Framework Convention on Climate Change

TEC/2024/29/25

Technology Executive Committee

18 October 2024

Twenty-ninth meeting

17–20 September 2024 (20 September TEC-CTCN Advisory Board Joint session)

Report of the twenty-nineth meeting of the Technology Executive Committee

I. Opening of the meeting

1. The chair of the Technology Executive Committee (TEC) Thibyan Ibrahim opened the 29th meeting of the TEC (TEC 29) on 17 September 2024 at 09.00 CEST.

2. The table below lists the TEC members who attended TEC 29. Observers present at the meeting are listed in annex I.

TEC members attending TEC 29	
Omar Alcock[a]	Stephen Minas
Reed Brown	Monique Motty
Alessandra De Marco[a]	Titus Ng'andu
Pemy Gasela	Dietram Oppelt (Vice-Chair)
Muhammad Arif Rashid Goheer[a]	Md Harun Or Rashid
Olena Hrypych[a]	Stig Svenningsen
Jingnan Hu	Kaija Veskioja
Thibyan Ibrahim (Chair)	Kenichi Wada
Hassan Jangavar	Ambrosio Yobanolo del Real

[a] Participated virtually.

II. Organizational matters

(b) Adoption of the agenda

3. The TEC adopted the agenda for TEC 29 as contained in document TEC/2024/29/1 and agreed to add under any other matters, amendment to the TEC's Rules of Procedure.

(c) Organization of work

4. The Chair presented, and the TEC took note of, the tentative work schedule for the meeting, including the joint session with the CTCN Advisory Board, as contained in document TEC/2024/29/3.

III. Update on the relevant meetings, events, and initiatives

(a) Outcomes of the Bonn Climate Change Conference of June 2024 and TEC activities

5. The TEC took note of the information presented by the secretariat on the outcomes of the sixtieth sessions of the subsidiary bodies (SB60), held from 3-13 June 2024 in Bonn, on matters relating to technology development and transfer, as well as the update on the TEC events at the session.

6. The TEC also took note of the report from TEC Chair and Vice-Chair on TEC engagement at SB60 and of members reporting on the events in which they participated on behalf of TEC.

7. The TEC requested the secretariat to continue prioritizing participation to the events organized by other constituted bodies in order to expand the audience and disseminate information on the work of the TEC.

(b) Outlook for Baku Climate Change Conference of November 2024 and TEC planned activities

8. The TEC took note of the overview of the preparations for the United Nations Climate Change Conference (COP29) to be held in Baku, Azerbaijan, from 11 November to 22 November 2024, including events relevant to the work of the TEC.

IV. Implementation of the rolling workplan for 2023–2027

(a) National systems of innovation and collaborative research, development and demonstration and general-purpose technologies

(i) Research Development and Demonstration (RD&D): energy storage

9. The TEC considered the following presentations and interventions containing information on the latest developments in the areas of energy storage:

(a) Scene setting presentation by a representative of Long Duration Energy Storage Council (LDESC) presenting on the role of long duration energy storage;

(b) Presentation by a representative of World Banks Energy Storage Partnership (ESP) on the future outlook of energy storage programmes and potential cooperation options with the TEC;

(c) Presentation by a representative of Future Cleantech Architecture (FCA) on the build-up of strategic energy storage;

(d) Presentation by the UNFCCC secretariat on the summary of results emerging from the scoping exercise to date, including options for collaborative partnerships and the focus and organization of work under this activity;

(e) Intervention by a representative of the International Renewable Energy Agency (IRENA) on their work in this area and readiness for contributing to the work of the TEC.

10. The TEC welcomed the interest of above organizations to engage with the work of the TEC.

11. The TEC requested the activity group to lead the development of the concept note, to be presented at TEC 30. TEC also requested the activity group to continue exploring potential partnerships with the organizations and provide an update at TEC 30.

(ii) Emerging and transformational adaptation technologies: early warning systems

12. The TEC took note of the information provided by a co-lead of this activity group, along with a representative of GEO and UNDRR on relevant engagements and developments of this work since TEC 28, including:

(a) The final draft of the policy brief "Realizing Early Warnings for All: innovation and technology in support of risk-informed climate resilience policy and action", which included updates on: statistics on regional and global status of Multi Hazard Early Warning Systems (MHEWS), additional use cases to better showcase the linkages between the technology application and elements of risk knowledge and examples on gender-related aspects in the application and uptake of technologies;

(b) Future operationalization of the policy brief through the Pillar 1 toolkit, as part of the Early Warning for All (EW4All) rollout process; alignment with Handbook on "Use of risk knowledge for Early Warning Systems (EWS)" and other key knowledge products; rollout in countries through national workshops, trainings and learning labs; visibility through high-level events;

(c) Information on the side-event on "innovation and technology in support of risk-informed climate adaptation and Early Warnings for All" held at SB60.

13. The TEC expressed appreciation for the support provided by GEO to develop the policy brief.

14. The TEC agreed to:

(a) Finalize the policy brief "Realizing Early Warnings for All: innovation and technology in support of risk-informed climate resilience policy and action" taking into account comments provided and circulate the document on a no objection basis to the TEC;

(b) Request GEO and the UNFCCC secretariat to launch the publication at Earth Information Day, at COP 29.

15. The TEC agreed to key messages and recommendations for COP 29 and CMA6 based on the above-mentioned policy brief (see Annex II).

(iii) Digital Technologies: artificial intelligence

16. The TEC considered a draft information note on artificial intelligence (AI) for climate action and a draft technical paper on AI for climate action, prepared and presented by a consultant with the support of UNIDO. The TEC took note of the update on the AI Innovation Grand Challenge presented by Enterprise Neurosystem and thanked Enterprise Neurosystem for its continued support.

17. The TEC expressed its appreciation for the support provided by UNIDO on the development of the information note and the technical paper on AI for climate action.

18. The TEC requested the activity group on digital technologies to:

(a) Finalize the draft information note, by reflecting comments provided by TEC members to make the note more concise and balanced in terms of the opportunities, risks and challenges of using AI for climate action, including transparency issues related to the development and use of AI application, for approval by the TEC on a no-objection basis, with a view to launching the information note at COP 29;

(b) Revise the draft technical paper for further consideration at TEC 30, taking into account comments provided by TEC members including: (i) using the information note as an introductory chapter to the technical paper; (ii) making the technical paper more concise and balanced in terms of the opportunities, risks and challenges of using AI for climate action; (iii) aligning the language of the paper with other TEC technical papers; and (iv) reflecting the outcomes of the AI Innovation Grand Challenge.

