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Outline of UN activities and initiatives on Environment Related Capacity Building and Technology Support

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Intergovernmental Working Group on an Intergovernmental Strategic
Plan for Technology Support and Capacity-building,
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Introductory Note

At its eighth special session held in Jeju/Republic of Korea, the Governing Council/Global Ministerial Environment Forum in its decision SS.VIII/1 decided “to establish a high-level open-ended intergovernmental working group of the Governing Council/Global Ministerial Environment Forum with the mandate to prepare an intergovernmental strategic plan for technology support and capacity-building for its consideration at its twenty-third session.” In the same decision it requested the Executive Director “to make available relevant reports, including an inventory of existing capacity-building and technology support activities of the United Nations Environment Programme and of other relevant international organizations, to assist the high-level working group, as necessary, noting that the Environmental Management Group could play an active role in that regard.”

Furthermore, at the first meeting of the high-level working group, several governments expressed the need to have a better understanding of the mandates, roles and activities of United Nations organisations active in the field of technology support and capacity building for environment and sustainable development.

In response to these requests, the Environmental Management Group decided to establish an Issue Management Group, under the co-chairmanship of UNEP and UNDP, with the mandate to provide a coordinated contribution of its members to the high-level working group. As a first step, the EMG Secretariat has compiled an abridged inventory of the mandates, roles and activities of the EMG member organisations in this area.

The annex to this note contains a first draft of this compilation, which will be further developed by the Issue Management Group, taking into account discussions and decisions at the second meeting of the high-level working group.

1. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

Mandate

To minimize the generation of hazardous wastes in terms of quantity and hazardousness; to dispose of them as close to the source of generation as possible; and to reduce the movement of hazardous wastes.

Objective/s of the environment related capacity building and technology support activities

Implementation of the convention in the areas related to the environmentally sound management of hazardous wastes and other wastes

Major environment related capacity building, technology transfer activities:

Organization of training programs

1. Developing training programmes and organizing national and regional training activities
2. Preparation and conduct of several workshops on the coordinated implementation of multilateral environmental agreements on chemicals and wastes

Developing training manuals and guidelines

The Secretariat of the Basel Convention (SBC) has published several technical guidelines, training manuals of the Basel Convention and other documents, listed in the annex (I), and, with the help of Parties and experts from Governments, specialized agencies, the industrial sector and universities, is developing, or contributing to, training manuals, instruments and decision-supportive tools concerning the implementation of the Basel Convention and the environmentally sound management of hazardous wastes and other wastes, such as:

- (a) Training manual for the preparation of PCB management plans – already finalized, in English, French and Spanish;
- (b) Database for the inventory and environmentally sound management of PCB-containing equipments – in English, French and Spanish;
- (c) Training manual for the preparation of health-care management plans in sub-Saharan Africa, prepared jointly by the Secretariat and the World Health Organization (WHO);
- (d) Training manual for the preparation of used lead-acid battery management plans, prepared jointly by the Secretariat, the United Nations Conference on Trade and Development (UNCTAD), the International Lead Management Centre (ILMC) and the University of the West Indies – still at the drafting stage;

- (e) Electronic (web-based) waste-tracking system, prepared jointly by Semarnat-Mexico, the Secretariat and Gedden Co.

Strategic Plan for the Implementation of the Basel Convention

The Conference of the Parties adopted the Strategic Plan for the Implementation of the Basel Convention to 2010 and agreed that the operational Basel Convention Regional Centres (BCRCs) will be one of the key delivery mechanisms to implement the Strategic Plan at regional level. SBC is supporting the implementation of several regional and subregional capacity-building and demonstration projects, currently being implemented in close collaboration with the BCRCs concerned and other stakeholders

Preparation of regional and national projects

The Secretariat is contributing to the preparation of prominent regional project activities and programmes in close collaboration with other important stakeholders.

1. Africa Stockpile Project – a joint project of the World Wide Fund for Nature (WWF), the Food and Agriculture Organization of the United Nations (FAO), the World Bank, CropLife, the African Union, UNEP Chemicals and other bodies;
2. Inter-agency cooperation with the International Maritime Organization (IMO) and the International Labour Organization (ILO) to initiate project activities in countries where ship dismantling occurs, with a view to assisting those countries in implementing the technical guidelines adopted in the context of the Basel Convention, IMO and ILO.
 - (a) Regional workshop on national reporting and the undertaking of national inventories of hazardous wastes under the Basel Convention (Moscow, 25–29 August 2003);
 - (b) Regional training seminars for customs, port and law enforcement officers, Dar-es-Salaam, United Republic of Tanzania, September 2002, and Port Said, Egypt, 15–19 September 2003.
 - (c) Regional Workshop for the Promotion of the Ratification of the Protocol on Liability and Compensation, Buenos Aires, 22-25 June 2004.
 - (d) Regional Workshop for the Promotion of the Ratification of the Protocol on Liability and Compensation, San Salvador, 28 June-01 July 2004.
 - (e) First regional workshop within the project PO/BD/4030-03-18 “Preparation of National Inventories and National Plans for the Environmentally Sound Management of PCB and PCB containing equipment in Central America”, 7-9 July 2004, San Salvador, El Salvador.

References for further information

www.basel.int

Annex I. Technical guidelines and Training Manuals

No.	Title	Languages	No. of pages ²
2003/1	Training Manual for the Preparation of a National Environmentally Sound Management Plan for PCBs and PCB-contaminated Equipment in the Context of the Basel Convention	E / F	98
2003/2	Technical Guidelines for the Environmentally Sound Management of the Full and Partial Dismantling of Ships	E, F, S,	106
2003/3	Technical Guidelines for the Environmentally Sound Management of Biomedical and Healthcare Wastes	E, F, S,	71
2003/4	Interim Guidelines on the Hazardous Characteristics H12 – Ecotoxic	E, F, S,	20
2003/6	National Reporting under the Basel Convention (2000) Compilation Part I: Status of Information	E	198
2003/7	Restrictions on the Transboundary Movement of Hazardous Wastes and Other Wastes (as reported by Parties in response to the 2000 questionnaire on transmission of information in accordance with article 13 of the Convention)	E	123
2003/9	Technical Guidelines for the Environmentally Sound Management of Waste Lead-acid Batteries	E, F, S,	63
2004/	Training manual for the preparation of used lead-acid battery management plans, prepared jointly by the Secretariat, the United Nations Conference on Trade and Development (UNCTAD), the International Lead Management Centre (ILMC) and the University of the West Indies	E	
2004/	Training Manual for the Preparation of a National Environmentally Sound Management Plan for PCBs and PCB containing Equipment	S	
2004/03	Workshop reports Used Lead-acid Batteries year 2003	E / S	245

2. The Convention on Biological Diversity (CBD)

Mandate

The conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Contributing to ensuring an adequate level of protection in the field of the safe transfer, handling and use of living modified organisms resulting from modern biotechnology that may have adverse effects on the conservation and sustainable use of biological diversity, taking into account risks to human health.

Objective/s of the capacity building and technology support activities

Successful implementation of the convention specifically in the programme areas and cross-cutting issues of the Convention.

To ensure that technical, scientific, institutional and administrative capacity is adequate for the effective cooperation, transfer, diffusion and adaptation of technology as well as technical and scientific cooperation, under Articles 16 to 19 of the Convention.

To ensure that human and physical capacity is adequate for the effective development of incentive measures for the conservation and sustainable use of biodiversity.

Strengthening the capacities of Parties, regions, local communities and other stakeholders, to manage sustainably coral-reef ecosystems and their associated marine biological diversity so as to maintain their ecosystem benefits and to promote awareness and responsible action to prevent and mitigate physical degradation and destruction of coral reefs and its effects on marine biological diversity.

Facilitating the participation of indigenous and local communities and the application of traditional knowledge favourable to the conservation of biodiversity and sustainable use of biological diversity of inland water ecosystems. In addition, the work programme stresses the need for capacity building in taxonomy of inland water organisms.

Strengthening the capacities of farmers, indigenous and local communities, and their organisations and other stakeholders, to manage sustainably agricultural biodiversity so as to increase their benefits, and to promote awareness and responsible action'. The objective is accompanied by a range of activities, ways and means, and timing of the expected outputs

In accordance with the Millennium Development Goals, the implementation of the CBD's programme of work aims to make a direct contribution to poverty alleviation

and other human development goals. Its successful implementation will require national and regional capacity-building and financial resources for developing country Parties, in particular the least developed and small island developing States among them.

Facilitating and supporting the development and strengthening of capacities for the ratification and effective implementation of the Cartagena Protocol on Biosafety at the national, sub regional, regional and global levels in a timely manner.

Major Capacity building, technology transfer activities:

Marine and Coastal Biodiversity

Successful implementation of the convention specifically in the areas such as integrated marine and coastal area management, marine and coastal living resources, marine and coastal protected areas and on invasive alien species.

Strengthening the capacities of Parties, regions, local communities and other stakeholders, to manage sustainably coral-reef ecosystems and their associated marine biological diversity so as to maintain their ecosystem benefits and to promote awareness and responsible action to prevent and mitigate physical degradation and destruction of coral reefs and its effects on marine biological diversity.

Inland water biological diversity

Facilitating the participation of indigenous and local communities and the application of traditional knowledge favourable to the conservation of biodiversity and sustainable use of biological diversity of inland water ecosystems. In addition, the work programme stresses the need for capacity building in taxonomy of inland water organisms.

Agricultural biodiversity

Strengthening the capacities of farmers, indigenous and local communities, and their organisations and other stakeholders, to manage sustainably agricultural biodiversity so as to increase its benefits, and to promote awareness and responsible action'. The objective is accompanied by a range of activities, ways and means, and timing of the expected outputs

Forest Biodiversity

The CBD Expanded Programme of Work on Forest Biological Diversity¹ acknowledges the need to ensure capacity-building to allow for its implementation by all relevant stakeholders. It also highlights capacity building and strengthening:

- for prevention and post-fire forest biodiversity restoration at the community, national and regional levels

¹ Decision VI/22

- for sustainable use of timber and non-timber forest products
- for indigenous and local communities to generate opportunities for sustainable use of forest biodiversity and for access to markets
- for indigenous and local communities to resolve land rights and land disputes in order to sustainably manage forest biodiversity
- for indigenous and local communities to negotiate benefit-sharing arrangements
- for effective law enforcement
- for monitoring forest biodiversity at the national level.
- In addition, Parties are asked to increase the emphasis on capacity-building, research and training.

Island Biodiversity

The Conference of the Parties also identified island biodiversity as the new thematic area to be developed under the Convention. To this end, the Executive Secretary was requested to develop a preparatory process for the work of the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) of the Convention on island biodiversity which will lead to the development of a programme of work for island biodiversity, to be adopted at the eighth meeting of the Conference of the Parties to be held in Brazil in the first half of 2006.

Access to genetic resources and benefit sharing

With respect to the issue of access to genetic resources and benefit-sharing, an Action Plan on capacity for access to genetic resources and benefit-sharing was adopted by the Conference of the Parties at its seventh meeting in February 2004, available in annex to decision VII/19F. The objective of the Action Plan is to facilitate and support the development and strengthening of capacities of individuals, institutions and communities for the effective implementation of the provisions of the Convention related to access and benefit-sharing. The Action Plan is to provide a framework for identifying country, indigenous and local community and all relevant stakeholder needs, priorities, mechanisms of implementation and sources of funding. It also recognises that in view of the multiplicity of actors undertaking capacity-building initiatives for access to genetic resources and benefit-sharing, mutual information-sharing and coordination at all levels should be promoted to encourage synergies and to identify gaps in coverage. On this basis, a database on capacity-building projects was developed to facilitate information-exchange on ongoing capacity-building activities and is available in the Clearing House Mechanism of the Convention at the following address: <http://www.biodiv.org/programmes/socio-eco/benefit/projects.aspx>. The database includes information on various ongoing capacity building projects related to access to genetic resources and benefit-sharing.

Dry and sub-humid lands

The CBD programme of work on dry and sub-humid lands² also stresses the importance of capacity building, specifically in relation to multidisciplinary and interdisciplinary case studies on management practices, assessment of dryland

² Decision V/23

biodiversity, the need for research and development programmes with a focus on building local capacity for effective conservation and sustainable use of dryland biodiversity, and targeted actions in response to identified needs. COP-7 requested the Executive Secretary to develop mechanisms for facilitating the synergistic implementation of the Rio Conventions and for joint activities to focus on information systems, institutional arrangements and joint planning activities between the coordinating bodies and focal points of the conventions.

The Convention Clearing House Mechanism

The Clearing-House Mechanism (CHM) of the CBD was established in accordance with article 18 of the Convention ‘to promote and facilitate technical and scientific cooperation’. The Strategic Plan of the CHM³ identifies training and capacity-building as an objective under its first goal, promotion and facilitation of scientific cooperation. The third goal of the Plan, development of the CHM Focal Points and their partners, includes providing start-up assistance and ongoing capacity-building, as one of six objectives. The Conference of the Parties (COP), at its sixth meeting, urged the Executive Secretary to convene additional capacity-building workshops at the national, subregional and regional levels referred to in decision V/14 of the COP for CHM activities and training in support of national capacities to implement the Convention. At its seventh meeting, the COP also requested the Executive Secretary to convene, subject to the availability of financial resources, regional workshops as a catalysing mechanism to allow for the interaction of international thematic focal points with the national focal points to further enhance the scientific and technical cooperation goal of the clearing-house mechanism and to build capacities at the national level with regard to use of and access to new information technologies. Building on decision VI/18 which requested the Executive Secretary to update and further develop the clearing-house mechanism tool kit referred to in decision IV/2 of the Conference of the Parties, incorporating the use of guidelines, best practices and new information formats, protocols and standards to assist Parties in the establishment or improvement of national, subregional or regional focal points for the clearing-house mechanism, the seventh meeting of the Parties requested the Executive Secretary to Update the clearing-house mechanism toolkit to be used as a meta-toolkit, linking the different existing toolkits with a view to optimize their resources and assist users to choose the most appropriate technology.

