Thematic Report on Transfer of Technology and Technology Cooperation

Please provide the following details on the origin of this report.

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Please provide summary information on the process by which this report has been prepared, including information on the types of stakeholders who have been actively involved in its preparation and on material which was used as a basis for the report.

This Thematic Report on Transfer of Technology and Technology Cooperation has been prepared by the: Ministry for the Foreign Affairs, The Department for Development Policy (Mr. Matti Nummelin), Finnish Environment Institute, National CBD CHM Focal Point (Mr. Jukka-Pekka Jäppinen), Ministry of the Environment, National CBD Focal Point (Ms. Marina von Weissenberg).

This report has been inspected by the Expert Group of International Biodiversity Affairs (Chair Mr. Esko Jaakkola, Ministry of the Environment) and approved by the National Biodiversity Committee of Finland (Chair Mr. Pekka Kangas, Ministry of the Environment), which is a multi-sectoral implementation and monitoring body of the Finnish National Biodiversity Strategy and Action Plan 1997-2005 (NBSAP).

You will find more biodiversity related information from the Finnish Clearing-House Mechanism of the Convention on Biological Diversity (LUMONET) (http//www.ymparisto.fi/lumonet).

Transfer of Technology and Technology Cooperation

Inventory and assessment

1. Has your country developed an inventory of existing technologies or category of technologies, including from indigenous and local communities, for the conservation and sustainable use of biological diversity and its components, in all the thematic areas and cross-cutting issues addressed by the Convention?	
a) no	X
b) an inventory under development	
c) an inventory of some technologies available (please provide some details)	
d) yes, a comprehensive inventory available (please provide details)	
2. Has your country assessed the potential impacts of relevant technologies on biological diversity and their requirements for successful application?	
a) no	X
b) yes, please give some examples	
3. Has your country carried out an assessment of the needs for relevant technologies?	
a) no (please specify the reasons)	X (see below)
b) yes, and please specify the needs met and the needs not met for existing technologies and for new technologies	

Implementation of some relevant articles of the Convention, relevant decisions adopted at the previous meetings of the Conference of the Parties and recommendations of SBSTTA

4. In implementing the thematic programmes of work adopted by previous meetings of COP, has your country achieved the outcomes identified in these programmes of work through technology transfer and technology cooperation? (Decisions II/10, III/11, IV/6, IV/7 and V/4)	
a) no	
b) yes, but only a few activities in some programmes	X
c) yes, and a wide range of activities in many programmes of work	
d) if yes, please specify these activities and programmes of work	X (see below)
5. Has your country undertaken technology cooperation with other Contracting Parties that lack the expertise and resources to assess the risks and minimize the negative impacts of introducing alien species? (Decision V/8)	
a) no	X
b) yes – please give details below (including types of technology transferred, actors involved, terms for transfer and means of access to technology)	
6. Has your country taken any steps or measures to facilitate transfer of technology to and technology cooperation with other Parties to develop and/or strengthen their capacity to implement the policy, program and practice for sustainable use of biological diversity? (Decision V/24)	
a) no	
b) yes, please specify detailed measures and steps	X (see below)
7. Could you provide examples or illustrations of benefit-sharing contractual agreements which have included technology cooperation and technology transfer as benefits to be shared? (Article 15)	
a) no	X
b) yes	
8. Has your Government taken measures, as appropriate, to ensure, as set out in the Article 16(3) that Contracting Parties providing genetic resources are provided access to and transfer of technology which makes use of those genetic resources? (Article 16)	
a) no	
b) yes, please provide some details	X (see below)
9. Have the taxonomic institutions in your country taken any initiatives in developing national priorities, both individually and regionally, in new technology? (Decision IV/1)	
a) no	
b) yes, in early stages of development	
c) yes, in advanced stages of development	
d) yes, some initiatives in place and some priorities identified	X
e) yes, comprehensive priorities identified	

