

CTCN Chapter of the Joint Annual Report of the Technology Executive Committee and the Climate Technology Centre and Network for 2025

Cover Note

I. Introduction

A. Mandate and background

1. COP 16 established the Technology Mechanism, comprising the TEC and the CTCN, to facilitate implementation of enhanced action on technology development and transfer to support action on mitigation and adaptation in order to achieve full implementation of the Convention.¹

2. CMA 1 adopted the technology framework under Article 10, paragraph 4, of the Paris Agreement to provide overarching guidance to the work under the Technology Mechanism in promoting and facilitating enhanced action on technology development and transfer to support implementation of the Paris Agreement.²

3. In accordance with relevant COP³ and CMA⁴ decisions, the TEC and the CTCN prepare a joint annual report for consideration by the COP and the CMA through the subsidiary bodies.

4. During the reporting period, the TEC and the CTCN entered their third year of implementing the joint work programme of the Technology Mechanism for 2023–2027,⁵ which is aimed at facilitating coherence and synergy and ensuring effective implementation of the work of both bodies. It comprises joint activities and common areas of work of the bodies, the rolling workplan of the TEC for 2023–2027⁶ and the programme of work of the CTCN for 2023–2027.⁷

B. Scope

5. This note contains the chapter that summarizes the key activities and outcomes of the work of the CTCN since the publication of their joint annual

¹ Decision [1/CP.16](#), para. 117.

² Decision [15/CMA.1](#), para.1.

³ Decisions [2/CP.17](#), paras. 142–143; [1/CP.21](#), para. 68; [12/CP.21](#), para. 2; [15/CP.22](#), para. 6; [15/CP.23](#), para. 4; and [14/CP.25](#), para. 8.

⁴ Decisions [15/CMA.1](#), paras. 4–5; and [8/CMA.2](#), para. 4.

⁵ Available at <https://unfccc.int/ttclear/tec/documents.html>.

⁶ Available at <https://unfccc.int/ttclear/tec/workplan>.

⁷ Available at <https://pow.ctc-n.org/programme.html>.

report for 2024⁸ that will be part of the Joint annual report of the TEC and CTCN for 2025. The joint chapter of the joint annual report is not included in this document as it is presented in a separate meeting document (AB/2025/26/6).

6. The CTCN report contains two annexes: the first annex provides an overview of CTCN TA projects completed during the reporting period, and the second annex provides an overview of CTCN success stories during the reporting period.

C. Possible action by the Advisory Board

7. Members of the Advisory Board will be invited to consider the draft CTCN chapter and to provide guidance to the Chair and Vice-Chair with a view to its timely and appropriate finalization.

⁸ [FCCC/SB/2024/3](#).

Abbreviations and acronyms

AF	Adaptation Fund
AFCIA	Adaptation Fund Climate Innovation Accelerator
AI	artificial intelligence
Annex I Party	Party included in Annex I to the Convention
CMA	Conference of the Parties serving as the meeting of the Parties to the Paris Agreement
COP	Conference of the Parties
CTCN	Climate Technology Centre and Network
FAO	Food and Agriculture Organization of the United Nations
GCF	Green Climate Fund
GEF	Global Environment Facility
LDC	least developed country
MSME	micro, small and medium-sized enterprise
NAP	national adaptation plan
NDA	national designated authority
NDC	nationally determined contribution
NDE	national designated entity
non-Annex I Party	Party not included in Annex I to the Convention
SB	sessions of the subsidiary bodies
SIDS	small island developing State(s)
SJWA	Sharm el-Sheikh joint work on implementation of climate action on agriculture and food security
TA	technical assistance
TEC	Technology Executive Committee
TNA	technology needs assessment
TT:CLEAR	technology information clearing house
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization

II. Activities and performance of the Climate Technology Centre and Network

A. Advisory Board meetings and membership⁹

41. In December 2024, Ariesta Ningrum took up her position as new Director of the CTCN, also serving as the Secretary for the Advisory Board. At its 25th meeting, held in Copenhagen, Denmark, from 4 to 9 April 2025, the Advisory Board elected Stephen Minas (Greece) as its Chair and Christian Lohberger (Papua New Guinea) as its Vice-Chair. The Board thanked the outgoing Chair, Fred Machulu Onduri (Uganda), for his service.

42. In addition, key results of CTCN activities in 2024 were presented and the 2024 financial statement of the CTCN was endorsed. The Advisory Board provided further guidance on implementing the third programme of work of the CTCN, for 2023–2027, as part of the joint work programme of the Technology Mechanism for 2023–2027.

43. At its 26th meeting, held in Bonn, Germany, from 12 to 17 September 2025, [PLACEHOLDER for pending consideration of the CTCN chapter of the joint annual report of the TEC and the CTCN for 2025 and the CTCN annual operating plan and budget for 2026].

44. One Advisory Board task force was active in 2025, on resource mobilization and partnerships.

45. All Advisory Board meeting documents, webcasts and reports are available on the CTCN web pages.¹⁰

B. Activities of the Climate Technology Centre and Network

46. In 2025 the CTCN entered its third year of implementing its programme of work for 2023–2027. The remainder of this chapter provides an overview of CTCN activities conducted between October 2024 and September 2025, structured around the five themes of the technology framework under the Paris Agreement.¹¹

1. Innovation

47. Several CTCN TA projects completed during the reporting period focused on promoting or introducing innovative and emerging climate technologies. Examples include using multi-scalar mapping to enhance food security in Jamaica, and using simple mobile technologies to scale up digital collection and processing of climate observation data to inform adaptation actions in Malawi, applying a data-driven approach to flood mitigation to develop real-time mapping of floods in Mali, and conducting a feasibility and viability study on using blockchain technology in Thailand.

48. Digitalization, one of the key CTCN technology enablers, remains a significant focus area for TA projects. During the reporting period, the CTCN supported the development of an integrated forest fire monitoring and early warning system using remote sensing for Borjomi-Kharagauli National Park in Georgia, the use of tree monitoring for climate adaptation in South Africa, and the formulation of a national electricity grid code and the development

⁹ Numbering begins at 41 to facilitate the integration of the Joint TEC-CTCN Chapter and the TEC Chapter in the 2024 Joint Annual Report of the TEC and CTCN.