Programme of Work for the Global Taxonomy Initiative⁴

The 6th Conference of the Parties to the CBD endorsed the Programme of Work for the Global Taxonomy Initiative. The GTI programme of work was designed to focus on supplying the needed taxonomic information to support the major work areas of the Convention, and the need to support capacity-building to ensure the ability of countries to undertake the priority taxonomic work required to implement the Convention. The work programme stresses the need to build capacity for taxonomic activity in all regions, especially developing countries, including reference materials, databases, and taxonomic expertise relevant to the objectives of the Convention. Operational objective 1 – ‘assess taxonomic needs and capacities at national, regional

³ <http://www.biodiv.org/doc/meetings/cop/cop-05/information/cop-05-inf-03-en.pdf>

⁴ Decision VI/8

and global levels for the implementation of the Convention’ – is specifically focusing on capacity building.

The GTI programme of work was designed to focus on supplying the needed taxonomic information to support the major work areas of the Convention, and the need to support capacity-building to ensure the ability of countries to undertake the priority taxonomic work required to implement the Convention.

COP-7 invited Parties, other Governments, regional and international organizations to take full account of the importance of taxonomic capacities in achieving the goals of the Convention, to support taxonomic activities to attain the 2010 target, and to provide all necessary support to national, and where appropriate regional, taxonomic centres of research and expertise; and *urges* Parties, other Governments and relevant funding organizations to provide adequate and timely support to developing countries to assist in the implementation of the Global Taxonomy Initiative, and for integrating taxonomic capacity-building activities into thematic and cross-cutting programmes, including supporting activities and projects, such as, where appropriate, stand alone capacity-building projects.

The ecosystem approach

At its 7th meeting, the Conference of the Parties invited the Executive Secretary, Parties and international organizations to initiate and facilitate as appropriate capacity-building, technology transfer, and awareness raising to assist implementation of the ecosystem approach. In addition, it urged Parties to create an enabling environment for the implementation of the ecosystem approach, including through development of appropriate institutional frameworks. In offering further guidance on the implementation of the ecosystem approach principles, decision VII/11 recognized that capacity-building is important for the success of the ecosystem approach. Adequate financial support and appropriate infrastructure support are important requirements to the success of an approach. So too is access to suitable expertise and the sharing of knowledge and experience. In undertaking the ecosystem approach it is useful to build from lessons learnt from other undertakings applying the ecosystem approach. Technology, including decision support tools and inventory systems, which have been developed in other applications of the ecosystem approach, may be transferable or can be adapted.

Invasive alien species

The 7th meeting of the COP recognized the need to strengthen institutional coordination at international, regional and national levels on invasive alien species as a trade-related issue and requested the Executive Secretary to collaborate, whenever feasible and appropriate, with the Secretariat of the World Trade Organization in its training, capacity-building and information activities, with a view to raising awareness of the issues related to invasive alien species, and promoting enhanced cooperation on this issue. It further requested the Subsidiary Body on Scientific, Technical and Technological Advice to establish an ad hoc technical expert group to address gaps and inconsistencies in the international regulatory frameworks at global, and regional levels and for the expert group to develop practical options on how to address these gaps and inconsistencies, where possible within the context of existing

international frameworks including identifying, if appropriate, those gaps which should be addressed at the national level, in order to achieve the full and effective implementation of Article 8(h), taking into account the costs/benefits of options for addressing the gaps and inconsistencies and the need for appropriate capacity-building at the national and regional level, to support this work.

Climate Change

Decision VII/15 on climate change invited sources of funding to provide financial support to developing country Parties, in particular the least developed and small island developing States among them, and countries with economies in transition, for assistance in capacity-building with the aim of increasing the effectiveness in addressing environmental issues through their commitments under the Convention on Biological Diversity, the United Nations Framework Convention on Climate Change, and the United Nations Convention to Combat Desertification, inter alia by applying the ecosystem approach.

Protected Areas

With regards to protected areas, decision VII/28 emphasizes the need for capacity-building, in developing countries, particularly in the least developed and the small island developing States amongst them, and countries with economies in transition, in order to enable them to implement the programme of work. This is further specified in its programme element 3, goal 3.2, to build capacity for the planning, establishment and management of protected areas.

Mountain Biological Diversity

The programme of work on mountain biological diversity, adopted by COP-7 in its decision VII/27, specifies in its programme element 3 supporting actions for conservation, sustainable use and benefit-sharing, capacity-building activities, such as development of measures and information-sharing to facilitate the involvement of indigenous and local communities and the promotion of systems tailored to the specific conditions of mountain ecosystems, such as workshops, courses, study tours, community exchanges, communications from the Convention on Biological Diversity, education and publications efforts, in line with the Global Initiative on Communication, Education and Public Awareness.

Incentive Measures

At its 6th meeting, the Conference of the Parties adopted, by decision VI/15, proposals for the design and implementation of incentive measures as well as recommendations for future cooperation on incentive measures. Adequate human and physical capacity is recognized as key to the effective development of incentive measures both in the proposals and the recommendations. A number of elements are proposed to meet this requirement, including the training of biodiversity specialists and decision makers in the design and implementation of incentive measures; explaining the value of biodiversity at the community and sectoral level, and the development of capacity to conduct research and analysis on incentive measures.

Global Strategy for Plant Conservation

At its 6th Conference of the Parties, the CBD adopted the Global Strategy for Plant Conservation⁵ (GSPC). The COP emphasised the need for capacity building, particularly in developing countries, small island developing states, and countries with economies in transition, in order to enable them to implement the strategy. The strategy recognises building capacity for the conservation of plant diversity as a sub-objective, with a focus on enhancing human resources, physical and technological infrastructure, financial support, as well as linking and integrating actors to maximise action and potential synergies. COP-7 emphasized that the Strategy is to be implemented in a flexible way, and with due regard to the need for capacity building in identifying and achieving national targets, particularly in developing countries, especially the least developed and small island States among them, and countries with economies in transition;

Communication, Education and Public Awareness

The CBD at the 6th COP adopted the Programme of Work for the Global Initiative on Communication, Education and Public Awareness (CEPA)⁶. The work programme contains programme element 3: capacity-building for communication, education and public awareness with three operational objectives:

1. Develop capacity of the Parties to market biodiversity to other sectors, and to mainstream biodiversity into the work of other sectors
2. Develop professional capacity of educators and communicators
3. Enhance stakeholder participation and community development through communication, education and public awareness.

Technology Transfer and Technological and Scientific Cooperation

The Programme of Work on Technology Transfer and Technological and Scientific Cooperation, adopted by CBD COP 7⁷ contains four programme elements, including programme element 4 on capacity- building and enhancement. It has the following objective ‘Technical, scientific, institutional and administrative capacity is adequate for the effective cooperation, transfer, diffusion and adaptation of technology as well as technical and scientific cooperation’. This objective is specified by four operational targets and a number of activities to be undertaken by Parties, GEF as well as international, regional and national organizations and funds. In addition, paragraph 6 (a-c) of decision VII/29, and element 2 of the programme of work on technology transfer and scientific and technological cooperation calls for the use of the Clearing-House Mechanism as the central mechanism to promote and facilitate the transfer of technologies among Parties and Governments.

Cartagena Protocol on Biosafety

In the context of the Cartagena Protocol on Biosafety, the Conference of the Parties serving as the meeting of the Parties to the Protocol (COP-MOP) has mandated the

⁵ Decision VI/9

⁶ Decision VI/19

⁷ Decision VII/29

CBD Secretariat to implement different activities related to technology support and capacity-building to assist countries in implementing the Protocol. The broad mandates and the respective activities being implemented in this regard include the following:

Administration of the Biosafety Clearing-House, BCH - (Decision BS-1/3)⁸:

- (a) Developing and maintaining the central portal and central databases to ensure the BCH is accessible, user-friendly, searchable, and understandable (see: <http://bch.biodiv.org/>)
- (b) Identifying, reviewing and establishing, as necessary, common formats for reporting information to the BCH;
- (c) Assisting governments, on request, in the use of the Biosafety Clearing-House central portal, and coordinating the development of national, regional, subregional and institutional nodes that are interlinked with the central portal;
- (d) Entering into administrative arrangements with relevant international, regional, sub-regional and national organizations and entities, as appropriate;
- (e) Organizing regional training workshops on the use of the BCH
- (f) Developing resource materials and tools to assist countries in using the BCH, for example: the BCH toolkit, guidelines for national participation in the BCH as well as software tools and CD ROMs to assist governments in creating their own national biosafety databases and making information available to the BCH offline (e.g. the national BCH application, nBCH, which allows countries with no reliable Internet connection, to enter and store information locally and to upload it to the Central Portal of the BCH when Internet access is available; See: <http://bch.biodiv.org/national/>).

Administration of the roster of experts, which was established by the Conference of the Parties to provide advice and other support, as appropriate and upon request, to developing country Parties and Parties with economies in transition, to conduct risk assessment, make informed decisions, develop national human resources and promote institutional strengthening, associated with the transboundary movements of LMOs (Decision BS-I/4):

- (a) Maintaining an appropriate electronic database to allow easy access to the roster;
- (b) Assisting Parties, on request, in identifying appropriate experts listed in the specific area(s) of expertise in the roster, including provision of a list of potential experts, where feasible.
- (c) Facilitating the initial contact of a Party seeking assistance with any expert on the roster
- (d) Administration of the pilot phase of the Voluntary Fund for the Roster of Experts established to support developing country Parties and Parties with economies in transition, to pay for the use of experts selected from the roster, including receiving and evaluating funding requests, disbursing the funds and making reports on completed assignments available to Parties through the BCH.

⁸ See COP-MOP decisions at: <http://www.biodiv.org/decisions/default.aspx?m=mop-01&menu=biosafety>

Facilitating implementation of the Action Plan for Building Capacities for the Effective Implementation of the Cartagena Protocol on Biosafety, including administration of the Coordination Mechanism established by the COP-MOP to facilitate exchange of information with a view to promoting partnerships and maximizing complementarities and synergies between various biosafety capacity-building initiatives (Decision BS-I/5):

- (a) Maintaining capacity-building databases (on projects, opportunities and country needs) in the BCH, see: <http://bch.biodiv.org/capacitybuilding/>
- (b) Providing technical assistance to Governments in the assessment of their capacity needs and priorities and, on the basis of the submissions by the Governments, compiling and making them such information available to donor Governments and relevant organizations, as appropriate, with the view to promoting broad understanding of the country needs and facilitating donor countries and organizations to tailor their support to specific country-defined needs and priorities.
- (c) Facilitating the dissemination of relevant information and lessons learned on biosafety capacity-building initiatives;
- (d) Preparing and disseminating progress reports on the implementation of the Action Plan on the based on the submissions by governments and relevant organizations;
- (e) Convening meetings of the liaison group on capacity-building on biosafety and, subject to availability of funding, organizing coordination meetings for Governments, organizations and donors involved in biosafety capacity-building activities.
- (f) Providing an administrative framework for creation of technical and scientific capacity
- (g) Serving as a focal point for organizations to submit information on their capacity-building initiatives and facilitating the flow of such information in order keep countries informed about important developments and opportunities with respect to capacity-building.
- (h) Cooperating with the projects of the GEF implementing agencies on national biosafety frameworks and other initiatives.
- (i) Providing coordination and leadership and suggesting ways and means to build capacity in countries, taking into account relevant COP-MOP decisions.

Other specific mandates/ activities

Convening of a workshop on capacity-building and exchange of experiences on the safe handling, transport, packaging and identification of living modified organisms, as related to the implementation of paragraph 2 of Article 18 of the Protocol (Decision BS-I/6) from 1-3 November 2004 in Bonn, Germany.

The need for capacity-building in the implementation of Article 14.1 of the Convention on Impact Assessment and Minimizing Adverse Impacts and the Guidelines for incorporating biodiversity-related issues into environmental-impact-

assessment legislation or processes and in strategic impact assessment⁹ has been recognized.¹⁰ The CBD Secretariat collaborates with the Ramsar Convention on Wetlands on a project on “Capacity-building in biodiversity and impact assessment in developing countries” implemented by the International Association for Impact Assessment. An inception workshop for this three-year project was held in April 2004 at the margins of the Annual Meeting of the International Association for Impact Assessment (IAIA '04).

Lack of capacity and the need for training has also been identified in the process of developing and using biodiversity indicators.¹¹ The CBD Secretariat is involved in a GEF-funded capacity development project on “Biodiversity Indicators for National Use”, which is implemented jointly by UNEP-WCMC and the Netherlands Environment Assessment Agency (RIVM). A progress report has been prepared for SBSTTA-9.¹²

With respect to scientific assessments, SBSTTA decided to test a range of methods and modalities for assessments and requested the Executive Secretary to identify ways and means to strengthen the assessment capacities of developing countries and noted that assessment processes should contribute to capacity-building and enhancement of institutions and promote scientific cooperation, education and public awareness.¹³

References for further information

www.biodiv.org

⁹ Decision VI/7-A

¹⁰ Paras 36-38 of decision VI/7-A

¹¹ Para 4 of decision V/7

¹² UNEP/CBD/SBSTTA/9/INF/19

¹³ Paras 1(h), 6, 10 of SBSTTA recommendation VI/5

3. The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)

Mandate

To ensure that no species of wild fauna or flora becomes or remains subject to unsustainable exploitation because of international trade

Objective/s of the capacity building and technology support activities

The purpose of capacity building within the context of CITES is to improve the working of the Convention so that international trade in wild fauna and flora is increasingly and consistently conducted at sustainable levels.

