

BRIEFING PAPER

TECHNOLOGY MECHANISM

NEGOTIATION STATUS

Technology transfer in the UNFCCC

Technology Transfer has been one of the central elements in the UN Framework Convention on Climate Change since the 1992 Rio Conference on Environment and Development.

Article 4 of UNFCCC represents the legal basis for all subsequent discussions on the topic with art. 4.5 calling on developed countries to: *“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 developing country Parties, to enable them to implement the provisions of the Convention [...]”* and art. 4.7 recognizing that: *“the extent to which developing country Parties will effectively implement their commitments under the Convention will depend on the effective implementation by developed country Parties of their commitments under the Convention related to financial resources and transfer of technology and will take fully into account that economic and social development and poverty eradication are the first and overriding priorities of the developing country Parties”*.

Despite the relatively straightforward messages contained in Art. 4, discussions on Technology Transfer, for the first 7 sessions of the COP, proceeded very slowly with Developing Countries Parties calling for the full implementation of the provision of art. 4 and Developed Countries Parties highlighting the need to establish an enabling environment in developing countries in order to unleash the full potential of the cooperation activities and allow recipient countries to take full advantage from the transfer of environmentally sound technologies. Also, discussions focused on elements that would become central in the continuation of the negotiations, such as the definition of Technology Transfer and, more importantly, the role of Intellectual Property Right in facilitating or creating barriers to the effective transfer and deployment of climate-related technologies.

Technology Transfer Framework

The deadlock was broken in Marrakesh (COP 7) where Parties agreed to establish an Expert Group on Technology Transfer and the so called “Technology Transfer Framework” to stimulate cooperation between stakeholders on technology needs assessment, technology information, enabling environment, and capacity building. The COP requested all Parties to create an enabling environment by removing barriers, promoting environmental regulation, protecting intellectual property rights, and supporting technology transfer through export credit agencies or tax credits. The activities on technology transfer were also requested to facilitate the support of financial, institutional and methodological activities, and the implementation of projects. In this context, for the first time, the Global Environmental Facility was asked to provide funding to support Technology Transfer actions.

Technology Mechanism

The definition of the Technology Transfer Framework was certainly a step forward on the route to a

full implementation of art. 4 of the Convention. But it was with the agreement on the Bali Action Plan that the discussion on Technology Transfer effectively reached the next level. The Bali Action Plan, agreed at the COP 13, reaffirms the centrality of Technology Transfer in the UNFCCC and for the first time calls for the creation of *“effective mechanisms and enhanced means for the removal of obstacles to and provisions of financial and other incentives for, scaling up of the development and transfer of technology to developing country Parties in order to promote access to affordable environmentally sound technologies”*.

The Copenhagen Agreement (COP 15) stated the need to establish a comprehensive *“technology mechanism to accelerate technology development and transfer in support of action on adaptation and mitigation [...] guided by a country-driven approach and [...] based on national circumstances and priorities”*, and in Cancun (COP 16) the Technology Mechanism was further elaborated by defining its mandate and its structure comprising of a Technology Executive Committee and a Climate Technology Center and Network. Eventually in Durban (COP17) the guidelines to select the host of the CTCN were approved.

Technology Executive Committee, and Climate Technology Centre and Network

The COP 16 required the Technology Mechanism to address seven major challenges:

- i) Low capacities in R&D and Deployment;
- ii) Low levels of deployment and diffusion of environmentally sound technologies;
- iii) Low levels of public and private investment;
- iv) Difficulties with soft / hard technologies for adaptation and mitigation;
- v) Inadequate climate change observation and information systems;
- vi) Weak national systems of innovation and technology innovation centers;
- vii) Inadequate national technology planning capacity for mitigation and adaptation.

The Technology Mechanism has a policy arm, the Technology Executive Committee (TEC), and an implementing arm, the Climate Technology Centre and Network (CTCN).

Technology Executive Committee (TEC)

The TEC was established at COP 16 in Cancun and is comprised of 20 high-level expert members, elected by the COP, serving in their personal capacity and nominated by Parties. According to its functions (1/CP.16 - paragraph 121), the TEC has mostly an advisory role to the UNFCCC and its Parties. Its mandate includes providing overview on technological needs in different countries and regions, as well as guidance on policies and programme priorities and actions to address the barriers to technology development and transfer. Also, the TEC will work to catalyze the development and use of technology roadmaps or action plans at the international, regional and national levels through cooperation between governments and relevant national and international organizations, including the private sector.

Since its establishment, the TEC has met four times:

- September 2011 to prepare for COP 17 and discuss the TEC modalities and TEC workplan for 2012-2013
- February 2012 to discuss the outcomes of COP 17 and its mandate to establish an evaluation panel for selecting the CTC host (with three members each from non Annex I and Annex I countries).

- May 2012 in Bonn: the meeting focused on the implementation of the TEC workplan for 2012-2013
- September 2012 in Bangkok: the meeting was dedicated to kick off the activities on technology roadmaps and assess the results of the Technology Need Assessment carried out as part of the Technology Transfer Framework.

