

Technology transfer and technology cooperation

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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.

Experts/Actors involved in the various fields of technology transfer have been invited to prepare inputs for the report. On the basis of these inputs a first draft of the thematic report has been prepared and sent to the members of the "National Commission on Biodiversity" for comments. Members of this Commission are representatives of Federal Ministries, the Provincial Governments, interest groups (e.g. Forest Owner Associations, Federal Chamber of Commerce), Federal Agencies involved in biodiversity issues (e.g. Federal Environment Agency, Federal Office and Research Centre for Forests), NGOs (e.g. WWF, Greenpeace Austria, Arch Noah) as well as representatives from the scientific community (e.g. University of Vienna, Austrian Academy of Science). The Commission is chaired by the Ministry of Agriculture, Forestry, Environment and Water Management. It has been set up in order to coordinate the various activities, programmes etc. in the field of biodiversity, especially related to the implementation of the CBD and to provide a platform for an exchange of information on biodiversity issues.

Technology transfer and technology cooperation

Inventory and assessment

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| 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 | |
| b) an inventory under development | |
| c) an inventory of some technologies available (please provide some details) | Forestry Sector: <ul style="list-style-type: none"> - Genetic inventory in Norway spruce, common beech, scots pine and oak by means of different DNA technologies (AFLP, cpDNA analysis, SSR, SSAP) - Species diversity of soil organisms in protected forests (strict forest reserves) (16SrRNA analysis) |
| d) yes, a comprehensive inventory available (please provide details) | Black poplar |
| 2. Has your country assessed the potential impacts of relevant technologies on biological diversity and their requirements for successful application? | |
| a) no | |
| b) yes, please give some examples | Forestry sector: <ul style="list-style-type: none"> - Austria is involved in impact studies on genetically modified organisms (GMOs). However, these studies are still in their infancies in the forestry sector - Forest tree seed certification - Regulation for clonal forestry |
| 3. Has your country carried out an assessment of the needs for relevant technologies? | |
| a) no (please specify the reasons) | |
| b) yes, and please specify the needs met and the needs not met for existing technologies and for new technologies | Funding of diversity assessment research in forest trees, supporting research on sweet potato germplasm diversity assessment and impact of GMO oilseed rape on natural Brassica sp. |

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

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| 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 programs | |
| c) yes, and a wide range of activities in many programs of work | |
| d) if yes, please specify these activities and programmes of work | IV/7: Inventory on biodiversity of soil organisms in natural, protected forests (strict forest reserves); Genetic inventory in Norway spruce, common beech, scots pine, black poplar and oaks by means of different DNA technologies. |
| 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 | |
| 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) |
| 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 | Research Co-operations (ARC Seibersdorf research GmbH) with CGIAR on sweet potato germplasm diversity assessment including associated nitrogen fixing bacteria (special project under the terms of Austrian Development Research Funds via the Federal Ministry of Finance) |

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| 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 | |
| b) yes | X (see below) |
| 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 (Example: Federal Office and Research Centre for Forests: Molecular technologies to assess the intraspecific variation of forest trees and the interspecific variation in soil organisms.) |
| e), yes, comprehensive priorities identified | |
| 10. Has your country been involved in technology development and/or transfer for the maintenance and utilization of <i>ex situ</i> 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) |

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| 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 | X |
| b) yes, please provide some examples | |

Role of public and private sectors in technology transfer and technology

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| 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 programs 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 | |
| b) yes, please give details | X (see below) |
| 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 a sources of new technologies and potential financiers of conservation programmes? | |
| a) no | |
| b) yes, please give details | |

Impact of intellectual property rights on technology transfer and technology cooperation

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| 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 | |
| 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..) | Whereas it has been made clear that the technologies developed in Austria are accessible for developing countries, it has become increasingly difficult to acquire information and/or genetic material for sustainable use and development of crop diversity in developed countries. |

Capacity-building for technology transfer and technology cooperation

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| 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 | There is ample human capacity within existing institutions but funding of projects is limited |
| 18. What, if any, have been the limiting factors in implementing relevant technologies? | |
| a) institutional capacity | |
| b) human capacity | |
| c) others-please specify | Lack of funds |

