

INTERNATIONAL



# Technology Implementation Programme: Negotiations State of Play

## Discussion Paper

October 7, 2025

This paper outlines the current state of discussion on the Technology Implementation Programme (*TIP*) and presents a range of options related its modalities. Two years since its establishment, Parties have not yet reached consensus on how to operationalize the TIP. Without shared understanding of the TIP's purpose and operational modalities, there is a gap in the implementation of the technology agenda under the UN Framework Convention on Climate Change (*UNFCCC*). With the second periodic review of the Technology Mechanism (*TM*) already underway and due to conclude at COP32 (2027), the absence of an operational TIP could limit Parties' ability to respond to lessons learned from the first TM review and to strengthen implementation of technology priorities.

The establishment of the TIP was a key outcome of the first global stocktake (*GST1*) at COP28. The TIP aims to strengthen support for the implementation of technology priorities identified by developing countries and to address gaps and challenges highlighted in the first periodic assessment of the TM, which include: limited resources; insufficient follow-up to technical assistance from the Climate Technology Centre and Network (*CTCN*); and inadequate support for national focal points.

Although Parties agreed in November 2024 at the Sixth meeting of Parties serving as the Conference of Parties to the Paris Agreement (*CMA6*) to launch a process for elaborating the TIP, negotiations at the 62<sup>nd</sup> Meeting of the Subsidiary Bodies (*SB62*) in June 2025 did not produce a draft decision. Divergent views among Parties remain on: the TIP's objectives and scope; its relationship to the GST; its timeline and duration; its governance and relationship to broader UNFCCC technology architecture; and how it should be financed. The matter is included on the provisional agenda for CMA7 (November 2025), in accordance with procedural rules, but its inclusion does not guarantee substantive discussion or negotiation.

This paper identifies key areas of divergence and presents a range of options for consideration. These include: options to narrowly define the TIP as an implementation support program or to define it more broadly to include innovation and upstream planning; options for designing a timeline that aligns with the Paris Agreement's ambition cycle; varying degrees of linkage to the GST; potential institutional arrangements within or alongside existing bodies such as the Technology Executive Committee (*TEC*) and CTCN; and financing models, including dedicated funds.

Given that the TIP remains un-operational two years after its establishment, and that the second periodic review of the TM is already underway, this paper underscores the importance of urgently clarifying the TIP's role and function. It is intended to support ongoing reflections and help inform Parties' consideration of the TIP at SB63 and beyond.

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### Questions for consideration

- What are the core functions and objectives that the TIP should fulfil?
- How can the TIP be designed to complement, rather than duplicate, the existing UNFCCC technology architecture?
- In what ways should the TIP relate to the GST process?
- What timeline and governance would be appropriate for the TIP?
- What options are available to ensure adequate financial support for the TIP's activities?

## A. Context

1. As a key outcome of the GST1, Parties established the TIP<sup>1</sup>—supported by, inter alia, the operating entities of the Financial Mechanism (**FM**)—which aims to:
  - strengthen support for the implementation of technology priorities identified by developing countries, including nationally determined contributions (**NDCs**) technology needs assessments (**TNAs**), national adaptation plans (**NAP**), and long-term low-emission development strategies (**LT-LEDS**)<sup>2</sup>
  - address the challenges identified in the first periodic assessment of the TM,<sup>3</sup> including its limited resources, the lack of follow-up activities on the CTCN technical assistance, and lack of support for national focal points for technology development and transfer.<sup>4</sup>
2. Parties decided to launch a process for elaborating the TIP at the CMA6,<sup>5</sup> when negotiations revealed deep divergence on the intended scope and operational modalities of the TIP, particularly with regard to delineating its relationship to the UNFCCC technology architecture, such as the TM and CTCN.<sup>6</sup> (see Annex for more information on the UNFCCC's technology architecture).
3. The COP29 decision requested the Subsidiary Body for Implementation (**SBI**) to consider the matter at SB62, with a view to recommending a decision for consideration and adoption at CMA7 to inform and further elaborate the TIP.<sup>7</sup>
4. Parties at SB62 could not reach agreement on a draft decision text to forward as a basis for further negotiations. Parties remained far apart on: the objectives and operational modalities of the TIP, including:
  - its scope
  - whether and how the TIP should integrate relevant outcomes of the GST1 in planning future work, in accordance with paragraph 186 in Decision 1/CMA.5
  - its timeline and duration
  - its governance and relationship to the technology architecture under the UNFCCC
  - provision of financial support to the programme.



