

Results of the Fourth Technology Mechanism Biennial National Designated Entities Survey Relevant to the CTCN

I. Introduction

A. Background

1. COP 23 requested the Technology Executive Committee (TEC) and the Climate Technology Centre and Network (CTCN) to undertake the monitoring and evaluation of the impacts resulting from the implementation of their respective mandates.¹

2. In 2019, the TEC and CTCN agreed to jointly develop a monitoring and evaluation system² (hereinafter referred to as the M&E system) to report on activities conducted under the Technology Mechanism. As a part of this effort, both bodies also agreed to conduct a biennial survey of National Designated Entities (NDEs) and collect ex-post impacts of the support provided, in order to assess the activities and contributions of the TEC and CTCN in facilitating technology development and transfer, as well as addressing transformational changes envisioned in the Paris Agreement.

3. COP 25 welcomed the coherent approach of the TEC and the CTCN in developing and enhancing their M&E system and encouraged them to utilize these systems to improve reporting on the outputs and impacts of their work and facilitate the achievement thereof.³

4. COP 27 requested the TEC and CTCN continue enhancing their efforts to monitor and evaluate the impacts of their work, including by identifying new ways to invite feedback from NDEs on the impact of the work of the Technology Mechanism.⁴

5. The first NDE survey was jointly conducted in July 2020. The survey results were presented at the respective meetings of each body, namely at TEC 23⁵ and the 21st meeting of the CTCN Advisory Board.⁶

6. The second NDE survey was conducted in 2022, with the survey disseminated between April and July 2022. The results were presented at the joint session of the TEC and CTCN Advisory Board held in conjunction with TEC 25 and the 20th Advisory Board meeting.⁷

¹ See decision 15/CP.23, paragraph 5.

² Available at: <https://unfccc.int/ttclear/tec/documents.html> CTCN M&E system available at: https://www.ctc-n.org/sites/default/files/resources/ctcn_me_system.pdf.

³ See decision 14/CP.25, paragraph 3.

⁴ See decision 18/CP.27, paragraph 11.

⁵ See document TEC/2021/23/14

⁶ <https://www.ctc-n.org/calendar/events/17th-ctcn-advisory-board-meeting-opening-unfcccexecutive-secretary-patricia>.

⁷ <https://www.ctc-n.org/calendar/events/20th-ctcn-advisory-board-meeting-9-14-september-2022>.

7. The third NDE survey was conducted in 2024, with the survey disseminated between May and August 2024. The results were presented at the joint session of the TEC and CTCN Advisory Board held in conjunction with TEC 29 and the 24th Advisory Board meeting.⁸

8. At the joint session of the TEC and CTCN Advisory Board in April 2026, the Secretariat presented the methodology, timeline and outreach plan of the 4th NDE survey.

9. The fourth NDE survey was conducted in 2026, with the survey disseminated between March and July 2026. The results plan to be presented at the joint session of the TEC and CTCN Advisory Board to be held in conjunction with TEC 33 and the 28th Advisory Board meeting.

B. Scope of the note

10. The TEC and CTCN Secretariat conducted the fourth NDE survey from March to July 2026. This note presents the survey results (see annex). The first section outlines the strengthened methodology used to design and implement the survey, followed by an analysis of the survey responses related to the CTCN, and a final section on the analysis of responses related to the TEC.

C. Possible action

11. The TEC and the CTCN Advisory Board will be invited to take note of the information provided and discuss the results for possible follow-up action as relevant.

⁸ https://www.ctcn.org/sites/default/files/202409/AB_2024_24_7.1_Results%20of%20the%20Third%20UNFCCC%20Technology%20Mechanism%20NDE%20Survey_0.pdf

Annex I

Monitoring and Evaluation of the work of the Technology Mechanism: Results of the UNFCCC Survey for National Designated Entities

I. Background

A. Introduction

1. In response to mandates from the COP and CMA, the TEC and CTCN jointly developed a monitoring and evaluation system (hereinafter referred to as the M&E system) to report on activities conducted under the Technology Mechanism. As a part of this effort, both bodies agreed to conduct a biennial survey of National Designated Entities (NDEs).
2. The first survey was implemented in 2020, followed by a second in 2022, a third in 2024, and a fourth NDE survey in 2026.
3. At COP 27 in November 2022, Parties requested that the TEC and CTCN continue to enhance their efforts to monitor and evaluate the impacts of their work, including by identifying new ways to invite feedback from NDEs on the impact of the work of the Technology Mechanism.
4. In response, the TEC and CTCN developed an enhanced approach to the third NDE survey, taking into account lessons learned from previous surveys. This approach included targeting both Non-Annex I and Annex I NDEs, refining the framing and scope of the questions, adopting a more targeted and coordinated approach to outreach efforts, and enhancing survey dissemination strategies to increase the response rate, including utilizing regional NDE forums for survey distribution. This approach was kept for the fourth NDE survey.
5. The fourth NDE survey was disseminated to NDEs between March and July 2026, with results analysed in August 2026.
6. This report presents only the results of the CTCN component of the survey. The analysis of responses relevant to the TEC is presented in a separate report⁹.

B. Objective

7. The objective of the survey is to gather insights and feedback from NDEs, who serve as the national focal points for technology development and transfer. The survey aims to evaluate the ex-post impacts of the support provided by the CTCN and the TEC, in order to assess the activities and contributions of both bodies in facilitating technology development and transfer, as well as addressing transformational changes envisioned in the Paris Agreement. Finally, the survey aims to gain a clear understanding of the challenges and opportunities faced by NDEs, enabling the Technology Mechanism to learn, improve and deliver more effective support.

⁹ https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/tn_meetings/e75f68d699ac4a029888750c128f55b6/bb33764d84d242d199688df74169661d.pdf

C. Methodology

(a) Survey Design

8. The survey questionnaires were created in two online formats (Microsoft forms) for Annex I and Non-Annex I NDEs, and translated into English, French and Spanish. Forms in Word format were also available upon request. Responses were collected from March to July 2026.

1. Awareness of the role of NDEs:

(a) For Non-Annex I NDEs, the survey assessed awareness on their roles and sought to identify gaps and highlight best practices related to the operationalization of the NDE role at country level;

(b) For Annex I NDEs, the survey assessed their awareness of their roles and gathered perspectives and expectations of Annex I NDEs, including those who have provided contributions to support the work of CTCN.

2. Impacts of the CTCN services provided:

(a) For Non-Annex I NDEs, the survey assessed the long-term impacts of CTCN services, across all three areas – technical assistance, capacity building and knowledge sharing – with a focus on aggregated impact indicators within the CTCN M&E system;

(b) For Annex I NDEs, the survey assessed whether their Party's financial contribution to the CTCN (if applicable) met expectations, addressed priorities, and explored their willingness for future support.

3. Target Respondents

9. The 2024 report expanded its scope beyond Non-Annex I NDEs by introducing a set of questions targeted at Annex I NDEs. This feature has been retained in the current report.

10. Contact information for NDEs was obtained from the list maintained by the UNFCCC secretariat, which can be accessed via the CTCN website.¹⁰

11. Survey responses were received from 65 of the 166 NDEs, resulting in a response rate of 39%. While this is relatively close to the target response rate of 45%, it represents a decrease of 6 percentages points compared to the 2024 survey. In addition, responses were unevenly distributed across respondent groups, with a substantially higher number of Non-Annex I NDEs participating than Annex I NDEs.

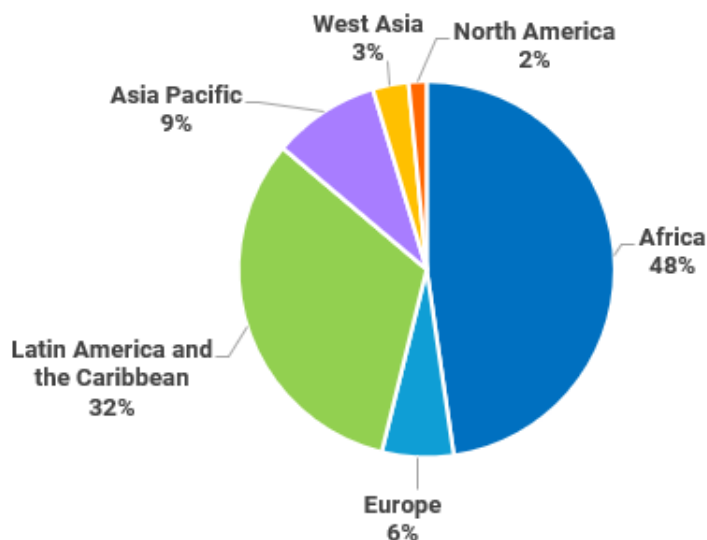
Table 1

Survey response statistics (as of August 14th, 2026)

NDEs	# of surveys sent	# of survey responses	# of online responses	# of offline responses
Annex I	37	5	5	0
Non-Annex I	139	60	58	2
Total	166	65	Response rate: 39%	

¹⁰ <https://www.ctc-n.org/about-ctcn/nde>.

Figure 1

Regional distribution of NDE respondents to the survey**(c) Distribution of survey**

12. An initial mass email was sent to all NDEs in March 2026. Following this, CTCN's regional teams sent 2-5 reminder emails. For new NDEs who received the survey for the first time, the CTCN encouraged these NDEs to consult with their predecessors if necessary.

13. Furthermore, the CTCN NDE forums in Africa, Latin America and Caribbean, and Asia, organized dedicated sessions to assist NDEs in completing the survey. These combined online and in-person follow-up strategies helped boost the survey response rate.

II. Survey results

A. Overview and Survey Results Relevant to the CTCN and the TEC

1. Responses from Non-Annex I NDEs:

(a) Awareness of NDE roles among ministries and/or organizations, and their level of stakeholder engagement (Q3)

14. NDEs generally perceive their ministries or organizations as moderately informed about their roles and somewhat engaged with relevant in-country stakeholders, with an average score of 6.8 on a scale from 1 to 10. While there is a reasonable level of awareness and engagement, the score suggests that there is room for improvement in both areas to enhance the effectiveness of stakeholder interactions and the overall understanding of NDE roles (see Annex 3, Figure 3).

15. When looking at the geographical split, the Eastern Europe region has the lowest average rating of 6.0 while the Asia and the Pacific region has the highest average rating of 7.7 in terms of their level of awareness and stakeholder engagement.

(b) Main challenges faced by NDEs in accessing and utilizing climate technologies (Q6)

16. The two primary barriers identified by NDEs in accessing or utilizing climate technologies are: 1) financial constraints, encompassing both challenges in accessing international climate finance and the high upfront costs of climate technologies as obstacles to scaling implementation; and 2) Insufficient technical capacity due to a lack of technical skills and human resources and limited access to technical expertise for technology assessment, adaptation, and maintenance.

17. Additionally, NDEs reported significant barriers such as weak institutional coordination, fragmented mandates, and inadequate institutional frameworks, as well as difficulty accessing technologies and adapting technologies to local contexts. A full list of entries can be found in Annex 3, Table 5.

(c) Measures which governments can adopt to enhance the role and functioning of NDEs to support the CTCN (Q5)

18. Survey respondents most frequently identified strengthening the resourcing and institutional capacity of NDEs, alongside improving coordination and engagement with relevant stakeholders, as key ways governments could enhance support for NDEs (see Annex 3, Table 6). Specifically, governments could:

(a) **Provide financial support** to ensure adequate operational capacity for requesting and implementing technical assistance projects, and to ensure continuity and effective implementation of climate technology activities.

(b) **Strengthen coordination** mechanisms between NDEs, relevant ministries, sectoral focal points, and other relevant stakeholders to improve the identification of technology needs and efficient processing of requests.

(c) **Enhance capacity building and technical support** by providing training on climate technologies, project development, and preparation of

CTCN technical assistance requests. This would enable NDEs and sectoral stakeholders to better identify priorities, develop quality proposals, support the implementation, and scaling up of technology solutions.

(d) Perceived governance and influence of ministries on climate technology decisions (Q4)

(a) NDEs perceive the governance and political influence of line ministries in climate technology decisions as moderately strong, with an average score of 7.0 on a scale from 1 to 10. While this result reflects a reasonable level of effectiveness in governance and influence, it also highlights opportunities for line ministries to further strengthen their contribution to the development, transfer, and deployment of climate technologies (see Annex 3, figure 4).

