sustainability of these outcomes depends on continued political support, integration with broader national programmes, and follow-on funding and capacity-building.

4. To what extent did CTCN collaboration and stakeholder engagement activities achieve outcomes? How effectively did the CTCN enhance collaboration with stakeholders, including local communities, national planners, and the private sector? How well did it facilitate engagement between NDEs and stakeholders and support collaboration international organizations, institutions and initiatives, including academia and the scientific community?

241. Interview evidence consistently shows that stakeholder engagement and participation, across government, civil society, academia, and the private sector, are among the most influential determinants of whether CTCN TA generates meaningful and lasting impacts. Respondents repeatedly emphasized that inclusive, well-coordinated engagement processes not only strengthen the quality of TA outputs but also significantly improve prospects for uptake, institutionalization, and follow-on action.

242. Across interviews, stakeholders noted that CTCN TAs frequently serve as a platform for convening actors who had not previously collaborated. This convening function was widely praised as one of the CTCN's most valuable contributions. One interviewee explained: "The TA brought everyone to the table for the first time. That's when we realized we were all working on similar things." Respondents highlighted that such collaborations helped break down institutional silos, fostered shared understanding, and created momentum for coordinated action.

243. Many interviewees emphasized that inclusive engagement processes enhanced the quality and relevance of TA outputs. Participants noted that consultations with line ministries, technical agencies, universities, and private-sector actors often produced richer datasets, more grounded analyses, and clearer implementation pathways. As one respondent put it: "When everyone contributes, the outputs are stronger and more realistic." These inclusive processes also ensured that TA recommendations accounted for diverse institutional perspectives, practical constraints, and local knowledge.

244. Interview evidence further shows that stakeholder engagement increases national ownership, an essential ingredient for long-term impact. Respondents explained that when stakeholders feel involved in shaping the TA, they are more likely to champion follow-on recommendations, advocate for adoption, and integrate outputs into institutional plans. One participant stated: "People support what they helped create." Conversely, interviewees warned that limited engagement results in weak ownership and outputs that "sit on a shelf."

245. Several interviewees highlighted that engagement with private-sector actors is particularly important for impact, especially in areas such as renewable energy, innovation, early-stage technology deployment, and digitalization. However, respondents noted that private-sector participation is uneven across TAs. Barriers include lack of targeted outreach, limited communication of opportunities, and procedural challenges that make participation burdensome. As one interviewee observed: “The private sector wants to engage, but the process does not always make it easy.”

246. Engagement with research institutions and academia was also identified as a critical factor for sustaining impacts. Respondents explained that universities often maintain technical knowledge long after the TA ends and can support ongoing adaptation or replication of outputs. However, interviewees highlighted that academic institutions were not consistently involved across all TAs, limiting opportunities for continuity and knowledge retention.

247. Despite these positive examples, interviewees pointed to several factors that reduce the effectiveness of stakeholder engagement. These include:

(a) Limited time and budgets that constrain consultation processes;

(b) Political sensitivities that restrict participation from certain ministries or agencies;

(c) Stakeholder fatigue, particularly in countries with multiple overlapping donor programmes;

(d) Turnover within institutions, which disrupts continuity and reduces institutional memory.

248. A recurring theme was the absence of structured follow-up mechanisms to maintain multi-stakeholder platforms after the TA concludes. Respondents noted that momentum generated during the TA often dissipates without continued facilitation or integration into national processes. One interviewee remarked: “The TA got people talking, but when it ended, everyone went back to their silos.”

249. Overall, interview evidence indicates that strong stakeholder engagement is a powerful driver of impact, enabling more relevant, credible, and actionable output while fostering ownership and readiness for implementation. However, uneven participation, especially from private-sector and research institutions, and lack of mechanisms to sustain engagement beyond the TA limit the consistency and depth of impact across countries.

5. To what extent did CTCN support-related activities achieve outcomes? How effectively did the CTCN enhance access to TA and financial support for the development and transfer of gender responsive technologies?

250. Interview evidence indicates that CTCN support-related activities have achieved meaningful outcomes in several areas, particularly in strengthening institutional capacity, generating policy-relevant outputs, and improving national readiness for climate technology deployment. However, stakeholders consistently emphasized that outcomes remain uneven across countries and sectors, and that the breadth of achievements is constrained by structural limitations in financing, TA duration, and institutional capacity.