(b) Technology needs assessments and technology planning tools to support NDC implementation

(i) Technology Needs Assessment (TNA)

19. The TEC considered a draft analysis of success stories of implemented technology action plans (TAPs) and requested the activity group on TNA to finalize the analysis, taking into account comments provided by TEC members, including on the elaboration of criteria applied for the selection of success stories of TAP implementation, on the limitation regarding the tracking of results, and on highlighting the role of the TEC in supporting policy aspects related to the TNA process.

20. The TEC noted that resources-permitting, review of more country cases could enrich the analysis of key elements of success of TAP implementation. The TEC also noted that the envisaged work by the CTCN to carry out a TNA portfolio analysis in 2025 may complement the current analysis and inform further work of the TEC on TNAs.

21. The TEC took note of the information provided by the United Nations Environment Programme Copenhagen Climate Centre (UNEP-CCC) on the development of the updated TNA step-by-step guidebook, to which the activity group on TNA has contributed. The updated step-by-step guidebook will be finalized by the end of 2024 to serve as a basis for the preparation or updating of TNAs by developing countries participating in phase V of the Global TNA Project.

22. The TEC agreed to the proposed outline for the TNA energy sector guidebook prepared by UNEP-CCC and UNIDO under the guidance of the activity group on TNA, with a view to finalizing the guidebook at TEC 30. The guidebook is to cover technologies for energy supply, energy storage, and energy transportation, transmission and distribution, and will be made available in 2025. The TEC expressed its appreciation for the support provided by UNEP-CCC and UNIDO in the development of the guidebook.

(ii) Long-term technological transition pathways

23. The TEC took note of the update provided by its Chair of the TEC engagement in the regional Long Term Low Emission Development Strategies (LT-LEDS) workshops organized by UNFCCC Regional Collaboration Centres (RCCs) in Africa and the Asia-Pacific region.

(c) Transformative and innovative solutions

(i) Water-energy-food systems

24. The TEC considered the draft knowledge product "Climate Technologies for Agrifood System Transformation - Placing food security, climate change and poverty reduction at the forefront" and draft concept note of the high-level ministerial dialogue, presented by a representative of the Food and Agriculture Organization of the United Nations (FAO).

25. The TEC expressed appreciation for the support provided by FAO to develop this knowledge product and its collaboration with the activity group.

26. The TEC requested the activity group to:

(a) Finalize the knowledge product taking into account comments provided by TEC members and to circulate the final draft to the activity group on a no objection basis;

(b) Continue preparation of the high-level event at COP 29, with FAO and in collaboration with CTCN, revise the concept note taking into account comments provided by TEC members, and include additional speakers from the indigenous peoples and youth constituencies;

(c) TEC agreed to the key messages and recommendations COP 29 and CMA6 based on the above-mentioned knowledge product (see Annex II).

(ii) Buildings and infrastructure

27. The TEC considered the presentations from the Global Alliance for Buildings and Construction (GlobalABC) and Massachusetts Institute of Technology (MIT) Climate Policy Center on the annotated outlines of concept notes on the identified areas for further work of the TEC on buildings and infrastructure.

28. The TEC agreed to:

(a) Develop two knowledge products, taking into account comments provided by TEC members on the concept notes, one in 2025 on "Deploying Established Climate Technologies and Solutions for Buildings and Infrastructure" and the other in 2026 "Leveraging Data to Accelerate Financing for Climate Technologies in Buildings and Infrastructure".

(b) Revise its rolling workplan for 2023-2027 to reflect the changes in the activity C.2.1.

29. The TEC requested the activity group to present the first draft of the knowledge product on "Deploying Established Climate Technologies and Solutions for Buildings and Infrastructure" for TEC 30.

(iii) Transformative industry

30. The TEC considered a draft policy brief on integrating hard-to-abate industries into the process of preparing and implementing nationally determined contributions (NDCs).

31. The TEC took note of an update provided on the organization of Technology Day on Transformative Industry at COP 29 in partnership with UNIDO and in collaboration with the Government of Japan and the CTCN.

32. The TEC expressed its appreciation to UNIDO for the support provided on the development of the policy brief on and the organization of Technology Day.

33. The TEC requested the activity group on transformative industry to finalize the policy brief, taking into account comments provided by TEC members, for approval by the TEC inter-sessionally on a no-objection basis, with a view to launching the policy brief at COP 29.

34. The TEC agreed on key messages and recommendations for COP 29 and CMA 6 based on the above-mentioned policy brief (see Annex II).

(d) Collaboration and engagement with other UNFCCC processes and constituted bodies and other UN agencies

(i) Collaboration and engagement with the Standing Committee on Finance and the Operating Entities of the Financial Mechanism

35. The TEC took note of inputs provided to the Standing Committee on Finance (SCF) on the draft guidance for the operating entities of the Financial Mechanism (see Annex III), based on the latest annual reports of the Green Climate Fund (GCF) and the Global Environment Facility (GEF) to the COP, which were submitted to the SCF prior to TEC 29 in order to meet the SCF submission deadline of 19 August 2024.

36. The TEC expressed its appreciation to the representatives of the GCF and the GEF and for the information presented on their latest work in support of technology development and transfer.

(ii) Collaboration and engagement with the UNEP-Copenhagen Climate Centre

37. The TEC took note of the presentation by UNEP-CCC on the development of its Climate Technology Progress Report for 2024, which focuses on renewable energy technologies and grid integration.

38. The TEC agreed on key messages and recommendations for COP 29 and CMA 6 based on the Climate Technology Progress Report for 2022 and 2023 (see Annex II).

(e) Update on other activities of the rolling workplan for 2023-2027

39. The TEC considered the information presented by the secretariat on the status and implementation progress of the rolling workplan for 2023–2027, including overview of deliverables per year; budget for implementation of the activities; anticipated challenges such as the activities that do not have secured funding nor partners, increased workload load of staff for soliciting the partnerships and to support intergovernmental process

40. The TEC agreed to undertake preliminary a review of activities in 2025-2026 that have multiple deliverables between 2025-2027 and to provide proposals at TEC 30 on how to implement the activities, considering the resource constraints.

41. The TEC requested all activity groups to continue soliciting in-kind support and contributions from expert organizations working in similar areas of work.

V. Summary report of the SBI 60 in-session workshop on linkages between the Technology Mechanism and the Financial Mechanism

42. The TEC considered a draft summary report on the SBI 60 in-session workshop on linkages between the Technology Mechanism and the Financial Mechanism for consideration by SBI 61, prepared by the ad-hoc activity group on the organization of the workshop, in consultation with the CTCN.

43. The TEC authorized its Chair and Vice-Chair to finalize the report, taking into account comments provided by TEC members, and to ensure timely submission of the report in line with the UNFCCC process.