(b) In terms of the geographical split, the Africa region has the highest average rating of 7.3, while Eastern Europe has the lowest average rating of 6.0 in terms of the perceived governance and influence of its line ministries in climate technology decisions.

(e) Key sectors/areas needing additional support for climate technology development and deployment (Q7)

19. NDEs identified several key sectors where additional support and resources that are crucial for enhancing technology development, transfer, and deployment (see Annex 3, Table 7 for a detailed table). The sectors are listed below in descending order of the frequency with which they were identified.

(a) **Agriculture:** There is a call for support in agriculture, particularly in adopting climate-smart practices, improving irrigation, and enhancing food security. This includes support for precision agriculture, drought-resistant crops, AI-based tools for crop yield prediction and pest monitoring, and sustainable land management.

(b) **Energy:** Countries call for renewable energy technologies including solar, hydrogen, and storage systems, with an emphasis on improving access to clean, reliable, and resilient energy and integrating renewables into national energy systems.

(c) **Water Resources Management:** Support for water management technologies addressing scarcity, drought, and variable rainfall, including efficient irrigation, water security, and desalination are mentioned.

(d) **Waste Management:** Countries request support for improving waste management practices, including circular economy approaches, waste sorting, and recycling.

(e) **Sustainable Mobility:** Transport is named as a distinct priority in several responses, with specific calls for electric mobility and sustainable transport technologies, alongside more general references to the transport sector as a whole.

(f) **Forestry and Land Use:** Support is sought for sustainable forestry and ecosystem restoration, including technologies such as remote sensing and drone assisted reforestation.

(g) **Capacity Building and Training:** Countries emphasize the need for capacity building support, including proposal development, mobilizing climate finance, and technology implementation.

(h) **Industry:** A smaller number of responses name industry specifically, often grouped with other themes such as scientific research, technological innovation, and education.

(i) **Research and Innovation:** Some responses name innovation as a key sector alongside energy and water, with specific needs regarding technology incubation, project preparation, and strengthening innovation ecosystems linked to universities and the private sector.

(j) **Climate-Resilient Infrastructure:** Infrastructure resilience is raised as a need for withstanding extreme weather events, often grouped with ecosystems and biodiversity, as well as in the context of post-disaster recovery.

(k) **Other Sectors:** Some countries mentioned other sectors such as coastal protection, healthcare, and tourism.

(f) Collaboration with GCF NDAs, GEF Focal Points, and Adaptation Fund Focal Points (Q8, Q9, Q10, Q11)

Overall, NDEs perceive their collaboration with GCF NDAs, GEF Focal Points, and Adaptation Fund Focal Points as moderately strong, with an average score of 6.7 on a scale from 1 to 10. There remains room to strengthen collaboration with the GCF to enhance linkages between the Technology Mechanism and the Financing Mechanism.

20. NDEs view their collaboration with GCF NDAs as moderately strong, scoring an average of 6.9 out of 10.

21. NDEs view their collaboration with GEF Focal Points as moderately strong, scoring an average of 6.5 out of 10.

22. Adaptation Fund Focal Points: NDEs view their collaboration with Adaptation Fund Focal Points as moderately strong, scoring an average of 6.7 out of 10.

23. In response to the question of what would facilitate or enhance this collaboration, respondents most frequently highlighted the following measures, in order of frequency of mention:

(a) **Regular and institutionalized coordination mechanisms,** including joint meetings, working groups, multi-stakeholder platforms, and regular information-sharing forums that bring NDEs together with GCF, GEF, and Adaptation Fund focal points as key enablers of effective collaboration.

(b) **Strengthen institutional arrangements**, either by consolidating climate-related focal points within the same ministry or administrative structure, or by ensuring clear governance and communication channels across institutions

(c) **Engaging NDEs** from the earliest stages of technical assistance design, involving them in project review processes, steering committees, and concept development to better integrate climate technology considerations into funding proposals and national climate initiatives.

2. Responses from Annex I NDEs:

(a) Collaborations with the CTCN (Q1, Q2, Q3)

24. 40% Of Annex I NDEs (2/5) report having collaborated with the CTCN in providing technical assistance, knowledge sharing, or capacity building support to developing countries. 60% of Annex I NDEs (3/5) report not having participated in such collaborations.

(a) Among NDEs that have participated in collaborations, the scope of engagement was diverse and included the provision of technical assistance responses, knowledge sharing and capacity building, policy dialogue and joint initiatives, demonstration and deployment, and climate policy and planning. Collaborations also addressed thematic areas such as industrial decarbonization, clean and renewable energy, sustainable transport, and water infrastructure.

(b) NDEs that had not directly engaged in such collaborations, nevertheless reported being involved through alternative forms of engagement, including multilateral technology negotiations, co-organization of events, voluntary knowledge sharing, and information exchange.

25. NDEs reported a relatively high likelihood of recommending the CTCN to a colleague, with an average score of 7.4 on a scale from 1 to 10. This reflects an overall positive level of satisfaction and engagement with CTCN.

(b) Annex I NDE capacity and skills to develop and facilitate linkages and suggestions for further improvements (Q4)

26. NDEs reported a moderate level of capacity and skills to develop and facilitate linkages between their in-country development assistance projects and CTCN activities that will contribute to achieving national climate targets, with an Average score of 6.0 on a scale from 1 to 10. This suggests that while the NDEs have some confidence in building these linkages, there remains room to strengthen this capacity further.

(c) Annex I NDE resources and opportunities (Q5)

27. NDEs reported a moderate level of resources and opportunities to facilitate technology transfer and deployment in collaboration with developing countries, with an average score of 6.0 on a scale from 1 to 10. While respondents generally viewed their ministries or organisations as moderately capable of providing such support, the findings suggest considerable scope for strengthening the resources, capacities, and opportunities available to enhance these efforts.

(d) Awareness of NDE roles among ministries and/or organizations, and their level of stakeholder engagement (Q6)

28. Annex I NDEs generally perceive their ministries or organisations as moderately informed about their roles and somewhat engaged with relevant in-country stakeholders, with an average score of 5.8 on a scale from 1 to 10. While there is a reasonable level of awareness and engagement, the score suggests that there is room for improvement in both areas to enhance the effectiveness of stakeholder interactions and the overall understanding of NDE roles

(e) Perceived governance and influence of ministries on climate technology decisions (Q7)

29. Annex I NDEs view the governance and political influence of line ministries in climate technology decisions regarding development, transfer, and deployment of climate technologies, promoting synergies and partnerships with relevant activities in home country as moderately strong, with an average score of 7.2 on a scale from 1 to 10. While this suggests that line ministries have a meaningful degree of influence, there remains potential to further enhance their governance and influence on climate technology decisions.

(f) How governments can strengthen support for Annex I NDEs (Q8)

30. NDEs suggested that their governments could further strengthen support for NDE functions by enhancing institutional arrangements, improving coordination mechanisms, and providing dedicated resources. In particular, NDEs highlighted the following areas where governments can play a supportive role:

(a) **Clarifying mandates, roles, and institutional responsibilities** to ensure that NDE functions are supported by clear governance arrangements and adequate resources.

(b) **Strengthening institutional capacity and dedicated resources**, including staff time and budget allocations, so that CTCN engagement can be treated as a core institutional function rather than an additional responsibility.

(c) **Improving coordination** between CTCN-supported technical assistance and financing institutions, including development agencies, climate finance providers, and implementing partners, to create clearer pathways from technical assistance to project implementation and scale up.

(d) **Promoting collaboration** with the private sector and technology providers to increase awareness of CTCN opportunities and facilitate the transfer of technologies to developing countries.

(e) **Digitalization** of shared knowledge by creating a CRM platform for Annex I NDEs to reduce duplication, track expertise and requests, and identify matchmaking opportunities across countries and institutions.

(f) **Identifying developing-country technology needs** and facilitating connections with relevant domestic expertise and technologies, thereby strengthening opportunities for technology transfer and deployment.

(g) **Integrating** NDEs into the national innovation landscape to ensure that international cooperation opportunities are systematically aligned with core national climate priorities and legislative mandates.

(g) Contribution of updated Annex I NDE guide (Q9, Q10)

31. 60% of respondents (3/5) report that the updated guide, which provides thoughts and suggestions that countries might find helpful in defining the roles of their NDEs, has improved their understanding of the role of Annex I NDEs. However, with 40% (2/5) indicating that the guide has not improved their understanding, the results also suggest there remains scope to better address the needs of NDEs. Annex I NDEs provided key suggestions for improving the guide, as listed below.

(a) **Include more diverse case studies**, practical examples, and lessons learned that reflect the different legal and financial circumstances of Annex I Parties, including examples of NDE engagement and responses to technical assistance requests.

(b) **Provide adaptable templates** (e.g., ToRs and MoUs) to support collaboration with national and international partners

(c) **Develop a competency matrix** to identify capacity gaps and guide targeted training for NDE staff

(d) **Clarify linkages** between NDE activities and other UNFCCC processes (e.g., NDCs, Global Stocktake, Article 6, Loss and Damage).

(e) **Provide clearer guidance** on how Annex I NDEs can contribute to the long-term vision of the Technology Mechanism.

B. Survey Results Related to the Work of the CTCN

1. Responses from Non-Annex I NDEs:

(a) NDE Capacity, Resources, and Opportunities to Develop and Monitor CTCN Technical Assistance Projects (Q1, Q2)

32. A majority of the NDEs (62%) reported above-average capacity and skills to develop and monitor CTCN Technical Assistance projects that will contribute to achieving national climate targets, suggesting a strong level of technical competence and institutional expertise across the respondents, with an average score of 7.6 on a scale from 1 to 10.

33. Nearly half of the NDEs (48%) reported below-average access to the resources and opportunities (such as budget, time, and political will) required to develop such projects, with an average score of 5.4 on a scale from 1 to 10. This suggests that while NDEs may have the necessary capacity and skills, their ability to effectively utilize these skills can be hindered by a lack of resources.

(b) Ideas for Focused TA on Developing the Capacity and NSI of Indigenous and Endogenous Technologies (Q12)

34. Across responses, NDEs centred their ideas for focused TA on strengthening NSI to formally recognize and integrate indigenous and endogenous knowledge, with water-related technologies coming up as the most recurring technical focus. Several ideas also called for institutional coordination mechanisms, such as dedicated councils, innovation hubs, or stakeholder consultations, and links to existing processes like NDEs, TNAs or ongoing CTCN support. Several countries noted these ideas are still early-stage, requiring further ministerial coordination or financing.

Table 2

Summary of Ideas

Country	Summary of Ideas for Focused TAs
Botswana	Indigenous-inspired ideas to explore could include ICT-based early-warning systems that combine climate and wildlife movement data to address human-wildlife conflict.
Burundi	It is now time to translate system transformation into actionable practice, enabling participants to examine sectoral innovation, institutional coordination, and support mechanisms such as incubators and accelerators.
Chile	In the case of Chile this would need support from the Science and Technology Ministry, and the focus should be paradigm shift based on good outcomes. Currently the paradigm is quite focused on financing research centers, not on addressing all system functions or the broader effect of policies on innovation.
Colombia	Financial instruments to increase institutional capacities.
Comoros	Development of capacities and National Innovation Systems (NIS) in health, infrastructure, and ecosystem services.
Costa Rica	We are interested in developing a Solid Waste NAMA.
Côte d'Ivoire	Technical assistance could involve strengthening the national innovation system by focusing on mapping, valorization, and incubation of endogenous climate technologies, through collaborative platforms, pilot sites, and dedicated financing mechanisms, to accelerate their development and deployment.