5. Consideration of the TIP will be included in the provisional agenda for SB63, in accordance with rules 10(c) and 16 of the draft rules of procedure.<sup>8</sup>
6. The establishment of the TIP was a clear outcome of GST1. Now two years after it was established by GST1, the TIP remains in an early and conceptual stage, with no agreement on its operationalization. The lack of clarity and consensus on the TIP leaves a critical gap in the implementation of the UNFCCC's technology agenda.
7. With the second periodic review of the TM already underway and due to conclude in 2027, the absence of a functioning TIP—which is supposed to address challenges identified in the first periodic assessment—limits the international community's ability to respond to current needs and lessons learned from the first review.

## B. Issues

8. Negotiations on the elaboration of the TIP have revealed several unresolved issues and differing perspectives among Parties. These issues relate to the design and purpose of the TIP, as well as to its interaction with existing institutional arrangements and processes under the UNFCCC.
9. Areas of divergence on the TIP include:
  - **Objectives and scope:** Parties have expressed a range of views on what the TIP is intended to achieve. Questions also remain as to whether the TIP should serve primarily a coordination role or an operational role in supporting the implementation of technology priorities identified by developing countries.
  - **Relationship to the GST:** Although the TIP was established as an outcome of GST1, questions remain on how it should relate to the GST process going forward. Views differ on whether the TIP should serve as a formal mechanism for following up on relevant GST outcomes, and whether it should feed into GST2 in a structured way.
  - **Timeline and duration:** There is no consensus on the appropriate timeline for the TIP's implementation or how it should be phased.
  - **Governance and relationship to the UNFCCC technology architecture:** Parties diverge on whether the SBs or the TM should be responsible for the implementation of the TIP. Parties also have divergent views on the TIP's relationship to the components of the UNFCCC's technology architecture, particularly the TM, the TEC, and the CTCN. Some Parties have emphasized the need to avoid duplication of mandates, while others have highlighted the importance of filling gaps identified in the first periodic assessment of the TM.
  - **Provision of financial support to the program:** Differing views remain on how the TIP should be financed. Some Parties have advocated for dedicated financial resources to support the TIP's activities, while others have suggested existing finance mechanisms could be used.

## C. Proposals for the way forward

### Objectives and Scope of the TIP

10. Parties have expressed a range of views regarding the TIP's purpose and potential scope. While some have advocated for applying the TIP's mandate narrowly, others have called to leverage it to accelerate implementation of broader technology priorities.
11. Parties could:
  - define the TIP narrowly as a support mechanism focused on implementation of existing technology priorities identified by developing countries. Under this approach, the TIP would prioritize: (i) areas identified through technical assistance provided by the CTCN and (ii) technology identified by

developing countries in their technology needs assessments (**TNAs**) and technology action plans (**TAPs**), as well as their biennial transparency reports, NAPs, NDCs, LT-LEDS, and long-term strategies

- expand the scope of the TIP so that “technology priorities” would include broader functions, including the identification, development, dissemination, and deployment of new and emerging climate mitigation and adaptation technologies on the basis of country-driven approaches
- leverage the TIP to establish a global technology pool covering economy-wide sectors, all greenhouse gases, and those technologies needed to achieve the global goal on adaptation
- leverage the TIP to elaborate the shared long-term vision of full realization of technology development and transfer in order to improve resilience to climate change and reduce greenhouse gas emissions referred to in Article 10, paragraph 1, of the Paris Agreement
- leverage the TIP to follow up on the targets and signals of the global stocktake
- request the SBI to host an in-session global technical dialogue on topics relevant to the objectives of the TIP, either once, annually, or biannually. Proposals for global dialogue topics have included trade barriers and enablers, intellectual property rights, and financial barrier for accessing technologies.