VI. Gender mainstreaming

44. The TEC took note of an oral report by its gender focal points on efforts related to gender mainstreaming in the work of the TEC including achieving gender balance among speakers at events organized by the TEC in 2024, as well as the integration of gender aspects in key messages and recommendations to the COP and CMA prepared by the TEC this year.

45. The TEC also took note of proposed considerations by its gender focal points for ensuring and strengthening gender mainstreaming in future work of the TEC, namely to: strive for and encourage gender balance among speakers in all events, including those organized by the TEC in collaboration with partners; maintain and strengthen inclusion of gender-related considerations in its policy work; and explore the possibility for conducting in-depth technical work on climate technologies with a gender lens under the TEC rolling workplan, following the successful example of the TEC policy brief on gender-responsive technology and infrastructure for sustainable urban mobility published in 2024.[1]

[1] UNFCCC Technology Executive Committee (TEC). 2024. TEC Brief 18: Gender-responsive technology and infrastructure for sustainable urban mobility. Bonn: UNFCCC. Available at https://unfccc.int/ttclear/tec/transport.html#brief18/.

46. The TEC agreed on key messages and recommendations to COP 29 and CMA 6 on gender-responsive technology and infrastructure for sustainable urban mobility (see Annex II).

47. The TEC appointed Pemy Gasela alongside Olena Hrypychas as its gender focal points for 2025–2026.

VII. Joint annual report of the Technology Executive Committee and Climate Technology Centre and Network for 2024

(a) Annual report of the TEC for 2024

48. The TEC considered the joint annual report of the TEC and the CTCN for 2024, and information provided by the TEC Chair on the main changes in the structure and the content of the annual report of the TEC since 2023 report, namely by adding a summary of key deliverables, which provides an overview of the year's achievements and providing more detailed information in the thematic areas.

49. The TEC noted the improvements of the report, especially on the on substantive updates and the responses from the TEC to guidance from Parties in 2024[2].

50. The TEC requested its Chair and Vice-Chair to finalize the report, including the responses to guidance by Parties, after the meeting in accordance with the relevant procedures and taking into account the comments made by members during the meeting.

(b) Joint chapter of the joint annual report

51. At the joint session, the TEC and the CTCN Advisory Board considered the joint chapter of the joint annual report and joint responses from the TEC and the CTCN to guidance from Parties in 2024.

52. The TEC and CTCN Advisory Board highlighted significant improvement of the table of responses to the guidance from Parties. They also suggested for the next year to consider changes to the structure of the joint chapter and to provide information organized by common areas of work and joint activities.

53. The TEC and the CTCN Advisory Board requested their Chairs and Vice-Chairs to finalize the joint chapter in accordance with relevant procedures taking into account comments made by members during the session.

VIII. Monitoring and evaluation progress report on the implementation of the rolling workplan for 2023–2027

54. The TEC considered the 2024 monitoring and evaluation progress report of the implementation of the rolling workplan for 2023−2027, and observations of the third Technology Mechanism NDE survey.

55. The TEC noted that the monitoring and evaluation progress report will require validation following the conclusion of the year, as the data indicators remain incomplete due to pending activities.

56. The TEC welcomed the increased response rate of the NDEs, and discussed the options for increasing meaningful engagement with NDEs through invitation of the NDEs to the activity groups of the TEC.

[2] https://unfccc.int/ttclear/tec/meetings.html

57. The TEC requested the secretariat to:

(a) Report on the monitoring and evaluation progress of the implementation of its rolling workplan at the first meeting of the year, starting from TEC 30;

(b) Continue participation at the NDE forums, with a view to sharing information on the work of the TEC as well as receive feedback on the needs of the NDEs.

IX. Joint session of the Technology Executive Committee and the Advisory Board of the Climate Technology Centre and Network

(a) Matters related to the TEC and CTCN

(i) Overview of the relevant outcomes of the Bonn Climate Change Conference of June 2024 (SBI 60) related to the Technology Mechanism

58. The TEC and the CTCN Advisory Board took note of the information presented by the secretariat on the outcomes of the sixtieth sessions of the subsidiary bodies (SB60), held from 3-13 June 2024 in Bonn, on matters relating to technology development and transfer, such as agenda item on linkages between the Technology Mechanism and the Financial Mechanism, as well as the update on the Technology Mechanism events at the session.

(ii) Update on the work of the TEC and CTCN, and reflections on synergies between the two bodies

59. The TEC and the CTCN Advisory Board took note of the information provided by their Chairs on the progress of work of each body since TEC 28 and the 23rd meeting of the CTCN Advisory Board. The Chairs of both bodies shared issues arising from their work and the implications thereof for the other body's work.

60. The TEC and the CTCN Advisory Board also took note of the presentation by a TEC member on the outcomes of the Local Communities and Indigenous Peoples Platform (LCIPP) multi-stakeholder dialogue on transformative technologies for climate action, showcased indigenous technologies and technologies from local communities, held in conjunction with COP28 in Dubai. They further took note of a presentation by a representative by the LCIPP on the recommendations from the event to inform relevant climate change policies and actions.

61. The TEC and the CTCN Advisory Board welcomed the reports by the chairs on reflections on synergies between the two bodies and suggested to engage each other in the activities both bodies are in the process or plan for implementation, such as National Systems of Innovation (NSI), Research Development and Demonstration (RDD) and buildings and infrastructure.

62. The TEC and the CTCN Advisory Board also requested the secretariats to provide information at the next meetings on how they incorporated each other's suggestions and reflections into consideration when performing their work.

(b) Implementation of the Joint Work Programme of the Technology Mechanism for 2023–2027

(i) Digitalization

63. The TEC and the CTCN Advisory Board took note of the update presented by the CTCN and the World Intellectual Property Organization (WIPO) on their collaboration on WIPO's green technology database (WIPO Green) as well as of the update presented by the CTCN on its work on distributed ledger technologies.

64. The TEC and CTCN Advisory Board also took note of the updates by the COP 29 incoming Presidency on its Digital Action Path 4 a Green World initiative and by the COP 28 Presidency on its Technology and Innovation Hub, Climate Innovation Forum, COP-Connect and ongoing activities under the theme of digitalization.

65. The TEC and the CTCN Advisory Board agreed to proceed work on implementing the dissemination plan of the WIPO Green Technology Database in collaboration with WIPO, taking into account the feedback provided at the joint session.

