

Decision 4/CP.7

Development and transfer of technologies (decisions 4/CP.4 and 9/CP.5)

The Conference of the Parties,

Recalling chapter 34 of Agenda 21 and the relevant provisions of the programme for the further implementation of Agenda 21 on the transfer of environmentally sound technologies adopted by the United Nations General Assembly at its nineteenth special session,¹

Pursuant to the relevant provisions of the Convention, in particular, its Articles 4.1, 4.3, 4.5, 4.7, 4.8 and 4.9, Article 9.2(c), Articles 11.1, 11.5, and Articles 12.3 and 12.4,

Recalling its decisions 11/CP.1, 13/CP.1, 7/CP.2, 9/CP.3, 4/CP.4, 9/CP.5 and the relevant provisions of its decision 1/CP.4 on the Buenos Aires Plan of Action,

Recalling further its decision 5/CP.6, containing the Bonn Agreements on the implementation of the Buenos Aires Plan of Action,

1. *Decides* to adopt the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention contained in the annex to this decision as part of the outcome of the technology transfer consultative process (decision 4/CP.4) and the Buenos Aires Plan of Action (decision 1/CP.4);
2. *Decides* to establish an expert group on technology transfer to be nominated by Parties, with the objective of enhancing the implementation of Article 4, paragraph 5, of the Convention, including, *inter alia*, by analysing and identifying ways to facilitate and advance technology transfer activities and making recommendations to the Subsidiary Body for Scientific and Technological Advice. The Conference of the Parties will review at its twelfth session the progress of the work and terms of reference, including, if appropriate, the status and continuation of the expert group;
3. *Requests* the Global Environment Facility, as an operating entity of the financial mechanism of the Convention, to provide financial support for the implementation of the annexed framework through its climate change focal area and the special climate change fund established under decision 7/CP.7;
4. *Urges* developed country Parties to provide technical and financial assistance, as appropriate, through existing bilateral and multilateral cooperative programmes to support the efforts of the Parties in implementing the programmes and measures identified in the annexed framework and to enhance the implementation of Article 4, paragraph 5, of the Convention;

¹ A/RES/S-19/2.

5. *Requests* the Convention secretariat:

(a) To consult with relevant international organizations, and solicit information on their capabilities and abilities to support certain activities identified in the framework for meaningful and effective actions contained in the annex to this decision, and to report on its findings to the Subsidiary Body for Scientific and Technological Advice at its seventeenth session;

(b) To facilitate the implementation of the annexed framework in cooperation with the Parties, the Global Environment Facility and other relevant international organizations.

*8th plenary meeting
10 November 2001*

ANNEX

Framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention

A. Purpose

1. The purpose of this framework is to develop meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention by increasing and improving the transfer of and access to environmentally sound technologies (ESTs) and know-how.

B. Overall approach

2. The successful development and transfer of ESTs and know-how requires a country-driven, integrated approach, at a national and sectoral level. This should involve cooperation among various stakeholders (the private sector, governments, the donor community, bilateral and multilateral institutions, non-governmental organizations and academic and research institutions), including activities on technology needs assessments, technology information, enabling environments, capacity building and mechanisms for technology transfer.

C. Key themes and areas for meaningful and effective actions

1. Technology needs and needs assessments

Definition

3. Technology needs and needs assessments are a set of country-driven activities that identify and determine the mitigation and adaptation technology priorities of Parties other than developed country Parties, and other developed Parties not included in Annex II, particularly developing country Parties. They involve different stakeholders in a consultative process to identify the barriers to technology transfer and measures to address these barriers through sectoral analyses. These activities may address soft and hard technologies, such as mitigation and adaptation technologies, identify regulatory options and develop fiscal and financial incentives and capacity building.

Purpose

4. The purpose of technology needs assessments is to assist in identifying and analysing priority technology needs, which can form the basis for a portfolio of EST projects and programmes which can facilitate the transfer of, and access to, the ESTs and know-how in the implementation of Article 4, paragraph 5, of the Convention.