Equatorial Guinea	Microbiology and the management of genetic resources would be fundamental areas for technical assistance.
Eswatini	Ethnobotanical Medicine Frameworks for improved livelihoods: the final deliverable will be a documented analysis of how communities use plants for health, blending indigenous knowledge with scientific validation. The work will involve interviews and dialogues with traditional healers and elders to record ethnobotanical knowledge, including identification of plant species used for specific ailments. These could ultimately be validated in the lab and tested for efficacy.
Grenada	Acknowledge and respect indigenous technical knowledge and the right of communities to use resources. Empower communities.
Guinea	In the context of strengthening traditional agricultural techniques adapted to local conditions; sustainable natural resource management methods developed by communities; local innovations in energy, crafts, or construction; the valorization of local knowledge for climate change adaptation.
Haiti	Haiti would like technical assistance to establish a national climate technology innovation system that promotes the valorization of local knowledge and endogenous technologies. This assistance could support solutions in water management, biodigesters, resilient agriculture, valorization of organic waste, and nature-based solutions, while strengthening the capacities of universities, research centers, and local innovators.
Honduras	Honduras could pursue technical assistance focused on strengthening national climate innovation capacities and on documenting and developing community systems with a territorial, culturally relevant approach based on the worldviews and knowledge of ancestral peoples. This would include water harvesting, traditional agroforestry, native seed banks, local weather networks, and early warning systems integrating traditional knowledge with modern tools, while promoting equitable participation of men, women, and youth in innovation, adaptation, and community land management.
Jamaica	It is important to have stakeholder engagement for each sector to get a sense of the technology that needs to be included.
Lao PDR	For an NDE looking to leverage this new mandate, a focused TA request can be designed to build a structural framework that protects, tests, and scales these technologies.
Lesotho	Cultural Climate Innovation Hubs: Strengthening National/Regional Systems of Innovation for Indigenous and Endogenous Climate Technologies. This would be an institution serving as the formal interface between indigenous knowledge systems and national science, technology, and innovation (STI) infrastructure – converting traditional ecological knowledge, indigenous land management practices, and community-based adaptive technologies into documented, protectable, scalable, and financeable endogenous climate technologies.
Liberia	Indigenous knowledge is important. For example, implementing indigenous technology identified in the TNA (planting coconut trees to protect against sea erosion).
Madagascar	For Madagascar, relevant technical assistance would be developing a national innovation system to leverage local technologies in renewable energy, water, and agriculture – creating a digital, participatory platform that catalogs and improves endogenous practices: local solar or biomass energy solutions, traditional water management and irrigation techniques, and resilient agricultural practices (agroforestry, soil conservation). This would strengthen national capacities, improve sharing of local innovations, and facilitate their large-scale dissemination with technical and scientific support.
Mexico	Conduct workshops.

Mozambique	We are already working on the national innovation system; now we must consider indigenous capabilities, since there is a great deal of local knowledge that needs to be leveraged through best practices.
Namibia	A focused TA initiative could strengthen the national system of innovation by supporting co-development and scaling of indigenous water harvesting and rangeland management technologies for arid environments – documenting and upgrading practices like earth bunds, zai pits, and communal grazing systems, integrated with remote sensing, GIS, and climate advisory services. Coordination through the Ministry of Environment, Forestry and Tourism with universities and communities, and CTCN support for capacity building and innovation ecosystems.
Nigeria	Strengthening the collaboration of government, academia, and industry towards commercialisation of technologies.
Panama	Develop our own early warning systems for floods and droughts, the main climate impacts facing the country, using local data and national technical capacity rather than relying on foreign models.
Paraguay	The NDA is promoting the TAP, through which the necessary technologies for the NDC 3.0 and 2CA adaptation and mitigation action lines can be identified.
Democratic Republic of the Congo	Strengthening the National System of Innovation (NSI) in the DRC for development, validation, and dissemination of local climate technologies – building capacity to identify, co-develop, validate, and disseminate indigenous/endogenous technologies adapted to DRC's realities, to increase resilience, promote sustainable livelihoods, and support the low-carbon transition. Technologies include: resilient agroecology; decentralized renewable energy; improved cookstoves; sustainable forest management and community reforestation; water-efficient irrigation; decentralized wastewater treatment/waste valorization; early warning and climate information solutions.
Republic of the Congo	During consultations on the NDC 2.0, the TCN, and the NBSAP (National Biodiversity Strategy and Action Plan) biodiversity document, we worked with indigenous peoples, and I introduced this idea of technical assistance targeting capacity building and national innovation systems for indigenous/endogenous technologies – though implementation hasn't started; it's still under discussion between the environment ministry and the technological innovation ministry. A request for technical assistance on this is underway.
Sierra Leone	Supporting women vegetable farmers in Sierra Leone to be able to farm two or three times [a season] through solar irrigation systems.
Somalia	Somalia is interested in a focused TA to establish a National Climate Innovation and Indigenous Technology Support Platform linked to universities, government institutions, and local innovators – supporting identification, documentation, incubation, and scaling of indigenous/locally adapted climate technologies for nomadic and rural communities. Priority technologies: solar-powered water systems and cold storage; mobile-enabled climate advisory systems; drought-resilient agriculture technologies (awaiting Agriculture Ministry priorities); traditional water harvesting and rangeland restoration integrated with digital monitoring; AI and GIS-based early warning systems adapted to local knowledge systems. Would also support capacity building, innovation hubs, startup incubation, and partnerships between ministries, academia, private sector, and international partners.
St. Kitts and Nevis	A valuable Technical Assistance project would focus on strengthening indigenous and locally adapted climate resilience technologies for Small Island Developing States. This could include documenting and modernizing traditional rainwater harvesting systems, sustainable agroforestry practices, coastal vegetation restoration techniques, and climate-resilient building methods adapted to hurricane-prone environments. The TA could establish a National System of Innovation that links communities, farmers, fishers, academia, and government agencies to identify, test, and scale locally developed technologies. Digital tools, GIS mapping, climate information services, and knowledge management platforms could be used to

	preserve and disseminate indigenous knowledge while supporting innovation and commercialization.
Suriname	AI literacy.
Tanzania	Already implementing a TA on establishing a climate innovation centre in Tanzania, one target being a national integrated regulatory sandbox to support start-ups with fiscal and non-fiscal incentives.
Thailand	We strongly support the enhancement of National Systems of Innovation (NSI) as a key element of the revised CTCN mandate. In our experience, the NSI approach has been highly valuable in supporting the work of both Technical Assistance (TA) and the NDE by strengthening coordination among government agencies, research institutions, academia, and the private sector. A focused TA could therefore aim to strengthen national innovation ecosystems for the development and deployment of indigenous and endogenous climate technologies. This could include building institutional capacity, fostering collaboration among national stakeholders, and supporting the adaptation and scaling-up of locally developed technologies that address national climate priorities. Through this approach, NSI can serve as an effective platform to accelerate technology development, transfer, and deployment at the national level.
The Gambia	Proposal: "Catalyzing Indigenous and Endogenous Climate Innovation: NSI Capacity-Building and Demonstration Program" – strengthening the NSI to identify, validate, finance, and scale indigenous/endogenous climate technologies, with a first-wave focus on water security and climate-resilient agroforestry. Core components: an Indigenous Innovation Council; NSI mapping/gap analysis; policy and standards package (IP/data sovereignty recognition, fast-track standards for nature-based solutions, procurement preferences, MRV-lite guidance); Community Innovation Labs, co-design sprints, micro-grants/R&D vouchers, and ethics/FPIC training; two flagship demonstration tracks – climate-resilient agroforestry/soil carbon, and decentralized water security – each with technology sets, digital support tools, and expected outcomes; plus capacity development and training tracks.
Tunisia	Establishing an NSI is truly a solution for better managing climate change, but the subject isn't yet on the agenda in Tunisia – it was only presented for the first time at the last NDE Forum in Tunisia (Hammamet 2026). I propose technical assistance from the CTCN to organize a national seminar in Tunisia bringing together all stakeholders – mainly decision-makers from various departments and the private sector – to present an NSI and demonstrate its benefits and implementation.
Uganda	Development of diversified productivity resources, inputs, and their production processes to enhance water sourcing and storage for precision agriculture in the semi-arid cattle corridor.

(c) Multi-country TA Experiences and Further Improvements (Q13)

35. NDEs reported having participated in a multi-country TA. Respondents most frequently identified the exchange of experience and peer learning between participating countries as the strongest benefit, alongside networking and collaboration around shared goals. The most reported challenges included insufficient funding for the request, language barriers, differing country priorities and capacities, and limited integration of local expertise.

36. The recommendations on further improvements included stronger coordination and follow-up mechanisms, more country-tailored approaches, and greater involvement of national actors and local capacity from the design stage onward.

Box 2: Examples of further improvements suggested by NDEs

"CTCN could adopt more flexible, country-tailored approaches within a common framework, strengthen the role of National Designated Entities in coordination, ensure adequate resourcing for in-country follow-up, and place greater emphasis on contextualisation and scalability of technologies"

"CTCN could improve future multi-country TAs by establishing clearer coordination and follow-up mechanisms, supporting regional communities of practice among NDEs, and providing more tailored country-level implementation support"

"It is important to accelerate procedures, strengthen post-assistance monitoring, improve adaptation of solutions to the local context, and involve national actors more from the design of projects onward"

(d) Analysis of Success Stories and Recommendations for Further Promotion (Q14)

37. The following sections (e – g) present a detailed analysis of the impacts of support received by 35 countries for which NDEs identified at least one technical assistance project from the past five years as a success story. An additional five respondents did not refer to a specific completed TA but nevertheless provided relevant examples and insights, which have also been taken into account in the analysis. Annex 3, Table 9 contains the full list of technical assistance projects included in the analysis, together with NDE recommendations for further promotion.

(e) Contribution of Success Stories to Strengthening Climate Resilience (Q15)

38. NDEs were asked to assess the extent to which the technical assistance projects identified as success stories under question 14 contributed to strengthening different dimensions of climate resilience, using a scale from 1 (Not applicable) to 5 (Significantly). Excluding responses marked as not applicable, the results indicate a moderate contribution to climate resilience, with an average response of 2.7 on a scale from 1 to 4.

(a) Increased income in the population or at community level as a result of this TA: nearly half of NDEs (48%) report that the TA contributed to increased income to varying degrees. For example, Burundi's success story concerns mobile flood barriers that are used to protect crops, and in turn, allow uninterrupted business activity and increased crop yields. 42% of NDEs considered this dimension not applicable to the chosen technical assistance.

(b) Increased resilience of health and wellbeing and food and water security: 68% of NDEs report an increase in resilience to varying degrees in this dimension related to the chosen TA. For example, Namibia saw moderate increase of water security through a TA focusing on strengthening national capacity to design and implement water-efficient technologies.

(c) **Infrastructure and build environment resistant to climate-induced damages:** 58% of NDEs reported that the TA contributed to varying degrees, to the resilience of infrastructure and the build environment. For example, the development of tools for risk assessment in Panamanian coasts to implement climate change adaptation in coastal-marine zones.

(d) **Improved or maintained resilience of ecosystem services and natural resource assets:** 66% of NDE's indicate that the TA has contributed to varying degrees, to this dimension of climate resilience. For example, a TA on aquifer mapping in Zambia strengthened the capacity assess, monitor, and sustainably manage groundwater resources.

(f) Contribution of TA Success Stories to the Creation or Strengthening of Adaptation Assets (Q16)

39. NDEs were asked whether the selected TA has led to the creation or strengthening of adaptation assets. Of the 35 submitted TAs, 16 answered yes (46%). Across the entries, the most frequently mentioned assets include capacity-building and institutional adaptation assets, water resource management, knowledge and decision-support tools, and climate-resilient energy systems. Annex 3, Table 10 provides a full list of entries.

Box 3: Examples of TA contributing to adaptation assets

"In Namibia the Climate Technology Centre and Network Technical Assistance contributed to the creation and strengthening of approximately 5–7 adaptation assets, including 2 pilot water reuse and recycling systems, 1 integrated water management framework, 1 national technical guideline for climate-resilient water supply, and 2 institutional capacity-building platforms within government and local authorities. These assets have enhanced Namibia's ability to manage water scarcity, improved technical capacity for climate-resilient planning, and provided scalable models for broader adaptation interventions in water-stressed regions."

- NDE of Namibia

"The technical assistance contributed to strengthening adaptation assets through support for renewable energy systems, energy-efficient technologies, climate-resilient infrastructure planning, and improved environmental data and monitoring systems. It also strengthened institutional capacity, technical knowledge, and coordination mechanisms that support long-term climate resilience and adaptation planning."

- NDE of Antigua and Barbuda

(g) Contribution of TA to NDC, NAP, and TNA Outcomes and Implementation Support Needs (Q17, Q18)

40. The selected TAs (35) were also evaluated on their impact on the respective country's Nationally Determined Contribution (NDC), National Adaptation Plan (NAP), or Technical Needs Assessment (TNA).