The Convention capacity building activities contribute to the implementation of the Convention goals set out by the CITES strategic plan (Strategic Vision through 2005).

- Goal 1 Enhance the ability of each Party to implement the Convention
- Goal 2 Strengthen the scientific basis of the decision-making processes
- Goal 3 Contribute to the reduction and ultimate elimination of illegal trade in wild fauna and flora
- Goal 4 Promote greater understanding of the Convention
- Goal 5 Increase cooperation and conclude strategic alliances with international stakeholders
- Goal 6 Progress toward full global membership

The Parties to CITES recognize that non-detrimental sustainable trade in wild fauna and flora can make a major contribution to securing the broader and not incompatible objectives of sustainable development and biodiversity conservation. For this to occur, the Convention must continue to ensure that proper trade mechanisms are put in place. This depends upon the availability of and access to reliable scientific data and to information generated by effective monitoring systems to counter over-exploitation. But information by itself is not enough and CITES trade mechanisms also require strong national capacity backed by good cooperation at national, regional and global levels.

Major Capacity building, technology transfer activities

Activities related to enhancing the ability of the members to implement the Convention

The effectiveness of the Convention depends on a coordinated process of implementation that guarantees, in the long term, the achievement by all Parties of the Convention's purpose. The need for a coordinated process has grown as the Convention confronts trade issues involving species that often fall beyond the direct reach of the Management and Scientific Authorities. It is also recognized that for trade to be carried out in a responsible manner and based on sustainable exploitation,

social and economic incentives are needed to bring local communities and local authorities into partnership with government under an appropriate policy, legislative, and financial framework. Enhanced ability at the national level therefore means improving, *inter alia*, organizational capacity and cooperation; policy formulation; community, local authority and government partnerships; direct benefit and revenue derivation; availability of information on which decisions are based; national legislation and law enforcement capability; and better accessibility and understanding of the Convention's requirements.

These improvements, in turn, should enable a better management of wild animals and plants, and thus reduce the need to include species in the CITES Appendices. It is also important to consider the potential of regional coordination and collaboration for national capacity-building efforts. Finally, strong national and regional participation in the deliberations and implementation of the Convention can only be fully effective if the three working languages are given proper respect and equity.

The Secretariat actively provides advice and assistance to Parties on all aspects of the Convention, directly from the Secretariat and through country missions, in the areas of general implementation, science, legislation, compliance and enforcement, training and information. National and regional participation is promoted through regular meetings of the Conference of the Parties, technical committees, and regional/national training workshops. Training is provided through workshops and various forms of e-learning. The main priority for training is improving capacity to manage and regulate the legal trade in CITES specimens, focussing on permits and certificates (from applications to issuance), non-detriment findings, border inspections (document verification and species identification), and general compliance with CITES provisions.

The Secretariat has also developed a train-the-trainer programme to enhance national capacity building efforts, and regularly provides Parties with training presentations and tools. The Secretariat also publishes regular editions of *The Evolution of CITES* to assist Parties in interpreting and applying the provisions of CITES, the *CITES Handbook*, a compilation of essential reference materials, and CD-ROM copies of the website. Advice and all forms of assistance are provided in the three working languages of the Convention.

Activities related to Strengthening the scientific basis of the decision-making processes

The work associated with effective implementation of the Convention entails not only the efficient conduct of business at meetings of the Conference of the Parties and its Committees, but also, and perhaps more importantly, the day-to-day implementation activities of Parties. While other factors may come into play in these arenas, they do not override the need for sound, scientifically-based decisions in all areas of the Convention's application and at all levels of its implementation. Increasingly, the Conference of the Parties is required to address and resolve difficult, complex scientific, trade and management issues involving species that are economically important resources. It is vital to ensure that the Convention's Appendices correctly reflect the conservation and management needs of species, and that decisions regarding these Appendices are grounded in sound scientific information. In this

regard, sound scientific activities and practical follow-up action to enhance the conservation and recovery of taxa included in the Appendices are vital elements if the Convention is to be implemented effectively. Within the context of the requirement for non-detriment findings, the Convention is grounded in sound biological principles. Continued strengthening of the treaty's scientific basis is critical to the continued success of the Convention and its relevance as a major international instrument to ensure that wild animals and plants subject to international trade are used at levels that are sustainable by the wild populations. Vital to this goal is an enhancement of the ability of Scientific Authorities to make the necessary scientific findings and fulfil their other scientific obligations under the Convention.

The Secretariat has a Scientific Support unit that provides support and assistance to Parties and to the Technical Committees (Animals, Plants and Nomenclature). The Secretariat also provides regular regional training workshops for Scientific Authorities, that cover fundamental issues regarding the scientific requirements for implementing CITES and relating to trade in wild animal and plant species, the making of non-detriment findings for exports of Appendix-II listed species, quota setting, monitoring of harvest and trade and supervision of various forms of wildlife production. The Secretariat also undertakes projects based on the tasks outlined in the Resolutions and Decisions adopted at meetings of the Conference of the Parties and on recommendations of the Animals and Plants Committees (such as meetings of technical experts and management-related research), and raises funds for these and other science-related projects proposed by Parties.

Activities related to contributing to the reduction and ultimate elimination of illegal trade in wild fauna and flora

The illegal trade in wild animals and plants is a major factor in the depletion of the world's natural resources in exchange for commercial gain. It undermines the conservation efforts of developing countries, affects the income of rural populations and has driven several species to the brink of extinction. All countries, whether they are consumers or producers of wild animals and plants, share responsibility to reduce and eventually eliminate illegal trade in wildlife. Successful achievement of this responsibility entails coordination and cooperation at all levels – local, national, regional and global. Experience has shown that CITES enforcement would greatly benefit from a higher degree of coordination among the authorities and enforcement agencies within party States. Heightened local awareness of and involvement in wildlife protection activities can further national efforts in combating illegal trade. Also, heightened awareness of and understanding by the judiciary of their potential role in deterring illegal activities relating to wild fauna and flora would further strengthen a Party's effort to stem illegal trade. Enforcement of the Convention is primarily a matter of national competence, but bilateral, regional and global cooperation is elementary in combating illegal international trade effectively. As for a number of other CITES goals, the need for regional cooperation to combat wildlife crime is clearly essential. CITES implementation and enforcement depends to a large degree on efficient border and trade controls.

The Secretariat actively provides enforcement assistance to the Parties and maintains an infractions database. The Secretariat also promotes awareness of wildlife crime issues, and provides training to both general audiences and specialized law

enforcement personnel. For improving capacity to address the illegal trade in CITES specimens, training focuses on making sure there is a sound legislative basis for dealing with the problem; there is sufficient awareness of the issues; that authorities have the ability to detect illegal trade; and that they collaborate and cooperate on actions to prosecute cases and to confiscate and dispose of illegally traded specimens. An interactive computer-based training programme has been developed for training Customs officers. An information kit for prosecutors and the judiciary is in preparation.

Activities related to the promotion of a greater understanding of the Convention

To ensure better implementation of CITES, public support and participation must be enhanced through continuous educational processes that not only raise the profile of the Convention but also recognize its beneficial contribution to conservation through sustainable trade management. Involvement of local communities, NGOs, relevant trade associations, the scientific community, media and the general public is essential to heighten an understanding of the Convention. Efforts are necessary at the regional, national and international levels to provide and disseminate accurate information about the aims and functioning of the Convention in order to heighten awareness and improve its implementation.

The Secretariat develops and maintains the CITES website (www.cites.org), which is the main tool for disseminating information on CITES. The website is updated continuously and is tailored to provide information to Parties, specialized organizations and the public. The Secretariat publishes *CITES World*, the official newsletter of the Parties, and each edition of this biannual publication follows a theme chosen to promote a greater understanding of the Convention and recognition of the Parties' efforts to implement CITES. The Secretariat also answers requests for information received from traders and the public.

Activities related to increasing cooperation and conclude strategic alliances with international stakeholders

The Governing Council of UNEP, at its 20th session (Nairobi, 1999), noted the importance of promoting inter-linkages among multilateral environmental conventions and international processes in an effort to achieve a better focus on international policy-making. It calls upon Parties to give due consideration to ways and means to strengthen coherent inter-linkages among relevant conventions. Numerous linkages also exist between the aims of CITES and those of other multilateral environmental agreements. Close cooperation with other intergovernmental and international organizations is also essential.

CITES actively promotes synergy and cooperation with other multilateral environmental conventions and agreements, and with intergovernmental and international organisations. This synergy and cooperation can involve Resolutions and Decisions of the Conference of the Parties, joint work activities, and collaboration across common areas of work, such as joint Customs training, compliance and enforcement, harmonized information management, reporting and legislation, economics and trade, and so on.

Activities related to the convention global membership

In order for the Convention to achieve its mission, as many countries as possible that are engaged in trade in wild animals and plants should become Parties. Although membership has grown steadily to 166 Parties at this time, there are still countries that have not yet become party to CITES. To encourage full participation, the Secretariat provides information on CITES to non-Parties, and encourages their participation in CITES-related activities (including, where appropriate, regional training activities).

Activities related to improving the convention financial and administrative basis

Successful implementation and enforcement of the Convention requires an appropriate level of funding. However, present funding barely covers the Convention's primary expenditures. Programme expenditure on capacity building, scientific research and other projects in support of the aims of the Convention largely depend on voluntary contributions by donors. The Secretariat raises funds in support of these activities from Parties and approved donors. Examples of such activities, based on the tasks outlined in the Resolutions and Decisions and recommendations of the Animals and Plants Committees, include support to the long-term system for Monitoring the Illegal Killing of Elephants (MIKE) programme, support to a technical workshop on conservation of and trade in freshwater turtles and tortoises and a technical workshop on conservation of and trade in seahorses, and support for delegates attending meetings of the Conference of the Parties (Sponsored Delegates Project).

Further references:

www.cites.org

4. International Atomic Energy Agency (IAEA)

Mandate

The IAEA was established in 1957 with the objectives of promoting the peaceful use of atomic energy and nuclear technology for health and prosperity. The three pillars that support the current activities are:

1. Safeguards and Verification
2. Safety and Security
3. Science and Technology

Objective/s of the environment related capacity building and technology support activities

To protect people and the environment from harmful radiation exposure, the IAEA helps countries to upgrade nuclear safety and to prepare for and respond to emergencies.

To develop and implement peaceful applications of nuclear science and technology to meet critical needs in developing countries.

Environment related Capacity Building and technology support portfolio

The slogan of the IAEA is “Atoms for Peace”, which is manifested in the vast array of Agency activities that seek to use nuclear science, in its broadest sense, to develop practical solutions to health, food, water resource, environmental and technological problems in scenarios where nuclear science has an advantage over alternative strategies. Some excerpts have been taken from our current programme to underline the scope of our activities. (Examples of the Capacity Building and Technological Support that the Agency offers to its’ Member States in respect of Environmental projects will be given below). More extensive information about IAEA programmes and details of the IAEA’s activities with respect to its Safeguards, Nuclear Safety and core Nuclear Energy activities can be found on our website: www.iaea.org/

Applications of radioisotopes and ionising radiation in many spheres of science and technology are contributing significantly toward sustainable development and improving quality of life. Radio-pharmaceuticals and radiation sources are extensively used in the health sector for the diagnosis of a variety of ailments and for the treatment of cancer. Nuclear methods of analysis contribute to environmental pollution studies and help in certifying contamination levels for international trade of agricultural products.

Radioisotope sources and gauges are essential for quality control and troubleshooting in many industrial systems. Gamma ray and electron beam treatment are preferred modalities for sterilization of single use medical products. Not only does radiation-based production of modern polymeric materials for tyres, wires, cables, etc., yield products with superior properties, but their longer life contributes to the conservation

of resources. Radiation is also emerging as a tool for treating harmful effluents. These radioisotope and radiation technologies are among the best available and are economically attractive options, constituting a significant proportion of some MS national nuclear programmes. The emphasis of the Agency's work is on strengthening national capabilities and assisting national nuclear centres achieve sustainability.

The Agency seeks to build capacity for Member States in the area of "energy-economy-environment" analysis. A specific goal is to increase Member States' capability to carry out energy and electricity sector analyses and investment planning, provide information on nuclear power (within the context of Agenda 21) and mitigate climate change.

Databases have been developed to include economic and environmental characteristics of electricity generation technologies central to evaluating impact on local and regional environments and climate change. The Agency is developing a set of indicators for Sustainable Energy Development aimed at providing Member States with a statistical analysis tool for assessing progress in improving environmental aspects of their energy supply systems.

The new emphasis on environmental protection that was prompted by the UNCED conference and the Rio Declaration of 1992 is influencing policy development regarding the release of radionuclide effluents into the environment. The Agency is fostering research and information exchange on the development of a framework for protecting the environment from the effects of ionizing radiation. This, in due course, will have an impact on the international standards for the control of discharges in the environment and on other environment-related standards.