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

¹¹ Decision [15/CMA.1](#), annex, para. 4.

of a net metering policy in Timor-Leste. The TA in Georgia supported by the CTCN was mentioned in the implementation framework of the COP 29 Declaration on Green Digital Action,¹² which has been endorsed by 82 States and more than 1,000 non-State actors.

49. The CTCN continued to implement the following innovation-focused programmes and initiatives:

(a) AFCIA I: since the inception of phase I in 2020, more than 400 applications have been received, resulting in 25 TA projects on innovation in adaptation practices from 23 countries being selected to receive AFCIA funding, including 10 from the LDCs and 3 from SIDS. Eight projects were completed during the reporting period. AFCIA I is scheduled to conclude in October 2025, with lessons learned planned to be used to inform phase II;¹³

(b) AFCIA II: the CTCN has administered USD 10 million for phase II since sourcing started in July 2024, which is expected to fund 60 TA projects over five years, making the CTCN the largest executing entity for phase II. During the reporting period, a series of webinars, starting in October 2024, was held as a virtual launch for phase II, while 5 TA requests were in the bidding phase and 15 were in the design phase;

(c) Climate Technology for Communities at Risk of Climate-induced Conflicts: this programme, funded by the European Commission in the amount of USD 3.28 million and launched in June 2023, supports 10 TAs and is scheduled to conclude in October 2025.¹⁴ During the reporting period, five TAs under the programme were completed.

(d) Innovative Climate Solutions Programme:¹⁵ the European Commission awarded the CTCN a USD 2.1 million grant for the programme, the aim of which is to align seven innovative solutions with the needs of the LDCs and SIDS for transformative and inclusive climate action. Implementation of the programme began during the reporting period.

50. Since opening in 2022, the CTCN Partnership and Liaison Office has piloted several global collaborative research, development and demonstration activities to support national systems of innovation and enhance endogenous capacities in developing countries. Its activities in this area include:

(a) Supporting TA projects that pilot innovative technologies or promote collaborative research, development and demonstration initiatives. In addition to ongoing projects in Bangladesh, Côte d'Ivoire and Papua New Guinea, a pre-feasibility study on groundwater desalination and resource recovery is being conducted in Uzbekistan;

(b) Conducting capacity-building activities related to collaborative research, development and demonstration, namely:

(i) A side event on exploring strategies for strengthening national systems of innovation and advancing research, development and demonstration (held at COP 29 in the Greek Pavilion);¹⁶

¹² <https://cop29.az/en/pages/cop29-declaration-on-green-digital-action>.

¹³ [AFCIA dashboard](#)

¹⁴ See <https://www.ctc-n.org/technical-assistance/climate-change-and-security>.

¹⁵ <https://www.ctc-n.org/technical-assistance/ics-innovative-climate-solutions-programme>.

¹⁶ See <https://www.ctc-n.org/whats-happening/news/cop29-side-event-showcases-role-rdd-and-tailored-approaches-climate-action>.

(ii) Two collaborative research, development and demonstration bridge-building (CRD2B2) workshops aimed at fostering South–South, North–South and triangular partnerships and highlighting the role of climate technology in implementing the NDCs to be submitted in 2025 (NDCs 3.0) (held in October 2024 and August 2025 respectively in the Republic of Korea;

(iii) A learning visit on green hydrogen production and fuel cells, conducted in the Republic of Korea (held in July 2025, attended by five researchers nominated by NDEs);

(c) Developing knowledge products, including the publication of the second part of a series of reports on green hydrogen technologies for systems transformation in collaboration with UNEP Copenhagen Climate Centre¹⁷ and a publication on integrating AI into climate action, prepared jointly with the National Institute of Green Technology of the Republic of Korea, which features case studies from countries in the Asia-Pacific region on how to build capacity to implement climate technologies.¹⁸

2. Implementation

(a) Supporting development and transfer of climate technologies

51. As at August 2025, the CTCN had received, since its inception, 439 TA requests from 115 developing country Parties, of which 167 (38 per cent) had been completed, 81 (18.5 per cent) were under implementation, 123 (28 per cent) were in the design phase and 68 (15.5 per cent) were under review.¹⁹ Of those requests, 48 per cent originated from Africa, 29 per cent from Asia and the Pacific, 22 per cent from Latin America and the Caribbean and 1 per cent from Europe. The LDCs accounted for 35 per cent of requests and SIDS for 10 per cent.

52. The received TA requests, since inception, relate to mitigation (41 per cent), adaptation (31 per cent) or both (28 per cent). Most mitigation-related requests concern renewable energy, energy efficiency or agriculture, while adaptation-related requests concern mainly water, agriculture and forestry, or coastal zones.

53. In terms of type of assistance, requests for decision-making tools and/or information were received most frequently (accounting for 25 per cent of all requests), followed by requests for technology feasibility studies (21 per cent) and technology identification and prioritization (15 per cent).

54. A total of 29 TA requests were received during the reporting period, constituting more than a two-fold increase compared with the previous reporting period where 9 TA requests were received. It is worth highlighting that, during the reporting period, the CTCN completed one TA request and received and is processing one other TA request from Eastern Europe.

55. A total of 32 TA projects and one TNA were completed during the reporting period. Of these, 14 TA projects (42.5 per cent) were on adaptation, 13 TA projects and one TNA (42.5 per cent) were on both adaptation and mitigation and 5 TA projects (15 per cent) were on mitigation. In terms of regional distribution, 18 TA projects and one TNA (58 per cent) were