251. Across interviews, respondents highlighted that CTCN support frequently results in improved planning tools, clearer technology pathways, stronger institutional coordination, and enhanced analytical capacity. These outcomes were viewed as essential early steps in enabling implementation. As one interviewee summarized: “The TA gave us the tools and clarity we needed to move forward.” Many respondents described examples where CTCN-assisted feasibility studies, roadmaps, or regulatory assessments directly informed national decision-making or were used to engage donors for follow-on support.

252. Stakeholders also noted that CTCN activities foster greater national ownership, especially when TAs involve inclusive consultations and strong NDE leadership. Such engagement increases the likelihood that TA outputs are integrated into national planning documents or used as evidence for future project proposals. Respondents emphasized that ownership is a key determinant of whether outcomes persist beyond the life of the TA.

253. However, interviewees consistently noted that without mechanisms for sustained follow-up or funding, outcomes tend to remain upstream. Several respondents explained that even high-quality outputs risk becoming "reports on a shelf" if they are not embedded into broader national programmes or linked to financing windows. Institutional turnover, short TA timelines, and limited absorptive capacity further reduce the likelihood of sustained outcomes.

254. With respect to gender-responsive technologies, interview evidence suggests that while the CTCN has made progress in integrating gender considerations into its TAs, the degree of effectiveness varies. Respondents acknowledged that the CTCN has introduced gender guidelines, improved screening processes, and encouraged implementers to incorporate gender-responsive methods. One interviewee noted: "Gender is now part of the conversation, it wasn't always like that before." These changes have improved awareness of gender dimensions in technology planning.

255. Some TAs were specifically highlighted for their strong integration of gender perspectives, including through stakeholder engagement with women's organizations, gender-responsive design of technology solutions, and inclusion of gender metrics. In such cases, interviewees reported improved access to technologies for women and enhanced recognition of women's roles in climate adaptation and mitigation.

256. Nevertheless, interviewees widely agreed that integration of gender considerations remains inconsistent. Respondents described several challenges: limited gender expertise among implementers, insufficient gender-related data, and consultation processes that do not always include women's groups or gender ministries. As a result, some TAs incorporate gender only superficially, without fully addressing systemic barriers to women's access to technologies.

257. Regarding access to financial support for gender-responsive technologies, interview evidence shows that the CTCN has had limited influence beyond awareness-raising and enabling-environment support. While some TAs have indirectly helped countries prepare gender-sensitive proposals for donors, respondents noted that the mechanism does not provide financing itself, and linkages to gender-related funding windows remain weak. As one interviewee put it: "The TA recognized gender issues, but we still needed to find the money ourselves."

258. Overall, interview evidence shows that CTCN support-related activities have produced valuable outcomes, particularly in strengthening institutional capacity, planning, and enabling environments. Progress has also been made in integrating gender considerations into TA processes. However, sustained outcomes depend heavily on downstream financing, institutional continuity, and deeper integration of gender expertise. The CTCN's influence on access to financial support for gender-responsive technologies remains modest without stronger linkages to relevant funding mechanisms.

6. What major factors have influenced the achievement/non-achievement of outcomes, the replicability of the programme, and the likelihood of lasting positive impacts? (e.g., Adaptation Fund Climate Innovation Accelerator (AFCIA) approach vs. CTCN other activities)

259. Interview evidence indicates that the sustainability of results from CTCN TA depends heavily on what happens after the TA concludes, particularly whether countries have the financial, institutional, and political capacity to take work forward. Stakeholders consistently stressed that while CTCN support generates valuable upstream outputs, the extent to which these outputs lead to lasting changes varies significantly across countries and sectors.

260. Across interviews, respondents repeatedly emphasized that national ownership is the most important determinant of sustainability. TAs with strong early engagement from ministries, NDEs, and technical agencies were described as far more likely to generate long-term outcomes. As one interviewee explained: "When the government owns it, the results live on even without external support." Ownership was associated with continued use of methodologies, integration of TA recommendations into planning documents, and institutional uptake of tools introduced during the TA.