(ii) Technology Mechanism Initiative on Artificial Intelligence for Climate Action

66. The TEC and the CTCN Advisory Board took note of the information provided by the secretariats and Enterprise Neurosystem on progress made on the implementation of the workplan for the Technology Mechanism Initiative on AI for Climate Action (2024-2027)[3], including on activities undertaken:

(a) by the TEC, such as the development of a technical paper and an information note on AI for climate action as well as the AI Innovation Grand Challenge;

(b) by the CTCN, such as its capacity-building programme on AI for climate action for NDEs;

(c) jointly by the TEC and the CTCN, such as the development of the Technology Mechanism AI Climate Application Hub in collaboration with Enterprise Neurosytem; and

(d) by the CTCN, as part of its implementation of technical assistance with components of AI.

67. The TEC and CTCN Advisory Board highlighted the importance of engagement with other initiatives relevant to their work in this area and in relation to digital technologies, including with ITU and the COP29 Presidency.

(c) Joint engagement with National Designated Entities

68. The TEC and the CTCN Advisory Board considered the presentation on the outcomes of the 3rd Technology Mechanism National Designated Entities (NDEs) survey and the regional NDE forums and expressed appreciation for the increased response rate to the NDE survey.

69. The TEC and the CTCN Advisory Board took note the recommendations received from African NDEs, with regards to access to logistical support which included: improved access to logistical support for NDEs, the introduction of a simple application form, expedited processing of applications (not exceeding three months), and the adoption of a first-come, first-served approach.

70. The TEC and the CTCN Advisory Board invited the secretariats to:

(a) Explore options for enhancing outreach thought CTCN newsletters, webinars and informational events on TEC knowledge products;

(b) Continue organising Pacific NDE forum in the future, subject to availability of funding;

(c) Prepare a guidance document on the role of the Annex 1 NDEs for consideration at the next joint session.

[3] Available at: https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/artificial_intelligence_cms_slot/e1673478d26041fb84b40a1b4c0ddb5d/cc306226d72e4dc9b52a1604bdf49a09.pdf.

X. Other matters

(a) Technology Mechanism events and engagement at COP 29

71. The TEC and the CTCN Advisory Board took note of the overview presented by the secretariat on planned events and engagement under the Technology Mechanism at COP 29.

(b) Potential collaboration with the UN Climate Change Global Innovation Hub

72. The TEC and the CTCN Advisory Board took note of the presentation by the UN Climate Change Global Innovation Hub (UGIH) on potential areas of collaboration between the Technology Mechanism and the UGIH.

73. The TEC and the CTCN Advisory Board agreed to collaborate with UGIH including through the co-organization of events and the facilitating inputs through the Hub to work under the Technology Mechanism.

(c) Update on resource mobilization and partnerships

74. The TEC and the CTCN Advisory Board took note of the presentation by the secretariats on resource mobilisation and partnerships efforts and encouraged the secretariats to explore ways to enhance the visibility of the open call for partnerships.

XI. Date and venue of the next meeting

75. The TEC and the CTCN Advisory Board took note that the meetings of TEC 30 and CTCN AB 25 are tentatively planned to be held in Copenhagen, Denmark, as follows:

(a) 1 to 3 April 2025 TEC 30;

(b) 4 April 2025 TEC and CTCN AB joint session;

(c) 7 to 9 April 2025 CTCN AB 25.

76. The TEC and the CTCN Advisory Board requested the secretariats to ensure that TEC31 and CTCN AB 26 are not held at the same time as Climate Week New York 2025.

XII. Closure of the meeting

77. The TEC Chair summarised the key outcomes of the meeting and closed it at 6:00 pm (CEST) on Friday, 20 September 2024.

Annex I

Observers registered to participate in the 29th meeting of the Technology Executive Committee

Party observers

Farid Osmanov (Azerbaijan)
Sonia Regina Mudrovitsch de Bittencourt (Brazil)
Pedro Ivo Ferraz da Silva (Brazil)
Céline Phillips (France)
Anne Kristina Roth (Germany)
Norihiro Kimura (Japan) – virtual participation
Kaoru Yamaguchi (Japan)
Gyungah Kim (Republic of Korea)
Songhee Son (Republic of Korea)
Mekyung Lee (Republic of Korea)
Woojin Jung (Republic of Korea)
Yinseo Cho (Republic of Korea)
Abdelaziz Harib Al Tunaiji (United Arab Emirates) – virtual and in person participation
Erwin Rose (United States of America) – virtual participation

United Nations Organizations and Specialized Agencies

Jonathan Duwyn (CTCN Director a.i.)
Fred Machulu Onduri (CTCN Advisory Board Chair)
Inkar Kadyrzhanova (FAO) – virtual participation
Irini Maltsoglou (FAO)
Hansol Park (GCF) – virtual participation
Patricia Marcos Huidobro (GEF) – virtual participation
Rui Kotani (GEO secretariat)
Alexander Cambell (Long Duration energy Storage Council)
Sara Trærup (UNEP Copenhagen Climate Centre)
Galimira Markova (UNDRR) – virtual participation
Haruka Yoshida (UNIDO)
Erick Rostand Gankam Tambo (United Nations University)
Tarek Keskes (World Bank)
Anan Kanaan Talal (Workd Bank) – virtual participation
Juliet Pumpuni (World Bank) – virtual participation

Intergovernmental Organizations observers

Jaidev Dhavle (IRENA)

Non-governmental Organizations and observers

Alastaire Marke (Blockchain and Climate Institute)

Kishanlal Nandla Changlani (constituency of local governments and municipal authorities)

Maryke van Staden (constituency of local governments and municipal authorities)

Anne Laure Barre (women and gender constituency) – virtual participation

Cathy Yitong Li (women and gender constituency) – virtual participation

Max Anthony Kwok (constituency of children and youth non-governmental organizations)

Resource persons and independent consultants

Graeme Reed (resource person, Facilitative Working Group (FWG) of the Local Communities and Indigenous Peoples Platform) – virtual participation

Bill Wright (resource person, Enterprise Neurosystem)

Peter Rüdiger Schniering (resource person, Future Cleantech Architects)

Magnolia Tovar Chacon (resource person, Future Cleantech Architects)

Abhay Ashok Ratnaparkhi (resource person, IBM) – virtual participation

Sheeba Prakash (resource person, IBM) – virtual participation

Drew Story (resource person, Massachusetts Institute of Technology Climate Policy Center)

Leslie Lipper (resource person, FAO) – virtual participation

Bert van der Plas (resource person, UNIDO)

Inés Oort Alonso (resource person, UNIDO) – virtual participation

Simon Elias Bibri (resource person, UNIDO) – virtual participation

Annex II

Key messages and recommendations of the Technology Executive Committee for the Conference of the Parties and the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement[4]