(a) **NDC:** 85% of NDEs indicate that the selected success stories have had impact or contribution, to varying degrees, to the planning and implementation of their country's NDC.

(b) **NAP:** 83% of NDEs reported impact or contribution, to varying degrees, of their selected TA to the planning and implementation to their country's NAP.

(c) **TNA:** 91% of NDEs reported impact or contribution, to varying degrees, of their selected TA to the planning and implementation of their country's TNA outcome.

41. While the analysis above relates specifically to the 35 selected TA success stories, responses from all NDEs, including those that did not identify a specific success story, provide a broader perspective on the contribution of CTCN technical assistance to the planning and implementation of NDCs, NAPs, and TNAs. Overall, the results suggest that technical assistance is contributing to these national processes to varying degrees, while substantial implementation support needs remain.

(a) **NDC:** 72% of NDEs reported that technical assistance had an impact or contribution to their country's NDC, to varying degrees. The vast majority of NDEs also indicate that their country is in need of support in the implementation of NDCs (84%)

(b) **NAP:** 62% of NDEs reported that technical assistance had impact on or contribution to their country's NAP, to varying degrees. The vast majority of NDEs indicate that their country is in need of support in the implementation of NAPs (85%)

(c) **TNA:** 69% of NDEs reported that technical assistance had impact on or contribution to their country's TNA, to varying degrees. The vast majority of NDEs indicate that their country is in need of support in the implementation of TNAs (91%)

(h) Matchmaking Activities (Q19, Q20, Q21)

42. COP30 agreed to revise CTCN functions to include facilitation of its network to provide matchmaking for the purpose of securing funding for implementing technologies identified as needed by developing country parties. 95% of NDEs report that they would find it useful to have matchmaking activities during the NDE forums. There were no further suggestions or comments made by NDEs.

43. NDEs identified a range of matchmaking activities that they considered most beneficial. These are presented below by thematic area.

(a) **Finance and Funding:** The most common theme for matchmaking activities mentioned by NDEs is access to finance. NDEs report interest in meetings with funders and development banks, investor-

project matchmaking, bankable project preparation, as well as concept note development and funding proposal support.

(b) **Technology Provider Matchmaking:** NDEs furthermore report interest in connecting with technology suppliers, participating in sectoral solution-provider fairs and attend technology presentations or showcases.

(c) **Knowledge Exchange:** Thirdly, NDEs report interest in sharing experiences between countries and regional exchange programs, as well as South-South cooperation.

(d) **Capacity Building:** NDEs report that it would be beneficial to strengthen capacities through workshops, webinars, technical training and learning sessions. Responses also mention capacity building on nature-based solutions, project preparation and investment readiness support.

(e) **Networking and Partnerships:** NDEs also highlight the importance of strengthening networks and partnerships through NDE forums, stakeholder engagement meetings, bilateral meetings, and networking sessions as well.

(i) Logistical Support (Q22, Q23)

44. To the question of whether the NDEs have submitted a request for logistical support, 12 reported that they have submitted a request, 14 that they are in the process of submitting or are planning to submit, and 28 that they have not.

45. Among the NDEs that have submitted a request for logistical support, two reported that the support resulted in enhanced institutional engagement, participation in regional and international forums, development of climate-related studies and policies, and progress towards implementing climate action priorities. The majority of these NDEs also identified areas for improvement, including faster response times, simplified application procedures, clearer guidance, increased funding levels, and stronger follow-up support.

46. NDEs that have not submitted a request for logistical support were asked to identify the barriers preventing them from doing so. The most common barriers were:

(a) **Limited awareness and understanding** of the proposed logistical support, with several respondents indicating they were unaware of its availability, procedures, or eligibility requirements.

(b) **Procedural delays and uncertainty**, including slow approvals and disbursements once a request is submitted, as well as NDEs holding off on requesting support because their broader technical assistance request is still under development, or because they lack clarity on the support procedure themselves.

(c) Perceptions that the **level of support** available is too small to justify the effort required.

(j) Opportunities for Concluded CTCN TAs Promotion to Encourage Scale Up or Matchmaking (Q24)

47. Of the 60 NDEs surveyed, 52% of NDEs identified opportunities in their country to promote concluded CTCN technical assistance projects, including climate and environment conferences, COP-related events, NAP workshops, innovation forums, and sectoral meetings. 28% provided responses that did not clearly indicate whether such opportunities existed, while the remaining

20% reported no such opportunities. A full list of opportunities can be found in Annex III, Table 8.

(k) CTCN Capacity Building and Networking Outcomes and Impacts (Q25 & 26)

48. NDEs were asked about their participation in capacity building and knowledge sharing activities (e.g., workshops, training, events, forums) over the past two years. The majority of participants (76%) have engaged in 1 to 4 activities, indicating a moderate level of engagement in capacity building and knowledge sharing.

49. Overall, countries reported the activities to be of great benefit. Regional NDE forums, capacity-building programmes, knowledge-sharing events, networking opportunities, and field visits were most frequently cited as valuable. Specifically, workshops focused on specific climate technologies, innovation systems, and technical assistance processes were mentioned.

lessons learned in project formulation, and explore opportunities for horizontal technical cooperation. These activities not only provide information, but also foster the development of strategic partnerships that are essential for technology transfer."

- NDE of Venezuela

"The most beneficial activities were field visits in Tunisia and Kenya and experience sharing between countries. These visits enabled practical observation of renewable energy, water management, and climate-resilient agriculture solutions and helped strengthen capacities and adapt technologies to Madagascar's context."

- NDE of Madagascar

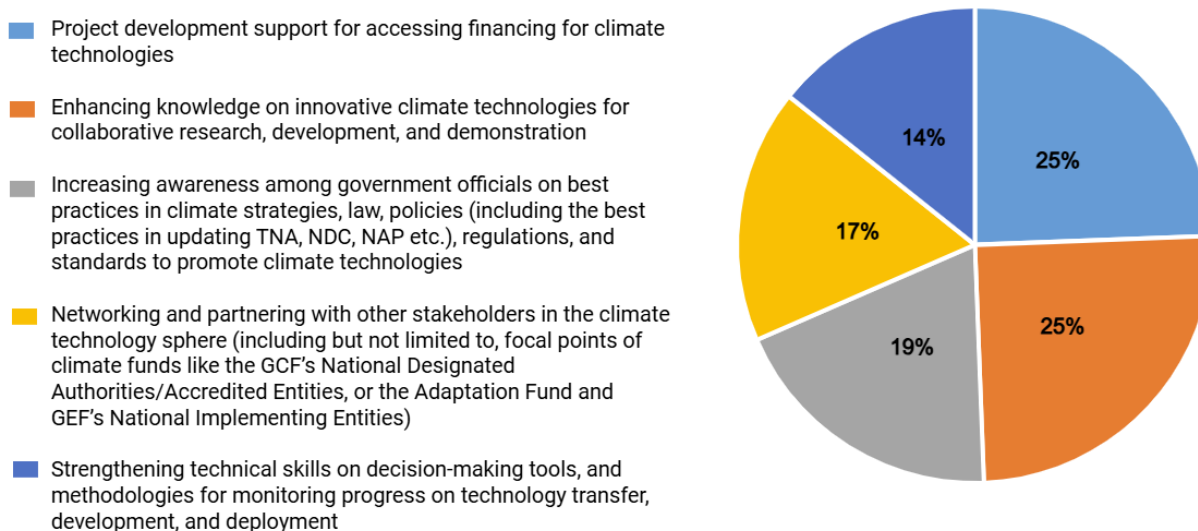
emphasis on the forum held in 2026. Face-to-face participation facilitates direct, fluid, and high-level interaction with the various members of the global CTCN network, something that virtual environments cannot replicate as effectively. For our country, peer-to-peer exchange with other NDEs is crucial, as it allows us to learn firsthand about technical solutions applied in similar contexts, identify

(l) CTCN Capacity Building and Knowledge Sharing Activities Future Engagement (Q27 & 28)

50. NDEs were asked about the type of capacity building and knowledge sharing activities they wish to engage with more in the future. The most chosen activities are enhancing knowledge on innovative climate technologies for collaborative research, development, and demonstration (25%), and project development support for accessing financing for climate technologies (25%). However, preferences were relatively evenly distributed across the five activities presented, as shown in the following pie chart, suggesting a broad interest among NDEs in a diverse range of capacity-building and knowledge-sharing opportunities. In terms of the activity format, NDEs expressed the strongest preference for increased participation in field visits (31%), workshops (30%), and networking events (24%)

Figure 2

Distribution of NDE Preferences for future capacity building and knowledge sharing activities



(m) Recommendations of Institutions or Organisations at the National Level as Potential Members of the CTC Network (Q29)

51. Several institutions and organisations were identified as potential members of the CTCN network, as listed below.

Table 3

Recommended Institutions and Organisations for CTCN to Explore as Potential Member

Institutions or Organisations
Agricultural Technology Transfer Centers (ATTCs) - Albania
Sustainable Island Resource Framework Fund – Antigua and Barbuda
-Botswana Institute for Technology Research and Innovation (BITRI): Conducts needs-based R&D on various technology solutions (e.g., IST, Electronics and Telecommunication, energy, nanotechnology, building materials, and climate change) and quality assurance. - University of Botswana (Clean Energy Research Centre): Supports renewable energy projects through stakeholder engagement. - Botswana International University of Science and Technology (BIUST): Hosts relevant research groups, such as the Remote Sensing of Natural Resources and the Environment.- Botswana
Ministry of Technology and Innovation - Burundi
Climatech - Chile
Country's leading universities, for example: the National University, University of the Andes, and University of Antioquia - Colombia
University of Costa Rica – Costa Rica
National Bureau for Technical Studies and Development (BNETD) - Ivory Coast
Consejo Nacional para el Desarrollo Económico y Social (CNDES) - Equatorial Guinea
Centre for Sustainable Energy Research (CSER) - Eswatini
Centre for Climate Change Sustainability and Research (C3SR) - Eswatini

GRENLEC (power company) and NAWASA (water company) - Grenada
Agricultural Research Institute of Guinea (IRAG) - Guinea
A national environmental NGO, National Network of Bissau-Guinean Women, ODZH NGO – Guinea-Bissau
State University of Haiti (UEH), National Institute of Water Resources (INARHY), Bureau of Mines and Energy (BME), National Centre for Geospatial Information (CNIGS), Seguin Foundation - Haiti
National Directorate for Climate Change (DNCC) - Honduras
Accredited entities to GCF and AF, including Jamaica Social Investment Fund (JSIF), Development Bank of Jamaica (DBJ), and Planning Institute of Jamaica (PIOJ)
National University of Lesotho, Innovation Hub and the Energy Research Center (ERC) - Lesotho
Earthcom - Liberia
Ministry of Environment, Ministry of Energy, Ministry of Agriculture, water management institutions, universities and research centers, the private sector and NGOs - Madagascar
Environmental Affairs Department, Forestry Department, Fisheries Department, Ministry of Water, Department of Meteorology and Climate Change Management, Land Resources Department, Department of Agricultural Research Services, Malawi Energy Regulatory Authority, and Department of Parks and Wildlife - Malawi
Secretariat of Environment and Natural Resources - Mexico
University of Namibia, Namibia University of Science and Technology (NUST), Ministry of Environment, Forestry and Tourism, Agricultural Research Council of Namibia (ARC), and the Desert Research Foundation of Namibia (DRFN) - Namibia
Coastal Marine Laboratory - Panama
Itaipu Technology Park (PTI) - Paraguay
Congo Basin Water Resources Research Centre - Democratic Republic of the Congo
Universities – Sierra Leone
Ministry of Communications and Technology (MoCT), Ministry of Environment and Climate Change (MoECC), Somali National University (SNU), National Communications Authority (NCA), SomaliREN, local innovation hubs, and private-sector technology companies - Somalia
Ministry of Digital Economy - Sri Lanka
-Climate Action Unit (CAU) – National lead agency for climate change policy, NDC implementation, climate reporting, and technology coordination. -Department of Environment, Nevis Island Administration – Responsible for environmental management and climate resilience initiatives on Nevis. -St. Kitts Electricity Company Ltd. (SKELEC) – Key stakeholder for renewable energy deployment, energy efficiency, and grid modernization. -The University of the West Indies (UWI) Global Campus – St. Kitts and Nevis – Supports research, education, and capacity development relevant to climate technologies. -Ross University School of Veterinary Medicine – Provides technical expertise, research capacity, and opportunities for innovation and partnerships. -St. Kitts and Nevis Bureau of Standards – Relevant for standards, certification, and technology quality assurance. -National Emergency Management Agency (NEMA) – Important partner for disaster risk reduction, climate services, and early warning systems. -St Kitts and Nevis
Anton de Kom University of Suriname - Suriname
National Science and Technology Development Agency (NSTDA) Thailand's leading public research and technology development organization with expertise across energy, agriculture, biotechnology, digital technologies, and environmental innovation. Thailand Greenhouse Gas Management Organization (TGO) Public organization responsible for greenhouse gas management, carbon markets, emissions reduction mechanisms, and climate policy support - Thailand
Mbolo Association - The Gambia

The National Agency for Energy Management (ANME) - Tunisia
National Agriculture Research Organisation (NARO) and Science, Technology, and Innovation Secretariat Bureaus - Uganda
Mr Kasonso, the NDA National Coordinator - Zambia

(n) Receiving Information on CTCN Publications and Knowledge Products

52. The most common medium for accessing or receiving information on CTCN publications and knowledge products is the CTCN website:

(a) **CTCN Website:** 48 NDEs mentioned accessing information from the CTCN's website, making it the most frequently used medium as a hub for accessing CTCN publications and knowledge products.