261. Another major factor influencing sustainability is the extent to which TA outputs are integrated into ongoing national programmes or donor pipelines. Interviewees noted that when TA recommendations align with existing national strategies or are linked to active projects funded by development partners, they are far more likely to be implemented. In contrast, outputs that are not connected to broader programmes often remain underutilized. One respondent commented: “Sustainability happens when the TA plugs into something bigger.”

262. Respondents also highlighted institutional capacity as a key determinant. Many interviewees pointed out that ministries with stable staff, dedicated technical teams, and clear mandates are better able to maintain and update TA-generated tools, models, or guidelines. Conversely, weak institutions, especially those affected by high turnover, struggle to continue work initiated under the TA. As one participant noted: “If the team changes, the knowledge leaves with them.” This makes sustainability particularly challenging in least developed countries and small island developing states.

263. The availability of downstream financing was repeatedly identified as one of the most significant barriers to sustaining impacts. Interviewees explained that even highly relevant and well-designed outputs cannot lead to long-term change without resources to implement recommendations or invest in technologies. One interviewee summarized this challenge: “Without funding, the TA remains a good idea on paper.” Stakeholders emphasized that the lack of mechanisms to systematically connect TA outputs to funding windows reduces the likelihood of long-term adoption.

264. Stakeholders also mentioned that private-sector involvement can strengthen sustainability, especially in areas such as renewable energy, innovation, and early-stage technology deployment. However, respondents noted that private-sector engagement remains limited in many TAs, reducing opportunities for continued investment or market-driven adoption.

265. Several interviewees pointed to positive examples of sustainability where TAs helped establish long-term institutional structures, such as new working groups, updated regulatory frameworks, or data systems that ministries continue to use. These cases were typically linked to strong political support, effective coordination, and integration into national planning processes.

266. Overall, interview evidence shows that sustainability of CTCN outcomes depends on national ownership, alignment with broader programmes, institutional capacity, downstream financing, and private-sector engagement. While many TAs generate strong upstream value, structural and contextual barriers often limit the continuity and long-term adoption of results.

267. What unintended outcomes (positive and negative) and changes (direct and indirect) have resulted from the CTCN? What could improve impact and sustainability?

268. Interview evidence shows that while CTCN TA can generate meaningful upstream impacts, it also produces a set of unintended outcomes, both positive and negative, that influence the broader results landscape. These unintended effects, though not formally planned within project designs, emerged consistently across interviews and revealed important insights into how CTCN interventions interact with national systems, institutional dynamics, and technological ecosystems.

269. Positive unintended outcomes were mentioned frequently. One of the most notable was the catalytic effect TAs sometimes have on institutional collaboration. Respondents described cases where ministries or agencies that had previously worked in isolation began coordinating more closely as a result of CTCN-facilitated consultations, even continuing this collaboration independently after the TA ended. As one interviewee noted: “The TA unexpectedly built relationships that continue to this day.” This was particularly observed in sectors such as climate information services, adaptation planning, and circular economy.

270. Another positive unintended effect was the spillover of technical knowledge beyond the immediate TA beneficiaries. Several interviewees highlighted that workshops, consultations, and training often drew in actors who subsequently applied new tools, methodologies, or technologies in unrelated national processes. One participant described

this as "knowledge diffusion," explaining that individuals trained under one TA later championed similar approaches elsewhere in government.

271. Interviewees also pointed to reputational spillovers for national institutions. In some cases, successful delivery of a TA enhanced the credibility of a ministry or agency in the eyes of donors or development partners, thereby improving its ability to secure future financing or participate in regional initiatives. Respondents described this as an "unexpected boost in institutional visibility."

272. Negative unintended outcomes, though less frequent, were also identified. A recurring concern was the risk of creating expectations that exceed what the CTCN can deliver. Because the mechanism introduces new technologies and innovative concepts, countries sometimes interpret these signals as an indication that further support, such as pilot funding or project-level financing, will follow. As one interviewee explained: "The TA raised hopes for investment that never came." When follow-on financing does not materialize, this can lead to frustration or reduced trust among national stakeholders.