I. Realizing Early Warnings for All: innovation and technology in support of risk-informed climate resilience policy and action

1. The TEC highlights the following key messages drawn from the findings in a policy brief on this issue prepared jointly with GEO:

(a) Scaling up early warning innovations and technologies is essential to enhancing risk-informed climate resilience policies and actions;

(b) Climate information and disaster risk knowledge provide the foundation for the multi-hazard early warning system value chain, which saves lives and protects property and the environment. Yet significant differences exist among countries in access to and availability of data and knowledge on disaster risk; in particular, the LDCs, SIDS and African countries experience poor access and availability. Challenges in relation to risk knowledge, including in its monitoring, status reporting, production, use and accessibility, persist globally, but in particular for these countries;

(c) A wide array of scalable technology measures, platforms and services have already demonstrated their effectiveness in boosting climate information and disaster risk knowledge for countries in need. These technologies are most effective when integrated: for example by combining hardware, software and 'orgware' measures; approaches based on Indigenous and traditional knowledge; and high- and low-technology open solutions that leverage low-cost sensors, mobile and digital technologies, AI and Earth observation satellites, for example;

(d) Parties have underscored the importance of early warning systems to realizing their climate agendas in their national action and planning documents: about 50 per cent of NDCs, about 40 per cent of NAPs and more than 90 per cent of adaptation communications submitted under the Convention and the Paris Agreement mention early warning systems. However, there is limited recognition of the role of technology applications in improving climate information and multi-hazard early warning systems in these policies and plans or in country programme documents and funding proposals submitted to climate funds: only about 25 per cent of NDCs, 30 per cent of adaptation communications, 12 per cent of the adaptation-related components of TNAs and 10 per cent of GCF funding proposals based on NAPs highlight technologies for this purpose;

(e) Long-term finance, both domestic and international, supported by a coordinated multisectoral approach is key to sustaining project outcomes and scaling up integrated technological solutions that address multiple hazards across multiple sectors, including the building of resilient infrastructure and the assessment of loss and damage;

(f) Technology can empower citizen scientists and other local stakeholders to produce and use local data on vulnerability and exposure to hazards, allowing countries to identify their most vulnerable populations, communities and groups. Such local data and knowledge enable evidence-

[4] The annex II - Key messages and recommendations of the Technology Executive Committee for the Conference of the Parties and the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement are consistent to what is included in the Joint Annual Report of the TEC and the CTCN for 2024.

based decision-making and enhance people-centred multi-hazard early warning systems with effective ‘last mile delivery’, which remains a key challenge.

2. To scale up innovation and fit-for-purpose technology solutions, the TEC recommends that the COP and the CMA encourage Parties, international organizations and stakeholders, as relevant, to:

(a) Consider technologies for multi-hazard early warning systems when preparing and updating NDCs, NAPs, TNAs and other national strategies and plans, where appropriate, integrating a combination of complementary technologies into both existing and proposed systems, plans and processes;

(b) Invest in multisectoral technology solutions by leveraging funding from relevant financial mechanisms and other sources, including the AF, the Climate Risk and Early Warning Systems initiative, the Fund for responding to Loss and Damage, the GCF, the GEF and the Systematic Observations Financing Facility, while building on the outcomes of funded projects to avoid fragmentation of efforts, promote long-term sustainability and maximize impact;

(c) Leverage international initiatives and public–private partnerships in order to strengthen the capacity of Governments to understand and mitigate context-specific disaster risks and to reduce the financial and other barriers associated with accessing international capital;

(d) Support the integration of technologies into projects to promote local stakeholder engagement such that both low- and high-technology solutions enable the creation and consumption of risk knowledge by Indigenous Peoples; youth; female-led and community-based groups and entities, including local universities, research institutions and start-ups;

(e) Build the technical capacity of stakeholders in developing countries for enhancing reporting on, production, use of and access to risk knowledge, including by implementing targeted actions that strengthen the inclusion and build the capacity of women in technology in order to address persisting gender disparity;

(f) Leverage the global community of scientific experts and innovators, including GEO, who promote open data, knowledge and solutions as public goods; and who can provide the technical support and knowledge transfer needed for engaging stakeholders and building their capacity; while helping to design fit-for-purpose combined technology measures, including frontier and emerging technologies.

II. Climate technologies for agrifood system transformation

3. The TEC highlights the following key messages drawn from the policy paper on this topic, being jointly prepared with FAO:

(a) The application of climate technologies in agrifood systems is an essential means of accelerating progress in adaptation to climate change while also building structural resilience into these systems and supporting emission reduction;

(b) Effective implementation of climate technologies in agrifood systems must be embedded within the broader objectives of agrifood system transformation, which include improving production, nutrition, natural resource management and livelihoods, and explicitly account for complementarities and trade-offs;

(c) Technology requirements and opportunities need to be captured for all stages of the agrifood value chain;

(d) Capacity-building and awareness-raising, particularly for stakeholders in the LDCs and SIDS, is needed to realize the benefits of deploying readily available climate technologies. Increased investment in research and development of new technologies for agriculture has been found to have significant positive financial, social and environmental benefits for agrifood systems;

(e) Economic and financial constraints have consistently been identified as the main barriers to adopting climate technologies. In coordination with broader efforts, scaling up and effectively implementing climate technologies requires not only a large increase in available finance, but also the tailoring of financing to support investment requirements. There is also a need to create enabling conditions for financial institutions to provide guarantee and risk-sharing services, asset-collateralized loans programmes and other instruments that accelerate the adoption of technologies;

(f) Adopting a facilitative approach to the informal sector in agrifood systems is important given its relevance in agricultural value chains. This approach could include technical assistance, training and public support to provide needed incentives for climate technology adoption;

(g) Experience, in general, in conducting TNAs and preparing TAPs has provided insights into how to better integrate climate change and agrifood sector policies into NDC and NAP preparation and implementation and has revealed the need to increase the likelihood of countries obtaining finance from all sources, including public international finance, for implementing technologies identified in TNAs and TAPs.

4. The TEC recommends that the COP and the CMA encourage Parties, international organizations and stakeholders, as relevant, on this issue, to:

(a) Undertake accurate, robust and context-specific assessments of local agrifood systems that account for natural resource use, consider socioeconomic inclusion, are gender-responsive and consider the nexus with water, energy, biodiversity and food. The assessments are needed to help define and underpin the climate technology options to be taken up;

(b) Ensure capacity-building strategies and efforts are linked to technology needs, identify suitable and correct skills, especially for smallholders and vulnerable segments of the population, and, in particular, consider initiatives focused on equipping rural women with digital literacy and relevant skills;

(c) Increase and further target finance flows, from all sources, to appropriately address the technology needs in countries in coordination with broad efforts to facilitate access to and the deployment of climate technologies that take into consideration investment requirements and country capacities;

(d) Coordinate across sectors and at all levels of government the development of policies that target climate change and agriculture while considering linkages with broad development and environmental concerns.

