H. Technology development and transfer

[Long-term technology goal]

53 bis. [A global goal of technology development and transfer shall be established, in order to meet the technology requirements for achieving an emission pathway consistent with limiting the global average temperature increase to below 2 °C or 1.5 °C above pre-industrial levels and considerably improving the adaptation capacity of developing countries. Under this global technology goal, developed countries shall commit to conduct regular assessment on technologies that are ready for transfer, and make the list of ready-to-transfer technologies, and set target for supporting the development and transfer of each technology in developing countries, and mobilize resources to deliver the support. The aggregate effect of the supported technology development and transfer shall be reviewed with a view to achieving the 2 °C or 1.5 °C target and considerably improving the adaptation capacity of developing countries.]

General

54. **Option 1**: All Parties to strengthen cooperative action to promote and enhance technology development and transfer, including through the Technology Mechanism / institutional arrangements for technology established under the Convention and through the Financial Mechanism, in order to support the implementation of mitigation and adaptation commitments under this agreement;

**Option 2**: Parties, consistent with the principles and provisions of the Convention, including Article 4, paragraphs 1, 3 and 5 [and Article 11], in accordance with their common but differentiated responsibilities, to strengthen cooperative action to promote and enhance technology development and transfer and better facilitate the implementation of the Convention, including through the Technology Mechanism / institutional arrangements for technology established under the Convention and through the Financial Mechanism and the Climate Resilience and Sustainable Development Mechanism / by enhancing the provision of support by [developed country Parties][Parties included in annex X][all countries in a position to do so], in order to support the implementation of mitigation and adaptation commitments under this agreement;

**Option 3**: Parties, consistent with the principles and provisions of the Convention, including Article 4, paragraph 5, reflecting the evolving economic realities, to strengthen cooperative action to promote and enhance technology development and transfer, including through the Technology Mechanism / institutional arrangements for technology established under the Convention and through the Financial Mechanism.

**Option 4**: Developed country Parties, consistent with the principles and provisions of the Convention, in particular Article 4, paragraphs 1, 3 and 5 and Article 11, shall promote and enhance access to environmentally sound technology and know-how for the implementation of the Convention, including through the Financial Mechanism.]

55. [Placeholder: Framework for scaling up technology development and transfer.]

[Commitments]

56. **Option 1**: Commitments in relation to technology development and transfer to include the following:

56.1 **Option (a)**: [Developed country Parties][Parties included in annex X] to undertake steps to address barriers to accessing technology and to establish and strengthen their necessary policy frameworks to facilitate the removal of barriers and enable and accelerate technology development and transfer to [developing country Parties] [Parties not included in annex X]; and to leverage enhanced support from the private sector for

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1 Headings and subheadings used throughout these elements for a draft negotiating text are provisional and only intended to orientate the reader.
technology development and transfer to [developing country Parties][Parties not included in annex X]; and to provide financial, human resources, institutional and technical support for technology development and transfer to [developing country Parties][Parties not included in annex X];

**Option (b):** Developed country Parties to undertake steps to address barriers to accessing technology and know-how and to establish and strengthen their necessary policy frameworks to facilitate the removal of barriers and enable and accelerate technology development and transfer to developing country Parties; and to promote access to public sector technology and promote development and transfer to developing country Parties; and to provide financial, human resources, institutional and technical support for technology development and transfer to developing country Parties.

56.2 [developing country Parties][Parties not included in annex X], with the support of [developed country Parties][Parties included in annex X][all countries in a position to do so], to undertake steps to address barriers [to equal access] to accessing technology and to establish and strengthen their national structures, policy frameworks, institutions and capacity, in order to enable and accelerate the endogenous capacity for the absorption, development and transfer of technologies in developing countries / endogenous technology development and transfer, attract investments and enhance country ownership and innovation[, building on traditional existing technologies already used by local communities, including women, based on their needs and capacities to be able to build and develop their own technological base][including those stemming from traditional knowledge systems of indigenous peoples and local communities];

56.2 bis. Developed country Parties shall support the development and enhancement of endogenous capacities and technologies of developing country Parties;