273. Another unintended negative outcome relates to institutional fragmentation. While many TAs strengthen coordination, some interviewees noted that poorly structured engagement processes can exacerbate competition between ministries or create confusion about mandates. This can occur when multiple institutions perceive themselves as the "natural home" for the technology or sector introduced through the TA. One respondent cautioned: "If coordination is not managed carefully, the TA can unintentionally fuel institutional rivalries."

274. A further unintended challenge mentioned by stakeholders was the potential for TAs to become isolated from wider national programmes. When outputs are not embedded into existing planning frameworks, they risk becoming "standalone products" with limited relevance, despite the quality of the work. This was described as an unintended consequence of limited follow-through rather than of the TA design itself.

275. Some interviewees also highlighted concerns related to small TA budgets. They explained that because TAs are constrained in duration and scope, they sometimes generate initial momentum without the resources needed to sustain it. This can inadvertently lead to stalled initiatives, with one participant noting: "The TA lit the spark, but without fuel it burned out quickly."

276. Overall, interview evidence indicates that unintended outcomes, both positive and negative, are an inherent part of CTCN delivery. Positive spillovers include strengthened institutional collaboration, diffusion of technical knowledge, and enhanced visibility for national agencies. Negative effects stem mainly from unmet expectations, institutional rivalry, and limited embedding of outputs into national systems. Understanding these unintended outcomes is essential for refining engagement practices, strengthening coordination, and designing TAs that maximize positive side effects while mitigating risks.

7. To what extent have changes in the third PoW, including the five system transformations, led to sustained or enhanced results aligned with the CTCN's mandate and guidance? Has the current M&E framework captured these changes?

277. Interview evidence indicates that changes introduced under the Third PoW, particularly the shift toward the five system transformations, have begun to generate more coherent, focused and strategically aligned results. However, stakeholders consistently stressed that while these shifts have enhanced upstream relevance and structured the CTCN's work more effectively, sustained or long-term impacts remain uneven due to persistent constraints in financing, institutional continuity and monitoring.

278. Across interviews, respondents emphasized that the Third PoW has helped countries articulate clearer technology pathways aligned with national and sectoral priorities. The system transformations, energy systems, industry and business, buildings and infrastructure, mobility, and the water-food-energy nexus, were widely viewed as useful organizing frameworks that make the CTCN's offer more understandable and consistent with how governments plan their climate strategies. As one interviewee put it: "For the first time, the framework mirrors the reality of national planning." This alignment enhanced coherence with

NDCs, long-term strategies and technology needs assessments, thereby improving the strategic anchoring of TAs.

279. Interviewees also noted that the transformation framing has helped TAs situate their outputs within broader systemic challenges rather than as isolated technical studies. Respondents highlighted that framing requests around system-level needs encouraged more integrated approaches, cross-sector coordination and stronger institutional ownership. Several interviewees described this as a significant improvement over the previous PoW cycle, which they viewed as more fragmented.

280. Despite these positive developments, interviewees consistently noted that sustained results remain constrained by the absence of downstream financing and long-term institutional support. While the transformation framing provided a clearer direction, respondents stressed that without resources for follow-on implementation, even more structured and aligned TAs cannot fully deliver lasting change. One interviewee summarized this as: “The Third PoW gave us the roadmap, but we still lack the vehicle to drive it.”

281. Interviewees also observed that the Third PoW’s ambition has not yet translated into consistent regionalization or strengthened engagement with private-sector and innovation ecosystems, key elements of the transformations. This was attributed to limited staff capacity, slow procurement processes, and the absence of structured mechanisms to leverage partnerships at scale.

282. With respect to monitoring and evaluation (M&E), interview evidence shows that the current M&E framework has **not** adequately captured the changes introduced by the Third PoW. Respondents agreed that while reporting has become more structured, the system still focuses heavily on activities and outputs rather than outcomes or transformation-aligned indicators. One interviewee commented: “The PoW changed, but the M&E system stayed almost the same.”

283. Stakeholders highlighted several gaps:

(a) No dedicated indicators to measure progress along the five system transformations;

(b) Limited capacity to track how TAs contribute to systemic change or long-term impacts;

(c) Weak ex-post evaluation, which leaves transformation-related outcomes largely undocumented;

(d) Insufficient integration of qualitative measures capturing collaboration, institutional strengthening or policy uptake.