III. Integrating hard-to-abate industries into the process of preparing and implementing nationally determined contributions

5. Drawing on the policy brief on integrating hard-to-abate industries, particularly steel, cement and chemical industries, into the process of preparing and implementing NDCs for deep industrial decarbonization, and the mapping conducted of initiatives for promoting zero- and low-emission production and products in the steel, cement and chemical industries, the TEC, while being mindful of the strategic value of energy and energy security and emphasizing the outcome of the first global stocktake,[5] highlights the following key messages drawn from the policy brief:

(a) Industry accounted for 34 per cent of all GHG emissions in 2019.[6] Transforming key industrial sectors is thus crucial to substantially reducing GHG emissions and keeping the goal under the Paris Agreement of limiting global temperature rise to 1.5 °C within reach;

[5] See, in particular, para. 28 of decision 1/CMA.5.

[6] Intergovernmental Panel on Climate Change. 2022. *Climate Change 2022: Mitigation of Climate Change.*

(b) Zero- and low-emission technologies and approaches, such as electrification, renewable energy, energy and material efficiency, circularity, hydrogen-based steelmaking, electric boilers, high-efficiency electric kilns, and carbon dioxide capture and storage, are vital for reducing industrial GHG emissions;

(c) Tracking of progress of emission reduction technologies through road maps and milestones ensures that targets are being met;

(d) Collaborative efforts between industries, research institutions, financial institutions and Governments can accelerate development and deployment of zero- and low- emission technologies;

(e) International cooperation and knowledge-sharing are catalysts for innovation, technology transfer, capacity-building and gender equality. Several industrial road maps and initiatives are currently in place;

(f) There are signs of women's leadership and participation slowly increasing within industry but they are still at a low level.

6. To enhance industrial decarbonization, particularly in hard-to-abate industries, while accelerating progress towards net zero emissions, the TEC recommends that the COP and the CMA encourage Parties to consider:

(a) Integrating hard-to-abate industries into the process of preparing and implementing NDCs and national reports to enhance their effectiveness, foster global cooperation, and strengthen support for implementation;

(b) Developing low- and near-zero emission road maps and milestones for key industries, clearly defining roles and responsibilities and considering:

(i) Zero- and low-emission technologies and approaches such as those referred to in paragraph 6 above;

(ii) Economic and regulatory incentive policies to promote industrial decarbonization;

(iii) Electrification, renewable energy installation and decarbonizing policies, taking into account environmental integrity;

(iv) Research, development and demonstration of both endogenous technologies and Indigenous technologies;

(v) Green public procurement policies;

(vi) Policies for definitions and standards, including building codes;

(vii) Capacity-building policies;

(viii) Just transition;

(ix) Promoting women's leadership in industry;

(c) Developing investment plans for industrial decarbonization;

(d) Increasing investment for supporting research and development and innovation for decarbonization and using blended finance;

(e) Taking advantage of international cooperation, existing good practices and knowledge-sharing.

Contribution of Working Group III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. P Shukla, J Skea, R Slade, et al. (eds.). Cambridge and New York: Cambridge University Press. Available at https://www.ipcc.ch/report/ar6/wg3/.

7. The TEC also recommends that the COP and the CMA encourage international development organizations seeking to support the deep decarbonization of hard-to-abate industries to:

(a) Foster market linkages between stakeholders in hard-to-abate industries, low- and near-zero emission technology providers, and donor organizations and collaborative research and development programmes;

(b) Enhance global cooperation between global industry stakeholders, technology providers, initiatives, and funding bodies through strategic linkages;

(c) Support cross-border green energy purchases through electricity interconnectors;

(d) Develop new or harmonize existing standards for decarbonization technologies;

(e) Promote peer-to-peer knowledge exchange between countries with similar technology interests;

(f) Facilitate support and cooperation between developed countries and developing countries and South-South and triangular cooperation;

(g) Promote transparency and use of monitoring systems.

IV. Gender-responsive technology and infrastructure for sustainable urban mobility

8. Drawing from its policy brief on gender-responsive technology and infrastructure for sustainable urban mobility, the TEC highlights the following key messages:

(a) Substantive action will be required for urban mobility to contribute to achieving the goals of the Paris Agreement and promoting sustainable development;

(b) Addressing gender-based differences in travel behaviour, access to and affordability of transport, safety while using various modes of transportation and employment in the transportation sector will help achieve climate action in the sector. Without consideration of all genders, especially women, in policies and actions for achieving zero- and low-emission and climate-resilient urban mobility, they will fall short of fully contributing to achieving emission reduction targets and sustainable development and to facilitating equitable and just transitions;

(c) Different genders often have different travel needs and behaviours owing to gender roles and social norms, as well as to characteristics of individuals such as race, ethnicity, sexual orientation, gender identity, disability status and class, which intersect to create unique dynamics and effects, necessitating gender-specific policy considerations;

(d) There is considerable evidence that existing urban mobility systems neither provide women and gender-diverse people with the same level of access, safety, comfort and connectivity as they do for men, nor provide equal employment opportunities. This is in part because women's needs were overlooked in the design of these systems, information on women's needs was not collected when designing these systems and provisions to protect women from harassment and gender-based violence are inadequate;

(e) Policy options and successful initiatives relating to gender-responsive technology and infrastructure for sustainable urban mobility have been well documented, so the emphasis needs to shift towards integrating those options into policy, programme and project documents at the national – especially the city – level.

9. To accelerate the implementation and scale-up of gender- and climate-responsive technology solutions in urban mobility systems, the TEC recommends that the COP and the CMA encourage Parties, international organizations and other stakeholders, as relevant, to:

(a) Improve the collection, availability and use of gender and transport data for urban mobility planning that addresses climate change and social inequalities;

(b) Consider implementing mutually supportive principles and measures, adopting approaches such as ‘avoid-shift-improve’, and participating in initiatives and using toolkits for implementing zero- and low-emission sustainable urban mobility, such as those described in the policy brief referred to in paragraph 9 above;

(c) Raise the visibility of gender- and climate-responsive urban mobility policies in the planning and reporting instruments under the Paris Agreement and those related to sustainable development, including those by non-State actors, and highlight the need for those policies to reflect and enhance national commitments relating to sustainable urban mobility and create a coherent framework for mutually reinforcing action on climate change and sustainable mobility;

(d) Foster enabling environments and supportive policy frameworks that contribute to the achievement of gender equality, for example by promoting action towards achieving sustainable development goals related to gender and the creation of greater employment opportunities for women in the urban mobility sector.