56.3 **Option (a):** All Parties, in accordance with the principles of and obligations under the Convention, to establish means to facilitate access to and the deployment of technology, while promoting and rewarding innovation in adaptation and mitigation technologies / environmentally sound technologies [based on the strengthening on sustainable development trajectories and poverty eradication];

**Option (b):** Developed country Parties, in accordance with the principles of and obligations under the Convention, to establish means to promote access to and the deployment, application, diffusion, including transfer of technologies, practices and processes while enhancing and rewarding innovation in environmentally sound technologies for adaptation and mitigation:

**Option (c):** All Parties, in accordance with the principles of and obligations under the Convention to establish means to facilitate access to and the deployment of safe and appropriate and environmentally, economically and socially sound technology, while promoting

**Option (i):**

a. In accordance with Article 4 of Convention, [developed country Parties][Parties included in annex X][all countries in a position to do so] to provide financial resources to address barriers caused by intellectual property rights (IPRs) and facilitate access to and the deployment of technology, including inter alia, by utilizing the Financial Mechanism and/or the establishment of a funding window under the GCF / the operating entities of the Financial Mechanism [and the Climate Resilience and Sustainable Development Mechanism];

b. An international mechanism on IPRs to be established to facilitate access to and the deployment of technology to [developing country Parties][Parties not included in annex X];

c. Other arrangements to be established to address IPRs, such as collaborative research and development, shareware, commitments related to humanitarian or preferential licensing, fully paid-up or joint licensing schemes, preferential rates and patent pools;

d. In accordance with Article 4.3, 4.5 and 4.7 of the Convention, funds from the Green Climate Fund will be utilized to meet the full costs of intellectual property rights (IPRs) of environmentally sound technologies and know-how and such technologies will be provided to developing country Parties free of cost in order to enhance their actions to address climate change and its adverse impacts.

**Option (ii):** Parties recognize that IPRs create an enabling environment for the promotion of technology innovation in environmentally sound technologies;

**Option (iii):** IPRs are not to be addressed in this agreement;
Option (iv): Developed country Parties to make available Intellectual Property (IP) through multilateral institutions as public good, through purchase of IP.

56.4 Option (a): [Developing country Parties][Parties not included in annex X], with the support of [developed country Parties][Parties included in annex X][all countries in a position to do so], to conduct an assessment of their technology needs, on the basis of national circumstances and priorities [and update the same periodically], with a view to ensuring nationally determined and environmentally, economically and socially sound resulting project proposals and to effectively implementing the outcomes of such an assessment supported by [developed country Parties][Parties included in annex X][all countries in a position to do so], in order to support the implementation of this agreement:

Option (b): Developed country Parties shall provide support to developing country Parties to improve their capacities for conducting technology assessments, with a view to ensuring nationally determined and environmentally, economically and socially sound project proposals:

- Parties to strengthen the process of technology needs assessment (TNAs) and enhance the implementation of the outcomes of the TNA process;
- Align TNAs more closely with bankable finance projects / Improve TNAs to result in implementable projects;
- TNAs could be linked to other processes under the Convention, such as NAMAs and NAPs; TNA process should be elaborated to address developments arising from the operationalization of this agreement.

56.5 Option (a): All Parties, enabled by [Annex II Parties][Parties included in annex Y] / led by [developed country Parties][Parties included in annex X][all countries in a position to do so], to accelerate global collaboration on the research, development and demonstration of technologies:

Option (b): Global participative collaboration, enabled by developed country Parties, to accelerate the research, development and demonstration of technologies:

a. Support, including financial and intellectual support, to accelerate the research, development and demonstration of technologies, including endogenous technologies, to be provided by [developed country Parties][Parties included in annex X][all countries in a position to do so] to [developing country Parties][Parties not included in annex X];

b. Modalities for a global collaborative programme on the research, development and demonstration of technologies to be established, attracting and integrating relevant stakeholders.

c. Climate change related technologies may be prioritized and special modalities will be worked out under intellectual property rights and innovative modalities for technology transfer mechanism will be put in place for developing countries for intended nationally determined contributions or otherwise for mitigation and adaptation.

d. Technology assessment to ensure civil society participation with a gender perspective, and integrate multilateral, independent, participatory evaluation of technologies on their social, economic, and environmental impacts.