(b) **CTCN Newsletter:** The newsletter was cited in 26 responses.

(c) **CTCN LinkedIn Group:** 12 NDE responses mentioned the CTCN LinkedIn group as another channel for information sharing.

(d) **Other:** Emails, the CTCN Instagram account, and the NDE forums are also mentioned as a source of information.

2. Responses from Annex I NDEs:

(a) Financial Support Provided by Annex 1 Parties to the CTCN (Q11, Q12)

53. 4 out of 5 Annex I NDEs indicated their governments have provided, or are currently providing, financial support to the CTCN. Overall, the responses reflect strong support for both the CTCN and the broader objectives of the Technology Mechanism. While the nature and scale of contributions vary according to national circumstances, priorities, and available resources, several common themes emerged:

(a) **Commitment to the Technology Mechanism and climate technology cooperation:** 2 NDEs emphasized that their support for the CTCN reflects longstanding commitments to the Technology Mechanism and to technology transfer and development under the UNFCCC framework.

(b) **Recognition of CTCN's strategic role:** Some countries highlighted the unique value of the CTCN in providing early-stage support for climate technologies, helping to unlock implementation opportunities and create pathways for scaling solutions.

(c) **Financial and in-kind support:** One NDE highlighted its substantial financial contributions to the CTCN Trust Fund, as well as in-kind support, including expert inputs, project support, technical cooperation, and knowledge-sharing activities aligned with CTCN priorities.

54. NDEs that have not considered funding the CTCN were asked to describe perceived barriers for not doing so. One NDE identified domestic priorities as the primary barrier to providing direct financial support to the CTCN. To encourage greater support from countries facing similar constraints, they suggest the following:

"... international support should increasingly recognize the evolving nature of climate technology cooperation, where countries may contribute

expertise, experience and partnerships even when they are not major financial contributors. As the Technology Mechanism evolves through the BTIP, demonstrating tangible implementation outcomes, strengthening linkages with financial institutions, and fostering flexible cooperation among countries with different technological strengths and needs could encourage broader engagement from all Parties.”

(b) Assessment of CTCN's Performance Relative to Government Funding Expectations (Q13, Q14)

55. 4 out of 5 NDEs report that the CTCN has met the expectations associated with their governments' funding. The remaining response was from a country that has not provided financial support to the CTCN. Overall, respondents highlighted the value of the CTCN's technical assistance, engagement activities, and reporting, as well as its strong delivery record and improvements in governance and accountability. At the same time, they emphasized the need for greater focus on high-impact technology areas, programmatic approaches with transformational potential, private finance mobilization, budget implementation policies, and the assessment of long-term impacts and emission reductions.

(c) Future Initiatives Expected from CTCN to Strengthen Collaboration with Developing Countries (Q15)

56. Building on the previous assessment of CTCN's performance, NDEs were asked what new or different initiatives or activities are expected in line with the revised functions decided at COP30. Key priorities identified by respondents included stronger private sector engagement, greater involvement of network members, a more strategic focus on innovative and high-impact technologies, and improved coordination with existing mechanisms and initiatives.

(a) **Strengthen connections between technical assistance and implementation** by supporting longer-term, programmatic engagement and facilitating access to funding and investment opportunities, through mechanisms such as the GCF, GEF, MDBs and private finance sources. This includes support for preparing technical assistance outputs in ways to scale up successful interventions.

(b) **Stronger engagement with the private sector**, including enhanced matchmaking between technology providers and developing countries, greater participation of private sector actors in CTCN activities, and exploration of private-sector co-funding opportunities.

(c) **Increased attention to high-impact and emerging technologies**, particularly industrial decarbonizations, digital solutions, and AI-related applications.

(d) **Stronger network engagement and cooperation**, including more active participation of network members and enhanced collaboration across institutions and initiatives, as well as expanding North-South, South-South and triangular cooperation, strengthening collaboration between developing-country and Annex I NDEs, and operationalising closer TEC-CTCN collaboration through joint work programmes.

(e) **Additional suggestions** focused on strengthening transparency and results reporting through an upgraded results framework with verifiable indicators on emissions reductions, resilience and finance mobilization. Furthermore, it was highlighted that a greater integration of skills, employment, gender, and social dialogue components into technology assistance activities would be beneficial. It was also suggested to explore CTCN's role in supporting technology aspects of loss and damage responses, expanding peer-learning and triangular cooperation, and establishing a more predictable and diversified multi-year financing model.

(d) **Opportunities for CTCN Engagement with Developing Countries (Q16)**

57. Annex I NDEs highlighted various strategic opportunities where the CTCN can expand its engagement and align its activities with upcoming milestones and funding prospects in different regions. These include:

(a) **NDC 3.0 submission and LT-LEDS update** (2025-2026), offering opportunities to embed technology cooperation.

(b) **IKI programmatic cycle** with thematic priorities (mitigation, adaptation, biodiversity, just transition), concrete pipelines in specific clean-technologies, and NDC implementation.

(c) **G7, G20, Climate Club, and energy workstreams.**

(d) **EU-level processes** including Global Gateway and Team Europe Initiatives.

(e) **Bilateral Just Energy Transition Partnerships (JETPs) and Climate Partnerships.**

(f) **TEC-CTCN Joint Annual Report 2026** and the **COP31 technology day** as high-visibility moments to showcase joint outcomes.

(e) **Similar Programmes Supported and Potential Benefits of Collaboration with CTCN (Q17)**

58. NDEs identified several programmes as potential avenues for collaboration and engagement with the CTCN. These include:

Table 4

Recommended Programs and Initiatives for CTCN to Explore Collaboration

Program or Initiative
International Climate Initiative (IKI)
BMZ (German Federal Ministry for Economic Cooperation and Development)
GIZ (German Agency for International Cooperation)
KfW Development Bank
DeveloPPP
PtJ (Project Management Jülich)
EUKI (European Climate Initiative)
NDC Partnership Support Unit
Climate Action Enhancement Package (CAEP)
IEA CETP

IEA EE Hub
IRENA
CEM
Canada's Global Forest Leadership Program
Moja Global
UN Global Geospatial Information Management (UN GGIM)
IEA TCPs
International Model Forest Network
TÜBİTAK (The Scientific and Technological Research Council)
KOSGEB (Small and Medium Enterprises Development Organization)
Least Developed Countries Green Industrialization Facilitation (LDC-GIF) (currently developing)

(f) Connecting CTCN with Country Development Aid Organisations (Q18)

59. All responding Annex I NDEs indicated that they are open to connecting the CTCN with relevant development aid organisations in their respective countries to help strengthen linkages between country development assistance and CTCN activities in developing countries. One respondent noted that such engagement would be contingent upon the availability of resources and national mandates. These results highlight a broad interest among Annex I NDEs in enhancing collaboration with international institutions and the CTCN, with the aim of increasing the impact and effectiveness of CTCN activities.

(g) Pro-bono and In-kind Support Considerations (Q19, Q20)

60. All Annex I NDEs (5) indicated that they would consider providing pro-bono and/or in-kind support to the CTCN. One respondent noted that this consideration would be contingent upon the availability of resources and national mandates. These results highlight a willingness among Annex I NDEs to support the CTCN both through financial contributions as well as expertise, services, and institutional capacities.

61. In term of areas of expertise, Annex I NDEs identified a range of potential contributions to support the CTCN in addressing the technology needs of developing countries, particularly in the areas of industrial decarbonization, climate finance, energy efficiency and renewable energy, adaptation, climate-resilient development, circular economy and resource management, as well as capacity building, technical knowledge exchange, and country-level implementation support.

(h) Openness to Host or Co-host CTCN Meetings or Capacity Building Events

62. Responses regarding the openness to hosting or co-hosting of CTCN meetings and capacity building events were mixed. Two respondents indicated that they were not open to hosting such events, while two others stated that their openness depends on the availability of resources. One respondent expressed a willingness to host or co-host CTCN activities. Overall, the results indicate that support for hosting CTCN events is influenced primarily by resource considerations.

(i) **Accessing Information on CTCN Publications and Knowledge Products**

63. Annex I NDEs primarily receive information about the CTCN through the following channels, listed in order of popularity:

(a) The CTCN Website, which serves as the primary source of information for most NDEs.

(b) In-Person Events, CTCN Newsletters, and the CTCN LinkedIn page, which share second place as commonly used sources of information.

64. These findings suggest that both direct engagement opportunities and CTCN-managed communication platforms play an important role in disseminating information to Annex I NDEs.

Annex II

Comparison of the UNFCCC Technology Mechanism NDE Surveys conducted in 2024 and 2026

	2024		2026	
Online collection (survey tool)	Microsoft Forms		Microsoft Forms	
Offline collection	Word documents collected via emails On site NDE fora (Asia Pacific and Africa)		Word documents collected via emails On site NDE fora (Africa and Asia Pacific)	
Languages	English, Spanish, French		English, Spanish, French	
Survey period	May 2024 – August 2024		March 2026 – July 2026	
Target audiences	Non-Annex I NDEs and Annex I		Non-Annex I NDEs and Annex I NDEs	
Number of respondents	74 NDEs (45%)		65 (39%) –6%	
Number of questions	40 questions for Annex I 60 questions of Non-Annex I (open-ended questions xx, Likert scale questions yy, single select questions zz, multi-select questions zz)		42 questions for Annex I 49 questions for Non-Annex I	
Average time to complete	~ 40min		~ 40min	
Objective			M&E data collection	
Questions	Non-Annex I	Annex I	Non-Annex I	Annex I
	• Past Engagement with the CTCN and Awareness on the Role of NDEs • Outcomes and Impacts of the CTCN Technical Assistance, Capacity Building and Knowledge Sharing • Contribution of TEC Policy Recommendations and Publications	• Past Engagement with the CTCN and Awareness on the Role of NDEs • Contribution of Annex I NDEs to support the CTCN • Contribution of TEC Policy Recommendations and Publications	• Past Engagement with the CTCN and Awareness on the Role of NDEs • Outcomes and Impacts of the CTCN Technical Assistance, Capacity Building and Knowledge Sharing • Contribution of TEC Policy Recommendations and Publications	• Past Engagement with the CTCN and Awareness on the Role of NDEs • Contribution of Annex I NDEs to support the CTCN • Contribution of TEC Policy Recommendations and Publications
Outreach efforts	Online reminder, 2-3 follow up by regional teams, On-site session at NDE fora		Online reminder, 2-5 follow up by regional teams, onsite session at NDE fora	
Dissemination of key messages	AB session, Internal discussions, NDE fora		AB session, Internal discussions, NDE fora	

Annex III

Detailed analysis of NDE responses

Figure 3
Count of Non-Annex I NDE Ratings on Ministry/Organization Awareness of the NDE Role and Stakeholder Engagement