10. Has your country been involved in technology development and/or transfer for the maintenance and utilization of *ex-situ* collections? (Decision V/26)	
a) no	
b) yes – please give details below (including types of technology transferred, actors involved, terms for transfer and means of access to technology)	X (see below)
11. Has the clearing-house mechanism in your country been further developed in order to assist in obtaining access to information concerning access to and transfer of technologies? (Decision V/14)	
a) no	
b) yes, please provide some examples	X (see below)

Role of public and private sectors in technology transfer and technology

12. Do you know of any examples of technology partnerships between public R&D institutions from developing countries and private-sector firms from industrialized countries? If so, to what extent have these partnerships involved	
a) the training of developing country scientists in the application of new technologies for the conservation and utilization of genetic resources	-
b) information exchange on new scientific exchange and technological advances	-
c) providing various technology components to developing country partner institutions	-
d) engaging in joint R&D?	-
13. Has your country taken any measures or developed any programmes to encourage the private sector or the public-private partnership to develop and transfer technologies for the benefit of governments and institutions of developing countries, including South-South cooperation?	
a) no	X (see below)
b) yes, please give details	
14. Have any type of incentives been established in your country to encourage the participation of the private sector in conservation and sustainable use activities as sources of new technologies and potential financers of conservation programmes?	
a) no	
b) yes, please give details	X (see below)

Impact of intellectual property rights on technology transfer and technology cooperation

15. Are the technologies your country has accessed or wishes to access in the public domain or covered by intellectual property rights?	
a) public domain	
b) intellectual property rights	
c) both	X
16. Have intellectual property rights been a limiting factor in acquiring technologies for the conservation and sustainable use of biological diversity?	

a) no	X
b) yes, please provide an example and specify the following: the type of technology sought (hard or soft technology); the area to which it is to be applied (e.g. forest, marine, inland waters, agriculture, etc.)	

Capacity-building for technology transfer and technology cooperation

17. Have adequate institutional structures been established and/or is adequate human capacity available to access relevant technologies, in your country?	
a) no	
b) yes	X
18. What, if any, have been the limiting factors in implementing relevant technologies?	
a) institutional capacity	-
b) human capacity	-
c) others - please specify	-
19. Does your country consider that access to information and training or lack thereof has been a limiting factor in access to and transfer of technology?	
a) no	X
b) yes, please provide some examples	
20. Has your country been able to identify relevant technologies in specific areas for the conservation and sustainable use of biological diversity in your country?	
a) no	
b) yes, please give details	X (see below)
21. Has your country developed national policy and established international and national institutions to promote technology cooperation, including through the development and strengthening of technical, human and institutional capabilities?	
a) no (please specify the reasons)	
b) yes, please give some details or examples	X (see below)
22. Has your country established joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention?	
a) no	X
b) yes, please give some details or examples	

Measures for facilitating access to and transfer of technology

23. Has your country established the mechanisms and/or measures to encourage and facilitate the transfer of technology to and technology cooperation with other Contracting Parties?	
a) no	
b) yes, please provide some details	X - There are no new separate mechanisms or

	measures for the technological transfer and technology cooperation, but, please, see the answers above.
24. Has your country established channels for access to the technologies developed and applied for attaining the objectives of the Convention?	
a) no	
b) yes, please provide detailed information	X - There are no new separate channels for the access to the technologies developed and attaining the objectives of CBD, but please, see the answers above.

Success stories of and constraints to technology transfer and technology cooperation

25. Has your country identified any success stories and opportunities of and constraints to transfer of technology and technology cooperation?	
a) no	X
b) yes, please provide detailed information	

Further comments

Finland regards it important, that CBD related development projects are being implemented in a good cooperation between recipient and donor countries. In addition to the ecological aspects, it is always important to take into consideration the socio-cultural and socio-economic aspects of recipient countries and their communities. Development projects to be implemented should have a good contact and mutual understanding also with the local users of natural resources. With the financial help from the GEF, the recipients of CBD related scientific-technological-technical cooperation could compile national assessments of their technology needs. With the help of these "shopping-lists" the donor countries could guide the planning of their developing projects and available resources to the most crucial issues and CBD relevant themes. There are several other suggestions and concrete actions to be found and incorporated into the future *CBD Working Programme for the Technology Transfer and Capacity Building* in the final report of the Norway/UNEP Conference on Technology Transfer and Capacity Building held in Trondheim 23.6.-27.6.2003.

