



Technology Executive Committee

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Thirty-second meeting

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Draft annotated outline for a knowledge product on how developing countries can be supported in implementing their technology action plans and technology needs assessment outcomes

Cover note

A. Background

1. In June 2022, the Subsidiary Body for Implementation, in its consideration of the Poznan strategic programme on technology transfer,¹ invited the TEC, in consultation with the Climate Technology Centre and Network (CTCN) and the operating entities of the Financial Mechanism, to consider, when updating the guidelines for technology needs assessments (TNAs), how developing countries can be supported in updating their TNAs and implementing their technology action plans (TAPs) and TNA outcomes.
2. In September 2022, the TEC reflected this guidance in the formulation of its work on TNAs under its new rolling workplan (2023-2027), which forms part of the joint work programme of the Technology Mechanism (2023-2027). The UNEP Copenhagen Climate Centre is the lead partner for the implementation of this activity.
3. As per activity B.1.1 of its rolling workplan,² the TEC, in 2027, is to develop a knowledge product on how developing countries can be supported in implementing their TAPs and TNA outcomes.
4. At TEC 32, a co-lead of the open-ended activity group on TNA together with a representative of the UNEP Copenhagen Climate Centre, will present a draft annotated outline of the knowledge product, as contained in the annex.

B. Scope of the note

5. The annex to this note contains a draft annotated outline for a knowledge product on how developing countries can be supported in implementing their TAPs and TNA outcomes.

C. Possible actions by the Technology Executive Committee

6. The TEC will be invited to consider the draft annotated outline contained in the annex and provide guidance to the open-ended activity group for further work on this knowledge product.

¹ [FCCC/SBI/2022/10](#), paragraph 98.

² Available at: <https://unfccc.int/ttclear/tec/workplan>.

Annex

Draft annotated outline for a knowledge product on how developing countries can be supported to implement their TAPs and TNA outcomes

1. Introduction (~1-2 page)

- **Purpose:** To set the context for the paper.
- **Annotation:** Explains the context and scope of the knowledge product, explains the evolution and role of TNAs/TAPs within national climate planning and investments, and states the objective of analyzing how countries can be supported in forging and utilizing implementation pathways for moving from technology prioritization to action and impact on the ground.
- **Possible illustrations:** Illustrations of the TNA/TAP implementation cycle, from needs to implementation.

2. From Technology Action Plans to implementation (~5-6 pages)

- **Purpose:** To outline five non-exclusive and non-exhaustive pathways through which countries can be supported to move from TAPs to real-world implementation.
- **Possible illustrations:** Country illustrations from integrating TAPs and other TNA outcomes into policy frameworks and multi-level climate action.

2.1 National-level support for policy and institutional integration

- **Purpose:** To explain why embedding TAPs in national policy, planning and strategic processes increases implementability and resource mobilization.

2.1.1 Integration of technology priorities in national climate policy frameworks

Annotation: Shows how integration with NDCs, NAPs, and sectoral climate strategies and implementation plans, including with support of line ministries the academia and development partners, increases political backing, alignment with climate-related mandates and sustainable development goals, and chances of attracting climate finance.

2.1.2 Leveraging climate support and budgeting plans and processes to implement TAPs

Annotation: Highlights the importance of having TAPs appear in national and sub-national climate and development priorities and implementation pipelines, including to strengthen financing prospects and to improve fundability, especially when aligned with nationally-driven climate finance priorities.

2.1.3 Examples

Annotation: Country examples, including from the establishment and use of country platforms for finance mobilization, donor coordination and engagement of domestic actors in post-TNA implementation.

2.2 Concessional finance, readiness support and grants

- **Purpose:** To describe how financial instruments are used to move priority technologies from concept to deployment.

2.2.1 Role of concessional finance in TAP implementation

Annotation: Describes the use of concessional loans, blended finance, and soft terms to reduce early-stage risk.

2.2.2 Grants as a catalyst for early action and innovation

Annotation: Describes the use of grants to unlock later investment, particularly useful for emerging or public-good technologies.

2.2.3 Combined power of grants and concessional finance

Annotation: Describes the joint and complementary use of grants and concessional finance to enhance bankability and encourage private co-investment.

2.2.4 Examples

Annotation: Examples of post-TNA implementation through various financing sources, including multilateral climate funds and multilateral development banks.

2.3 Bilateral support and technology cooperation

- **Purpose:** To describe how bilateral development partners can directly support TAP implementation by aligning their technical, financial, and policy assistance with national technology priorities.