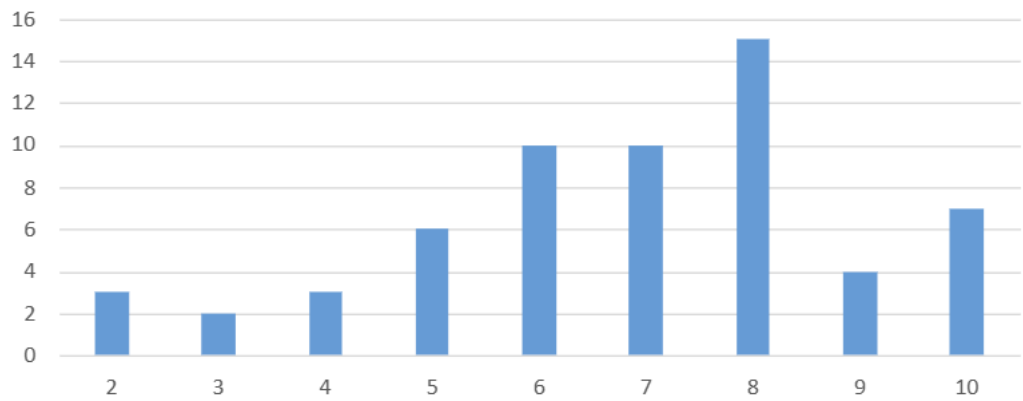


Figure 4
Count of Non-Annex I NDE Ratings on Line Ministries' Governance and Influence in Climate Technology Decisions

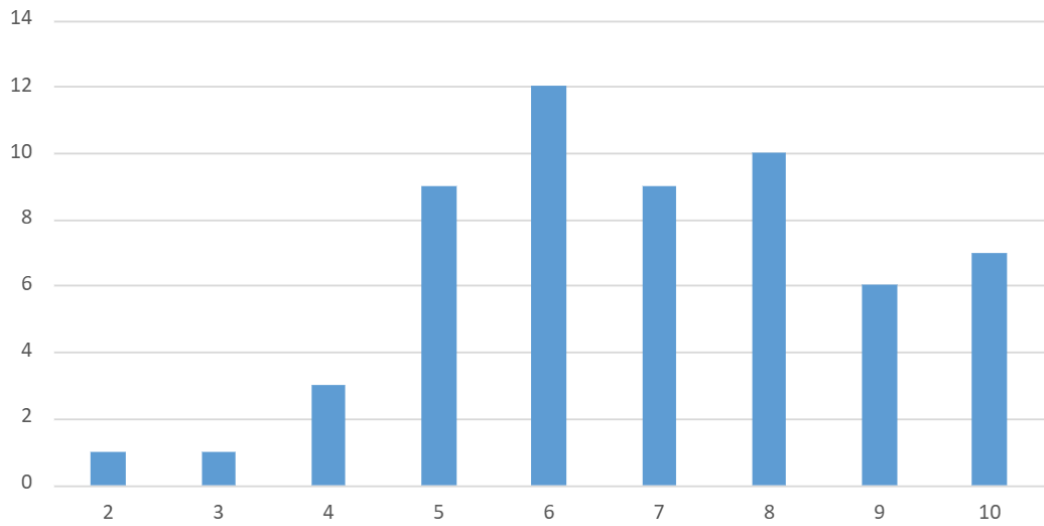


Table 5

Main challenges expressed by Non-Annex I NDEs with regards to accessing and utilizing climate technologies

Main categories	Frequency
Limited financial resources, including those needed for implementing technical assistance outcomes and pilot projects, as well as difficulties in accessing climate funds	39
Insufficient capacity due to a lack of human resources, technical expertise, and skilled workforce needed to identify, select, deploy and maintain advanced climate technologies.	35
Insufficient national policies and institutional frameworks and/or lack of institutional collaboration and/or inadequate integration of climate-related technologies into the overall development portfolio	20
Difficulty accessing technologies, adapting imported technologies to local context and technology transfer barriers.	14
Lack of climate technology information and limited data availability, weak monitoring systems, and insufficient knowledge-sharing platforms	11
Low private-sector involvement, weak innovation systems, lack of research capacity, and poor commercialization of local technologies	10
Limited infrastructure to deploy technologies and/or for integrating new climate technologies.	8
Limited awareness of available technologies, unclear understanding of climate technology concepts and benefits	6
Limited availability of climate technologies adapted to the national context	5

Table 6

Measures the government can take to strengthen the roles of Non-Annex I NDEs in advancing climate technology development and transfer

Main categories	Frequency
Strengthen institutional capacity and resourcing of NDEs	30
Strengthen coordination between NDEs, relevant ministries, sectoral focal points, and other relevant stakeholders	25
Enhance capacity building and technical support by providing training on climate technologies, project development, and preparation of CTCN technical assistance requests.	22
Strengthening awareness of and/or engagement with the CTCN	13
Support development of technical assistance requests	13
Integrate climate technology priorities into national plans and strategies	11
Ensure continuity of NDE functions and institutional knowledge	8
Establish enabling frameworks, regulatory support, incentives, and policies facilitating technology adoption	6

Table 7

Sectors or areas where Non-Annex I NDEs report that the country needs additional support or resources to improve technology development, transfer, and deployment.

Sector	Key needs and focus areas as expressed by the NDE
Agriculture	– Energy, water and agriculture (Antigua and Barbuda) – Agriculture, Water and Energy sectors (Botswana) – Energy efficiency, transport and agriculture (Burundi) – Agriculture sector, Water-Energy and Food sector and Environment sector (Cambodia) – Energy, agriculture, waste, water and transport, as well as cross-cutting areas such as financing, capacity building, climate information systems, and governance (Côte d'Ivoire) – Water resources, Agriculture, Waste management (Egypt) – Forestry, Water management, Agriculture, and Ecosystem restoration (El Salvador) – Agriculture, Forestry, and Energy (Eswatini) – Water, e-mobility, agriculture, EWS, energy, ecosystems (Grenada) – Agriculture, livestock, industry, energy, transport, and forestry (Guinea) – Energy, transport, communication and agriculture (Guinea-Bissau) – Agri-food and Food Sovereignty: technologies to deal with droughts, management of resilient crops, and food security (Honduras) – Fisheries, agriculture, tourism (Jamaica) – Water resources and urban resilience, agriculture and food security, sustainable forestry and land use, energy efficiency and sustainable transport (Lao PDR) – Agriculture, energy, waste, forestry and industry (Liberia) – Renewable energy sectors (solar, rural electrification), water management (access and irrigation), cyclone-resilient infrastructure, and agriculture (climate-smart technologies, resilient seeds, and modern irrigation systems) (Madagascar) – Water resources, agriculture, energy, and ecosystems management (Namibia) – Energy, waste, water, agriculture, power and other NDC sectors (Nigeria) – Agriculture, UTCUTS, IPPU, Energy, and Waste (Paraguay) – Smart agriculture, Energy, Transport, Industry, and the Municipal Waste Sector (Democratic Republic of the Congo) – Industry, agriculture, higher education, transportation, scientific research and technological innovation (Republic of the Congo) – Agriculture, energy, water (Sierra Leone) – Renewable energy, climate-smart agriculture, water resource management, early warning systems, digital climate services, and climate-resilient infrastructure. Support is also needed in technology incubation, capacity building, project preparation, and strengthening innovation ecosystems linked to universities and the private sector (Somalia) – Waste, agriculture (Sri Lanka) – Renewable energy and energy storage, electric mobility, water security and desalination technologies, climate-resilient agriculture, coastal zone protection, disaster risk reduction and early warning systems, greenhouse gas inventory systems, digital MRV platforms, climate information services, ecosystem restoration, waste management and circular economy technologies, and climate-resilient infrastructure. Additional support is also needed for technology needs assessments, feasibility studies, capacity building and project preparation (St. Kitts and Nevis) – Energy, Transport, Agriculture, and Effective use of AI, Forest Monitoring technology (the Gambia) – Agriculture, energy, waste, and coastal sectors (Togo) – Agriculture: develop and adapt localized AI models for early crop yield predictions, climate attribution, and pest monitoring. Water: Telemetry networks and remote sensing applications to monitor groundwater levels and map aquifer recharge zones. Energy: technologies to produce biofuels from local raw materials such as sugarcane/sweet sorghum (Zambia)

Energy Efficiency	– Energy efficiency, transport and agriculture (Burundi) – Water resources and urban resilience, agriculture and food security, sustainable forestry and land use, energy efficiency and sustainable transport (Lao PDR)
Energy	– Energy and green hydrogen (Algeria) – Energy, water and agriculture (Antigua and Barbuda) – Agriculture, Water, and Energy sectors (Botswana) – The energy sector and the coastal area (Comoros) – Energy, agriculture, waste, water and transport, as well as cross-cutting areas such as financing, capacity building, climate information systems, and governance (Ivory Coast) – Agriculture, Forestry, and Energy (Eswatini) – Water, e-mobility, agriculture, EWS, energy, ecosystems (Grenada) – Agriculture, livestock, industry, energy, transport, and forestry (Guinea) – Energy, transport, communication and agriculture (Guinea-Bissau) – Renewable energy and energy storage systems, to improve access to clean, reliable, and resilient energy (Haiti) – Agriculture, energy, waste, forestry and industry (Liberia) – Renewable energy sectors (solar, rural electrification), water management (access and irrigation), cyclone-resilient infrastructure, and agriculture (climate-smart technologies, resilient seeds, and modern irrigation systems) (Madagascar). – Energy, innovation, water (Mozambique) – Water resources, agriculture, energy, and ecosystems management (Namibia) – Energy, waste, water, agriculture, power and other NDC sectors (Nigeria) – Agriculture, UTCUTS, IPPU, Energy, and Waste (Paraguay) – Smart agriculture, Energy, Transport, Industry, and the Municipal Waste Sector (Democratic Republic of the Congo) – Agriculture, energy, water (Sierra Leone) – Renewable energy, climate-smart agriculture, water resource management, early warning systems, digital climate services, and climate-resilient infrastructure. Support is also needed in technology incubation, capacity building, project preparation, and strengthening innovation ecosystems linked to universities and the private sector (Somalia) – Renewable energy and energy storage, electric mobility, water security and desalination technologies, climate-resilient agriculture, coastal zone protection, disaster risk reduction and early warning systems, greenhouse gas inventory systems, digital MRV platforms, climate information services, ecosystem restoration, waste management and circular economy technologies, and climate-resilient infrastructure. Additional support is also needed for technology needs assessments, feasibility studies, capacity building and project preparation (St. Kitts and Nevis) – Energy, Industry and Health Sectors (Sudan) – Clean energy and energy transition: Smart grids, small modular reactors, carbon capture utilization, Climate-Smart Agriculture and Food Systems, Water Resources Management, Climate Data, Digital Technologies, and Artificial Intelligence (Thailand) – Energy, Transport, Agriculture, and Effective use of AI, Forest Monitoring technology (the Gambia) – Agriculture, energy, waste, and coastal sectors (Togo) – Agriculture: develop and adapt localized AI models for early crop yield predictions, climate attribution, and pest monitoring. Water: Telemetry networks and remote sensing applications to monitor groundwater levels and map aquifer recharge zones. Energy: technologies to produce biofuels from local raw materials such as sugarcane/sweet sorghum (Zambia)
Waste Management	– Energy, agriculture, waste, water and transport, as well as cross-cutting areas such as financing, capacity building, climate information systems, and governance (Ivory Coast) – Water resources, Agriculture, Waste management (Egypt) – Adaptation to climate change, biodiversity loss, and waste management (Equatorial Guinea) – Solid waste management and the circular economy, through sorting, recycling, and energy recovery solutions (Haiti)