V. Climate Technology Progress Reports

B. Climate Technology Progress Report 2022

10. The TEC, in the context of its collaboration with UNEP Copenhagen Climate Centre, contributed to the development of *The Climate Technology Progress Report 2022*, which identifies innovative approaches to stimulating the uptake of existing climate technologies on the basis of data and case studies from the African region. Drawing on the report, the TEC highlights the following key messages:

(a) The technology feasibility assessment methodology set out in the report provides a reproducible, transparent approach to examining technologies that are feasible for adoption, noting that feasibility is context-dependent and may vary by social group and location;

(b) There is a need to nurture the development of institutional, social and policy capabilities through long-term programmatic activities;

(c) Financial interventions are important not only to compensate for viability gaps in individual transactions, but also to address market failures and contribute to market creation for climate technologies;

(d) Institutionalizing human skills, resources and practices within organizations is critical to enhancing feasibility and opportunities for strengthening cooperation at various levels of governance in the context of technology development and transfer;

(e) There is a lack of workers with digital skills and skilled workers, which is hindering the development of the digital sector, including the lack of legal frameworks for data protection in relation to the digital marketplace. Upgrading curricula, expanding coverage and placing additional focus on digital skills in technical and vocational education and training is needed;

(f) There is an important intersection between climate action and development needs where major developmental issues, including access, equitable development and distributional aspects, need to be addressed alongside the implementation of climate technologies.

11. The TEC recommends that Parties, international organizations and international donors, as relevant:

(a) Cooperate on increasing the availability of technology feasibility assessments that respond to the needs of different social groups and contexts;

(b) Consider the findings set out in paragraph 11 (b–f) above when planning and implementing interventions.

B. Climate Technology Progress Report 2023

12. The TEC and the CTCN, in the context of collaboration with UNEP Copenhagen Climate Centre, contributed to the development of *The Climate Technology Progress Report 2023*, which identifies innovative approaches to stimulating the uptake of existing climate technologies on the basis of data and case studies on urban system transformation from the Asian region. Drawing on the report, the TEC highlights the following key messages:

(a) Transitioning to technology-inclusive systems and implementing groups of technologies on the basis of their individual synergies and trade-offs can produce benefits across multiple sectors and regions;

(b) The progress of climate technology is not exclusively reliant on research and development; instead, it is deeply contingent on the presence of robust urban infrastructure and the mobility patterns of urban infrastructure users;

(c) Synergistic benefits for mitigation, adaptation and development goals of climate technologies can incentivize governments to accelerate their adoption. There are feasible synergistic options for water management, public transport, building cooling, social housing, and energy distribution and generation, among other technology groups;

(d) The work of government climate leaders, front runners and local governments in introducing climate technologies is essential for integrating climate technologies into long-term urban development and climate action plans, managing the land and infrastructure required for technology adoption, demonstrating both small- and large-scale climate technologies, and setting ambitious targets;

(e) Successful technology-inclusive initiatives typically involve a combination of national and subnational policies and instruments, and, when paired with the provision of incentives and undertaken collaboratively, these measures promote replicability across cities;

(f) Finance flows for urban infrastructure are hampered by a ‘business as usual’ mindset. It is critical to embrace a new paradigm for urban infrastructure investment that includes aggregation, green and climate financing, impact and innovation funding, and investment through a gender lens;

(g) Given the growing complexity of investment approaches, project preparation and transaction management are becoming critical. Financing project development and preparation facilities can play an important role in originating, developing and curating pipelines of investment-ready projects.

13. The TEC recommends that Parties, international organizations and international donors, as relevant, consider the findings set out in paragraph 13 above when developing and implementing interventions and policies in urban contexts.

Annex III

TEC inputs to the SCF on draft guidance to the operating entities of the Financial Mechanism

19 August 2024

Guidelines in providing the inputs:

- *"Sub-elements": Describe the specific area of the proposed input (e.g. Policies relating to access, gender, environment & social safeguards, etc.);*
- *"Proposed inputs": Propose the inputs in draft decision text format;*
- *"To be considered by": Choose whether the proposed inputs need to be considered: The COP or the CMA;*
- *"Rationale for the inputs": Annotate the reason for proposing the inputs, so that the rationale can be clearly understood;*
- *"Source of information / reference": Provide reference to the annual reports of the operating entities or decision(s) of the GEF Council / GCF Board.*

Annotated inputs for the draft guidance to the Green Climate Fund (GCF)

Elements	*Sub-elements*	*Proposed inputs*	*To be considered by: The COP or the CMA*	*Rationale for the inputs*	*Source of information / reference*
Policies	**Technology – Linkages with CTCN and TEC**	Reiterates to encourage the GCF board continuing to invite the Chairs of the TEC and the Advisory Board of the CTCN, and Director of the CTCN as appropriate, to future meetings of the Board of the Green Climate Fund when topics related to the TEC workplan and CTCN programme of work are raised.	**COP and CMA**	**Recalls Decision 14/CP.22 para 3 that 'Encourages the Board of the Green Climate Fund to continue to invite the Chairs of the Technology Executive Committee and the Advisory Board of the Climate Technology Centre and Network to future meetings of the Board of the Green Climate Fund on issues of common interest in order to strengthen the existing linkages between the Technology Mechanism and the Financial Mechanism.'**	**Draft annual report of the GCF to COP for 2024, paras 100-102**
Policies	**Technology development and transfer**	Invites the GCF to consider the recommendations and insights contained in the following reports by the TEC: ● Technology and NDCs: Stimulating the Uptake of Technologies in Support of NDC Implementation. ● Mapping of initiatives that promote low and near zero emission production and products in hard-to-abate sectors of industry. ● Future Needs in Research Development and Demonstration.	**COP and CMA**	By Decision 1/CP.16, the TEC is mandated to: consider and recommend actions to promote technology development and transfer, in order to accelerate action on mitigation and adaptation; and to recommend guidance on policies and programme priorities related to technology development and transfer with special consideration given to the least developed country Parties. By Decision X/CP.17, modalities of work to perform the TEC's function with regard to policy recommendations include the provision of recommendations to the COP, or **other relevant bodies under the Convention.**	**Draft GCF report to COP for 2024, paras 103-109**