2.3.1 Role of bilateral partners in advancing TAP priorities

Annotation: Highlights how bilateral agencies can provide targeted support, such as technical assistance, seed funding, regulatory advisory services, piloting support, and capacity development, to advance priority technologies identified in TAPs. Their ability to respond quickly and tailor support to country needs can accelerate early-stage action and bridge gaps left by multilateral mechanisms.

2.3.2 Aligning bilateral programmes with national technology strategies

Annotation: Explains how aligning bilateral cooperation strategies, country programmes, and climate portfolios with TAP priorities strengthens coherence, enables sustained support, and increases the likelihood of leveraging follow-on financing. Engagement may include joint planning with line ministries, embedding TAP actions in bilateral country strategies, or aligning with broader development cooperation frameworks.

2.3.3 Facilitating partnerships, pilots and demonstration projects

Annotation: Highlights how bilateral cooperation could support technology piloting, demonstration activities, and innovation partnerships that validate solutions in local conditions as an important step toward scaling. Such initiatives can help de-risk technologies, generate evidence for future investment, and build local capacity for operation, maintenance, and scale-up.

2.3.4 Cooperation under Article 6 of the Paris Agreement

Annotation: Explains how Article 6 of the Paris Agreement, as a form of voluntary cooperation among Parties, can serve as an additional channel for advancing technology priorities, through both market-based and non-market approaches. Such cooperation can mobilize targeted finance, technical assistance, and capacity-

building in support of NDC implementation and sustainable development, aligned with prioritized technologies identified in TNAs/TAPs.

2.3.5 Examples

Annotation: Example of bilateral climate programmes, country-specific partnerships supporting mitigation and adaptation technologies, bilateral donor-funded pilots in various sectors; or initiatives that link TAP priorities with donor-supported innovation facilities, policy support programmes, and national implementation pipelines.

2.4 Technical assistance and advisory support

- **Purpose:** To describe how technical assistance (TA) and advisory support, including capacity-building, tailored policy and regulatory support, and project preparation support, helps countries prepare and implement TAPs.

2.4.1 Technical elaboration of implementation pathways

Annotation: Highlights how TA and advisory support helps fill technical gaps in devising implementation pathways, including feasibility studies, pre-design research and analysis, business-case development, and regulatory design.

2.4.2 Facilitating project preparation

Annotation: Highlights how TA and advisory support helps convert high-level TAPs into implementable project components, and enhance compliance with funds' and donors' requirements.

2.4.3 Strengthening the enabling environments

Annotation: Explains how TA and advisory support could support regulatory reforms, in-country coordination, strengthening of the innovation ecosystems, and other enablers essential for technology development and diffusion.

2.4.4 Examples

Annotation: Examples of TA and advisory support, provided by various actors including academia, non-profit climate initiatives and partnerships, international organization and UN agencies, and other development partners.

2.5 Private sector collaboration and partnerships

- **Purpose:** To demonstrate how private sector actors contribute to technology development, piloting, deployment and scale-up.
- **Annotation:** Explains the role of the private sector in stimulating innovation, investment, manufacturing, supply chain development, and uptake that are essential for long-term sustainability of technologies.

2.5.1 Examples

- **Annotation:** Illustrative examples of private sector collaboration, including through public private partnerships (PPPs).

3. Practical recommendations (~2-3 pages)

- **Purpose:** To provide practical guidance to developing countries for making use of the avenues of support outlined above, often in combination, for advancing post-TNA implementation, according to their national priorities and circumstances.

- **Annotation:** The practical recommendations may inform actions by policymakers, NDEs, line ministries, and development partners, and would correspond to the outlined avenues in section 2:
 - Governance and strategic integration (e.g. national planning and budgeting process, national climate policy frameworks);
 - Project preparation, capacity-building and technical assistance;
 - Bilateral support and technology cooperation;
 - Financing (grants and concessional);
 - Private-sector collaboration (e.g. PPPs, research, development and demonstration, piloting);
 - Cross-cutting considerations (e.g. post-TNA engagement strategy with implementation partners, management planning, resource mobilization strategy).
- **Possible illustrations:** Illustrations of different support avenues and actors relevant to each that can be utilized by developing countries in advancing post-TNA implementation.

4. Conclusions (~1 page)

- **Purpose:** To reiterate the importance of country-driven strategies for the mobilization of support, that is multi-sources, multi-prong, and connected to the bigger support ecosystem in order to ensure TNAs spark action and yield lasting impact. Also to outline the diverse array of actors and actions that could support post-TNA implementation, emphasising that TNAs/TAPs are maturing into investment-relevant tools, and to highlight opportunities for next-generation TNAs.

5. References

- **Purpose:** To include references to relevant publications from the UNFCCC, TEC and UNEP-CCC, CTCN TAs, success stories, synthesis reports, and other TNA/TAP-related guidance and knowledge products.
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