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| 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 | <ul style="list-style-type: none"> - Funding of studies on combining plant geography and genomic diversity fingerprinting. - As regards the forestry sector, criteria and indicators have been developed for both the genetic and the species level. |
| 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 | <p>Austria actively participates in the European Co-operative Programme for Plant Genetic Resources as well as – concerning forests - in the IPGRI (FAO). Within the Ministerial Conference on the Protection of Forests in Europe the promotion of technology co-operation is addressed as well. Austria is actively involved in CGIAR and contributions to the CGIAR are currently under consideration.</p> |
| 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 | |
| b) yes, please give some details or examples | <p>Examples regarding the forestry sector:</p> <ul style="list-style-type: none"> - Proactive membership in several networks of the European Forest Genetic Resources Programme (EUFORGEN) - Joint Research programme "Biodiversity of soil organism in forests" |

Measures for facilitating access to and transfer of technology

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| 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 | X (see below) |
| b) yes, please provide some details | |
| 24. Has your country established channels for access to the technologies developed and applied for attaining the objectives of the Convention? | |
| a) no | X |
| b) yes, please provide detailed information | |

Success stories of and constraints to technology transfer and technology cooperation

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| 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

General comment on the questions:

Since a wide range of stakeholders are involved in the elaboration of the thematic report and some of them are not familiar with the CBD language, explanatory notes to clarify the specific scope of interest would have been helpful.

5 b)

The Austrian Development Cooperation is supporting initiatives aiming at minimizing the risks and negative impacts of alien species to a very limited extent, integrated in development co-operation programmes only. Example:

Promotion of beekeeping of local bee species (*apis cerana*) in the Himalayan region in order to combat the negative impact on traditional land use systems by the growing introduction of alien bee species (*apis mellifera*). Transfer of know how; Project partner is ICIMOD (Nepal)

7 b)

MoU between the International Potato Center (CIP-CGIAR) and Seibersdorf research concerning "Sweet potato genomics - development of molecular marker system for diversity assessment, genome mapping, and QTL analysis"

- International Training Programme on Conservation and Management of Forest Genetic Resources (FGR) in Eastern Europe, jointly organized by the Federal Ministry of Agriculture and Forestry, Environment and Water Management (BMLFUW) of Austria and the International Plant Genetic Resources Institutes (IPGRI) in technical collaboration with the Food and Agriculture Organization of the United Nations (FAO), held in Gmunden, Austria from 29 April to 12 May 2001. The two-weeks workshop was attended by 22 young scientists and practitioners from 15 countries (Belarus, Croatia, Czech Republic, Hungary, Latvia, Lithuania, Macedonia FYR, Moldova, Poland, Romania, Russian Federation, Slovenia, Ukraine, Yugoslavia). It was organized as a contribution to the implementation process of international resolutions from the Ministerial Conferences for the Protection of Forests in Europe.

The overall objective of this Training Programme is to improve conservation and to promote sustainable use of forest genetic resources in eastern Europe.

In addition to the training material prepared for the course, the trainees had a unique opportunity to meet scientists from different institutions throughout Europe and to create links for future cooperation. They also obtained access to information that is not readily available in their own countries and the opportunity to discuss their specific research and technical needs in working groups.

8 b)

The "Sweet potato" MoU provides unrestricted use of all results for the CGIAR system and partners in developing countries.

Examples for other ongoing programmes: European Forest Genetic Resources Programme (EUFORGEN), cooperatives with CGIAR centers such as the draft proposal of Virtual Training Center for Capacity Building (VTCCB) - International capacity building programme: Conservation and use of biological diversity for development for cooperation between the International Plant Genetic Resources Institute (IPGRI) and the Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW), Austria.

10 b)Seibersdorf research:

The "Sweet potato" MoU includes application of results to the relevant worldwide gene bank collections

Federal Office and Research Centre for Forest:

Collection of Ectomycorrhizal fungi;

Forest trees- The domestic programme to conserve forest genetic resources: Ex situ means are taken as complementary action whenever in situ measures are restricted for instance by restricted effective population sizes. Ex situ measures comprises clonal archives and conservation seed stands, and for a limited number of species the long-term storage of germplasm. Soil organisms – Bacterial Artificial Chromosome (BAC) library (in cooperation with the Seibersdorf research) planned.

13 b)

The development of a new co-financing instrument (mixed financing) in development co-operation for "private business partnerships in the MSME (micro small and medium-sized enterprises) area" opens the possibility for members, including NGOs, from developing countries to co-operate with Austrian companies to realise projects in their home countries. High social and environmental standards are required.

See also: www.bmaa.gv.at/eza

23 a)

Environmental protection, with a special focus on conservation of biological diversity and sustainable use of resources, is one of the overall goals in the new Austrian Law for Development Co-operation (2001). The Austrian development co-operation incorporates environmental aspects in its programmes and projects and systematically conducts EIAs for projects, thus promotes the transfer of ecologically sound and innovative technologies.

For details see: www.bmaa.gv.at/eza