### Relationship to the Global Stocktake

12. Given that the TIP was established by GST1, Parties could decide to position the TIP as a follow-up mechanism. This approach would be in line with paragraph 186 of the outcomes of GST1, which invites the relevant work programs and constituted bodies under or serving the Paris Agreement to integrate relevant outcomes of the GST1 in planning their future work, in line with their mandates.<sup>9</sup>
13. Parties could decide the TIP should contribute to the implementation of relevant outcomes of GST1. Some Parties proposed specific targets and signals from GST1 that could be relevant to the TIP, including the mitigation targets under paragraph 28, paragraph 29, and paragraph 30. Some Parties indicated specific targets under paragraph 28 that they think are particularly relevant the goals of the TIP, including:
  - paragraph 28(a), which calls on Parties to contribute to the tripling of renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030<sup>10</sup>
  - paragraph 28(d), which calls on Parties to contribute to the transitioning away from fossil fuels in energy systems, in a just, orderly, and equitable manner, accelerating action in this critical decade, so as to achieve net zero by 2050 in keeping with the science<sup>11</sup>
  - paragraph 28(e), which calls on Parties to contribute to the acceleration of zero- and low-emission technologies, including, inter alia, renewables, nuclear, abatement and removal technologies such as carbon capture and utilization and storage, particularly in hard-to-abate sectors, and low-carbon hydrogen production.<sup>12</sup>
14. There is tension between those who view the TIP as an apt mechanism to follow-up on the GST and those who think it should Parties could refrain from further referencing the GST process or outcomes in a decision on the TIP, beyond citing the GST as establishing its mandate.

### Governance and Relationship to the UNFCCC Technology Architecture

15. The TIP was established with the stated aim to strengthen support for the implementation of technology priorities identified by developing countries and to address challenges in the TM.
16. In the process of elaborating the TIP, Parties emphasized the importance of avoiding duplication with other initiatives under the TM, like the CTCN and the TEC.



17. Parties diverged on whether the TM itself should be responsible for the implementation of the TIP, or whether the TIP should be operated by the SBs.
18. Some Parties further suggested that TIP decision could agree to monitor and evaluate its impact under, inter alia, the monitoring and evaluation frameworks under the TM and the UNFCCC Financial Mechanism (**FM**).

### Timeline and Duration of the TIP

19. Parties diverge on whether the TIP should be an ongoing process, or whether it should be restricted to a number of years, with the possibility of extension. Some Parties, for example, proposed that the TIP should run for three to five years.
20. Parties could establish the TIP as a fixed-term program with a clearly defined duration and agree to review to determine next steps or possible renewal.
21. If Parties were to decide that a purpose of the TIP should be to follow up on the GST, Parties could design a TIP that clearly links to the Paris Ambition cycle, aligning its timeline and goals with GST2. For example, two years, beginning in 2026 and concluding in 2028, coinciding with GST2.
22. Parties could also design a TIP with a timeline that links to the review of the TM. For example, one year, beginning in 2026 and concluding in 2027 to align with the review of the TM.
23. Parties could also choose to establish an ongoing process for the TIP. If Parties were to decide that a purpose of the TIP should be to follow up on the GST, its design could include periodic checkpoints that align with future GST cycles.

### Financial Support and Resourcing

24. As the mandate for the TIP says that it could be “supported by, inter alia, entities of the Financial Mechanism,” the TIP’s financial support could stem from existing finance mechanisms under the UNFCCC, such as the Green Climate Fund (**GCF**) and the Global Environment Facility (**GEF**).
25. The TIP could also encourage those in a position to do so to make contributions to its work.
26. Parties could create a dedicated funding stream for the TIP, potentially supported by voluntary contributions. For example, a TIP decision could encourage the enhancement of the capacities of Parties as well as of the TEC and the CTCN to mobilize finance from the private sector, development banks, and funding institutions.
27. Parties diverged on whether a decision on elaborating the TIP should ask non-Annex I countries to contribute resources to its implementation. Some suggested that contributions should be voluntary, while other argued that all Parties, including developing country Parties, should contribute based on their capacities.