Implementation

5. Parties other than developed country Parties, and other developed Parties not included in Annex II, particularly developing country Parties, are encouraged to undertake assessments of country-specific technology needs, subject to the provision of resources, as appropriate to country-specific circumstances, from developed country Parties and other developed Parties included in Annex II. Other organizations in a position to do so may also assist in facilitating the

technology needs assessment process. Parties are encouraged to make available information on the results of their needs assessments in their national communications, other related national reports and channels (for example, technology information clearing houses) for consideration by the Subsidiary Body for Scientific and Technological Advice (SBSTA) on a regular basis.

6. Developed country Parties and other developed Parties included in Annex II to the Convention are urged to facilitate and support the needs assessments process, recognizing the special circumstances of least developed countries.

7. The Chairman of the SBSTA, with the assistance of the secretariat, in consultation with the expert group on technology transfer, is requested to organize a meeting with representatives from governments, experts drawn from the UNFCCC roster of experts, and representatives from relevant international organizations, to identify methodologies needed to undertake technology needs assessments and to report its findings to the SBSTA at its sixteenth session.

2. Technology information

Definition

8. The technology information component of the framework defines the means, including hardware, software and networking, to facilitate the flow of information between the different stakeholders to enhance the development and transfer of environmentally sound technologies. This technology information component of the framework could provide information on technical parameters, economic and environmental aspects of environmentally sound technologies and the identified technology needs of Parties not included in Annex II, particularly developing country Parties, as well as information on the availability of environmentally sound technologies from developed countries and opportunities for technology transfer.

Purpose

9. The technology information component serves to establish an efficient information system in support of technology transfer and to improve the generation and flow of, access to, and quality of technical, economic, environmental and regulatory information relating to the development and transfer of ESTs under the Convention.

Implementation

10. The Convention secretariat is requested:

(a) To build on the success of the current work, including that undertaken by the secretariat, in cooperation with the Climate Technology Initiative and other relevant organizations, *inter alia*, to develop a new search engine on the Internet that will allow for quick access to existing inventories of environmentally sound and economically viable technologies and know-how, including those conducive to mitigating and adapting to climate change;

(b) To identify, in collaboration with regional centres and other institutions, gaps in existing EST inventories, and update and develop inventories, as needed;

(c) To organize an expert workshop on technology information, including options for the establishment of an information clearing house and enhancement of information centres and networks, and to further define user needs, criteria for quality control, technical specifications and the role and contribution of the Parties;

(d) To accelerate its work on the development of a technology transfer information clearing house by coordinating with Parties and relevant United Nations agencies and other international organizations and institutions, and developing options for implementation, in particular, networking of an international technology information clearing house under the Convention, and enhancement of technology information centres and networks. A report on the options and recommendations should be provided to the SBSTA at its sixteenth session.

11. An information clearing house, including a network of technology information centres, should be established under the auspices of the secretariat, by the time of the eighth session of the Conference of the Parties, taking into consideration the conclusions of the SBSTA, at its sixteenth session, on the above-mentioned report.

3. Enabling environments

Definition

12. The enabling environments component of the framework focuses on government actions, such as fair trade policies, removal of technical, legal and administrative barriers to technology transfer, sound economic policy, regulatory frameworks and transparency, all of which create an environment conducive to private and public sector technology transfer.

Purpose

13. The purpose of the enabling environments component of the framework is to improve the effectiveness of the transfer of environmentally sound technologies by identifying and analysing ways of facilitating the transfer of environmentally sound technologies, including the identification and removal of barriers at each stage of the process.

Implementation

14. The following are means of creating enabling environments for technology transfer:

(a) All Parties, particularly developed country Parties, are urged to improve, as appropriate, the enabling environment for the transfer of environmentally sound technologies through the identification and removal of barriers, including, *inter alia*, strengthening environmental regulatory frameworks, enhancing legal systems, ensuring fair trade policies, utilizing tax preferences, protecting intellectual property rights and improving access to publicly funded technologies and other programmes, in order to expand commercial and public technology transfer to developing countries;

(b) All Parties are urged to explore, as appropriate, opportunities for providing positive incentives, such as preferential government procurement and transparent and efficient approval procedures for technology transfer projects, which support the development and diffusion of environmentally sound technologies;

- (c) All Parties are urged to promote joint research and development programmes, as appropriate, both bilaterally and multilaterally;
- (d) Developed country Parties are encouraged to promote further and to implement facilitative measures, for example export credit programmes and tax preferences, and regulations, as appropriate, to promote the transfer of environmentally sound technologies;
- (e) All Parties, particularly developed country Parties, are encouraged to integrate, as appropriate, the objective of technology transfer to developing countries into their national policies, including environmental and research and development policies and programmes;
- (f) Developed countries are encouraged to promote, as appropriate, the transfer of publicly owned technologies.