284. Some interviewees noted early steps to align M&E tools with the Third PoW, but these efforts were described as partial, nascent and not yet institutionalized. Respondents stressed that without updated metrics, the CTCN cannot fully demonstrate its contributions to transformation or report on sustained results.

285. Overall, interview evidence shows that the Third PoW, especially the five system transformations, has improved the strategic focus, coherence and upstream relevance of CTCN support. However, sustained or enhanced long-term results remain limited by financing, institutional capacity and the lack of M&E systems capable of capturing transformation-level outcomes. Strengthening the M&E framework to align with the Third PoW was consistently identified as a critical priority.

8. To what extent do CTCN-supported activities foster systemic and sustainable change? How are such changes monitored and evaluated? Is the current organization/format necessary to expect/implement long-term effects?

286. Interview evidence indicates that while CTCN TA primarily operates at the upstream and enabling-environment levels, it nevertheless generates several important contributions to systemic change, particularly by influencing institutional behaviours, policy ecosystems, and multi-actor coordination patterns. Stakeholders consistently emphasized that although

systemic transformation cannot be attributed solely to small and time-bound TAs, the CTCN often creates the foundational conditions for longer-term shifts.

287. Across interviews, respondents highlighted that one of the most significant systemic effects of CTCN support is the creation of new governance structures and coordination mechanisms. Many TAs helped establish inter-ministerial working groups, climate-technology task forces, or cross-sectoral committees that persisted after the TA's conclusion. As one interviewee observed: "The TA helped us build a structure that simply didn't exist before." Several respondents noted that these platforms improved institutional coherence, reduced duplication, and strengthened national capacity to plan and oversee technology deployment.

288. Interviewees also emphasized that CTCN support helps shift national planning cultures toward evidence-based decision-making. Respondents described cases where ministries began using tools, models, or methodologies introduced through the TA as standard practice in their planning processes. One participant explained: "The TA changed how we think about planning, now decisions are grounded in real data." This shift was seen as a critical systemic contribution, especially in countries with historically limited analytical capacity.

289. Another major systemic contribution identified across interviews was the strengthening of national technology ecosystems. Stakeholders reported that CTCN TAs often bring research institutions, private-sector actors, and government agencies into more regular collaboration. These relationships, once established, tend to persist beyond the TA and were described as early building blocks of innovation and deployment ecosystems. As one interviewee noted: "It planted the seeds of an ecosystem, now those actors talk to each other without any external push."

290. Interviewees also highlighted that CTCN support helps countries articulate long-term technology visions, often through strategy development, roadmaps, or enabling-environment reforms. Respondents explained that these outputs help governments clarify priorities, structure investment plans, and communicate more effectively with donors. One participant summarized this as: "Before the TA we had fragmented ideas, now we have a direction." In several cases, stakeholders noted that these visions influenced national development plans or sector strategies, thereby extending impact beyond the immediate TA scope.

291. Despite these positive systemic contributions, interviewees also identified several constraints. The most central limitation is the lack of sustained follow-on financing, which prevents systemic shifts from maturing. Respondents stressed that without resources to implement priority actions or maintain newly created structures, momentum often slows. As one interviewee put it: "The TA starts the shift, but it needs fuel to keep going."

292. Institutional instability was also cited as a barrier. High staff turnover, political transitions, and shifting ministerial mandates can erode emerging systemic changes. Interviewees noted: "If the people change, the system often resets," particularly in low-capacity environments where institutional memory is fragile.

293. Another constraint is the partial integration of TAs into larger national or donor programmes. While some TAs fit seamlessly into broader initiatives, others remain isolated, limiting their ability to influence systemic trajectories. Respondents stressed that systemic impact is strongest when TAs are embedded in ongoing reform processes, investment pipelines, or major programmes led by development banks or climate funds.

294. Interviewees additionally pointed to the limited duration and scope of TAs as structural constraints. Systemic change requires iterative engagement, reinforced cycles, and follow-up technical support, elements that exceed the CTCN's current mandate and budget envelope.