	– Waste and IPPU, and other adaptation sectors where there is a need i.e. infrastructure and ecosystems or biodiversity (Lesotho) – Agriculture, energy, waste, forestry and industry (Liberia) – Energy, waste, water, agriculture, power and other NDC sectors (Nigeria) – Agriculture, UTCUTS, IPPU, Energy, and Waste (Paraguay) – Smart agriculture, Energy, Transport, Industry, and the Municipal Waste Sector (Democratic Republic of the Congo) – Waste, agriculture (Sri Lanka) – Renewable energy and energy storage, electric mobility, water security and desalination technologies, climate-resilient agriculture, coastal zone protection, disaster risk reduction and early warning systems, greenhouse gas inventory systems, digital MRV platforms, climate information services, ecosystem restoration, waste management and circular economy technologies, and climate-resilient infrastructure. Additional support is also needed for technology needs assessments, feasibility studies, capacity building and project preparation (St. Kitts and Nevis) – Agriculture, energy, waste, and coastal sectors (Togo)
Forestry	– Forestry and ecosystem restoration (Albania) – Forestry, Water management, Agriculture, and Ecosystem restoration (El Salvador) – Agriculture, Forestry, and Energy (Eswatini) – Agriculture, livestock, industry, energy, transport, and forestry (Guinea) – Agriculture, energy, waste, forestry and industry (Liberia) – Agriculture, UTCUTS, IPPU, Energy, and Waste (Paraguay) – Energy, Transport, Agriculture, and Effective use of AI, Forest Monitoring technology (the Gambia)
Industry	– Agriculture, livestock, industry, energy, transport, and forestry (Guinea) – Agriculture, energy, waste, forestry and industry (Liberia) – Smart agriculture, Energy, Transport, Industry, and the Municipal Waste Sector (Democratic Republic of the Congo) – Industry, agriculture, higher education, transportation, scientific research and technological innovation (Republic of the Congo) – Energy, Industry and Health Sectors (Sudan)
Water Resources Management	– Energy, water and agriculture (Antigua and Barbuda) – Agriculture, Water, and Energy sectors (Botswana) – Agriculture sector, Water-Energy and Food sector and Environment sector (Cambodia) – The sectors presented in the third assessment of technological needs with particular attention to the links with water (Colombia) – Energy, agriculture, waste, water and transport, as well as cross-cutting areas such as financing, capacity building, climate information systems, and governance (Ivory Coast) – Water resources, Agriculture, Waste management (Egypt) – Forestry, Water management, Agriculture, and Ecosystem restoration (El Salvador) – Water, e-mobility, agriculture, EWS, energy, ecosystems (Grenada) – Sustainable water resource management, including solar pumping technologies, rainwater harvesting, and water treatment (Haiti) – Technologies for sustainable water management, given the variability in rainfall and recurring droughts (Honduras) – Water resources and urban resilience, agriculture and food security, sustainable forestry and land use, energy efficiency and sustainable transport (Lao PDR) – Renewable energy sectors (solar, rural electrification), water management (access and irrigation), cyclone-resilient infrastructure, and agriculture (climate-smart technologies, resilient seeds, and modern irrigation systems) (Madagascar) – Energy, innovation, water (Mozambique) – Water resources, agriculture, energy, and ecosystems management (Namibia) – Energy, waste, water, agriculture, power and other NDC sectors (Nigeria) – Agriculture, energy, water (Sierra Leone)

	– Renewable energy, climate-smart agriculture, water resource management, early warning systems, digital climate services, and climate-resilient infrastructure. Support is also needed in technology incubation, capacity building, project preparation, and strengthening innovation ecosystems linked to universities and the private sector (Somalia) – Renewable energy and energy storage, electric mobility, water security and desalination technologies, climate-resilient agriculture, coastal zone protection, disaster risk reduction and early warning systems, greenhouse gas inventory systems, digital MRV platforms, climate information services, ecosystem restoration, waste management and circular economy technologies, and climate-resilient infrastructure. Additional support is also needed for technology needs assessments, feasibility studies, capacity building and project preparation (St. Kitts and Nevis) – Urban resilience, sustainable housing infrastructure, early warning systems, and the provision of safe water through quickly implementable technological solutions in the post-disaster context (Venezuela) – Agriculture: develop and adapt localized AI models for early crop yield predictions, climate attribution, and pest monitoring. Water: Telemetry networks and remote sensing applications to monitor groundwater levels and map aquifer recharge zones. Energy: technologies to produce biofuels from local raw materials such as sugarcane/sweet sorghum (Zambia)
Climate-Resilient Infrastructure	– Technological tools to build infrastructure resilient to extreme weather events (Honduras) – Waste and IPPU, and other adaptation sectors where there is a need i.e. infrastructure and ecosystems or biodiversity (Lesotho) – Renewable energy sectors (solar, rural electrification), water management (access and irrigation), cyclone-resilient infrastructure, and agriculture (climate-smart technologies, resilient seeds, and modern irrigation systems) (Madagascar) – Renewable energy and energy storage, electric mobility, water security and desalination technologies, climate-resilient agriculture, coastal zone protection, disaster risk reduction and early warning systems, greenhouse gas inventory systems, digital MRV platforms, climate information services, ecosystem restoration, waste management and circular economy technologies, and climate-resilient infrastructure. Additional support is also needed for technology needs assessments, feasibility studies, capacity building and project preparation (St. Kitts and Nevis) – Urban resilience, sustainable housing infrastructure, early warning systems, and the provision of safe water through quickly implementable technological solutions in the post-disaster context (Venezuela)
Research and Innovation	– Energy, agriculture, waste, water and transport, as well as cross-cutting areas such as financing, capacity building, climate information systems, and governance (Ivory Coast) – Energy, innovation, water (Mozambique) – Industry, agriculture, higher education, transportation, scientific research and technological innovation (Republic of the Congo) – Renewable energy, climate-smart agriculture, water resource management, early warning systems, digital climate services, and climate-resilient infrastructure. Support is also needed in technology incubation, capacity building, project preparation, and strengthening innovation ecosystems linked to universities and the private sector (Somalia)
Education and Capacity Building	– Energy, agriculture, waste, water and transport, as well as cross-cutting areas such as financing, capacity building, climate information systems, and governance (Ivory Coast) – Climate information systems, early warning, and environmental monitoring to strengthen risk management as well as building national capacities in innovation, technology assessment, project preparation, and mobilizing climate finance (Haiti) – Capacity building and support for developing good bankable project ideas for accessing climate finance (Pakistan) – Industry, agriculture, higher education, transportation, scientific research and technological innovation (Republic of the Congo) – Renewable energy, climate-smart agriculture, water resource management, early warning systems, digital climate services, and climate-resilient infrastructure.

	Support is also needed in technology incubation, capacity building, project preparation, and strengthening innovation ecosystems linked to universities and the private sector (Somalia) Renewable energy and energy storage, electric mobility, water security and desalination technologies, climate-resilient agriculture, coastal zone protection, disaster risk reduction and early warning systems, greenhouse gas inventory systems, digital MRV platforms, climate information services, ecosystem restoration, waste management and circular economy technologies, and climate-resilient infrastructure. Additional support is also needed for technology needs assessments, feasibility studies, capacity building and project preparation (St. Kitts and Nevis)
Sustainable Mobility	- Energy efficiency, transport and agriculture (Burundi) - Transport (Chad) - Water, e-mobility, agriculture, EWS, energy, ecosystems (Grenada) - Energy, transport, communication and agriculture (Guinea-Bissau) - Energy, agriculture, waste, water and transport, as well as cross-cutting areas such as financing, capacity building, climate information systems, and governance (Ivory Coast) - Energy, Transport, Agriculture, and Effective use of AI, Forest Monitoring technology (the Gambia) - Agriculture, livestock, industry, energy, transport, and forestry (Guinea) - Water resources and urban resilience, agriculture and food security, sustainable forestry and land use, energy efficiency and sustainable transport (Lao PDR) - Smart agriculture, Energy, Transport, Industry, and the Municipal Waste Sector (Democratic Republic of the Congo) - Industry, agriculture, higher education, transportation, scientific research and technological innovation (Republic of the Congo) - Renewable energy and energy storage, electric mobility, water security and desalination technologies, climate-resilient agriculture, coastal zone protection, disaster risk reduction and early warning systems, greenhouse gas inventory systems, digital MRV platforms, climate information services, ecosystem restoration, waste management and circular economy technologies, and climate-resilient infrastructure. Additional support is also needed for technology needs assessments, feasibility studies, capacity building and project preparation (St. Kitts and Nevis)

Table 8

Opportunities for Scale up or Matchmaking as identified by Non-Annex I NDEs

Country	Opportunity
Albania	Conference on 5 th -7 th May 2026
Antigua and Barbuda	Perhaps at the countries national focal point meeting
Botswana	Yes, academic institutions (e.g., the University of Botswana; Botswana International University of Science and Technology), research bodies (e.g., the Okavango Research Institute), and the Botswana Digital & Innovation Hub host conferences at which concluded TAs can be promoted. These conferences can be accessed via official university websites and ministerial government portals.
Burundi	Requests logistics
Cambodia	Expand the scaling up for TA in Cambodia by promoting to organize NDE forum and another related activity and workshop.
Chile	Probably.

Colombia	Every two years at the International Environment Fair FIMA
Costa Rica	Technology conferences, as well as industry chambers for sectors such as construction, technology, agriculture, livestock, etc.
Egypt	Yes, outreaching events could assist in promoting the collaboration.
El Salvador	Yes. Discussions around climate finance.
Eswatini	Maybe. During stakeholders workshops for NAP, National Communications, etc.
Grenada	Yes, working closely with the NDE
Equatorial Guinea	Yes
Guinea-Bissau	Yes
Honduras	It could be through forums
Jamaica	Yes. This can be done at our COP (Post and Pre) events/workshops
Lao PDR	Promoting completed TA project like Laos's successful work on urban Climate Vulnerability and NbS within national and regional forums is a highly effective way to trigger matching and secure scale up funding.
Mexico	Yes
Mozambique	Yes. There are various conferences; it's just a matter of including the point, but sometimes they take place in distant locations, which would entail logistical costs.
Namibia	Yes
Panama	Yes. Summit forums where presentations are made to seek funding.
Paraguay	There is a need in the country to strengthen capacities and knowledge to promote applications for technical assistance.
Dominican Republic	Yes. If the CTCN can support activities led by the MMARN, opportunities could be created to showcase and promote these activities.
Democratic Republic of the Congo	Yes, very rarely.
Republic of the Congo	So far, we have only held online meetings, not conferences. During the technical assistance, we have only had meetings and specific discussions related to the assistance provided.
Senegal	Yes, for example, the Sustainable Development Week, which is organized every year in September or October.
Sierra Leone	Yes
Somalia	Yes. Somalia has increasing opportunities through national climate workshops, innovation forums, digital transformation conferences, university events, and sectoral coordination meetings organized by ministries and development partners. CTCN TAs could also be promoted during: National climate and environment forums Somalia innovation and digital transformation events Regional IGAD and African climate meetings COP preparation workshops and stakeholder consultations These platforms can be accessed through collaboration with the Ministry of Environment and Climate Change, Ministry of Communications and Technology, universities, and development partners active in climate and innovation sectors.
St. Kitts and Nevis	Yes. Opportunities exist through national climate change consultations, Sustainable Island State initiatives, stakeholder forums hosted by the Climate Action Unit, national development planning consultations, private sector engagement forums, and regional meetings organized by OECS and CARICOM. CTCN outcomes could be promoted through presentations, case studies, webinars, technology demonstrations, and side events. Collaboration with the Government of St. Kitts and Nevis, the Climate Action Unit, chambers of commerce, and development partners would provide effective channels for reaching policymakers, investors, technology providers, and potential implementation partners.
Suriname	Yes

Tanzania	Yes there are many conferences
Thailand	Yes. Thailand offers several opportunities to promote concluded CTCN Technical Assistance projects, including national research and innovation exhibitions, climate-change conferences and you can access by connecting with NDE Thailand
The Gambia	The NAP Project of the Gambia
Tunisia	Absolutely, such as the conferences organized by the National Agency for Energy Management (ANME) on Tunisia's energy transition. Arrange a meeting with ANME officials.
Uganda	We want to use the support to create such a forum
Zambia	Yes. By submitting a technical abstract or project case study during the call-for-papers phase.