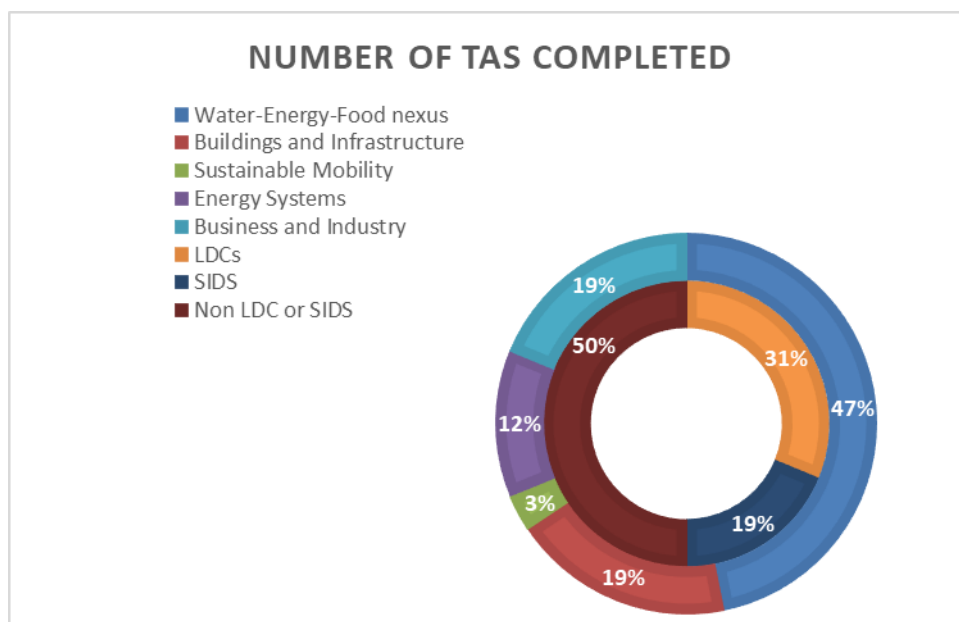
¹⁷ See <https://www.ctc-n.org/resources/green-hydrogen-technologies-systems-transformation-building-Compilation-national-0>.

¹⁸ See <https://www.ctc-n.org/resources/integrating-ai-climate-action-enhancing-climate-technology-capacity-asia-pacific>.

¹⁹ See https://www.ctc-n.org/facts-and-figures/requests?chart=by_stage.

implemented in Africa, 8 TA projects (24 per cent) in Latin America and the Caribbean, 5 TA projects (15 per cent) in Asia and the Pacific and 1 TA project (3 per cent) in Eastern Europe. Of the 32 completed TA projects, 13 leveraged national systems of innovation as a key enabler for system transformation, while 7 leveraged digitalization. An overview of all TA projects completed during the reporting period is provided in annex II. Figure 1 below illustrates the distribution of TA projects completed during the reporting period according to the CTCN five areas of system transformation and the percentage of TA projects from the LDCs (the number of projects was 10), SIDS (6) and other developing countries (16).

Figure 1. Percentage of Climate Technology Centre and Network technical assistance projects completed between October 2024 and September 2025, by area of system transformation and developing country status



Note: The CTCN completed 32 projects during the reporting period and one TNA that does not fall under any of the five areas of system transformation and is not included in this figure.

56. The TA projects completed during the reporting period reveal that an increased focus on adaptation in the CTCN project portfolio is a continuing trend. The implementation of AFCIA I in 2024 focused primarily on providing TA related to the water–energy–food nexus, leading to more TA requests in this area than in other areas of system transformation. One TA requests in the area of sustainable mobility was completed during the reporting period. TA requests for applying digital technologies in climate information systems, such as agrometeorological information systems and early warning systems, continue to represent a large proportion of TA requests.

57. The CTCN continued to respond to TA requests in a demand-driven manner using a programmatic approach involving implementation of three key programmes: (1) AFCIA I, funded by the AF and focused on the water–energy–food nexus and early warning systems; (2) the Climate Technology for Communities at Risk of Climate-induced Conflicts, funded by the European Commission and including 10 TAs that are due to be completed by December 2025; and (3) the Innovative Climate Solutions Programme, funded by the European Commission and targeting seven LDCs and SIDS. All these programmes include elements of TA, capacity-building and knowledge transfer, in line with the mandate of the CTCN.

58. During the reporting period, the CTCN concluded implementation of a multi-country TA project on circular economy financing in Latin America and the Caribbean, for which it was important to ensure that the outcomes and deliverables for each of the four countries involved were aligned while the approaches to decarbonization were national and led by each country.

59. At the 26th Advisory Board meeting, the CTCN secretariat delivered a presentation on progress in TA delivery, timeliness and effectiveness; the prioritization criteria used to assess TA requests; and application of the

threshold of USD 250,000 for each TA request. [PLACEHOLDER for further guidance by the AB]

(b) Conducting technology needs assessments and implementing their results

60. During the reporting period, the CTCN supported the completion of a TNA funded through the GCF Readiness and Preparatory Support Programme. The TNA, for Côte d'Ivoire, was aimed at reassessing priority technologies in key sectors and establishing a national system of innovation led by a climate technology incubation hub.

(c) Aligning technical assistance provided by the Climate Technology Centre and Network with implementation of nationally determined contributions

61. TA provided by the CTCN directly supports countries in implementing their NDCs. In Asia and the Pacific, the TA delivered in Pakistan resulted in the development of a technology road map for NDC implementation, identifying priority technologies in the water and waste sectors and improving coordination among stakeholders. In Africa, the TA delivered in Sudan and in Côte d'Ivoire (in the latter case for conducting a TNA) resulted in progress towards achieving NDC targets by enhancing water resource management, piloting innovative technologies and aligning sectoral priorities with national adaptation and mitigation goals. In Latin America and the Caribbean, TA helped Chile, Costa Rica and Suriname, among other countries, strengthen institutional capacities and financing mechanisms for circular economy and climate-resilient water systems, which are key enablers for implementing their NDCs.

3. Enabling environments and capacity-building

(a) Creating enabling environments and favourable market conditions for climate technologies

62. Many TA projects completed during the reporting period were aimed at creating enabling environments for technology development and transfer through the provision of decision-making tools and information (21 per cent of completed TA projects). Other means of creating enabling environments were technology identification and prioritization (7 per cent) and recommendations for laws, policies and regulations (3 per cent).

63. Examples of how CTCN support creates enabling environments include aquifer mapping to support development of a groundwater management plan in Zambia aimed at ensuring water security and the sustainable use of water; development of a national framework in the Bahamas aimed at standardizing climate-smart street vendor stalls to formalize the informal sector; and development of a national framework for e-mobility in the United Republic of Tanzania aimed at promoting cleaner transport and boosting the participation of women in the sector.

(b) Promoting gender-responsive and endogenous technologies and harnessing Indigenous Peoples' knowledge

64. Since endorsing its gender policy and action plan 2023–2027 in 2023, the CTCN has been developing and monitoring annual gender workplans. The CTCN also integrates a gender assessment and action plan into all TA response plans. Furthermore, the percentage of the TA budget for projects dedicated to gender mainstreaming is 5 per cent. This allocation was used

to support activities such as hiring gender experts and producing policy briefs.