## D. Related C2ES Resources

*Delivering on the Targets and Signals of the First Global Stocktake* (July 2025)

<https://www.c2es.org/document/delivering-on-the-targets-and-signals-from-the-first-global-stocktake/>



## Annex: The UNFCCC Technology Architecture

28. Climate technologies, as defined by the Intergovernmental Panel on Climate Change (*IPCC*), refer to any piece of equipment, technique, practical knowledge or skills for performing a particular activity that can be used to face climate change.
29. According to Article 4 of the UNFCCC, all Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives, and circumstances, shall promote and cooperate in the development and transfer of technologies to prevent anthropogenic emissions of greenhouse gases not controlled by the Montreal Protocol.<sup>13</sup> It also says developed country Parties and other developed Parties included in Annex II shall take all practicable steps to promote, facilitate, and finance, as appropriate, the transfer of, or access to, environmentally sound technologies and know-how to other Parties, particularly to developing countries.<sup>14</sup> The extent to which developing country Parties will effectively implement their commitments will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and technology development and transfer.<sup>15</sup> Several mechanisms support the development and transfer of climate technologies under the UNFCCC.
30. Parties established the Technology Mechanism (**TM**) at COP16 (2010).<sup>16</sup> The TM was established to facilitate the implementation of actions for achieving the objective of enhanced action on technology development and transfer is to support action on mitigation and adaptation in order to achieve the full implementation of the Convention.<sup>17</sup> Parties also decided that, in pursuit of this objective, technology needs must be nationally determined, based on national circumstances and priorities.<sup>18</sup> They further decided to accelerate action consistent with international obligations, at different stages of the technology cycle.<sup>19</sup>
31. The TM comprises two bodies:
- The Technology Executive Committee (**TEC**) comprises 22 experts from developed and developing countries who identify policies that can accelerate the development and transfer of low-emission and climate resilient technologies.
  - The Climate Technology Centre and Network (**CTCN**) stimulates technology cooperation, enhances the development and transfer of technologies and assists developing country Parties at their request. CTCN's aid is consistent with Parties' respective capabilities and national circumstances and priorities, in order to: build or strengthen their capacity to identify technology needs; facilitate the preparation and implementation of technology projects and strategies, taking into account gender considerations to support action on mitigation and adaptation; and enhance low-emission and climate-resilient development.
32. Parties at COP16 decided that the TEC shall further implement the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention.<sup>20</sup>
33. Article 10, paragraph 4 of the Paris Agreement, agreed in 2015, established the Technology Framework to provide overarching guidance to the work of the TM in promoting and facilitating enhanced action on technology development and transfer in order to support the implementation of this Agreement, in pursuit of the long-term vision.<sup>21</sup>
34. The Joint Work Programme of the Technology Mechanism, which began in 2023 and will conclude in 2027, is composed of joint activities of the TEC and the CTCN—bringing together their long-term strategies and defining areas of focus for the mechanism as a whole.<sup>22</sup> It is comprised of four workstreams: (i) national systems of innovation, collaborative research, development and demonstration, and general purpose technologies; (ii) technology needs assessment and technology planning tools to support NDC implementation; (iii) transformative and innovative solutions; and (iv) collaboration and engagement with UNFCCC processes and constituted bodies, and other UN agencies.