Table 9

List of CTCN Technical Assistance Projects Highlighted as a Success Story and Non-Annex I NDE's Suggestion on Further Promotion

Country Name	Name of the CTCN Technical Assistance	NDE's Suggestion
Algeria	Establishment of a laboratory for accreditation and quality control of photovoltaic modules in Algeria Climate Technology Centre & Network Thu, 08/25/2016	No specific suggestion provided
Antigua and Barbuda	Workforce Development Strategy for Antigua and Barbuda's Priority Energy Sectors Climate Technology Centre & Network Thu, 11/19/2015	No specific suggestion provided
Botswana	Leapfrogging Botswana's market to energy-efficient refrigerators and distribution transformers Climate Technology Centre & Network Mon, 02/15/2021	Standards such as Minimum Energy Performance Standards (MEPS) for appliances and equipment should be further promoted by legislation, which should include provisions for compliance enforcement.
Burundi	Burundi: Deploying Rapid and Portable Flood Barriers to Protect Farms and Infrastructure Climate Technology Centre & Network Tue, 05/11/2021	No specific suggestion provided
Chile	Assessment of the current status of the circular economy for developing a roadmap Climate Technology Centre & Network Tue, 11/20/2018	No specific suggestion provided
Comoros	Pre-feasibility study of the use of photovoltaic systems on the roofs of public buildings in the Comoros, with a connection to the network, and the definition of a net metering policy. Climate Technology Centre & Network Wed, 02/15/2023	No specific suggestion provided
Cuba	Development of baseline greenhouse gas (GHG) emissions from cattle farming Climate Technology Centre & Network Thu, 10/11/2018	No specific suggestion provided
Ivory Coast	Establishment of an Environmental Information System Climate Technology Centre & Network Mon, 02/08/2016	No specific suggestion provided
Eswatini	Strengthening the National Disaster Management Agency's (NDMA) application of UAV and Remote sensing technology for vulnerability assessments and response planning Climate Technology Centre & Network Thu, 04/02/2020	Updating national standards to include UAV-based workflows for surveying and mapping. This may eliminate the stringent paperwork required to operate a UAV
Grenada	Improvement of water supply management in Grenada through GIS-based monitoring and	Reducing wastage by quicker detection and repairs could be considered

	control system for water loss reduction Climate Technology Centre & Network Wed, 03/08/2017	
Guinea	Multi-country agrivoltaic technology project in West and Central Africa Climate Technology Centre & Network Wed, 05/22/2024	No specific suggestion provided
Haiti	Organic waste management project, targeting women and young people in particular, using inflatable tanks. Climate Technology Centre & Network Thu, 01/11/2024	CTCN could support this TA's development by documenting lessons learned from its implementation and facilitating its scaling up at the national level.
Jamaica	Identification of a climate research agenda to include collaboration with academia in Jamaica Climate Technology Centre & Network Mon, 09/14/2020 & Enhancing multi-scalar mapping and research on food security risk due to the impacts of climate change on rural and urban environments Climate Technology Centre & Network Mon, 05/16/2022	There needs to be more engagement in the country about what CTCN is and what they provide funding for. This will raise the profile of CTCN in Jamaica and would increase the amount of TAs being submitted by different organizations/MDAs.
Lao PDR	City Climate Vulnerability Assessment and Identification of Ecosystem-based Adaptation Intervention in Laos Climate Technology Centre & Network Mon, 04/11/2016	To ensure that other developing nations and NDEs can replicate this achievement, the project should be promoted strategically using modern, system-level innovation storytelling: 1. Develop a tech assistance to Banability blueprint. 2. Showcase through regional south to south peer exchange. 3. Build before and after interactive digital case study
Liberia	Develop a renewable energy investment framework to increase the share of renewable energy-based electricity generation to achieve Liberia's NDC Commitments Climate Technology Centre & Network Tue, 09/06/2022	No specific suggestion provided
Madagascar	The gradual strengthening of national capacities in renewable energy (especially solar in rural areas) and sustainable water management, through various technical support from international partners.	To better promote this kind of initiative, it would be useful to: systematically document results and lessons learned, increase the visibility of best practices at the national and international levels, make it easier to replicate them in other regions of the country, and integrate these experience into the National Climate Innovation System, especially for adapting to climate change in agriculture, water, and energy. This would help to make the most of the achievements and speed up their scale up.
Malawi	Development of a Regional Efficient Appliance and Equipment Strategy in Southern Africa Climate Technology Centre & Network Tue, 11/01/2016	No specific suggestion provided
Mexico	Analysis of the current situation of the construction and demolition sector in respect of the Circular Economy in Mexico City Climate Technology Centre & Network Thu, 02/10/2022	No specific suggestion provided
Mozambique	We conducted technological needs assessments for the areas of agriculture, energy, solid waste, and coastal zones.	More resources for implementation, as the assistance was good, but the government didn't have the resources for its full implementation.
Namibia	Water Recycling Technologies in Namibia Climate Technology Centre & Network Wed, 05/22/2019	To promote this success further, it should be packaged into a national and regional

		case study, showcased through knowledge platforms and policy dialogues, and replicated in other water-stressed areas through pilot scaling supported by government and development partners
Nigeria	Empowering communities of Kaduna State, located in the North-west Nigeria with sustainable agricultural practices (Em-Hydro) under EC Climate Change and Security Programme Climate Technology Centre & Network Tue, 02/20/2024	No specific suggestion provided
Pakistan	Technologies Framework for Implementation of Nationally Determined Contributions for Pakistan Climate Technology Centre & Network Tue, 05/09/2023	No specific suggestion provided
Panama	Development of a Marine Dynamics database for the Panamanian coasts to assess vulnerability and climate change impacts to sea level rise Climate Technology Centre & Network Mon, 06/14/2021	No specific suggestion provided
Paraguay	Application of environmental flows and river basin management framework for the Tebicuary river basin Climate Technology Centre & Network Fri, 07/21/2017	It is necessary to have continuous support for strengthening capacities and sustained generation of information over time
Dominican Republic	No specific TA mentioned	There was a lot of interest and participation from the private sector, but broader support is needed. The study reveals significant capacity and funding needs, but it does not include how to cover them. To ensure the promotion of the activity, a continuity mechanism should be identified, for example, integrating planning and resource provision.
Democratic Republic of the Congo	Multi-country agrivoltaic technology project in West and Central Africa Climate Technology Centre & Network Wed, 05/22/2024	No specific suggestion provided
Republic of the Congo	Study on the identification and evaluation of technologies and industrial processes used in cement producing industries in Congo Climate Technology Centre & Network Thu, 01/07/2021	We are requesting continuity of assistance for: implementation of the roadmap, and follow-up on concrete.
Senegal	Decarbonization Roadmap in the Cement Sector in Senegal Climate Technology Centre & Network Fri, 03/22/2024	No specific suggestion provided
Somalia	Although Somalia has not yet benefited from a TA, one successful example of technical support was Somalia's recent CTCN-supported National Climate Technology and NDE Stakeholder Workshop, which strengthened awareness and coordination among ministries, academia, private sector actors, and development partners regarding climate technology transfer and the role of the NDE. The workshop helped identify national climate technology priorities aligned with Somalia's NDC 3.0, strengthened institutional coordination, and supported the development of future technical assistance pipelines.	

Sri Lanka	Development of Kurunegala as a climate smart city Climate Technology Centre & Network Wed, 09/05/2018	Need to apply to other cities
St. Kitts and Nevis	A notable success story for St. Kitts and Nevis was the support provided through the Technology Needs Assessment (TNA) process, which strengthened the country's capacity to identify, assess and prioritize climate technologies for both mitigation and adaptation. The process engaged stakeholders across government, the private sector, academia and civil society and helped identify priority technologies in areas such as renewable energy, water resource management, climate-resilient agriculture and coastal resilience. The outcomes have informed national climate planning, including implementation of NDC priorities and the development of climate-related project concepts.	To promote this success further, the lessons learned and priority technology portfolios should be showcased at regional SIDS forums, OECS and CARICOM meetings, NDE Forums and UNFCCC events. In addition, the TNA results should be translated into investment-ready concept notes and business cases that can be shared with development partners, climate funds and private sector investors to facilitate implementation of the identified technologies.
Sudan	Sudan: Delivering Satellite-based Flood Warning Systems for River Nile Communities Climate Technology Centre & Network Mon, 03/13/2023	No specific suggestion provided
Suriname	Suriname: Designing Aquifer Recharge Solutions for Water Managers Climate Technology Centre & Network Wed, 11/22/2023	No specific suggestion provided
Tanzania	Developing a national framework for deploying and scaling up E-Mobility in Tanzania Climate Technology Centre & Network Wed, 12/29/2021	Funding for implementing actions of the framework, such as capacity building programs for EV skills development, installation of charging stations for demonstration of business processes, and others
Thailand	Development of national hydrogen strategy and action plan for accelerating Thailand's net-zero target Climate Technology Centre & Network Tue, 09/20/2022	The next step is to scale this success through demonstration projects, regional knowledge sharing, and stronger links to climate finance, enabling Thailand and other developing countries to accelerate the deployment of emerging clean-energy technologies
The Gambia	Development of an institutional framework for the installment, use and management of solar PV systems in the Gambia Climate Technology Centre & Network Thu, 07/18/2019	Embed the model in public procurement and standards (e.g. a "Green Small Irrigation Lot" with pre-qualified enterprises); build a pipeline using results-based or blended finance; strengthen the local service ecosystem by certifying installers/O&M providers; and extend benefits with complementary measures like soil and water conservation
Tunisia	Smart drinking water network in Tunisia: first phase in Sousse and Monastir Climate Technology Centre & Network Wed, 02/17/2021	No specific suggestion provided
Uganda	Formulating Geothermal Energy Policy, Legal and Regulatory Framework Climate Technology Centre & Network Mon, 02/08/2016	No specific suggestion provided
Uruguay	Development of a national roadmap for the use of low-temperature geothermal power in thermal conditioning in residential, industrial and	The installer follows up for up to 2 years; after that, it is unclear how maintenance would continue. Perhaps CTCN could

	commercial sectors Climate Technology Centre & Network Thu, 10/11/2018	promote/support this ongoing maintenance activity
Zambia	Zambia: Applying Advanced Aquifer Mapping Tools for Water Planners Climate Technology Centre & Network Fri, 08/06/2021	Market the project's outputs as "investment-ready" baselines for international climate funds

Table 10

Contribution of Non-Annex I TA Success story to the creation or strengthening of adaptation assets

Country Name	Adaptation Assets
Algeria	Creation of a laboratory for quality control of solar panels, and subsequently the integration of inverters. This laboratory has started testing equipment and employs several researchers.
Antigua and Barbuda	Yes. The technical assistance contributed to strengthening adaptation assets through support for renewable energy systems, energy-efficient technologies, climate-resilient infrastructure planning, and improved environmental data and monitoring systems.
Botswana	The technical assistance (TA) created and strengthened adaptation assets, such as the agreed Minimum Energy Performance Standards (MEPS), and bolstered the regulatory framework pertaining to refrigerators and distribution transformers.
Burundi	Yes
Comoros	Capacity building on adaptation in the energy sector.
Ivory Coast	Information and decision-making
Grenada	Water availability and security
Guinea	Although the technical assistance activities are still ongoing, they will inevitably lead to the creation or strengthening of adaptation assets.
Lao PDR	Yes. The TA has directly led to the creation and structural strengthening of physical, social, and institutional adaptation assets in developing nations.
Namibia	Yes, in Namibia the Climate Technology Centre and Network Technical Assistance contributed to the creation and strengthening of approximately 5–7 adaptation assets, including 2 pilot water reuse and recycling systems, 1 integrated water management framework, 1 national technical guideline for climate-resilient water supply, and 2 institutional capacity-building platforms within government and local authorities. These assets have enhanced Namibia's ability to manage water scarcity, improved technical capacity for climate-resilient planning, and provided scalable models for broader adaptation interventions in water-stressed regions.
Nigeria	Women empowerment
Panama	There is an open-access data repository for sharing the database generated through the technical assistance
Paraguay	Paraguay received technical assistance in 2017 under the project: "Application of Environmental Flows and River Basin Management Framework." Some results included: establishing an appropriate methodology for defining environmental flows in Paraguay at the river basin level; conducting measurements in the Tebicuary River Basin; and establishing a methodology for designing integrated water resources management (IWRM) plans at the river basin level and applying it to the Tebicuary River Basin. However, it would be important to follow up on the current status of these assets.
Republic of the Congo	Development of standards and codes, including Cement Standard, Cement Code, LC3 Standard, Concrete Standard, and Concrete Code
Senegal	Through the decarbonization roadmap for the cement sector, buildings have become less CO2 intensive (lower emitting).
Zambia	The Aquifer Mapping Methodology - Methodological Framework, The Groundwater Development Plan - Strategic Plan, Groundwater Recharge Tool - Software/Analytical Tool, Stationary Transient Electromagnetic (sTEM) Profiler - Physical Technology / Asset