65. During the reporting period, the CTCN promoted the Technology Mechanism gender and climate technology expert roster, including by referring to it in the updated TA response plan template and encouraging Network members and NDEs to engage experts from the roster. As of 27 August 2025, 172 gender and climate technology experts had joined the roster.

66. Several TA projects completed during the reporting period promoted endogenous technologies by making use of local resources and knowledge. For example, the CTCN piloted solar-powered hydroponics and helped integrate training on hydroponics into the curricula of agricultural colleges in Nigeria to build local expertise. The CTCN also supported the use of climate smart agriculture for local communities as part of a project focused on the water–energy–food nexus in Mozambique.

(c) **Building capacity by exchanging knowledge and experience**

67. Several TA projects completed during the reporting period included South–South and North–South learning exchange visits. Regional collaboration among the four countries in Latin America and the Caribbean participating in the multi-country TA project on circular economy fostered South–South exchange of experience and lessons learned. The pro bono support on biogas production provided by Inha University and Dongguk University in the Republic of South Korea to students and professors of the Nelson Mandela African Institution of Science and Technology in the United Republic of Tanzania included lectures, training sessions and joint laboratory testing on biogas production.

68. The CTCN continued tailoring its global capacity-building activities to regional needs, including by holding capacity-building sessions on the margins of regional NDE forums. In October 2024, an AI-focused capacity-building session for NDEs in Latin America and the Caribbean was held in San José, Costa Rica. In 2025, capacity-building sessions held on the margins of NDE forums on climate technology and finance took place in Panama City, Panama, in May, and in Nairobi, Kenya, in July, while sessions on digitalization and finance were held in Seoul, Republic of Korea, in September.

(d) **Enhancing public awareness of and information-sharing on climate technology development and transfer**

69. TA projects were showcased at several regional, national and local events to raise awareness of climate technologies and share project findings. For example, the multi-country TA project on circular economy in Latin America and the Caribbean was showcased at the World Circular Economy Forum 2025; the United Republic of Tanzania’s e-mobility TA project was presented at Innovation Week Tanzania 2025, where the national electric vehicle policy framework was also endorsed; and Zimbabwe’s TA on green buildings assistance was showcased at a COP 29 event by Zimbabwe.

70. The CTCN collaborated with the following partner organizations in disseminating information on climate technology:

(a) The World Intellectual Property Organization by contributing to the 2024 edition, on energy solutions, of its *Green Technology Book* in order to disseminate information on technology trends, and by participating in its

side event held at the 2025 United Nations Ocean Conference, where the Vice-Chair of the Advisory Board and a CTCN Secretariat staff member were panellists;

(b) UNEP Copenhagen Climate Centre by contributing to *The Climate Technology Progress Report* – both the 2024 edition on renewable energy and the 2025 edition on the bioeconomy;

(c) EmPower: Women for Climate Resilient Societies by participating in a capacity-building seminar on promoting renewable energy adoption in Asia and the Pacific using AI;

(d) UNEP in Asia and the Pacific by co-delivering two webinars on using AI to advance renewable energy and integrating gender equality and social inclusion in energy and climate change solutions;

71. The CTCN Secretariat and AB members participated in 14 climate technology related events at COP29. In addition, they were invited to share knowledge on climate technologies at more than 20 global conferences and partner events as illustrated below.

(a) The Chair of the Advisory Board highlighted the role of AI in climate action during Oman Sustainability Week 2025, later expanding on the topic in a publication by *Environmental Finance*, while a joint opinion piece by the Chair and the Vice-Chair of the Board was published in the Lowy Institute's *The Interpreter*;

(b) The Chair of the Advisory Board delivered a presentation on the role of the CTCN at an event organized by the Energy Community technical working group on the UNFCCC and at the informal dialogues organized under the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction;

(c) Four Advisory Board members participated in a workshop at SB 62 on food systems and climate action under SJWA;

(d) The CTCN Director presented success stories to visiting Secretaries of State from Denmark, Finland, Norway and Sweden, and held a bilateral meeting with Sweden's Climate Ambassador while in Sweden;

(e) Representatives of the CTCN secretariat were at several events including attending the second Brussels Climate Security Dialogue organized by the European Commission and a Climate-KIC workshop; delivering keynote remarks at the Central Asia Climate Change Conference 2025; presenting CTCN activities at a workshop organized by CGIAR and the National Water Commission of Mexico on AI and water resilience; participating in a thematic event at the Berlin Energy Transition Dialogue 2025, as well as at the fourth International Conference on Financing for Development introducing CTCN new programme on sulphur hexafluoride management and phase-out; presenting at an International Chamber of Commerce business webinar facilitated by the UNFCCC constituency of business and industry non-governmental organizations on becoming a CTCN network member.

72. The CTCN developed factsheets, videos and web stories to build a knowledge repository for AFCIA²⁰, and the two programmes funded by the

²⁰ <https://www.ctc-n.org/technical-assistance/adaptation-fund-climate-innovation-accelerator-afcia-I>

European Commission. Furthermore, a project dashboard was developed for AFCIA I.

73. During the reporting period, the CTCN conducted several awareness-raising campaigns, including on green hydrogen, AI integration in climate action, and youth-led initiatives under the Youth Climate Innovation programme.

74. In addition, the CTCN published 1,107 social media posts highlighting TA results and best practices. A total of 13 issues of the CTCN newsletter were sent to more than 13,500 subscribers, and information on events and learning opportunities reached 18,366 social media followers. [PLACEHOLDER Instagram account].

4. Collaboration and stakeholder engagement

(a) Engaging with local communities, authorities, civil society organizations and the private sector and organizations

75. The CTCN continued to engage a range of stakeholders in delivering its services. For example, during implementation of a TA project in Colombia, the Cuerval Community Council and the Cauca Regional Autonomous Corporation took part in implementing mangrove conservation, restoration and monitoring strategies and other measures designed to respond to climate threats. The CTCN also engaged with the European Union to explore potential areas of collaboration under Copernicus, the Earth observation component of the European Union's space programme, in Latin America and the Caribbean.

76. The CTCN collaborated with the United Nations Office for Disaster Risk Reduction, the World Meteorological Organization, the International Telecommunications Union and the International Federation of Red Cross and Red Crescent Societies under the Early Warnings for All initiative by coordinating efforts to support the Lao People's Democratic Republic and Lesotho in developing their national early warning system road maps within the framework of the initiative.