Climate Technology Centre and Network (CTCN)

The objective of the Climate Technology Centre and its Network is to assist developing countries to build or strengthen their capacity to make technology choices and to facilitate the preparation and implementation of technology projects and strategies with a more definite operational focus. In January 2012, the UNFCCC Secretariat issued a call for proposals for the host of the Climate Technology Centre (CTC), as requested by parties at COP 17. In May 2012 the SBI 36, following the results of the discussions of the panel established to evaluate the proposals, ranked first the proposal submitted by the consortium led by UNEP, with the GEF proposal ranked second and Det Norske Veritas AS third. UNEP and UNFCCC have negotiated the CTC host agreement that will be presented before Parties at COP 18 which, once approved, will enable UNEP and its Partners to start the operation of the CTC in early 2013.

UNEP-led CTCN

The UNEP-led CTCN is a consortium of 13 organizations from both developing and developed countries¹. The consortium structure will in this way provide a CTC with limited number of fixed cost staff in the Core Centre combined with a Technical Resource Pool.

The *Core Center* will liaise directly with Nationally Designated Entities (NDEs) which are designated to coordinate technology-related planning and action on the national level, engage relevant partners for the development of proposals and supporting activities, and will be responsible for managing awareness and capacity building programmes.

The *Technical Resource Pool*, consisting of lead experts from partner institutions, will be tasked with the initial appraisal, refinement, and technical support of requests received through NDEs. Where necessary, a small expert team will be established to respond to a request, deliver immediate technical assistance (when required), and prepare a response plan for more in-depth support, assuring a rapid and flexible response and successful implementation.

The CTCN will also work with the donor community and UNFCCC partners to identify opportunities for complementary support.

National Designated Entities (NDEs)

In order to access the services of the CTCN, countries must file a request through their NDE who will serve as national proxy and as link between the CTCN and local stakeholders, including the private

¹ United Nations Environment Programme, United Nations Industrial Development Organization, Asian Institute of Technology (Thailand), Bariloche Foundation (Argentina), Council for Scientific and Industrial Research (South Africa), The Energy and Research Institute (India), Environment and D

(Germany), Energy Research Centre of the Netherlands, National Renewable Energy Laboratory (United States), United Nations Environment Programme Risø Centre (Denmark)

sector and government institutions. The NDEs will play a fundamental role in the success of the CTCN, as they will manage the national submission process and generate country proposals for submission. Therefore, it is essential that NDEs are properly informed and trained on CTCN functions and services to encourage the generation of comprehensive requests for technical assistance.

Some examples of potential training activities include; technology assessment, planning, and design and implementation of adaptation and mitigation technology programmes. If appropriate and depending on available funding, the CTCN will facilitate in-depth training through regional workshops on priority climate technology development and deployment topics defined based on consultations with the NDEs and other developing country representatives. This could include: the development of policies and programs to attract investment in priority technologies; project and system design; financing programs; and, entrepreneur development.

In addition, the CTCN will establish an information platform to improve the sharing of knowledge related to climate technologies. It will present in a user-friendly manner data, tools, reports, and other technical resources, addressing specific needs from developing countries. The CTC, in collaboration with its Technical Resource Pool and other relevant organizations, will develop and deliver interactive web-based learning platforms for seminars, blogs. They will also establish expert networks for in-person information delivery where online access is limited or not ideally suited.

Managing requests from NDEs and providing highly qualified support to countries along all stages of the technology cycle, from identification of technology needs, through assessment, selection and piloting of technological solutions, to their customization and widespread deployment will remain the core functions of the CTCN.

KEY OUTSTANDING ISSUES RELATED TO THE TOPIC

The Technology Transfer discussion is currently focused on making the Technology Mechanism operational by the end of 2012. Whilst the host of the CTC is expected to be approved by the Parties at COP18, financing remains an outstanding issue.

As noted by several Parties, sufficient, sustained and predictable resources will be instrumental to allow the Technology Mechanism to play a meaningful role to promote a wide diffusion of climate technologies. This issue can be separated into three components:

- i. financing for the core operations of the CTC, including support and training to the NDEs;
- ii. financing for the mobilization of the Networks to provide assistance at the request of the developing countries;
- iii. financing for the implementation (or support to the implementation) of national projects and plans elaborated with the assistance of the CTCN. Regarding this last component, some Parties are suggesting linking the Technology Mechanism to the Green Climate Fund – possibly establishing specific funding windows for technology projects and plans.

Possible implications for ASEAN countries

As mentioned above, NDEs will serve as national focal points which would coordinate national requests in order to access the services of the CTCN. NDEs will also be the links between the CTCN and local stakeholders, including the private sector and government institutions. Decision 4/CP.13 invited Parties, in a position to do so, to identify and designate their national entity for the

development and transfer of technologies and to communicate this to the secretariat by COP 14. Establishment of NDEs would be an important next step for ASEAN countries in order to benefit from the services of the CTCN.

The operationalization of the Technology Mechanism also encourages further inter-ASEAN cooperation and collaboration with the private sector on the development and transfer of green technology.

Next Steps in Negotiations

- COP 18: Selection for the host of the CTC, Qatar, December 2012

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