56.6. All Parties committed under Article 4.5 of the Convention shall prepare, maintain, communicate and implement a component related to technology development and transfer to developing countries, as well as to capacity building, including, as appropriate, actions, policies and measures for technology development and transfer to developing countries and to promote capacity building, with a view to assisting the implementation of the nationally determined contributions of developing countries.

56.7 Developed country Parties shall cooperate with developing country Parties to enhance technology development and transfer to enable developing country Parties to effectively implement their nationally determined contributions under the Convention and this Agreement pursuant to Article 4.7 of the Convention.

Option 2: No commitments on technology in the agreement.

57. [Institutional arrangements]

57.1 Anchoring:
Option 1: The Technology Mechanism established under the Convention, including the TEC and the Climate Technology Centre and Network (CTCN), shall serve this agreement by facilitating enhanced action on technology development and transfer in order to achieve the objectives of this agreement;

Option 2: The institutional arrangements for technology established under the Convention shall serve this agreement by facilitating enhanced action on technology development and transfer in order to achieve the objectives of this agreement;

Option 3: The Technology Mechanism and any institutional arrangements for technology established under the Convention, shall serve this agreement by facilitating enhanced action on technology development and transfer and know-how in order to achieve the objectives of this agreement;

Option 4: The Technology Mechanism and any institutional arrangements for technology established under the Convention, including the Climate Resilience and Sustainable Development Mechanism, shall serve this agreement by facilitating enhanced action on technology development, transfer and know-how in order to achieve the objectives of this agreement.

57.2 Guidance to and strengthening of the Technology Mechanism / institutional arrangements:

The governing body may[shall] provide further guidance to [and/or strengthen the Technology Mechanism /] [the] institutional arrangements for technology [development and transfer] established under the Convention serving this agreement, and the guidance provided by the governing body shall not conflict with the guidance provided by the COP.

Option 1: Specific provisions on strengthening:

a. The TEC and the CTCN / Technology Mechanism of the Convention shall support the operationalization and delivery of the commitments related to technology development and transfer in this agreement, under the Convention:
   - Include provisions on accounting;
   - Take into account the specific needs of developing countries[Parties not included in annex X] and countries with special circumstances of Africa, LDCs and SIDS;
   - Promote needs-based development, access, management and control, emphasizing the most marginalised.

b. Option (a): The Technology Mechanism shall enhance cooperation and synergy with other institutional arrangements under and outside the Convention, as well as the coherence and effectiveness of technology action and initiatives under the Convention:
   - Establish linkages between the Technology Mechanism, the Financial Mechanism and capacity-building institutions;
   - The Poznan strategic programme on technology transfer to be linked to and/or guided by the Technology Mechanism;
   - Provisions or measures related to other technology initiatives or regional centres;
   - Enhance the role of the private sector to support the implementation of the Technology Mechanism;
   - Facilitate the role of public research and development, incentives for commercial research and development, the development of technologies and the reaching of economies of scale.

Option (b): The Technology Mechanism shall enhance cooperation and synergy with other institutional arrangements under the Convention:
   - Establish linkages between the Technology Mechanism, the Financial Mechanism and capacity-building institutions;
   - The Green Climate Fund, in operationalizing its adaptation and mitigation windows shall ensure adequate financial resources for technology development and transfer and capacity building for all climate change actions;
   - Assessments of the effectiveness, adequacy and implementation of the institutional arrangements for technology development and transfer shall be conducted.
c. **Option (a):** The governing body shall conduct a periodic assessment of the effectiveness and adequacy of the Technology Mechanism / institutional arrangements for technology development and transfer.

**Option (b):** An ad hoc review and monitoring mechanism shall be established and conduct a periodic assessment of the effectiveness and adequacy of the Technology Mechanism / institutional arrangements for technology development and transfer. The Technology Mechanism/institutional arrangements shall improve their performance, and be mandated new functions as needed, according to the result of the assessment.

**Option 2:** No specific provisions on guidance to and/or strengthening of the Technology Mechanism in the agreement.

Structural suggestions on section H:

Include paragraph 57.2 (option 1) in a decision.

Bring the content of section H in a section covering sections G (Finance), H (Technology development and transfer) and I (Capacity-building)