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3 a)
In bilateral development cooperation the assessment of the need for relevant CBD technologies is being carried out (in individual development projects). However, there is no comprehensive or general assessment being made on the need for CBD relevant technologies in developing countries. At national level the need for relevant CBD technologies is not a prioritized issue.

4 d)
Marine and coastal biodiversity
- Support to Secretariat for Eastern Africa Coast Area Management (SEACAM) for managing the Eastern African Coastal Management Database (2001-2003, 300 000 €).
- Information and communication service for sustainable development in Namibia, including environmental database development (2000-2003, 410 000 €).
- Masoala Marine Parks Management, Madagascar (2001-2003, 160 000 €).

Agricultural biodiversity
- Support to FAO Support to the local agricultural production and crop diversification in DPR Korea (2000-2001, 168 200 €).
- Sustainable food production and soil protection in China by the help of symbiotic leguminous species, via The Academy of Finland (2003-2005, 300 000 €).

Forest biodiversity
- Creation of national strategy for biodiversity in the Amazon region, including biodiversity database (SIAMAZONIA), Support to sustainable management of Allpahuayo-Mishana Reserve (2003, 500 000 €).
- Cooperation in forest conservation and sustainable development in Brazil, the creation, trial and dissemination of a replicable model of sustainable development for nature conservation (2003, 600 000 €).
- Forest corridors, an alternative approach for the Golden Lion Tamarin habitat restoration in Brazil (2002, 21 900 €).
- Project of participative management and conservation of biodiversity in Ecuador, Conservation of biodiversity at the Alto Choco Biological Reserve's mountain cloud forests area (2002-2003, 37 000 €).
- Development and support project for the Itatiaia National Park in Brazil, to improve and develop the Itatiaia national park to receive nature-tourism in ecologically sustainable way and to renovate the surrounding areas of the park and promote environmental protection (2002-2003, 105 000 €).
- Conservation of Endangered Species of Fishes and Forests of Lake Malawi National Park: Environmental and Economic Strategies (2002-2004, 150 000 € ?).
- Restoration of biological corridors in the Terai Arc landscape, Nepal (2003-2005, 600 000 € ?)
- East-Usambara Conservation Area Management Programme, EUCAMP – East Usambara Catchment Forest Project, EUCFP (1990-2002, 7 542 000 €).

6 b)
Ministry of Agriculture and Forestry, Ministry for the Environment and Ministry for the Foreign Affairs have participated in the Finnish-Russian Northwest Russia Development Programme on sustainable forestry and the conservation of biodiversity (NWRDP). The programme has been implemented since 1997 with a goal to promote balanced development in the forest sector, sustainable forestry and the conservation of biodiversity in Republics of Karelia and Komi, and in Leningrad, Murmansk, Vologda, Novgorod and Arkangel regions. The programme included the designation of a network of nature reserves lying on both sides of the Finnish-Russian border, known as the Green Belt of Fennoscandia.
See also the answer to the question 4d.

8 b)

- Support to SADC Centre for Plant Genetic Resources in Lusaka (2002, 90 000 €).
- Support to FAO Animal Gene Project (2001, 252 300 €).
- Support to Genetic Resources Action International (GRAIN) on local and regional grassroots-organizations, facilitating research and increasing information (2002, 100 000 €).
- Virus diseases and sweet-potato production in East Africa, via The Academy of Finland (2003-2005, 220 000 €).
- IPALAC support, Improving utilization and research concerning crops and trees at arid and semi-arid areas (2002-2003, 500 000 €).
- Support to International Centre of Insect Physiology and Ecology (ICIPE) on indigenous expertise and capacity building in Africa and the tropics in general (2000-2003, 336 400 €).