Isotope and related nuclear techniques are effective and unique tools for obtaining hydrologic information for a broad range of water resource management issues. The Agency is the lead UN agency in this area and provides the basic means of using these techniques in the form of global reference data and isotope reference materials. A wider use of isotope hydrology in developing Member States water resource development and management requires the development of technology and human resources as well as financial assistance

Major environment related Capacity building, technology transfer activities:

Arsenic in groundwater

The IAEA has been working with the World Bank Bangladesh Arsenic Mitigation and Water Supply Project (BAMWSP) project team to utilize isotope hydrology techniques to enhance knowledge of groundwater and aquifer dynamics in Bangladesh. This includes investigating whether deep aquifers will remain arsenic free over the long term if they are developed as alternative sources, and how other deep aquifers may have been contaminated through mixing of deep and shallow reservoirs. Of 26 Bangladeshi laboratories testing for arsenic in water, only one-third are capable of delivering an acceptable standard. The World Health Organization (WHO) and the IAEA have been assisting in this area through a laboratory quality assurance programme.

Agencies Laboratories at Seibersdorf and Monaco

Unique amongst UN organisations, the IAEA has laboratory facilities in Monaco and Austria. The Marine Environment Laboratory's remit is to study radioactivity in the marine environment, marine radioecology and marine pollution from land-based sources, both radioactive and non-radioactive. Seibersdorf performs land-based radioactivity measurement campaigns, terrestrial radioecology, dosimetry services and environmental pollution monitoring for specific projects and hosts the joint FAO/IAEA division. Both laboratories are actively involved in capacity-building for analytical measurements, notably via world wide interlaboratory studies and provision of matrix reference materials through their Analytical Quality Control Service activities and are heavily engaged in the training of scientists and technicians from MS laboratories.

Technical Cooperation

The Technical Cooperation Department helps to transfer nuclear and related technologies for peaceful uses to countries throughout the world, disbursing more than US\$70 million worth of equipment, services and training per year in approximately 100 countries. Through training courses, expert missions, fellowships, scientific visit and equipment disbursement, the Technical Cooperation Programme provides the necessary skills and equipment to establish sustainable technology in the counterpart country or region. With more than 800 on-going projects, the TC Programme strives to have an impact on Member State problems that can be solved with nuclear technology. TC works in full partnership with technical officers from the technical departments within the Agency and project counterparts in the recipient Member States. In addition, TC collaborates with the World Bank and other organizations to plan and execute projects in harmony with Member States' needs.

Joint FAO/IAEA Division

The joint Food and Agriculture Organization (FAO)/IAEA division assists national agricultural authorities and regional organizations in the implementation across provincial, national or regional boundaries, of environmentally-friendly and sustainable methods to control or eradicate major insect pests of crops, as well as insects of veterinary importance, through the application of nuclear-based and related technologies. In doing so, we support Member States efforts to reduce pesticide use and their negative impact on food and the environment, preserve biological diversity and contribute to the introduction of profitable and sustainable agricultural systems in developing countries. We also facilitate trade in food and agricultural commodities through assistance with the establishment of pest-free areas and by promoting the application of harmonized quarantine regulations and other sanitary and phytosanitary measures

References for further information

www.iaea.org

5. Joint UNEP - OCHA (Office for the Coordination of Humanitarian Affairs) Unit

Mandate

The Joint UNEP/OCHA Environment Unit is a partnership between the United Nations Environment Programme ([UNEP](#)) and the UN Office for the Coordination of Humanitarian Affairs ([OCHA](#)) that serves as the integrated United Nations emergency response mechanism to activate and provide international assistance to countries facing environmental emergencies. The role of the Joint Unit is to rapidly mobilise and coordinate emergency assistance and response resources to countries facing environmental emergencies and natural disasters with significant environmental impacts.

Objective/s of the capacity building and technology support activities

Raise awareness in developing countries and countries with economies in transition and improve the capacity of countries to prevent, prepare for and respond to environmental emergencies.

Major Capacity building, technology transfer activities:

- The Joint Unit, in collaboration with the Swedish Rescue Services Agency organizes yearly a course on International Environmental Disaster Operations in Sweden. The course focused on the management and operational response to environmental emergencies (such as oil and chemical releases) and on the environmental aspects of natural disasters, involving many participants from Eastern Europe and Commonwealth of Independent States.
- In 2003, an Africa Regional Workshop on Environmental Disasters in Kenya was organized. The aim of the workshop was to bring together national, regional and international experts from throughout Africa, to consider existing capacity ways for increasing cooperation at national, sub-regional and regional levels for improved management of environmental disasters.
- The Joint Unit, in collaboration with the Benfield Hazard Research Centre, developed and field-tested Rapid Environmental Impact Assessment in Disasters (REA) Guidelines, which constitute a methodology for rapid assessment of environmental impacts of disasters whether natural, human-induced, industrial or conflict disaster.
- Following the World Summit on Sustainable Development in South Africa, the United Nations Environment Programme and The UN Office for Coordination of Humanitarian Affairs launched the Environmental Emergencies Partnership initiative. The Partnerships aims to reduce the frequency and severity of environmental emergencies by facilitating collaborative activities between international, national and regional stakeholders by sharing of information, building of capacity and collaboration

between stakeholders on activities that strengthen environmental emergency prevention, preparedness and response.

References for further information

<http://ochanline.un.org/ochaunep>

6. Organization for Economic Cooperation and Development (OECD)

Mandate

OECD is an intergovernmental organisation, currently with 30 Member countries¹⁴. Its mission is defined in the Convention that established the Organisation:

- To achieve sustainable economic growth and employment and raising living standards of living in Member countries while maintaining financial stability, so contributing to the development of the world economy
- To assist sound expansion in Member countries and other countries in the process of economic development
- To contribute to growth in world trade on multilateral, non-discriminatory basis.

Objective/s of the environment related capacity building and technology support activities

Issues of capacity building and technology support have been dealt with by various policy committees and technical working groups over the years. Many reports on these issues have been prepared, and these can be found on the OECD website:

www.oecd.org.

In 2001, the OECD Council at ministerial level agreed that sustainable development is “an overarching goal of OECD governments and OECD. The three dimensions of sustainable development – enhancing economic growth, promoting human and social development, and protecting the environment – are interdependent objectives, requiring concerted international action by OECD, transition and developing countries, based on their common and differentiated responsibilities, to deliver essential public goods of a global nature. OECD countries bear a special responsibility for leadership on sustainable development worldwide, historically and because of the weight they continue to have in the global economy and environment.”

Environment Related capacity building and technology support portfolio

Many of the activities of OECD’s Development Cooperation Committee (DAC) are of relevance to the UNEP Intergovernmental Process on Capacity building and technology Support (IGSP). The DAC is a forum for bilateral donors to work together to increase the effectiveness of their common efforts to support sustainable development. It concentrates on how international development cooperation contributes to the capacity of developing countries to participate in the global economy, and the capacity of people to overcome poverty and to participate fully in

¹⁴ Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, New Zealand, Norway, Poland, Portugal, Republic of Korea, Slovak Republic, Spain, Sweden, Switzerland, Turkey, United Kingdom, United States. The European Commission also takes part in the work of the Organisation.

society. DAC has examined a number of issues related to environment, capacity building and technology support in the last ten years. Some of the main reports and recommendations that it has produced include:

- Promoting cleaner production in developing countries: the role of development cooperation (1995)
- Donor assistance and capacity development in environment (1995)
- Donor strategies for sustainable development: practical guidance for development cooperation (2001)
- Integrating the Rio Conventions into Development Cooperation (2002).

Current activities in the DAC include environmental fiscal reform, and sustainable development and climate change.

Environmental cooperation among OECD Member countries takes place within the Organisation's Environmental Policy Committee (EPOC). In 2001, Environment Ministers adopted an Environmental Strategy for the first decade of the 21st Century. This is organised around five main objectives

1. Maintaining the efficiency of ecosystems through the efficient management of natural resources
2. Decoupling environmental pressures from economic growth
3. Improving information for decision-making: measuring progress through indicators
4. The social and environmental interface: enhancing the quality of life
5. Global environmental interdependence: improving environmental governance.

Major environment related capacity building, and technology transfer activities:

Some elements of the EPOC's current work that are most directly related to the UNEP IGSP Process include:

- Reviews and analysis of environmental policies: amongst other things, some of this work touches on the relation between environmental policy and technology, and on human and institutional environmental capacities
- Global issues: work on climate change and biodiversity, particularly the economic aspects
- Trade and investment linkages: several projects have been carried out, and reports produced, on the environmental impacts of trade policies and foreign direct investment
- Chemical safety: a broad-ranging programme that includes work on pesticides, GMOs and chemical safety has been underway for more than 25 years, and involves close cooperation with UN agencies working in this area
- Cooperation with non-Member countries: a major programme of cooperation with countries of Eastern Europe, Caucasus and Central Asia is supported by the OECD secretariat. Amongst other things, the OECD/EAP Task Force secretariat was asked to lead efforts to facilitate and support efforts to achieve the objectives of the EECCA Environment Strategy adopted at the Kiev Environment for Europe Ministerial meeting in May 2003. A meeting of

EECCA environment ministers and their partners will be held 21-22 October 2004 in Tbilisi, Georgia. Discussions have been held to link this meeting with the UNEP project on capacity building and technology support.

Within OECD the Committee on Science and Technology Policy has looked at many aspects of technology support over the years, particularly the innovation process. The main reports and activities are listed on the OECD website.

Further information

www.oecd.org



7. United Nations Convention to Combat Desertification (UNCCD)

Mandate

The UNCCD aims to promote effective action through innovative local actions and supportive international partnerships to combat desertification in those countries experiencing serious drought and/or desertification, particularly in Africa

Objective/s of the environment related capacity building and technology support activities

Support the parties to implement the convention by developing and carrying out national, sub-regional, and regional action programmes. The Convention states that these programmes must adopt a democratic, bottom-up approach, including strong participation by non-governmental organizations in such programmes' development and implementation. In addition, these action programmes must be fully integrated with other national policies for sustainable development.

Environment related capacity building, technology support portfolio

Part III of the Convention that covers Action Programmes, Scientific and Technical Cooperation and Supporting Measures (Articles 9 through 21) addresses capacity needs, strengthening and development as well as technology support in various aspects (see Article 18 & 19 of the convention).

Article 19 of the Convention (“Capacity building, education and public awareness”) specifically recognises the significance of sound national planning and capacity building through, *inter alia*: institution building, training and development of relevant local and national capacities. Under the convention, affected developing country Parties ready to implement the convention are obliged to prepare National Action Programmes (NAPs) to identify the factors contributing to desertification and to take practical measures necessary to combat desertification and mitigate the effects of drought. NAPs, which are developed in the framework of a participative approach involving the local communities, are strengthened by Action Programmes on the Sub-regional (SRAP) and Regional (RAP) levels.

Moreover, the Thematic Programme Networks of the UNCCD that have been established in the various regions have been important avenues for addressing specific issue areas touching on institutional as well as systemic capacity building. The process of developing NAPs by the countries concerned has also been addressing capacity strengthening from the National Coordinating Body (NCB) standpoint. In addition, the work of the UNCCD Committee on Science and Technology (CST), as a subsidiary body of the Conference of the Parties to the Convention, has been addressing, *inter alia*, traditional knowledge, early warning systems, benchmarks and indicators. The scope of “priority fields” of capacity building activities and technology needs in the Convention is revealed by information on the measures that the Parties are expected to include in their National Action Programs:

1. Promotion of alternative livelihood and improvement of national economic environments with a view to strengthening programs aimed at the eradication of poverty and at ensuring food security;
2. Establishment and/or strengthening of early warning systems and strengthening of drought preparedness and management;
3. Demographic dynamics;
4. Sustainable management of natural resources;
5. Sustainable agricultural practices;
6. Development and efficient use of various energy sources;
7. Institutional and legal frameworks;
8. Strengthening of capabilities for assessment and systematic observation, including hydrological and meteorological services, and
9. Capacity building, education and public awareness.

Pursuant to the above provisions of the Convention, the Conference of the Parties through various decisions has referred to capacity development/strengthening and technology needs in general and specific terms, as well as by implication through the fulfilment of the Convention requirements. More specifically, however, the following are rather direct and explicit:

- regarding procedures for the communication of information and review of implementation. This is the preparation of national reports on implementation of the Convention, which concerns capacity development and strengthening;
- in setting out the terms of reference for the CST (functions, programme of work, etc.). In broad terms, the role of the CST is to provide information and advice to the Conference of the Parties on scientific and technological matters relating to combating desertification and mitigating the effects of drought;
- on consideration of reports on the implementation of the Convention, dwelling extensively on the issues of capacity development, technology transfer, institutional strengthening, etc. The COP makes reference to the National Reports themselves, which contain in-depth proposals for capacity development and areas of strengthening capacities at grassroots level; institutions of research; educational institutions; policy levels, etc;
- on the need to test the benchmarks and indicators at the national level in implementing the convention, calling for mobilisation of financial, scientific, technical resources in this regard.

Major environment related capacity building, and technology transfer activities:

Early warning, drought and desertification monitoring and assessment

The UNCCD can promote a higher level of preparedness to natural disasters such as prolonged droughts, dust storms, forest fires or flash floods due to deforestation and degradation of soil. Early warning systems and environmental risk assessments should be systematically used as tools to chart the course of NAP implementation, to move from crisis management to risk prevention. Early warning systems need to be less reactive and more prevention-oriented.

In a context of increasing vulnerability to droughts and other natural disasters in a large number of countries, the national and/or sub-regional assessment and monitoring capacities have not received the support necessary to enable them to provide more accurate forecasting and early identification of coping strategies. Monitoring is mostly limited to the observation of the biophysical effects of desertification.