295. Overall, interview evidence shows that CTCN TAs contribute to systemic change by strengthening governance structures, creating collaboration platforms, improving planning cultures, shaping long-term strategies, and enabling early ecosystem formation. However, limitations in financing, institutional continuity, and integration into larger programmes constrain the depth and pace of systemic transformation. Stakeholders emphasised that the

CTCN's systemic contributions are real and meaningful, but inherently foundational rather than transformational, unless paired with sustained, downstream efforts.

9. Could any other existing program / tool replace the CTCN effectively? What are the strengths and added value of the CTCN compared to other organizations/programmes?

296. Interview evidence indicates that no existing programme, institution, or tool could replace the CTCN in a manner that fully preserves its mandate, operating model, and unique value proposition. While several organisations support climate technology deployment, interviewees consistently stressed that the CTCN occupies a niche that combines upstream technical assistance, neutrality, country-driven processes, and UNFCCC legitimacy, an institutional configuration that others do not offer simultaneously.

297. Across interviews, respondents emphasized that the CTCN's strongest added value is its position within the UNFCCC Technology Mechanism. As one interviewee put it: "Only the CTCN has a mandate from Parties to support technology needs, others do not have that legitimacy." This formal political anchoring ensures alignment with NDCs, LT-LEDS, TNAs, and national priorities, while also providing a trusted entry point for governments. No other programme combines technical support with a governance link to COP/CMA decisions.

298. Another widely cited strength is the CTCN's country-driven request system. Interviewees highlighted that this model ensures relevance and ownership in a way that donor-driven programmes cannot replicate. As one stakeholder explained: "The CTCN starts where the country starts, not where the donor wants to go." Respondents noted that while institutions like the World Bank, GCF, or regional development banks can provide substantial financing, they do not respond to country-submitted technology requests at this scale or flexibility.

299. Many interviewees also emphasized the CTCN's unique ability to provide upstream, early-stage support, including feasibility studies, regulatory assessments, modelling exercises, and enabling-environment strengthening. This fills a critical gap in the climate-finance architecture. One participant noted: "If the CTCN didn't do this early-stage work, nobody else would." Development banks tend to focus on downstream investment, while research institutions lack the mandate or capacity to provide structured technical assistance to governments.

300. Respondents further highlighted the value of the CTCN's global Network of expertise, which provides access to a wide range of public, private, academic, and NGO organisations. Interviewees argued that while other entities have expert rosters, no offer a mechanism combining global breadth with the neutrality and legitimacy of a UN body. However, stakeholders noted that this asset is under-utilised due to procurement bottlenecks and inconsistent mobilisation.

301. Stakeholders also pointed to the CTCN's role in providing neutral, trusted technical advice. Unlike donor-funded programmes, which may prioritise specific technologies or suppliers, the CTCN was described as impartial. As one interviewee said: "Countries trust the CTCN because it has no hidden agenda." This neutrality was seen as essential for contexts where technology choices have political or commercial sensitivities.

302. However, interviewees also identified limitations that other organisations outperform the CTCN on. These include:

(a) Financing: entities like the GCF, GEF, MDBs and bilateral donors offer far larger funding windows;

(b) Long-term implementation support: multilateral banks provide extended project cycles and large implementation teams;

(c) Innovation acceleration: philanthropic actors and private-sector accelerators operate faster and can invest in pilots and prototypes.

303. Respondents stressed that these strengths do not replace the CTCN but complement it. Many highlighted the need for stronger linkages to these institutions to create a continuum from upstream TA to downstream financing.

304. Regarding the M&E framework, interview evidence shows that it has not adequately captured the CTCN's added value relative to other institutions. Respondents noted that reporting focuses largely on activity counts and outputs rather than demonstrating how CTCN fills system gaps or provides comparative advantage. As one interviewee put it: "The M&E system does not tell the story of why the CTCN is unique."

305. Interviewees identified the following M&E gaps:

(a) Lack of indicators showing how the CTCN complements other climate-technology programmes;

(b) No metrics for neutrality, country-driven processes, or UNFCCC alignment;

(c) Limited documentation of cases where CTCN support unlocked downstream finance;

(d) Minimal ex-post evaluation capturing long-term or systemic contributions.