10 b)
- Biological Diversity of Peruvian Amazon, including *ex-situ* collections of rain forest fruit and medicinal trees (Botanical Garden-Arboretum El Huayo) for University of Peruvian Amazonia and Amazonian Research Institute including electrical database (SIHUAYO) (2000-2002, 470 000 €).

11 b)
- The Finnish CBD CHM (LUMONET) includes some general information on Finland's possibilities to enhance the access and transfer of CBD technologies. However, this information is not very comprehensive and well focused on the objectives of CBD, because it has not been produced especially for the needs of CBD by different stakeholders. In the future, there should be, in the Finnish CHM, a separate and more focused section on this topic.

13 a)
Finland do not have a separate programme or initiative to enhance the participation of private sector in foreign biodiversity projects. However, some objectives of CBD have been incorporated in development cooperation projects funded by Finland. The technical assistance for these projects is usually provided by private companies. Examples of these kind of projects include promoting the preservation, management and sustainable use of biodiversity in Tanzania, Peru, Vietnam, and Namibia. In China, Finland has supported through Metsähallitus Consulting the preparation of the Biodiversity Action Plan for Hunan Province 2000, according to the principles set out in the CBD (see *The Implementation of the National Action Plan for Biodiversity in Finland 2000-2001. 2nd Progress Report (Summary). Ministry of the Environment. 64 pp. Helsinki*) provided to the Secretariat in 2002).

14 b)

At national level, the Government of Finland have established an *Action Plan to Improve the Protection of the Forest Biological Diversity in Southern Finland* (METSO). It's pilot projects will be implemented in order to test new biodiversity protection instruments on a voluntary basis (e.g. a scheme for compensating landowners for protecting nature values, competitive bidding, and biodiversity cooperation network). In the compensation scheme, a landowner, under a special contract, maintains or adds to the nature values in his/her's forests, and is compensated with an income from the "byer" of the nature values, such as the state or a foundation. In competitive bidding, the authorities ask the landowners to offer areas for protection. The best offers of the competition are approved for implementation. The METSO Action Plan also proposes local cooperation between forest owners so as to safeguard nature values in more extensive areas. Biodiversity cooperation networks can also include other local bodies.

The Government usually purchases the areas to be protected. In addition to the state-owned protected areas, there are also small privately-owned protected areas. Private landowners can ask the governmental bodies to establish privately-owned protected areas on the basis of Nature Conservation Act. To an increasing degree, and on the basis of voluntary agreements, private landowners can also be in charge of the site management of those protected areas. In a few cases, also private enterprises have privately owned protected areas. A recent example is the Repovesi National Park, were a forest company (UPM

Kymmene Corporation) donated 560 hectares of forest land to the state in 2001 to enable the establishment of this new national park. This company has furthermore decided to conserve 1,400 hectares of its own forests in the area surrounding this new national park.

Additionally, METSO Action Plan includes advisory services, education, research and monitoring. The need for additional government financing during 2003-2007 is about 60 million EUR. By 2006, an impact assessment of the measures taken will provide the basis for deciding on the need for and the extent of a nature conservation programme based on the Nature Conservation Act.

20 b)
Finland's National Biodiversity Strategy and Action Plan has identified priority areas of conservation, management and sustainable use of biodiversity in Finland. In these areas, the relevant CBD technologies include e.g. the technologies and know-how relevant to the identification, characterization, monitoring and management of species and ecosystems; technologies appropriate for the *in-situ* and *ex-situ* conservation and for sustainable use of biological diversity and its components. These technologies (e.g. conservation, management and sustainable use processes, hardware/software equipment etc.) are science/knowledge intensive.

21 b)
The Ministry for Foreign Affairs is responsible for the CBD relevant development cooperation in Finland. The objectives of the CBD have been integrated into state financed development projects. In addition to the traditional conservation actions (e.g. creating protected areas) the developing projects have new tools, such as environmental education, alternative livelihood creating and community based conservation projects e.g. in small villages.

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