With the appropriate support, the thematic programme networks of the regional action programmes can play an important role in the UNCCD process. Support is also needed in the work of the CST in such areas as the assessment of biophysical (soils, water, vegetation) or socio-economic (vulnerability, poverty eradication) factors.

Capacity building is required in these fields. Limited access to technology for Geographical Information System (GIS) and/or remote sensing for instance remains a widespread concern. Access to base-line information and data processing for an effective early warning system response is not facilitated, as benchmarks and indicators are often aligned to other processes. Available data and observations provided by global climate and modelling centres as well as by regional and national early warning centres should be used more efficiently.

The UNCCD secretariat, the World Meteorological Organization (WMO) and interested partner agencies should extend full support to the further development and implementation of a comprehensive programme of early warning on a regional basis, including the strengthening of technical capabilities and community-based organizational activities to make the programme operational.

Indicators for monitoring the implementation performance of the Convention, covering the establishment of enabling conditions and the impact of measures taken, must be developed and must include key biophysical and socioeconomic indicators, including socioeconomic impact indicators at the community and household levels. These indicators should be reflected in the help guides for national reports and used by Parties.

The monitoring systems of benchmarks and indicators and early warning systems should be designed as a function of the necessity of decision-makers for their application in concrete measures in combating desertification. Efforts to enhance preparedness for natural hazards and natural disasters, particularly under the United Nations International Strategy for Disaster Reduction, including early warning systems, vulnerability and risk assessments or fire/flood prevention systems, should be more closely integrated with the action programmes.

Drought and desertification monitoring and assessment and early warning systems require the use of relevant technologies. Consequently, it is advisable that

international agencies and developed countries make them available to developing countries.

Access by affected country Parties, particularly affected developing country Parties, to appropriate technology, knowledge and know-how

The constraints most frequently identified remain the same: weak networking among scientific institutions, absence of early warning systems on drought and soil moisture, limited exchange of data and work carried at varying geographic scales, the chronic shortage of financial resources and limited access to appropriate technology, knowledge and know-how. Furthermore, the results of research, when available, are often not meaningfully absorbed by decision-makers or natural resource end-users.

South-South cooperation, thematic programme networks and/or regional working groups are some of the mechanisms for disseminating traditional knowledge, and they may capitalize on existing initiatives on benchmarks and indicators with a view to achieving common standards for decision-makers. This type of cooperation as well as regional and subregional initiatives, backed by scientific research, deserve more consistent support in the form of capacity building and financial allocation. South-South initiatives for promoting training programmes would also welcome triangular arrangements with partners from the North and/or United Nations agencies as well as IGOs and NGOs.

The CST has been called upon to address issues of land degradation in its work programme; to encourage work on production technologies for promoting sustainable soil management; to encourage a basin-wide approach to natural resource conservation and management; and to encourage cooperation with the private sector. Scientific matters pertaining to the Convention should be integrated into the participatory approaches, thereby bringing benchmarks and indicators closer to the end-users and to an eventual application. Best practices should be actively promoted through the CST and its group of experts, the national coordinating bodies and the media, including all kinds of information platforms and thematic programme networks, by highlighting these practices as points of reference. Activities such as the networking of scientific institutions, exchange of expertise, technology transfers, training at universities, internships and scholarships in desertification, should be systematically promoted through SRAPs and RAPs.

Law enforcement and harmonization were mentioned as a potential bottleneck due to the limited human resources available to effectively translate laws into concrete activities. Country Parties were requested to specify their needs in terms of capacity building and training schemes to effectively address this concern, including at local level.

The affected developing country Parties, with the support of donor Parties, the UNCCD secretariat and concerned agencies, were invited to promote capacity-building measures for stakeholders to carry out specific synergistic programmes in the NAP context. The purpose is to prevent land degradation and rehabilitate degraded land, mitigate the effects of drought, maintain natural vegetation cover, protect biodiversity and restore wetlands and coastal areas at the local level. Developed

countries were requested to provide developing countries with further access to new technologies and know-how for the implementation of their action programmes.

It was observed that the capacities of research institutions in affected countries need strengthening to develop innovative approaches and technologies, taking due account of, and adapting, as appropriate, traditional knowledge and knowledge systems of indigenous people, to develop both preventive and curative measures. Traditional knowledge and indigenous knowledge systems addressing local problems must be more systematically exploited and innovations based on such knowledge encouraged and, where appropriate, in combination with modern technologies adapted to local conditions. Findings should be recorded and shared, notably through the thematic programme networks of the RAPs and the SRAPs, supported by regional and subregional institutions. The UNCCD secretariat was urged to assist this effort to facilitate replication of successful solutions.

Measures for the rehabilitation of degraded land

Capacity strengthening for mitigating the effects of drought must be wide-ranging, covering areas such as the adaptation of appropriate agricultural production systems, soil conserving and water-saving technologies and the management of decentralized food storage systems. Preventing further land degradation in arid, semi-arid and dry sub-humid areas means relieving the land of the burden of unsustainable agriculture practices while maintaining or increasing income generation. This must be facilitated by the use of new and traditional technologies, the creation of alternative livelihood opportunities and by the integration of land and water conservation practices in land management systems. The prevention of land degradation, rehabilitation and sustainable management of degraded land must rely upon a large number of relevant parameters specific to each location.

Involvement in the GEF Supported National Capacity Needs Self-Assessments (NCSAs)

Cognizant of the constraints they are faced with in developing the requisite capacities to address the issues of effective implementation of the Convention, Parties have embraced the capacity building initiative supported by the GEF. Several of them are currently engaged in undertaking their National Capacity Needs Self-Assessments, in order to come up with a country owned indicative statement of the specific needs in capacity building.

References for further information

www.unccd.org

8. United Nations Development Program (UNDP)

Mandate

UNDP is a highly networked organization that connects people, communities, governments, and institutions to development knowledge, experience and resources to help countries develop their own capacity. UNDP draws upon its on the ground presence through its country offices in over 130 countries and the work of its different practices to collectively contribute to the achievement of the developmental agenda of its client countries.

Objective/s of the capacity building and technology support activities

- To adopt innovative capacity-building approaches to address environmental degradation, social inequity and economic decline
- To support the countries in the development of integrated approaches to national and local Agenda 21 planning.
- To support countries in developing National Strategies for Sustainable Development, decentralised governance and institutional strengthening.
- To ensure that a sustainable policy, institutional and legal framework for development is established at the country level.
- To empower communities and nations to determine the policies and implement the practices needed to assure sustainability of the development outcomes captured in the Millennium Development Goals.

Environment related capacity building and technology support portfolio

UNDP's work in the field of environment and sustainable development has spanned many decades. UNDP has launched and played a major role in a number of innovative partnerships that demonstrate the organization's multi-faceted capacity, including the Consultative Group on International Agricultural Research (CGIAR) system, Capacity 21, Local Initiative Facility for Urban Environment (LIFE), GEF, Montreal Protocol, the Global Water Partnership, LP Gas Rural Energy Challenge, the Energy Sector Management Assistance Programme, and the Equator Initiative.

Over the last decade UNDP has invested over \$1 billion in specific capacity development programmes and activities over 130 countries. UNDP has conducted independent evaluations of its major efforts and has drawn important lessons from these experiences that have led to the formulation of a unique approach to capacity development.

A major contribution to capacity development at UNDP has come from its unique role in the GEF partnership. According to the GEF instrument, UNDP's niche in the GEF family is "capacity building and technical assistance at the country level". As of June 2004, the cumulative UNDP/GEF portfolio stands at \$1.82 billion in grants with an additional \$3.6 billion raised as co-financing. The three largest focal areas are biodiversity (\$638 million), climate change (\$577 million) and international waters (\$300 million). Other areas of GEF support include land degradation (\$31 million), persistent organic pollutants (POPs) (\$24.5 million) and multiple focal areas (\$51 million). This last category includes National Capacity Self-Assessments (NCSA) and

National Adaptation Plans of Action (NAPAs) undertaken as a follow-up of the Capacity Development Initiative (CDI), which was launched in 2000.

CDI is a strategic partnership between UNDP and the GEF Secretariat. CDI produced a strategy to strengthen national capacities for meeting the objectives of the global environmental conventions. The CDI defined four pathways (or windows) for the GEF's Strategic Approach to Capacity Building:

Pathway I: National Capacity Self-Assessments (NCSA)

Pathway II: Strengthening capacity building component of GEF projects

Pathway III: Targeted capacity building projects, both within and across areas

Pathway IV: Country capacity building programs for LDC and SIDS

As of today, the GEF has launched the first of these pathways and through its current business plan the GEF is committing resources to start implementation of the remaining pathways. UNDP is supporting over 100 countries in NCSAs.

Major Capacity building, technology transfer activities:

Capacity 21 program

After Rio, UNDP launched the Capacity 21 program to help countries build national capacities for sustainable development, in particular for the implementation of Agenda 21. Capacity 21 has assisted 75 countries working in close partnership with governments, civil society and the private sector, investing over \$90 million since 1993. This programme has been recently transformed into the Capacity 2015 program, which works with developing countries to build local capacities to meet the MDGs.

Ozone depletion

In the area of ozone depletion, UNDP has received over \$400 million since 1991 from the Multilateral Fund and the Global Environment Facility (GEF) to support programs in 94 countries. In addition, it has been chosen by 20 countries to be the agency for institutional strengthening of governmental ozone units.

GEF Small Grant Program

UNDP executes the GEF Small Grants Program (SGP) with total funding of \$175 million that is active in 73 countries. The SGP has awarded over 4,700 grants and many of its activities are directly linked to capacity development. The SGP experience to date has shown that it is possible to protect the global environment through small cost-effective efforts at the local community level.

Country Dialogue Workshop

UNDP also executes the Country Dialogue Workshop (CDW) program on behalf of the GEF. A total of 75 countries have participated in 45 national and 4 sub-regional CDWs from April 2000 to April 2004. Based on these experiences the GEF Council

approved in 2003 the GEF National Dialogue Initiative, which builds on lessons learned from the CDW experience.

Energy

UNDP has the largest energy portfolio among all UN agencies. During 1996-2003 the cumulative energy portfolio amounted to \$1.96 billion, including over 370 energy projects in 159 countries. This means that 96% of all UNDP country offices executed at least one energy project. In addition there are about 820 UNDP-GEF SGP projects focused on energy issues. The primary focus of the energy portfolio is on building local and national capacities and conditions. UNDP is also a partner in the Global Energy Network led by UNEP and UNDP's contribution goes to support research centers from developing countries that are part of the network.

Biodiversity

Since 1992, UNDP has directed over \$1.9 billion through UNDP core programs (including co-financing) to developing countries for biodiversity-related projects. This portfolio of over 250 projects in more than 140 countries has a significant capacity development component. In addition UNDP oversees over 3,000 GEF/SGP biodiversity projects in 73 countries. Each project contains a significant capacity development component. UNDP's Equator Initiative also builds capacity at the local community level for the protection of biodiversity and the eradication of poverty.

Land Management

Capacity development activities for sustainable land management are carried out by UNDP's Drylands Development Centre (DDC). DDC's Integrated Drylands Development Programme (IDDP) helps to develop institutional capacity at the national and community level in 20 countries in mainstreaming drylands development issues into country programmes, national policies and planning frameworks and improving local governance for the management of natural resources. The UNDP/GEF portfolio project for Capacity Building and Mainstreaming of Sustainable Land Management for 49 Least Developed Countries (LDCs) and Small Island Developing States (SIDS) in Africa, Asia and the Caribbean amounts to \$29 million.

Poverty and environment

UNDP is supporting 113 countries in reinforcing poverty and environment links in PRSPs and 61 countries in developing their institutional and policy frameworks for environmental sustainability. UNDP also provides knowledge-based support and reinforces capacity to monitor and report on progress towards achieving environmental sustainability (MDG 7).

Water and Sanitation

UNDP programs in the water and sanitation are focused on effective governance. Efforts are specifically focused on Integrated Water Resources Management (IWRM), which aims to coordinate the management of water, land and related resources, and to balance economic, social, and environmental objectives and needs. Over the last decade, UNDP has managed a portfolio of over \$1 billion in support of sustainable water development in more than 120 countries worldwide. Cap-Net is UNDP's global program for capacity building in water management. It supports a network of southern institutions working on IWRM.

Further information

Details on each of these areas can be found in the main document submitted by UNDP to the secretariat of the High-level Open-ended Intergovernmental Working Group on an Intergovernmental Strategic Plan for Technology Support and Capacity Building, Nairobi, 1 September 2004 High-Level Open-ended Intergovernmental Working group on an Intergovernmental Strategic Plan for Technology support and Capacity building.

9. United Nations Division for Sustainable Development (UNDESA)

Mandate

DESA is a vital interface between global policies in the economic, social and environmental spheres and national action.

The Department works in three main interlinked areas: (i) it compiles, generates and analyses a wide range of economic, social and environmental data and information on which States Members of the United Nations draw to review common problems and to take stock of policy options; (ii) it facilitates the negotiations of Member States in many intergovernmental bodies on joint courses of action to address ongoing or emerging global challenges; and (iii) it advises interested Governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into programmes at the country level and, through technical assistance, helps build national capacities.