Elements	*Sub-elements*	*Proposed inputs*	*To be considered by: The COP or the CMA*	*Rationale for the inputs*	*Source of information / reference*
		• The Climate Technology Progress Report 2023. • Compilation of good practices and lessons learned on the setup and implementation of National Systems of Innovation. • Gender-responsive technology and infrastructure for sustainable urban mobility. • Innovative Approaches for Strengthening Coastal and Ocean Adaptation		**For this reason the TEC presents to the GCF for its consideration, the TEC and TEC/CTCN joint publications released during the past year that contain insights and recommendations for technology development and transfer.**	
Policies	**Engagement with UNFCCC constituted bodies**	Welcomes continued participation of the GCF Secretariat in meetings of the TEC and CTCN Advisory Board, and invites the GCF Board to nominate one of the Co-Chairs, or a member designated by the Co-Chairs, of the Green Climate Fund Board, to the CTCN Advisory Board.	**COP**	**Recalls Decisions 14/CP.18, Annex II and 10/CP.26, Annex on the constitution of the CTCN Advisory Board, with the aim of achieving fair and balanced representation, which shall include: 'One of the Co-Chairs, or a member designated by the Co-Chairs, of the Green Climate Fund Board in their official capacity as a Green Climate Fund representative'.**	**Draft annual report of the GCF to COP for 2024, para 157**
Programme priorities	Technology – Linkages with CTCN and TEC	Welcomes the collaboration of the GCF with the TEC and the CTCN, including its readiness support for technology focused projects and continued work with the CTCN for conducting and updating TNAs, its efforts towards enhanced engagement between NDEs and NDAs including in the context of GCF Regional Programming Dialogues, and its participation in the workshop at SB60 on linkages between the Technology Mechanism and the Financial Mechanism, and encourages the continuation of such collaboration.	**COP and CMA**	By Decision 10/CP.28, the COP 'Welcomes the collaboration between the CTCN and the operating entities of the Financial Mechanism on identifying ways to enhance information- sharing and streamline coordination processes among national designated entities, national designated authorities of the GCF and operational focal points of the GEF and emphasizes the importance of continued coordination among those national focal points'.	**Draft annual report of the GCF to COP for 2024, para 50, 156-160**
Programme priorities	Technology - Programme priorities related to stakeholder inclusion	Invites the GCF, in accordance with the Guidance from the Parties that encourages the Board to continue work to establish technology incubators, accelerators and innovation programming, to consider the encouragement and support of youth engagement in project-specific innovation and implementation initiatives.	**COP and CMA**	Welcoming the response to the Guidance from the Parties, specifically in section 4.4, that by launching requests for proposal, GCF will seek to identify promising partners and project ideas for climate solution incubators and accelerators, and also accelerators of inclusive innovation based especially on traditional, local and indigenous knowledge and practices as well as enhancing the involvement of private sector capable of innovation programming through the full implementation of the project-specific assessment approach.	**Decision 16/CP.27, paras 10–11 (page 66); Provisions related to RFPs in updated Strategic Plan for the GCF 2024–2027, adopted at B.36.**

Annotated inputs for the draft guidance to the Global Environment Facility (GEF)

Elements	*Sub-elements*	*Proposed inputs*	*Draft guidance under: The COP or the CMA*	*Rationale for the inputs*	*Source of information / reference*
Policies	Technology development and transfer	Invites the GEF to consider the recommendations and insights contained in the following reports by the TEC: ● Technology and NDCs: Stimulating the Uptake of Technologies in Support of NDC Implementation. ● Mapping of initiatives that promote low and near zero emission production and products in hard-to-abate sectors of industry. ● Future Needs in Research Development and Demonstration. ● The Climate Technology Progress Report 2023. ● Compilation of good practices and lessons learned on the setup and implementation of National Systems of Innovation. ● Gender-responsive technology and infrastructure for sustainable urban mobility. ● **Innovative Approaches for Strengthening Coastal and Ocean Adaptation**	**COP and CMA**	By Decision 1/CP.16, the TEC is mandated to: consider and recommend actions to promote technology development and transfer, in order to accelerate action on mitigation and adaptation; and to recommend guidance on policies and programme priorities related to technology development and transfer with special consideration given to the least developed country Parties. By Decision X/CP.17, modalities of work to perform the TEC's function with regard to policy recommendations include the provision of recommendations to the COP, or **other relevant bodies under the Convention.** **For this reason the TEC presents to the GEF for its consideration, the TEC and TEC/CTCN joint publications released during the past year that contain insights and recommendations for technology development and transfer.**	**Draft GEF annual report to COP for 2024, para 230**
Policies	Linkages between the Technology Mechanism and the Financial Mechanism	**Welcomes the participation of the UNFCCC NDEs for technology development and transfer of Ghana, Jordan, Kazakhstan, Lebanon and Nigeria in their respective national dialogues and encourages GEF Operational Focal Points to include UNFCCC NDEs in their national dialogues.**	**COP and CMA**	By Decision 10/CP.28, the COP 'Welcomes the collaboration between the CTCN and the operating entities of the Financial Mechanism on identifying ways to enhance information- sharing and streamline coordination processes among national designated entities, national designated authorities of the GCF and operational focal points of the GEF and emphasizes the importance of continued coordination among those national focal points'.	**Draft GEF annual report to COP for 2024, para 232**
Policies	Technology – Linkages with CTCN and TEC	**Invites the GEF to consider consultation with relevant UNFCCC bodies when developing the drafts of the GEF programming directions for GEF-9, in particular the TEC and the CTCN for technology topics.**	**COP and CMA**	**GEF programming directions on the climate change focal area had a relevant inclusion of technology topics in the past programming directions, and also have considered the TNAs over the years. The Technology Mechanism being the main body under the UNFCCC regarding technology matters including the TNA methodology, should be able to contribute positively to the GEF programming directions.**	**N/A**

Elements	*Sub-elements*	*Proposed inputs*	*Draft guidance under: The COP or the CMA*	*Rationale for the inputs*	*Source of information / reference*
Programme priorities	Technology – Linkages with **CTCN and TEC**	**Welcomes the collaboration of the GEF with the TEC and the CTCN, its continued support for TNAs in collaboration with UNEP, and its participation in the workshop at SB60 on linkages between the Technology Mechanism and the Financial Mechanism and encourages the continuation of such collaboration.**	**COP and CMA**	**Welcomes and promotes further collaboration.**	**Draft GEF annual report to COP for 2024, para 19, paras 235-248**
Programme priorities	**Technology - Programme priorities related to youth capacity building**	**Encourages the GEF to increase initiatives for youth engagement in strengthening innovation, leveraging technologies, and fostering collaborations and capacity-building for long-term sustainability.**	**COP and CMA**	**Welcoming the report's emphasis of the importance of capacity development for long-term sustainability.**	**Draft GEF annual report to COP for 2024, para 262**