306. Overall, interview evidence demonstrates that while several institutions support climate technology development, none can replace the CTCN's combination of UNFCCC mandate, neutrality, country-driven model, early-stage focus, and global network. Strengthening the M&E system to capture these comparative advantages was widely identified as essential for demonstrating the CTCN's unique role in the global technology ecosystem.

10. To what extent and how has the CTCN incorporated lessons learned and best practices gained from previous work to enhance the impact and sustainability of its results?

307. Interview evidence indicates that the CTCN has incorporated lessons learned and best practices from its previous work, but the extent and consistency of this integration vary significantly across thematic areas, institutional processes, and country contexts. Stakeholders repeatedly noted that while the CTCN has made visible progress in several domains, particularly in strengthening NDE engagement, improving request quality, enhancing collaboration with the TEC, and clarifying elements of the PoW, the uptake of lessons remains uneven and often constrained by resources, staffing, and systemic barriers.

308. Across interviews, respondents highlighted that one of the clearest examples of learning uptake is the CTCN's improved approach to NDE capacity-building and request formulation. Interviewees observed that compared to earlier programme cycles, the Secretariat now provides more structured guidance, clearer templates, and targeted support for request development. As one participant stated: "The CTCN learned that weak requests lead to weak TAs, now the process is much more guided." These improvements have strengthened TA relevance and alignment with national priorities.

309. Another widely cited area of progress is stronger collaboration with the TEC. Respondents noted that lessons from previous coordination challenges led directly to the development of the joint TEC–CTCN Work Programme, which was repeatedly described as a major institutional improvement. Interviewees emphasised that this alignment reduces duplication, enhances strategic coherence, and increases the visibility of the Technology Mechanism as a whole. One interviewee commented: "The joint work programme shows that both arms finally learned how to work together."

310. Interviewees further highlighted improvements in resource mobilisation practices, noting that the CTCN took lessons from past fundraising constraints and created a dedicated resource mobilisation function, strengthened donor engagement, and improved communication materials. However, stakeholders stressed that while structures have improved, resource mobilisation results remain limited, largely due to systemic factors such as voluntary contributions and competition with other UN entities.

311. Several respondents pointed to enhancements in knowledge management and dissemination, with the Secretariat developing more structured platforms and guidance materials. However, interviewees also noted that knowledge capture from past TAs is still not systematic enough, and that lessons are not consistently documented or shared across regions.

312. Despite these positive developments, interviewees identified several persistent gaps in the CTCN's ability to fully internalise lessons and best practices:

(a) Ex-post evaluation remains the biggest missed opportunity for learning. Respondents repeatedly emphasised that the absence of a systematic ex-post review process limits the CTCN's ability to understand what works, under what conditions, and why. As one interviewee put it: "Without ex-post evaluation, lessons stay at the anecdotal level";

(b) Staff turnover and limited human resources reduce institutional learning. Stakeholders noted that when key staff members leave, institutional memory is lost, and lessons are not always integrated into standard procedures;

(c) M&E frameworks have not kept pace with learning needs. Respondents highlighted that the current monitoring system focuses heavily on outputs rather than learning-oriented indicators that would facilitate adaptive management;

(d) Learning is not consistently embedded in TA design. Several interviewees commented that while some TAs incorporate best practices from previous interventions, others repeat challenges such as insufficient stakeholder engagement, compressed timelines, or overly broad scopes;

(e) Regionalisation and private-sector engagement reflect partial learning uptake. Although the CTCN has recognised the need for deeper regional presence and stronger links with the private sector, interviewees noted that progress remains slow and inconsistent.

313. Many stakeholders emphasised that lessons learned have informed improvements to the Third PoW, including the introduction of system transformations, a stronger emphasis on innovation and enabling environments, and clearer articulation of strategic priorities. However, they noted that sustained integration of lessons will require more robust institutional mechanisms, updated M&E tools, and more stable funding.

314. Overall, interview evidence suggests that the CTCN has incorporated lessons learned and best practices in meaningful ways, particularly in NDE engagement, collaboration with the TEC, resource mobilisation structures, and elements of the PoW. However, the depth and consistency of this integration remain limited by structural constraints, insufficient ex-post evaluation, limited staffing, and outdated M&E systems. Strengthening institutionalised learning processes was widely identified as essential for enhancing the long-term impact and sustainability of CTCN results.