77. The CTCN served as a coordinating partner for United Nations Sustainable Development on a workshop on the water-energy-food-ecosystems nexus held in Addis Abeba, Ethiopia.

78. The CTCN worked together with the National Institute of Green Technology of the Republic of Korea, the World Bank, the GCF, Griffith University in Australia and a number of other collaborators by supporting a global capacity-building programme on climate technology and finance for NDEs in Asia, with a focus on digitalization and finance.

79. The CTCN partnered with the Global Cement and Concrete Association to provide technical support on developing deep decarbonization road maps for the cement industry in Africa and explore possibilities for joint fundraising on the multi-country on Climate Innovation in Concrete and Cement.

80. The CTCN continued its collaboration with Seedstars in implementing the Youth Climate Innovation programme, which has been in place since 2020.

81. The CTCN, in collaboration with the Swedish Energy Agency and Business Sweden, held a round table in August 2025 with Swedish business leaders to promote the work of the CTCN and explore opportunities for

Swedish private sector to collaborate with the CTCN in providing technology solutions for developing countries.

82. The CTCN continued making efforts to increase the engagement of stakeholders in various steps of the TA process to help ensure equitable and locally relevant outcomes.

(b) Engaging with national designated entities

83. Submission of TA requests and communication about their approval occurs through a country's NDE. During the reporting period, beyond working with NDEs on ongoing TA projects, the CTCN provided technical support and guidance to more than 50 NDEs in preparing new TA requests and ensured that funding entities were invited to stakeholder meetings on TA closure. In addition, on request from NDEs, the CTCN provided follow-up technical support for TA projects that had concluded, for example by connecting NDEs with Network members and potential funders regarding scaling up TA projects, providing advice on developing concept notes and convening bilateral meetings between NDEs and accredited entities.

84. The CTCN continued to engage NDEs in various forums and meetings aimed to equip and support them when undertaking their functions, as well as providing them with an opportunity to interact with other NDEs, NDAs and accredited entities, such as:

(a) The regional NDE forums for Latin America and the Caribbean, held in Costa Rica in October 2024 (22 NDEs) and in Panama in May 2025 (21 NDEs); Africa, held in Kenya in July 2025 (45 NDEs); and Asia, held in the Republic of Korea in September 2025 (23 NDEs);

(b) An onboarding session in January 2025, delivered in English, French and Spanish, attended by a total of 99 newly appointed NDEs;

(c) The GCF regional dialogue with the Caribbean, held in Saint Kitts and Nevis from 17 to 20 March 2025 (four NDEs); and the GCF regional dialogue with SIDS in Asia and the Pacific, held in Cook Islands from 6 to 9 May 2025 (eight NDEs);

85. In response to paragraph 4 decision [14/CP.28](#), the CTCN secretariat developed modalities for operationalizing NDE technical and logistical support,²¹ which were agreed on by the Advisory Board at its 25th meeting. The CTCN secretariat is implementing these modalities and collecting information on lessons learned for inclusion in the next annual report on its activities. It had received three requests for logistical support as at 25 August 2025.

(c) Engaging with Network members

86. The CTCN welcomed 46 new Network members since September 2024 bringing the total number of Network members to 929 as at 1 July 2025. Private sector organizations represent 61 per cent of new members, followed by non-governmental organizations (22 per cent) and non-profit organizations (9 per cent). Non-Annex I Parties account for 52 per cent of the new members and Annex I Parties for 48 per cent.

87. The CTCN facilitated several Network engagement events during the reporting period, including a webinar on AI and digital climate solutions, held

²¹ [AB 2025_25_18.2_NDE_Logistical_support_implementation_report.pdf](#)

in May 2025; a webinar organized jointly with the UNEP-DHI Centre on Water and Environment on scaling up TA for flood and drought early warning systems, held in June 2025; a learning visit on green hydrogen conducted in July 2025 in the Republic of Korea; and an event for NDEs from the LDCs and SIDS organized as part of the CTCN Voluntary Technology Talk programme, held in Busan, Republic of Korea, in August 2025 on the margins of the World Climate Industry Expo 2025. Furthermore, a Network member held a session at Stockholm World Water Week 2025, where a TA project was presented.

88. The CTCN secretariat is reinvigorating its engagement with Network members, including by conducting a survey and developing a network engagement strategy to be considered by the Advisory Board at its 26th meeting. [PLACEHOLDER for further guidance by the AB]

(d) Collaborating with UNFCCC constituted bodies and constituencies

89. The CTCN, in collaboration with the UNFCCC children and youth constituency and the Paris Committee on Capacity-building, hosted a climate youth innovator's event at COP 29 to showcase climate technology startups. In addition, it organized, jointly with Youth4Capacity and Seedstars under the Youth Climate Innovation programme, an interactive design thinking workshop, held in May 2025, aimed at supporting young climate entrepreneurs.

90. As part of its ongoing collaboration with Women Engage for a Common Future and the UNFCCC women and gender constituency, the CTCN supported the 2025 Gender Just Climate Solutions Awards, promoting them via its Network, providing the winners with access to a year-long mentoring programme and serving on the jury to select the award winners. The CTCN also worked with these entities on developing a gender mainstreaming monitoring tool to ensure efficient use of the TA budget allocated to gender-related activities.

5. Support

(a) Enhancing collaboration with the operating entities of the Financial Mechanism and the Adaptation Fund

91. The CTCN is engaging with interested NDEs on how to use CTCN TA under the GCF Readiness and Preparatory Support Programme for 2024–2027. The TNA conducted in Côte d'Ivoire, which was completed during the reporting period, was initiated under the previous GCF readiness modality.

92. The CTCN and the GCF strengthened their collaboration by participating in several of each other's events. The CTCN fostered the participation of NDEs to attend the GCF regional dialogues with the Caribbean and with SIDS in Asia and the Pacific in order to enhance coordination with NDAs and accredited entities. In turn, the GCF contributed to CTCN learning events, technical workshops and regional NDE forums.

93. During the reporting period, the CTCN continued implementing the ongoing AF programme (AFCIA I and II); signed a contract regarding coordination of implementing entities under AFCIA II between UNEP-CTCN and AF, partnering with the United Nations Development Programme to provide those services; and worked on finalizing a report on the impact of AFCIA I, which will serve as the basis for TA under AFCIA II.