Objective/s of the environment related capacity building and technology support activities

In recent years, new challenges have arisen for international cooperation for development. The disparate impacts of globalisation, and the difficulties that developing countries continue to face in responding to a tide of forces far beyond their control, have further strengthened the case for farsighted multilateral cooperation that addresses long standing development problems and enables developing countries to seize the new opportunities for development that globalisation offers. The realization is also growing that immediate political and humanitarian problems should not be allowed to draw attention away from long-term development objectives, and that only by addressing the root economic and social causes underlying those crises will the international community find durable solutions that will prevent their reoccurrence.

Building on the UN conferences and Summits of the 90s, the Millennium Summit, the Monterrey Conference and the Johannesburg Summit of the early 2000s have provided a comprehensive framework to guide a renewed effort by the international community to bring about an enabling environment geared towards poverty eradication, sustained economic growth and sustainable development. Achieving greater policy coherence at national and international levels is key to this effort.

In turn, supporting this greater coherence will be a crucial dimension of the drive to promote an effective implementation of the outcomes of these conferences and summits - a drive that will be the major focus of the economic and social work of the UN in the next biennium. Renewed focus on implementation, and the shifts in programme orientations and working methods that it implies, will be the defining characteristics of the programme to be implemented by the Department in the medium term, and of the programme's relationship with those of other UN economic and social entities and the wider UN system.

In pursuing and supporting the implementation of agreed development goals, special attention will be given to advancing the development of goals embodied in the Millennium Declaration and related elements of the programmes of action of international conferences coming within the purview of the Department, and to promoting, in that context, an effective follow up of the International Conference on Financing for Development (ICFD) and the World Summit for Sustainable Development (WSSD).

The mandates and priorities emerging from those conferences, and the need to support the calls by the Economic and Social Council and the General Assembly for an integrated and coordinated follow up to and implementation of UN conferences and Summits, imply enhanced responsibilities for the programme, including the requirement to provide Member States with macro-economic analyses and statistical and demographic analysis and information that can help serve to support coherent and effective policy formulation and implementation and assist the international community in concerting its over-all implementation effort.

Environment related capacity building and technology support portfolio

Policy advice and technical cooperation

DESA advises and supports countries, at their request, in implementing their development strategies, within the framework of the action programme adopted at the recent series of global conferences and summits on economic and social development. The aim is to help build national capacities as well as to strengthen economic and technical links among developing countries

In line with the renewed emphasis on implementation, the Department's policy advisory services, supplemented by research and training, will support the efforts of Governments, at their request and in accordance with their national policies, to formulate development strategies and build national capacities aimed at the promotion of sustained economic growth and sustainable development, in accordance with the relevant resolutions of the General Assembly and recent United Nations conferences.

The Department's policy advisory services will be further coordinated with the activities of other programmes, funds and entities of the United Nations at the country level within the context of the United Nations Resident Coordinator System and the United Nations Development Assistance Framework. The outcomes of policy advisory services will also serve to enrich the analytical and work conducted by the Department.

Capacity-building activities in support of sustainable development

DESA's comparative advantage in this respect arises from its unique multi-disciplinary capacity to deliver technical assistance in a number of development sectors and cross-sectoral areas including natural resources, energy, water, infrastructure, economic planning, social development, governance, public finance, population and environmental statistics. DESA's role and capability to integrate analytical, normative and operational activities in a mutually reinforcing manner is

vital to the efforts of the UN system to promote “sustainable development”. In fact, the achievement of “sustainable development” goals at all levels has been and continues to be the overarching objective of all mandated activities and programmes of DESA, since the Rio Summit, which was further strengthened by the WSSD outcomes. DESA’s involvement in capacity building technology support activities in the areas of sustainable development, undertaken pursuant to its mandates arising from Agenda 21, WSSD outcomes and CSD decisions, includes the following:

- a. Promoting and commercializing renewable energies and enhancing energy efficiency improvements in developing countries;
- b. Preparing and reviewing national sustainable development strategies and indicators;
- c. Promoting sustainable consumption and production patterns;
- d. Energy sector and regulatory reform for sustainable development;
- e. Support to the formulation of the water sector development programme;
- f. TC cooperation and capacity building services for the SIDS;
- g. Managing water and energy services for poverty eradication in rural areas;
- h. ICT for sustainable development;
- i. Analysis of the water sector and formulation of IWRM;
- j. Sustainable transport management;
- k. Development of sustainable energy programme;
- l. Strengthening of institutional capacity of national machinery for the advance of women including their human rights;
- m. Integrating gender perspectives into national planning and programming;
- n. Strengthening public administration/governance institutions, and population;
- o. Building the statistical capacity of countries and regions, including environmental statistics and environmental accounting.

DESA has a large project portfolio for the delivery of advisory services and capacity-building activities requested by Governments in the above-mentioned areas. (Detailed information on these areas and projects could be found in DESA’s website (programme of technical cooperation).

Further information

<http://www.un.org/esa/sustdev>

10. UNESCO Intergovernmental Oceanographic Commission (IOC)

Mandate

The Intergovernmental Oceanographic Commission [IOC] of UNESCO was established in 1960 as a specialized inter-agency mechanism of the UN system, to coordinate Ocean Scientific research and Ocean services worldwide.

The IOC aims to facilitate and catalyse capacity building partnerships and collaborations, within and between Member States and relevant bodies, so that sustained benefits are realized through informed governance and management of the ocean and coasts.

Objective/s of the environment related capacity building and technology support activities

The IOC, over the four decades since its inception, has played an important role in the major ocean science programmes responsible for producing the knowledge and data needed to:

1. understand the role of the Ocean in biogeochemical cycling, drawing attention to climate change and global change issues;
2. understand ocean circulation and its relationship with the atmosphere, increasing the range of weather and climate forecasting, enabling the prediction of El Niño;
3. assess the role of marine ecosystems in the cycling of CO₂ in the marine environment; and
4. establish baseline knowledge of major ocean basins, to ascertain the impact of man-made activities and pollution.

Environment related capacity building and technology support portfolio

In performing these tasks IOC has coordinated the action of its member states to generate permanent related ocean services. These efforts have laid the foundation towards an expanded role of the IOC in meeting new challenges.

The overall programme of the IOC has evolved over the past 40 years from an initial focus on a number of geographically and discipline-specific research projects into an integrated framework for observing, understanding, modelling and managing the health of the oceans and their interface with the hydrological, coastal and atmospheric processes which govern the behaviour of the total Earth system.

Major environment related capacity building and technology transfer activities:

The current main lines of activities in Ocean Sciences are:

Oceans and Climate

The Climate Variability and Predictability [CLIVAR] study of decadal change, and the World Ocean Circulation Experiment [WOCE], jointly sponsored with WMO and the International Council for Science Unions [ICSU] as part of the World Climate Research Programme [WCRP]; SCOR – IOC Advisory Panel on Ocean CO₂.

Ocean Ecosystems and Marine Environmental Protection

Harmful Algal Bloom Programme and the Global Ecology and Oceanography of Harmful Algal Blooms [GEOHAB], jointly with the Scientific Committee on Oceanic Research [SCOR] of ICSU; Bleaching and Related Indicators of Coral Reef Health; Developing Indicators for Coastal Sediment Quality Assessment; Quantitative Ecosystem Indicators for Fisheries Management, jointly with SCOR; Partner programme to the Global Ocean Ecosystem Dynamics Programme [GLOBEC], jointly with ICSU's International Geosphere-Biosphere Programme [IGBP]; Use of Environmental Indices in the Management of Pelagic Fish Populations, jointly with GLOBEC.

The Integrated Coastal Area Management [ICAM] programme

Submarine Groundwater Discharge into the Coastal Zone, jointly with SCOR and the Land-Ocean Interaction in the Coastal Zone [LOICZ] of IGBP; LOICZ Basins Project; Development and Protection of the Coastal and Marine Environment of Sub-Saharan Africa;

Coastal Ocean and Advanced Science and Technology Studies [COASTS] – a synthesis of inter-disciplinary global coastal ocean science is due for publication as volumes 12 and 13 of 'The Sea'.

Operational observing systems:

A major initiative now being developed by IOC, largely in response to the recommendations of the United Nations Conference on the Environment and Development [1992] is the Global Ocean Observing System [GOOS]. When fully developed, GOOS will comprise a number of operational or quasi real-time observing systems designed to monitor different marine environmental processes. GOOS is working through two modules: [i] climate and marine services [e.g. weather forecasting]; and [ii] coastal seas, which includes marine living resources, pollution, and coastal services for transport, ports and harbors, coastal protection, offshore industry and tourism and recreation.

Today the Initial Observing System of GOOS is operating through an amalgamation of many pre-existing specialist programmes including The Ships of Opportunity Program, Voluntary Observing Ships Program, Global Sea Level Observing System, Global Coral Reef Monitoring Network, Global Temperature Salinity Profile Program, Data Buoy Cooperation Panel, Tropical Atmosphere Ocean Array, the Continuous Plankton Recorder Survey, several Operational Satellites and the Global Telecommunication System [WMO]. Many individual nations contribute parts of their national operational services to GOOS. In addition, many countries have grouped together to implement GOOS at the regional level, in the Caribbean, Mediterranean, Baltic Sea, Black Sea, European northwest shelf, Pacific islands, Southeast Asia, northeast Asia, and the Indian Ocean. Finally, GOOS is being further

developed through a global scale pilot research programme, the Global Ocean Data Assimilation Experiment [GODAE], which includes an ambitious programme [ARGO] to seed the ocean with 3000 profiling floats to measure the temperature and salinity of the upper ocean globally for the first time ever.

Ocean services

The IOC's Ocean Services covers the 'International Oceanographic and Information Exchange' [IODE], the Ocean Mapping and the International Tsunami Warning System programmes.

The IODE was established in 1961 and is the oldest programme of IOC. It is a global network of 66 Oceanographic Data and Information Centres in as many countries. The network is linked closely with ICSU's network of World Data Centres-Oceanography. Following the success of the GODAR project the IODE is developing the World Ocean Database Project. Recognizing the importance of new technology the IODE web site, the IODE Data and Information Portal and the related services and products are being further developed. IODE is also participating in the development of a marine XML as a means to facilitate the exchange of, and access to data [especially over the Internet] and to promote the use of XML at the national level. The IODE is now in the phase of increasing attention for remotely sensed data, biological and chemical data, pollution data and coastal data, and its management and exchange practises.

IODE's capacity building programs that are increasing annually include:

1. Ocean Data and Information Network for Africa [ODINAFRICA] project started in January 2001 providing computer hardware, data and information management training and support for new data centres. Africa now counts 13 Oceanographic Data Centres. ODINAFRICA has provided the framework that can be used to cater for data and information management, services and products needs of various ocean science and services programmes/projects, including operational oceanography projects such as GOOS-Africa, GLOSS, etc.
2. The Ocean Teacher was developed as a comprehensive data and information resource and training tool. It is available on-line [<http://www.oceanteacher.org>] or on CD-ROM and will be used as a standard curriculum training tool during IODE training courses. It can also, to some extent be used for self-training.
3. The Ocean Mapping Programme [OPM] main goal is to cover the world ocean with bathymetric and geological-geophysical charts in order to provide decision-makers, scientists and students with information about bottom relief and geological parameters of the open part of the World Ocean and in Exclusive Economical Zones [EEZ] It creates the basis for other IOC programmes. Actually OPM consist of 9 different regional projects such as: General Bathymetric Chart of the Oceans [GEBCO], International Bathymetric Chart of Mediterranean [IBCM], International Bathymetric Chart of the Central Eastern Atlantic [IBCEA], International Bathymetric Chart of the Caribbean Sea and Gulf of Mexico [IBCCA], International Bathymetric Chart of the East South Pacific [IBCESP], International Bathymetric Chart of

the Western Pacific [IBCWP], International Bathymetric Chart of the Western Indian Ocean [IBCWIO], International Bathymetric Chart of the Arctic Ocean [IBCAO] and Geological Geophysical Atlases of the Atlantic and Pacific Oceans [GAPA].

Training, Education and Mutual Assistance in marine sciences

The TEMA activities of the Commission are central to the overall IOC role and support the capacity building efforts that are focused within the IOC's scientific programmes. A strong TEMA policy ensures that the capacity building process is linked to existing and planned national and regional programmes, thereby enhancing the success rate of capacity building activities. The IOC's regional subsidiary bodies help to make national efforts more sustainable and effective and provide mechanisms to stimulate the capacity building IOC programmes. The GOOS Capacity Building initiative is set in the context of the overall need to address the growing imbalance among countries, which is fundamental to a sustainable future.

IOC Partners

The IOC does not work alone in the ocean. There are numerous institutional, international and intergovernmental partners that can aid in capacity building efforts. Two partners that merit special attention are the World Meteorological Organization (WMO) and the Committee on Earth Observing Systems (CEOS). The WMO has been a partner of IOC and many major active joint programmes have resulted from this collaboration. The IOC can also emulate WMO initiatives for capacity building, such as the Voluntary Cooperation Programme. The CEOS also has several initiatives that the IOC could work in closer collaboration with, for example the programme on establishing real time satellite data reception stations. Both WMO and CEOS activities are eminently suited for capacity building in GOOS activities and the IOC will forge closer linkages with the capacity building programmes of these organisations so that duplication is avoided and resources spread more effectively.

As new challenges arise fresh partnerships in capacity building will be formed, and old ones negotiated. New partnerships with non-governmental organisations can inject new ideas and energy, create new constituencies and promote new approaches. The Global Marine Assessment (GMA) programme, still in the initial stages of definition, could become the next major programme requiring the participation of Member States, and could become a vehicle like GOOS through which future CB activities will be channelled. Another emerging activity in which IOC is actively participating, is the Group on Earth Observations, set up by Earth Observations Summit, and charged with the responsibility of drawing up plans for comprehensive earth observations from land and space. GEO has identified capacity building as a major initiative for involvement of the global community in ensuring fulfilment of its task. In addition the Continental Shelf Delineation Programme currently being undertaken by UNEP (through GRID Arendal) calls for IOC participation and represents an opportunity for significant capacity building activities within the delineation of the legal continental shelf.