4. Capacity building

Definition

15. Within the context of enhancing the implementation of Article 4, paragraph 5, of the Convention, capacity building is a process which seeks to build, develop, strengthen, enhance and improve existing scientific and technical skills, capabilities and institutions in Parties other than developed country Parties, and other developed Parties not included in Annex II, particularly developing country Parties, to enable them to assess, adapt, manage and develop environmentally sound technologies.

16. Capacity building must be country-driven, addressing specific needs and conditions of developing countries and reflecting their national sustainable development strategies, priorities and initiatives. It is primarily to be undertaken by and in developing countries in accordance with the provisions of the Convention.

Purpose

17. The purpose of capacity building under this framework is to strengthen the capacities of Parties other than developed country Parties and other developed Parties not included in Annex II, particularly developing country Parties, to promote the widespread dissemination, application and development of environmentally sound technologies and know-how, to enable them to implement the provisions of the Convention. Capacity building under this framework should be guided by the principles established in the decisions related to capacity building (decisions 2/CP.7 and 3/CP.7).

Scope

18. The following sets out the initial scope of the needs and areas for capacity building of Parties, other than developed country Parties and other developed Parties not included in Annex II, particularly developing country Parties, for the transfer of, and access to, environmentally sound technologies and know-how:

- (a) Implementation of regional, subregional and/or national capacity-building activities related to the transfer and development of technologies;

- (b) Enhancement of the awareness of financial institutions, public, private and international, of the need to evaluate environmentally sound technologies on an equal footing with other technology options;
 - (c) Provision of opportunities for training in the use of environmentally sound technologies through demonstration projects;
 - (d) Enhancement of skills in the adoption, adaptation, installation, operation and maintenance of specific environmentally sound technologies and a broadening of understanding of methodologies for evaluating alternative technological options;
 - (e) Strengthening of the capacities of existing national and regional institutions relevant to technology transfer, taking into account country- and sector-specific circumstances, including South-South cooperation and collaboration;
 - (f) Training in project development and the management and operation of climate technologies;
 - (g) Development and implementation of standards and regulations promoting the use, transfer of, and access to ESTs, taking cognizance of country-specific policies, programmes and circumstances;
 - (h) Development of skills and know-how in conducting technology needs assessments;
 - (i) Improvement of knowledge on energy efficiency and the utilization of renewable energy technologies.
19. The following sets out the initial scope of the needs and areas for capacity building for the development and enhancement of endogenous capacities and technologies in developing countries. These shall be country-driven processes supported by developed country Parties:
- (a) To establish and/or strengthen, as appropriate, relevant organizations and institutions in developing countries;
 - (b) To establish and/or strengthen, to the extent possible, training, expert exchange, scholarship and cooperative research programmes in relevant national and regional institutions in developing countries for the transfer, operation, maintenance, adaptation, diffusion and development of environmentally sound technologies;
 - (c) To build capacity for adapting to the adverse effects of climate change;
 - (d) To strengthen the endogenous capacities and capabilities in research, development, technological innovation, adoption and adaptation, and technology for systematic observation relevant to climate change and its associated adverse effects;
 - (e) To improve knowledge in the areas of energy efficiency and the utilization of renewable energy technologies.

Implementation

20. Developed country Parties and other Parties included in Annex II shall take all practicable steps:

(a) To make available resources to assist developing countries in the implementation of capacity building to enhance the implementation of Article 4, paragraph 5, taking into account the provisions of paragraphs 18 and 19 above. These resources should include adequate financial and technical resources to enable developing countries to undertake country-level needs assessments and to develop specific capacity-building activities consistent with enhancing the implementation of Article 4, paragraph 5;

(b) To respond to the capacity-building needs and priorities of developing countries in a coordinated and timely manner, and support activities implemented at the national and, as appropriate, subregional and regional levels;

(c) To give particular attention to the needs of least developed countries and small island developing States.