## E. References

- <sup>1</sup> United Nations Framework Convention on Climate Change [hereinafter UNFCCC], *Outcomes of the first global stocktake*, Decision 1/CMA.5, ¶ 110 (March 15, 2024), <https://unfccc.int/documents/637073>.
- <sup>2</sup> UNFCCC, *Outcomes of the first global stocktake*, Decision 1/CMA.5, ¶ 110.
- <sup>3</sup> UNFCCC, *First periodic assessment of the effectiveness and adequacy of the support provided to the Technology Mechanism in supporting the implementation of the Paris Agreement on matters relating to technology development and transfer*, FCCC/SBI/2022/13 (September 5, 2022), [https://unfccc.int/sites/default/files/resource/sbi2022\\_13.pdf](https://unfccc.int/sites/default/files/resource/sbi2022_13.pdf).
- <sup>4</sup> UNFCCC, *Outcomes of the first global stocktake*, Decision 1/CMA.5, ¶ 110.
- <sup>5</sup> UNFCCC, *Technology Implementation Programme*, Decision 18/CMA.6 (March 27, 2025), <https://unfccc.int/documents/644944>.
- <sup>6</sup> UNFCCC, *Technology Implementation Programme Draft Negotiating Texts*, DT.DD.CMA6.i12b.2 (November 19, 2024), <https://unfccc.int/documents/644121>.
- <sup>7</sup> UNFCCC, *Technology Implementation Programme*, Decision 18/CMA.6, ¶ 2.
- <sup>8</sup> UNFCCC, *Adoption of the Rules of Procedure*, FCCC/CP/1996/2, Rule 10(c) and Rule 16 (May 22, 1996), [https://unfccc.int/sites/default/files/resource/02\\_0.pdf](https://unfccc.int/sites/default/files/resource/02_0.pdf).
- <sup>9</sup> UNFCCC, *Outcomes of the first global stocktake*, Decision 1/CMA.5, ¶ 186.
- <sup>10</sup> UNFCCC, *Outcomes of the first global stocktake*, Decision 1/CMA.5, ¶ 28(a).
- <sup>11</sup> UNFCCC, *Outcomes of the first global stocktake*, Decision 1/CMA.5, ¶ 28(d).
- <sup>12</sup> UNFCCC, *Outcomes of the first global stocktake*, Decision 1/CMA.5, ¶ 28(e).
- <sup>13</sup> United Nations, *United Nations Framework Convention on Climate Change*, Article 4, ¶ 2(c) (1992) [https://unfccc.int/files/essential\\_background/background\\_publications\\_htmlpdf/application/pdf/conveng.pdf](https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf).
- <sup>14</sup> United Nations, *United Nations Framework Convention on Climate Change*, Article 4, ¶ 5.
- <sup>15</sup> United Nations, *United Nations Framework Convention on Climate Change*, Article 4, ¶ 7.
- <sup>16</sup> UNFCCC, *The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention*, Decision 1/CP.16, ¶ 117 (March 15, 2011), <https://unfccc.int/documents/6527>.
- <sup>17</sup> UNFCCC, *The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention*, Decision 1/CP.16, ¶ 113.
- <sup>18</sup> UNFCCC, *The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention*, Decision 1/CP.16, ¶ 114.
- <sup>19</sup> UNFCCC, *The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention*, Decision 1/CP.16, ¶ 115.
- <sup>20</sup> UNFCCC, *The Cancun Agreements: Outcome of the work of the Ad Hoc Working Group on Long-term Cooperative Action under the Convention*, Decision 1/CP.16, ¶ 119.
- <sup>21</sup> UNFCCC, *Paris Agreement*, Art. 10.4, December 12, 2015, T.I.A.S. No. 16-1104, [https://unfccc.int/sites/default/files/english\\_paris\\_agreement.pdf](https://unfccc.int/sites/default/files/english_paris_agreement.pdf).
- <sup>22</sup> UNFCCC, *Joint Workplan of the UNFCCC Technology Mechanism for 2023-2027* (October 24, 2022), [https://unfccc.int/ttclear/misc\\_/StaticFiles/gnwoerk\\_static/TEC\\_Documents\\_doc/6e7cae499c2b418e93d2d2a1bcc1a20/e9a1b6ffadbe47bcb3f2634881df13f5.pdf](https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/TEC_Documents_doc/6e7cae499c2b418e93d2d2a1bcc1a20/e9a1b6ffadbe47bcb3f2634881df13f5.pdf).