References for further information

Some addresses on IOC sponsored and partnered Capacity-Building activities
Ocean Sciences

<http://ioc.unesco.org/hab/default.htm>
<http://ioc.unesco.org/coralbleaching/gef.htm>
http://www.ioccg.org/training_ioccg.html
<http://ioc.unesco.org/icam/>
<http://ioc.unesco.org/ttr/>

Operational Oceanography

<http://ioc.unesco.org/goos/key5.htm#cap>
<http://www.pol.ac.uk/psmsl/programmes/gloss.info.html>
<http://www.wmo.ch/web/aom/marprog/Programme-Areas-and-Activities/jcomm-capacity-building-programme-area.htm>

IOC Regional activities

<http://ioc.unesco.org/iocindio/activities.htm>
<http://ioc.unesco.org/westpac/activities.htm#2003>

Capacity-Building

<http://ioc.unesco.org/tema/iocGrants.htm>

Ocean Services

<http://www.oceanteacher.org>
<http://www.odinafrica.net>
<http://www.odincarsa.net/>
<http://ioc.unesco.org/iode/categories.php>
http://ioc.unesco.org/iode/categories.php?category_no=45
<http://ioc.unesco.org/iode/contents.php?id=126>
<http://ioc.unesco.org/oceanportal/>

Ocean Teacher
ODINAFRICA
ODINCARSA
ODINCINDIO
Regional training
UNESCO BILCO

UNESCO's Man and the Biosphere programme

<http://www.unesco.org/mab/activities.htm> - capacity

UNESCO's International Hydrological Programme

<http://unesdoc.unesco.org/images/0012/001262/126258eo.pdf>

UNESCO's International Geoscience Programme

http://www.unesco.org/science/earthsciences/capacity/courses_2003.htm

UNESCO's Environment and Development in Coastal Regions and in Small
Islands programme

http://www.unesco.org/csi/chairs_tw.htm

11. United Nations Framework Convention on Climate Change (UNFCCC)

Mandate

The goal of the United Nations Framework Convention on Climate Change (UNFCCC) is to achieve the stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. As such, all Parties to the Convention have common but differentiated responsibilities. Developing countries and countries with economies in transition (EIT) need technical and financial assistance in the development and enhancement of their endogenous capacities and technologies in order to fulfil their commitments under the Convention (<http://unfccc.int/resource/docs/convkp/conveng.pdf>).

Objectives of the environment related capacity building and technology support activities

Assist developing countries to build, develop, strengthen, enhance, and improve their capabilities to achieve the objective of the Convention through the implementation of the provisions of the Convention and the preparation for their effective Participation in the Kyoto Protocol process.

Strengthening or establishing, as appropriate, relevant institutions and human resources in order to strengthen their expertise relevant to the implementation of the Convention and the Kyoto Protocol.

To improve the coordination and effectiveness of existing efforts and promote the participation of and dialogue between a wide range of actors and constituencies, including governments at all levels, international organizations, civil society and the private sector.

Environment related capacity building and technology support portfolio

Capacity-building and technology transfer are regular agenda in the sessions of the subsidiary bodies of the Convention and the Conference of Parties (COP) where decisions are adopted relating to the funding and implementation of these key issues under the Convention. At the seventh session of the COP in Marakkesh, the following decisions relating to capacity-building and technology transfer were adopted: Framework for capacity-building in developing countries (decision 2/CP.7), the framework for capacity-building in countries with economies in transition (decision 3/CP.7) and the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention (Framework for technology transfer) (decision 4/CP.7).¹⁵

Capacity-building under the Convention is primarily being undertaken by developing country and EIT Parties through a country-driven process. Developed country Parties

¹⁵ <http://unfccc.int/resource/docs/cop7/13a01.pdf>

through their bilateral agencies, the Global Environment Facility and multilateral agencies are providing financial and technical support to implement the priority capacity-building projects and programmes identified by host countries.

Support the frameworks for capacity building and technology support through the following measures:

- Support the parties in preparing their national communications (e.g. greenhouse gas inventories and vulnerability assessments) and the implementation of the mechanisms of the Kyoto Protocol.
- Developing 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;
- Establishing an information-clearing house, including a network of technology information centers;
- Facilitating the organization of meetings of the Expert Group on Technology Transfer (EGTT).
- Providing support in preparing background materials and organizing workshops relating to technologies in adaptation, innovative financing, technology needs assessments and enabling environments.

Major Capacity building, technology transfer activities:

Information dissemination

The secretariat produces user manuals, handbooks, technical papers and other informational materials for dissemination to Parties and interested stakeholders. In response to the mandates provided by Parties, the secretariat maintains the following electronic and web-based information systems:

1. TT:CLEAR (<http://ttclear.unfccc.int/ttclear/jsp/>)
2. Clean Development Mechanism (<http://cdm.unfccc.int/>)
3. Greenhouse gas database (<http://ghg.unfccc.int/>)
4. National communications database (<http://unfccc.int/resource/natcom/index.html>)
5. UNFCCC roster of experts (<http://maindb.unfccc.int/roe/>)
6. Capacity-building resource library (<http://unfccc.int/program/sd/cb/library.html>)

Workshops/seminars

Various programmes and units within the secretariat regularly organize workshops and seminars to provide technical inputs to Parties and other stakeholders on a specific issue, such as technology transfer, methodologies, education and public awareness. The outcomes of the workshops serve as inputs to the draft decisions prepared by Parties and build the capacity of participants to implement the decisions

of Parties such as preparation of national communications, vulnerability assessments and CDM projects. The secretariat, through LearnSD (<http://www.learnsd.org/angel/courses.asp>), is also running an on-line training course on GHG Inventories Review course aimed at strengthening the capacities of GHG inventory experts taking part in the technical review of GHG inventories of Annex I Parties. Reports and other information regarding the workshops and seminars organized by the secretariat are posted in the following web site: <http://unfccc.int/sessions/workshops.html>.

Capacity needs assessments

Assessing capacity needs at the regional and national levels is key to developing projects and programmes. Several on-going processes are aimed at assisting Parties identify their priority needs: National capacity self-assessments, technology needs assessments and national adaptation programmes of actions. The role of the secretariat on these capacity assessment processes vary depending on the mandate provided by Parties such as: drafting of guidelines for the preparation of capacity assessments; cooperating with other agencies in preparing handbooks; collating reports and synthesizing them for perusal by Parties; and providing feedback on project preparation and outcomes of the activities.

Support for constituted bodies

The Convention has the following constituted bodies: the CDM Executive Board, Least Developed Countries (LDC) Expert Group (LEG), Consultative Group of Experts on National Communications from non-Annex I Parties (CGE) and the Expert Group on Technology Transfer (<http://unfccc.int/sessions/othermt.html>). The aim of these bodies is to support the implementation of the various decisions of the Conference of Parties. The secretariat assists these bodies through the regular convening of meetings and workshops, preparation of background materials and preparation of reports.

Cooperation with the GEF, UN agencies and international organizations

The secretariat is engaged in formal (e.g. Joint Liaison Group (JLG) of the Rio Conventions) and informal coordination (e.g. interagency group on capacity-building) to facilitate the implementation of the capacity-building decisions of the Conference of Parties. Cooperation with the GEF and its implementing agencies and other international organizations are aimed at exchanging information on capacity-building activities and enhance synergy in the implementation of capacity-building projects and programmes.

References for further information

Capacity-Building

Progress report on the status of activities to implement decisions 2/CP.7 and 3/CP.7 (Capacity-building frameworks)

<http://unfccc.int/resource/docs/2002/sbi/inf15.pdf>

Information of capacity-building activities of Annex I and non-Annex I Parties

<http://unfccc.int/resource/docs/2003/sbi/inf09.pdf>

Capacity-building activities of Annex I and non-Annex I Parties (Submissions from Parties)

<http://unfccc.int/resource/docs/2003/sbi/misc05.pdf>

Information of capacity-building activities of the Global Environment Facility and its implementing agencies and intergovernmental organizations

<http://unfccc.int/resource/docs/2003/sbi/inf10.pdf>

Information from the GEF and international organizations on the progress of the implementation of capacity projects and programmes (Submissions from the GEF)

<http://unfccc.int/resource/docs/2003/sbi/misc02.pdf>

Analysis of the implementation of the framework for capacity-building in developing countries

<http://unfccc.int/resource/docs/2003/sbi/14.pdf>

Range and effectiveness of capacity-building activities in developing countries aimed at implementing decision 2/CP.7

<http://unfccc.int/resource/docs/2004/sbi/09.pdf>

The range and effectiveness of capacity-building in developing countries relating to decision 2/CP.7 (Technical paper)

<http://unfccc.int/resource/docs/tp/tp0401.pdf>

Additional information relating to the comprehensive review of the implementation of the framework for capacity-building in developing countries (Submission from Parties)

<http://unfccc.int/resource/docs/2004/sbi/misc01.pdf>

Compilation and synthesis of capacity-building activities in countries with economies in transition

<http://unfccc.int/resource/docs/2004/sbi/08.pdf>

Technology transfer

Projects and programmes incorporating cooperative approaches to the transfer of technologies

(Submissions from Parties)

<http://unfccc.int/resource/docs/1999/sbsta/misc05.pdf>

Report of the Latin America and the Caribbean regional workshop on the transfer of technology consultative process; San Salvador, El Salvador, 29-31 March 2000

<http://unfccc.int/resource/docs/2000/sbsta/inf06.pdf>

Report of the Asia and the Pacific regional workshop on the transfer of technology consultative process; Cebu City, the Philippines, 17-19 January 2000

<http://unfccc.int/resource/docs/2000/sbsta/inf02.pdf>

Technology transfer clearing house and international information network - Proposal for activities

<http://unfccc.int/resource/docs/tp/tp0102.pdf>

Report of the expert meeting on methodologies for technology needs assessments, Seoul, Republic of Korea, 23-25 April 2002

<http://unfccc.int/resource/docs/2002/sbsta/inf07.pdf>

Report of the technology information expert workshop, Beijing, China, 18-19 April 2002

<http://unfccc.int/resource/docs/2002/sbsta/inf06.pdf>

Report of the workshop on enabling environments for technology transfer

<http://unfccc.int/resource/docs/2003/sbsta/inf04.pdf>

Enabling environments for technology transfer (Technical paper)

<http://unfccc.int/resource/docs/2003/sbsta/inf04.pdf>

Technical paper on capacity building for technology transfer

<http://unfccc.int/resource/docs/tp/tp0301.pdf>

Report on the assessment of the effectiveness of the use of the technology information system (TT:CLEAR)

<http://unfccc.int/resource/docs/2003/sbsta/inf12.pdf>

Annual report of the Expert Group for Technology Transfer for 2003

<http://unfccc.int/resource/docs/2003/sbsta/12.pdf>

Summary of the senior-level round-table discussion on enabling environments for technology transfer, held at the ninth session of the Conference of the Parties

<http://unfccc.int/resource/docs/2004/sbsta/02.pdf>

Results of the survey on the effectiveness of the use of the UNFCCC technology information clearing house (TT:CLEAR)

<http://unfccc.int/resource/docs/2004/sbsta/inf08.pdf>

<http://unfccc.int/resource/docs/2004/sbsta/inf08a01.pdf>

<http://unfccc.int/resource/docs/2004/sbsta/inf08a01c01.pdf>

12. United Nations Population Fund (UNFPA)

Mandate

UNFPA supports key population, environment and sustainable development activities at global, regional and national levels. These include policy dialogue, planning and research relating to population, poverty, environment and sustainable development. UNFPA also provides support for institutional capacity building to improve data collection, analysis, research and dissemination, and promotes population and sustainable development information, education and advocacy.

Objective/s of the environment related capacity building and technology support activities

To help countries to achieve the internationally agreed development goals, including those contained in the United Nations Millennium Declaration, including MDG 7 on ensuring environmental sustainability.

Environment related capacity building and technology support portfolio

UNFPA's work in the area of environment and sustainable development is guided by chapter 3 of the program of action adopted at the 1994 International Conference on Population and Development (ICPD), UNCED's Agenda 21 (chapter 5) and the 2002 WSSD's Plan of Implementation. Population dynamics, poverty reduction and better management of the environment are central to sustainable human development. UNFPA raises awareness of the interrelationships between global population growth, demographic dynamics, the environment and sustainable development

Major Capacity building, technology transfer activities:

Research and Measurement

- Good quality demographic data and research studies on the linkages between population and the environment and on the role of governments and communities in bringing about the desirable change are essential to inform, implement and monitor sound sustainable development policies. They are also important to guide sustainable resource management programmes and eventually reverse detrimental and unsustainable development trends.
- Documenting best practices and lessons learned, and cross-cultural comparisons of research findings can improve our understanding of the causes behind the actual and potential deterioration of the environment, facilitate more informed decision-making and increase our capacity to intervene to address the ecological, economic and social implications of population increases and changes in population distribution.

Example: UNFPA is supporting the Azerbaijan Government to incorporate population into its development and environmental planning, as well as promote gender-sensitive policies and programmes for population and

sustainable development. Key components of the initiative include: building research and planning capacities; improving training facilities; and, mobilizing national and local leaders as advocates for ICPD goals on population, including reproductive health and rights, and the environment.