(b) **Facilitating access to finance through technical assistance**

94. The CTCN includes specific deliverables as part of its TA to empower stakeholders to secure finance for implementing project outcomes. Many TA projects culminate in a final deliverable that includes one or more concept notes for projects arising from the TA for submission to financial institutions for funding. For example, four concept notes were developed and USD 158,000 was leveraged as part of the TA project in Pakistan on implementing its NDC.

95. As part of a TA project in the United Republic of Tanzania, a concept note for electrification of the public bus system, for an amount of USD 5.2 million, was prepared for submission to the GCF and the electric vehicle policy framework developed under the TA project was adopted by the Ministry of Transport. Initial funding of USD 15,000 for the project was provided by the Government of the Kingdom of the Netherlands, and USD 90,000 was provided by Enabel, the Belgian agency for international cooperation, for follow-up activities following TA project completion.

96. Under AFCIA I, a concept note for Burundi project targeting USD 5 million was submitted to the AF, and a concept note for Maldives project worth USD 5 million will be submitted to the AF.

97. At COP 29, the GCF approved USD 540,000 in funding under its Project Preparation Facility for a Kenya Commercial Bank project developed together with the CTCN and Sustainable Solutions for Africa. In July 2025, the CTCN signed a memorandum of understanding to continue its partnership with the KCB to ensure successful delivery of the project.

98. A concept note for a Uganda project targeting USD 25 million is being reviewed by the Ministry of Water and Environment of Uganda before submission to the GCF.

(c) **Enhancing mobilization of support**

99. The Advisory Board's task force on resource mobilization is overseeing implementation of the CTCN resource mobilization and partnership strategy for 2023–2027,²² which was endorsed at the 22nd Advisory Board meeting. The task force met regularly during the reporting period.

100. The CTCN maintained strong ties with key donors, including the European Commission – its largest contributor – and the Governments of Canada, Denmark, Germany, Japan, the Republic of Korea, Spain and Sweden. It also resumed its engagement with former donors the Governments of Norway, Switzerland and the United Kingdom of Great Britain and Northern Ireland, and it has initiated dialogue with potential new Party donors.

101. The CTCN is, together with the Global Cement and Concrete Association, fundraising for its multi-country programme on climate innovation in cement and concrete, for countries in Africa; its global programme on phasing out sulphur hexafluoride; and the third phase of the Youth Climate Innovation programme. It has prepared strategic pitching documents and concept notes to support these efforts.

102. The CTCN is enhancing and diversifying the engagement it has with philanthropic foundations, development finance sources and international

²² See Advisory Board document AB/2023/22/22.1.

financial institutions. It is currently in discussion with the International Maize and Wheat Improvement Center concerning potential collaboration on a global programme on agriculture.

103. During the reporting period, the CTCN engaged in discussions regarding potential collaborations with the Inter-American Development Bank in Latin America; with the Asian Development Bank on scaling up TA in Asia; and with the Eurasian Development Bank on TA in Central Asia, although these discussions were discontinued when the Eurasian Development Bank closed its sustainability unit. The CTCN also initiated discussions for potential collaboration with the Asia Infrastructure Investment Bank.

104. Three new TA projects were identified for implementation with pro bono support from the Republic of Korea, totalling USD 472,000.

105. Several co-financing and in-kind contributions were made by Network members and partners for TA project implementation or capacity-building, including free access to an online course on financial technology, worth USD 27,600, provided by the Blockchain and Climate Institute for 92 NDEs from non-Annex I Parties, and a contribution of approximately USD 210,000 from UNEP for a green buildings TA in Ghana.

(d) Monitoring and tracking

106. At the 24th Advisory Board meeting, the CTCN addressed the Board's recommendation to monitor and follow up on the post-implementation phase of TA by introducing a post-implementation form, which is being piloted in 2025 with selected countries.

C. Organizational structure of the Climate Technology Centre and Network

107. The CTCN secretariat continued to maintain a lean structure during the reporting period. Its headquarters is in Copenhagen, Denmark, and its technology specialists work out of regional offices in Nairobi, Kenya; Panama City, Panama; and Songdo, Republic of Korea. The CTCN Partnership and Liaison Office in Songdo supports CTCN activities related to its collaboration with the GCF, collaborative research, development and demonstration, and capacity building.

108. As at 28 July 2025, the CTCN included an international Network of 929 organizations and institutions that can respond to requests from developing countries related to climate technology development and transfer, and 165 NDEs nominated by their countries.

D. Funding overview

109. The CTCN has secured USD 132.78 million in financial contributions since it commenced operations in 2014. As at July 2025, the CTCN had received funds for 2025 in the amount of USD 14,467,917 (see the table below).

Cash receipts for the Climate Technology Centre and Network in 2025

<i>Donor</i>	<i>Amount (USD)</i>
Adaptation Fund ^a	9 090 910
Denmark ^a	2 096 114
Republic of Korea ^b	1 892 950

Canada ^c	1 026 066
Japan ^a	361 877
Total	14 467 917

a new contribution

b \$ 1.67 million against 2021 pledge, \$ 215.000 against new contribution

c against 2024 pledge

110. The CTCN carried over a fund balance of approximately USD 32.5 million into 2025. Its approved annual operating budget for 2025 is just over USD 10 million and its projected expenditure for the year is USD 9.79 million. The CTCN projected fund balance at the end of 2025 is approximately USD 21.55 million, which includes pending cash receipts of USD 0.73 million in 2025, USD 3.52 million in 2026 and USD 2.23 million in 2027 against signed agreements. The projected unearmarked fund balance at the end of 2025 is USD 10.13 million.

111. In 2027, the CTCN will have available only USD 1.86 million for project activities that require unearmarked funding. This estimate takes into account USD 4.70 million reserved for operational costs of the CTCN in 2026 and 2027 and USD 3.57 million allocated to project activities in 2026. A funding reserve of USD 4.70 million is required to enable the CTCN secretariat to operate (e.g. for salaries, fixed office expenses, and Advisory Board and other meetings) until the end of its current programme of work in 2027.