21. All Parties should improve the coordination and effectiveness of capacity-building activities relating to the development and transfer of technologies. All Parties should promote conditions conducive to the sustainability and effectiveness of these capacity-building activities.

5. Mechanisms for technology transfer

Definition

22. The mechanisms for technology transfer, as identified in this section, are to facilitate the support of financial, institutional and methodological activities: (a) to enhance the coordination of the full range of stakeholders in different countries and regions; (b) to engage them in cooperative efforts to accelerate the development and diffusion, including transfer, of environmentally sound technologies, know-how and practices to and between Parties other than developed country Parties and other developed Parties not included in Annex II, particularly developing country Parties, through technology cooperation and partnerships (public/public, private/public and private/private); and (c) to facilitate the development of projects and programmes to support such ends.

Purpose

23. The purpose of the proposed mechanisms is to develop meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention by increasing the transfer of and access to environmentally sound technologies and know-how.

Implementation - Institutional arrangement for technology transfer

24. Functions: To provide scientific and technical advice on the advancement of the development and transfer of environmentally sound technologies and know-how under the Convention, including the preparation of an action plan to enhance the implementation of Article 4, paragraph 5, of the Convention.

25. The terms of reference of the expert group on technology transfer appear in the appendix below.
26. The expert group on technology transfer shall comprise 20 experts, as follows:
- (a) Three members from each of the regions of the Parties not included in Annex I, namely Africa, Asia and the Pacific, and Latin America and the Caribbean;
 - (b) One member from the small island developing States;
 - (c) Seven members from Parties included in Annex I; and
 - (d) Three members from relevant international organizations.
27. The secretariat shall facilitate the organization of meetings of the group and the preparation of its reports to the SBSTA at its subsequent sessions and to the Conference of the Parties.
28. The expert group on technology transfer shall meet twice a year in conjunction with the sessions of the subsidiary bodies.

APPENDIX

Terms of reference of the expert group on technology transfer

1. The expert group on technology transfer shall have the objectives of enhancing the implementation of Article 4, paragraph 5, of the Convention and advancing the technology transfer activities under the Convention.
2. The expert group on technology transfer shall analyse and identify ways to facilitate and advance technology transfer activities, including those identified in the annex to decision 3/CP.7, and make recommendations to the Subsidiary Body for Scientific and Technological Advice (SBSTA).
3. The expert group on technology transfer shall report on its work each year and propose a programme of work for the following year for decision by the SBSTA.
4. The members of the expert group on technology transfer shall be nominated by Parties for a period of two years and be eligible to serve two consecutive terms. The SBSTA shall ensure that half of the members of the expert group nominated initially shall serve for a period of three years, taking into account the need to maintain the overall balance of the group. Every year thereafter, half of the members shall be nominated for a period of two years. Appointment pursuant to paragraph 5 shall count as one term. The members shall remain in office until their successors are nominated. The members from three relevant international organizations shall serve on an issue-oriented basis.
5. If a member of the expert group on technology transfer resigns or is otherwise unable to complete the assigned term of office or to perform the functions of that office, the expert group may decide, bearing in mind the proximity of the next session of the Conference of the Parties, to request the group that had nominated the member to nominate another member to replace the said member for the remainder of that member's mandate. In such a case, the expert group shall take into account any views expressed by the group that had nominated the member.
6. The expert group on technology transfer shall annually elect a chairperson and a vice-chairperson from among its members, with one being a member from a Party included in Annex I and the other being a member from a Party not included in Annex I. The positions of chairperson and vice-chairperson shall alternate annually between a member from a Party included in Annex I and a member from a Party not included in Annex I.
7. The members of the expert group on technology transfer shall serve in their personal capacity and shall have expertise in any of the following areas, *inter alia*, greenhouse gas mitigation and adaptation technologies, technology assessments, information technology, resource economics, or social development.