E. Challenges and lessons learned

112. The CTCN has found success with two TA delivery models. The programmatic approach applied under AFCIA and the two EC programmes has proven effective in delivering efficient, scalable and results-focused support owing to its combination of TA, capacity-building and knowledge-sharing. The multi-country TA approach, such as the TA project on circular economy in Latin America and the Caribbean, has proven effective in addressing needs common to countries in the region and fostering regional cooperation, as well as enhancing cost-effectiveness, thereby helping the CTCN meet diverse priorities while maximizing resources. The CTCN intends to promote the use of these two delivery models in implementing the remainder of its programme of work for 2023–2027.

113. Coordination among NDEs, NDAs and GEF operational focal points is critical to the effective scaling up of TA and the advancement of technology development and transfer at the national level. Yet, as observed by the CTCN during the delivery of its services, coordination remains limited. To help address this challenge, the CTCN has supported the participation of several NDEs in the GCF regional dialogues, where they benefited from structured discussions with NDAs and accredited entities.

114. Developing and implementing a strategy dedicated to guiding the growth of the Network and engagement among its members could enhance the Network's reach and impact, as well as leverage its members' expertise in the areas of TA, capacity-building and knowledge-sharing. Enhancing collaboration with its Network will help the CTCN identify financing opportunities for scaling up projects arising from TAs.

115. To strengthen collaboration between the CTCN and the GCF, the CTCN PALO will continue finding opportunities to enhance interaction between

NDEs and national authorities, including through joint capacity-building on climate technology and innovation in financing as well as scaling up projects arising from TA implementation. The Office will continue to collaborate with implementing partners in the Republic of Korea and other relevant stake holders on collaborative research, development and demonstration.

116. The CTCN continues to face challenges arising from limited funding and earmarked funds, which limits its ability to respond to the increasing number of TA requests and to ensure a balanced composition in the number of mitigation and adaptation projects. Continued funding under AFCIA as it moves from phase I to phase II has resulted in adaptation-related projects constituting a large share of the CTCN TA portfolio. To increase the share of mitigation projects, the CTCN has undertaken targeted outreach on mitigation topics. However, such efforts are resource-intensive. Global funding uncertainties underscore the need for flexible, predictable funding of the CTCN to ensure it can provide timely support to address countries' needs.

117. In implementing its resource mobilization and partnership strategy, which emphasizes the need to move beyond a 'business as usual' approach, the CTCN has reached out to non-traditional donors, including multilateral development banks and philanthropic entities. Establishing trust and identifying modalities for partnership that incorporate the priorities of both the CTCN and donors requires time and resources before partnerships can be established. This situation is exacerbated by the global funding landscape, which has deteriorated since adoption of the resource mobilization and partnership strategy and is more challenging than at any other time since operationalization of the CTCN.

118. Effective and proactive support from UNEP as the CTCN host organization is vital to enable the CTCN to fulfil its potential and meet stakeholder expectations, including with respect to the uptake of CTCN outputs and communications and in terms of its visibility, partnerships and resource mobilization.

F. Key messages for the Conference of the Parties and the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement

119. As Parties increasingly seek integrated support across the planning, financing and implementation phases of climate technology interventions, the CTCN stands ready to enhance its role in supporting the implementation of TNA outcomes and providing TA in the context of implementing NAPs, NDCs and other national climate plans and strategies.

120. The CTCN has a unique value proposition in providing early intervention services and experience in delivering multi-country and programmatic approaches TAs. Beyond its mandate, the CTCN has assisted several countries in TA follow-up activities, including the preparation of project concept notes and initial funding proposals.

121. The CTCN is strengthening its matchmaking efforts to connect TA outcomes with suitable funding sources, thereby ensuring continuity and scalability of support provided to developing countries for implementing climate technology solution. The CTCN will require adequate resourcing and institutional support to enable it to play this role effectively and deliver sustained impact at scale.

122. Increasing the participation of NDEs in events and dialogues organized by the AF, the GCF, the GEF and other relevant bodies and aligning regional

NDE forums with these events could help foster coherent, results-focused country-level outcomes. As contributions to the strategic planning processes of financial mechanisms remain complex, the CTCN welcomes further guidance from Parties on its role in facilitating such coordination, particularly in the light of limited resource availability and evolving mandates.

Annex I

Climate Technology Centre and Network technical assistance projects completed during the reporting period for each area of system transformation*

[English only]

<i>Water-Energy-Food Nexus</i>		
<i>Country</i>	<i>Objective</i>	<i>Title</i>
Bahamas	Adaptation, Mitigation	Developing a national framework for the standardization of stalls and procedures for a climate smart street side vendor in the Bahamas (AFCIA I)
Cameroon	Adaptation	Local climate resilience through synecoculture, a high-yield agricultural technique in the northern region of Cameroon (mainly in the commune of Garoua 2 and in Figuil (Mayo-Louti) (EC C&S)
Jamaica	Adaptation	Enhancing multi-scalar mapping and research on food security risk due to the impacts of climate change on rural and urban environments
Malawi	Adaptation	Using simple mobile technologies to scale up digital collection & processing of climate observations for adaptation actions in Malawi (AFCIA I)
Maldives	Adaptation	Establishment of a skimming well gallery system for agricultural use in HDh.Nolhivaranfaru of Maldives (AFCIA I)
Mozambique	Adaptation, Mitigation	Implementation of Water-Food-Energy nexus using digital technologies for local communities in Mozambique
Nigeria	Adaptation	Empowering communities of Kaduna State, located in the North-west Nigeria with sustainable agricultural practices (Em-Hydro) (EC C&S)
Sudan	Adaptation, Mitigation	Improving the efficiency and sustainability of water harvesting technologies in Sudan by providing technical assistance in terms of enhancing; technology transfer, capacity building, and research collaboration (EC C&S)
Sudan	Adaptation	Soil erosion valuation to support climate resilient agriculture and food security (AFCIA I)
Suriname	Adaptation	Enhance the resilience of Suriname's water supply system by modelling drought risks and developing a roadmap of prioritized alternatives for aquifer recharge (AFCIA I)
Thailand	Adaptation	Feasibility and Viability Study of Using Blockchain Technology for a Real-time Climate Risk Insurance System in Thailand's Agricultural Sector (AFCIA I)
Pakistan	Adaptation	Improving adaptive capacities of water sector through surface rainwater harvesting technology adoption
Pakistan	Adaptation, Mitigation	Technologies Framework for Implementation of Nationally Determined Contributions for Pakistan
Zambia	Adaptation	Aquifer mapping technologies for Zambia
Zimbabwe	Adaptation	Piloting of a reliable solar powered drying facility for mopane worms in the Gwanda rural District of Zimbabwe (EC CC&S)

* Not formally edited.

Buildings & Infrastructure

<i>Country</i>	<i>Objective</i>	<i>Title</i>
Colombia	Adaptation, Mitigation	Sustainable Cuerval: Strategies for conservation, restoration and monitoring of the mangrove areas of the Cuerval for adaptation and mitigation with a focus on the integration of peace in climate action in Colombia (ECC&S)
Ghana	Adaptation, Mitigation	Development of Green Building Guidelines and Standards for Ghana
Georgia	Adaptation	Building up integrated monitoring and early warning forest fires detection system in the Borjomi - Kharagauli National Park by innovative remote sensing tools (AFCIA I)
Mali	Adaptation	Data-driven approach in flood mitigation: developing real-time mapping of floods in Mali (AFCIA I)
South Africa	Adaptation	Tree Monitoring for climate adaptation in the city of Mbombela (Pro-bono K)
Zimbabwe	Adaptation, Mitigation	Development of Green Building Standards for Zimbabwe

Sustainable Mobility

<i>Country</i>	<i>Objective</i>	<i>Title</i>
Tanzania	Mitigation	Developing a national framework for deploying and scaling up E-Mobility in Tanzania

Energy Systems

<i>Country</i>	<i>Objective</i>	<i>Title</i>
Lebanon	Mitigation	Development and implementation of an efficient appliance strategy
Nigeria	Mitigation	Developing an Institutional Framework for the Energy Efficiency Act and Regulations targeting energy intensive sectors (household and industries) in Nigeria
Tanzania	Mitigation	Feasibility Study of Optimal Design Conditions for Biogas Plant for the Improvement of CH ₄ Capture Efficiency (Pro-bono K)
Timor Leste	Mitigation	Formulating a National Electricity Grid Code and Development of a Net Metering Policy in Timor-Leste

Business and Industry

<i>Country</i>	<i>Objective</i>	<i>Title</i>
Chile	Adaptation, Mitigation	Multi-country Circular Economy Finance for MSMEs
Costa Rica	Adaptation, Mitigation	Multi-country Circular Economy Finance for MSMEs
Dominican Republic	Adaptation, Mitigation	Multi-country Circular Economy Finance for MSMEs
Uganda	Adaptation, Mitigation	Strengthening Waste Management Policymaking in Uganda in Response to Climate Change (Pro-bono K)
Uruguay	Adaptation, Mitigation	Multi-country Circular Economy Finance for MSMEs

<i>Country</i>	<i>Objective</i>	<i>Title</i>
Zambia	Adaptation, Mitigation	Development of a framework and roadmap for a National Innovation System to foster low-carbon and climate resilient economic development in Zambia

Technology Needs Assessment

<i>Country</i>	<i>Objective</i>	<i>Title</i>
Cote d'Ivoire	Adaptation, Mitigation	Updating of Technology Needs Assessment (TNA) and Technology Action Plan (TAP) for the implementation of NDC (GCF Readiness)

Annex II

Success stories from the CTCN*

1. The multi-country technical assistance successfully strengthened the enabling environment for circular economy (CE) finance across Chile, Costa Rica, Uruguay, and the Dominican Republic, directly supporting climate and development priorities. Through tailored diagnostic analyses, a standardized Circular Economy Categorization System for financial institutions, and capacity-building activities, the TA enhanced institutional understanding of CE as a pathway to achieving NDC targets. It empowered public and private financial institutions to identify and support MSMEs engaged in circular practices, laying the foundation for CE-aligned financial products and strategies. By integrating gender and “just transition” considerations, and fostering cross-sector collaboration, the TA positioned these countries to scale inclusive, climate-resilient economic models aligned with national decarbonization goals.

2. A \$5.45 million GCF application for an e-mobility bus depot in Tanzania was prepared and engagement with the Accredited Entity, CRDB, continued. The Ministry of Transport adopted the EV Policy Framework. Initial funding of USD 15,000 was provided by the Embassy of the Netherlands and USD 90,000 from Enabel, the Belgian agency for international cooperation.

3. At COP29, the GCF ushered in a new era of collaboration with the CTCN by approving \$540,000 in Project Preparation Facility (PPF) funding for a transformative initiative by Kenya Commercial Bank (KCB). Developed with initial support from the CTCN and its network member, this project represents a significant step toward sustainable financing. The full-scale project, valued at \$218 million, is set to be submitted to the GCF in 2025. The CTCN signed an MOU of continuing partnership with KCB in July 2025 in their effort to prepare a full project proposal using the PPF grant approved by GCF as announced in November 2024.

4. Success stories from AFCIA I:

(a) In the heat of northern Nigeria’s drylands, an agricultural transition is underway. A greenhouse is providing food and safety where parched soil and rising competition for arable land and water are fueling tensions between farmers, nomadic herders and armed groups like Boko Haram. Using no soil and a fraction of the water, solar-powered greenhouses now nurture lush rows of lettuce, tomatoes, cucumbers, and peppers in a place where, until recently, nothing grew. This small-scale hydroponics pilot aims to transform how local communities grow food in Kaduna State, one of Nigeria’s regions hardest hit by climate pressures and insecurity. This small-scale hydroponic farm is an innovative, closed-loop system where nutrient-rich water circulates through pipes, trays, and troughs, powered by solar pumps humming steadily in the background. The design maximizes vertical space, with water flowing through tubes across multiple levels, supporting 1,000 plants in layered arrangements on just 150 square meters, less than half the area typically required in traditional farming.

(b) In Garoua 2 and Figuil in Cameroon, five hundred students and dozens of farmers are breaking new ground with Cameroon’s first

* Not formally edited.

synecoculture initiative. This is a farming method that mimics natural ecosystems by growing diverse, edible plants densely and without chemicals, or tilling. By covering the ground with a variety of plants and avoiding monocultures, the resilience of the soil grows and yields increase. Synecoculture weaves together dense polycultures whose layered root networks mine moisture at every depth, maximising every precious drop of water. Trees like neem and moringa planted within the crops send their roots deep into hidden aquifers, drawing moisture upward to feed shallow-rooted greens under a cooling canopy. The constant ground cover and shade slow evaporation, locking water into the soil.