- *Building/strengthening individual and institutional capacity* to produce and use reliable indicators informing on the population-poverty-environment interconnections. This will also help the monitoring and evaluation of the common ICPD, UNCED and MDG population and sustainable development goals.

Advocacy and Public Awareness

- Acknowledging the importance of creating awareness and promote a deeper understanding among communities, policy planners and decision makers about the relationship between population, environment and sustainable development through participation in and support for advocacy activities and policy dialogue. This presupposes the involvement of relevant line governments, parliamentarians, community leaders, institutions of civil society, and the private sector.
- Policy-makers and programme planners must have a clear understanding of the way in which population size, distribution and composition affect and, in turn, are affected by, the environment. They must have a deeper understanding of the social and economic determinants of policies, patterns and behaviors that are more likely to compromise the chance of future generations for a better life.

Example: UNFPA has been supporting policy dialogue among parliamentarians from developed and developing countries on population, environment and sustainable development issues organized by various regional parliamentary groups. In May 2001, parliamentarians from several countries met to discuss food security, water resources and population issues in Asia and the Pacific. They noted that while there had been progress in several countries in formulating policies related to food and water security, countries faced capacity constraints in implementing the policies, including lack of suitable data and research, as well as a lack of resources. The participants also noted that despite significant gains in food production, there were large numbers of chronically malnourished people living in the region, especially in South Asia. Lack of access to safe drinking water and water pollution that threaten people's health was also pointed out. Parliamentarians recognized the important role they could play in enacting appropriate legislation to address population, environment and sustainable development concerns.

Example: In Bangladesh, UNFPA is assisting the Centre for Policy Dialogue to strengthen its institutional and technical capabilities by promoting policy dialogue and undertaking policy analysis and research on issues relating to population and sustainable development. The aim is to sensitize policy-makers and planners on pertinent issues and mobilize their support for policy decisions through regular dialogue at the national and regional levels,

undertake research studies on population and sustainable development, and prepare policy papers based on research findings and policy consultations.

- Acknowledging the role of the mass media and information technology including Internet, to help increase awareness and understanding of population, environment and sustainable development linkages. The challenge is to make this technology available and accessible in settings where it is most needed, especially in the world's poorest countries.
- Involving communities in questioning unsustainable practices particularly when it comes to using scarce and non-renewable resources and help identify alternative patterns (policies), resources (depending on existing technology and the state of the economy) and practices (lifestyles and behaviors) while working towards ensuring a higher level of equity and quality of life, particularly for the poor, the vulnerable groups, and the socially, economically or otherwise marginalized.

Example: “South Africa’s experiences and lessons learned in implementing population, environment and development policies, for example, has demonstrated that community based initiatives, which resonate with people’s basic needs, can make a huge difference among poor communities. A community-based environmental and reproductive health programme in two rural districts was initiated by the government, together with UNFPA, the Planned Parenthood Association of South Africa and the Working for Water Programme. What is notable about the programme is the overt linkage of population interventions to an environment and development programme with beneficial effects to the communities through the provision of clean water, job creation and promotion of reproductive health information and services, including HIV/AIDS. The project, which was undertaken to restore original water flows to rivers and streams, created many jobs, especially for women, and then became linked to the provision of project-based reproductive health services”.

Integration of Population Issues into Sustainable Development Policies

- Mainstreaming population factors into national development agendas and poverty reduction strategies is essential to ensure a favorable balance between population and available resources. Hence the importance of integrating population issues into the formulation, implementation, monitoring and evaluation of all policies and programmes relating to sustainable development. Wherever progress was made in articulating population components into environmentally sound policies it was possible to improve the quality of, and access to, safe water; curbing environmental pollution and hazardous wastes; constraining the degradation of the agricultural land base; regulating inappropriate land-use practices, which are often accentuated by high levels of migration; and restraining the conversion of forests in upland areas to alternative uses reflective of demographic pressures among the poorest groups in society.

Example: In the context of the ongoing dialogue on population, poverty and environment, UNFPA published a report in August 2001 entitled “*Population,*

Environment and Poverty Linkages: Operational Challenges.” The report documents UNFPA support for a number of programme initiatives in the area, with information sourced from its country and inter-country programmes. The report also draws attention to the many capacity constraints facing developing countries in identifying environment, population and poverty linkages, and in framing policies and programmes to promote sustainable human development.

Example: As a contribution to the dialogue that took place at the Third World Water Forum held in Kyoto, Japan, in March 2003, UNFPA published a report on “*Global Population and Water: Access and Sustainability.*” The report covers the population, gender and health dimensions related to the ongoing debate on water resources.

Partnership within and outside the UN

- UNFPA maintains an active dialogue among like-minded institutions within the UN system (UNEP, FAO, UNESCO, UNCHS, etc. and with other development partners, such as Women’s Environment and Development Organization (WEDO), Center for International Earth Science Information Network (CIESIN) at Columbia University, National Council for Science and the Environment (NCSE), International Institute for Applied Systems Analysis (IIASA), etc.; ensuring the highest level of experience sharing and documenting good practices at the global, national and local levels taking into account local contexts and realities; disseminating information about both issues (what) and processes (how); working together on mobilizing adequate resources; lobbying together for endorsement and implementation of international agreements and instruments; and harmonizing monitoring tools and indicators as part and parcel of monitoring the MDGs.
- UNFPA is active in establishing concrete follow up and accountability mechanisms with clear division of roles and responsibilities among partners and enabling all parties involved to discharge their responsibilities successfully.

References for further information

www.unfpa.org

13. The United Nations Institute for Training and Research (UNITAR)

Mandate

Enhancing the effectiveness of the United Nations through appropriate training and research.

Objective/s of the environment related capacity building and technology support activities

Assisting the development of sustainable institutional, technical and human resource capacities, raising awareness, increasing knowledge and improving communication in partner countries and organizations.

Environment related capacity building and technology transfer portfolio

Five environmental and sustainable development programmes were developed by UNITAR and considerably increased in scale over the last ten years, at the request of UN partners, beneficiaries and donor agencies. They include:

- Chemicals and waste management,
- Climate change,
- International environmental law,
- Decentralized cooperation,
- Environmental information management.

UNITAR's programmes are considerably diverse but share the common aim of answering needs identified by recipient countries, partners and donors. Moreover, each particular programme develops synergies with the other activities in progress.

All programmes involve a wide variety of stakeholders, including, inter alia, government and other public officials, academics, planners, local authorities, as well as private sector and civil society representatives. Methodologies and training developed by UNITAR are constantly adapted and/or amended by each country/participants, in order to meet their own needs. While suggested methodologies and training approaches are flexible, a commitment to engaging a wide variety of stakeholders in developing and delivering solutions is a prerequisite for countries who wish to receive assistance from UNITAR's Environment Programmes. In UNITAR's experience, without such a broad approach, the sustainability of solutions would be doubtful in the long run. Other guiding principles include the importance of country-driven processes (addressing national priorities), South-South cooperation, and a commitment to carefully designed and implemented programmes that make a lasting contribution to national development.

Major environment related capacity building and technology transfer activities

1- Chemicals and Waste Management (CWM)

CWM supports capacity building in developing and transition countries to protect human health and environment from toxic chemicals and wastes. The programmes are closely linked to UNCED's Agenda 21 and related international initiatives, such as the Inter-governmental Forum on Chemical Safety (IFCS) and the Stockholm Convention on Persistent Organic Pollutants (POPs).

Integrated Chemicals and Waste Management

The cross-sectoral nature of chemicals and waste management and related diverse stakeholder interests calls for an integrated and coordinated approach at the national level. CWM assists countries to achieve this objective by providing support in the preparation of National Profiles and capacity needs assessments, the strengthening of inter-ministerial coordination, preparation of national Priority Setting Workshops, the strengthening of national information exchange and in building skills for financial resource mobilisation. In 2004-2005, pilot projects are operating in four countries to develop and sustain an Integrated National Programme for the Management of Chemicals and Wastes. In addition, CWM offers specialized training programmes.

Specialized Training and Capacity-Building Programmes

CWM's specialized training and capacity-building programs include:

- Implementation of the Globally Harmonized System for Classification and Labelling of Chemicals (GHS)
- Persistent Organic Pollutants, including implementation of the Stockholm Convention
- Establishment of Pollutant Release and Transfer Registers (PRTRs)
- Risk Management Decision-making for Priority Chemicals
- Strengthening Public Participation in Environmental Risk Decision Making

In the area of GHS, CWM, in collaboration with ILO and OECD, provides the secretariat for the WSSD Global Partnership for Capacity Building to Implement the Globally Harmonized System of Classification and Labelling of Chemicals.

Skills Building, Human Resource Development and Technical Support.

To assist those charged with chemical safety responsibilities to develop effective strategies to address specific management topics, CWM offers skills-building workshops for sound action plan development, a virtual classroom to support knowledge management for GHS and PRTR implementation, e-learning for knowledge transfer to government and stakeholder experts, support of the Information Exchange Network on Capacity Building for the Sound Management of Chemicals (INFOCAP) and free dissemination of CD ROM Capacity Building Libraries

2- Climate Change Programme (CCP)

The activities carried out by the UNITAR Climate Change Programme (CCP) are driven by the recommendations contained in UNFCCC framework for capacity building in developing countries (Decision 2/CP.7) adopted in 2001 in Marrakech. This framework identifies the scope of, and basis for action on, capacity building

related to the implementation of the Convention and the effective participation of developing countries in the Kyoto Protocol process. In particular, the framework underscores *"the importance of mobilizing existing institutions in developing countries and building on existing processes and endogenous capacities at the regional, national or local levels, in order to ensure the sustainability of such programmes"*. Since 2001, with renewed funding from the Swiss Agency for Environment, Forest and Landscape, CCP has concentrated its efforts in achieving these objectives while strengthening working relationships with key UN agencies, UNEP and UNDP, as well as the UNFCCC Secretariat's Sustainable Development Programme.

Development of climate change training capacities in Asian and African partner institutions

Rather than developing training programmes in a centralized manner in Geneva, this project aims to strengthen the human resource and institutional capacity at centres of excellence in developing countries (non-Annex I Parties to the UNFCCC) for effective negotiation, policy analysis and coordination. The immediate target groups include three regional centers, direct partners to the project: ENDA Tiers-Monde in Dakar (Senegal), UCT/ERC in Cape Town (South Africa); and MIND in Colombo (Sri Lanka). The partners will reach out and target the UNFCCC national focal points, senior level climate negotiators, focal points for bilateral and multilateral development assistance, and other concerned government actors and stakeholder groups in the targeted regions. The main project activities jointly carried out by partners include:

- Regional development of climate change training programme (tools and methods),
- Training of local trainers and implementation of selected training programmes;
- Feasibility of developing a web interactive distance learning programme to support the negotiating and policy analysis capacity of developing countries.

Technical assistance to Least Developed Countries; Transfer of information and communication technology (ICT) for climate change policies:

After it was agreed to provide urgent support to Least Developed Countries (LDCs) in the context of the UNFCCC negotiations, the CCP developed a project to support human and institutional capacity building. This project aimed at providing locally selected ICT equipment and training to national climate change teams, to improve their means of communication. By the end of 2002, grants had been made available to 41 UNFCCC LDC focal points for equipment and training.

Development of institutional capacity in managing National Adaptation Plans of Action (NAPAs) in LDCs:

Two UNDP/GEF funded projects were developed by UNITAR, as agreed upon at the eighth conference of the parties to the UNFCCC, to enhance national institutions capacity and community involvement in managing National Adaptation Projects (NAPAs). Four regional training workshops were organized under the guidance of the LEG, in cooperation with other interested bilateral and multilateral agencies and the active role of national facilitators in:

- Samoa for 5 SIDS LDC country teams in March 2003,
- Ethiopia for 12 Anglophone LDC country teams in June 2003,
- Bhutan for the 8 Asian LDC country teams in September 2003,
- Burkina Faso for 23 Francophone LDC country teams in October 2003.

Strategy to support the implementation of NAPAs in several LDCs:

The results from a survey conducted by UNITAR at the conclusion of the above workshops revealed important capacity needs/bottlenecks, such as the need for operational support to implement national projects, a specific support programme was developed. As a first response to this concern, CCP published a training manual which was produced by the Least Developed Countries Expert Group, in cooperation with the UNFCCC Secretariat's Sustainable Development Programme. Targeted and focused training in 2004 in the West African countries is currently under preparation in full cooperation with CCP's in-country partners with funding from the French Ministry of Foreign Affairs. This proposed strategy aims to provide solid and on-going technical assistance to countries with respect to implementation of their NAPAs in selected Francophone LDCs. Capacity building sequences are proposed as follows:

- Phase 1: Setting up a web based communications platform and connecting partners online.
- Phase 2: A network of African and other experts will provide a question/answer support service and several activities will be carried out, such as:
 - Production of educational materials
 - Establishment of an implementation review committee for good practices
 - Analysis and publication of the main results obtained during the NAPA process.
- One-off technical service 1: Where NAPA teams are finding it difficult to begin preparing their NAPA, an extra form of support aiming at giving the best response to the team's needs will be proposed by a local partner.
- One-off technical service 2: Practical NAPA team workshops/seminars will be programmed according to geographical zones, themes, type of exercise, or a combination of the three.
- Final phase: Evaluation of the process.

Conceived on the basis of past experience and combining the support of local and international expertise (with the support of online facilities as well as face to face work) such a capacity building strategy offers the best chance to reach the targeted individuals, institutions and systems that should benefit from this support.

3- Decentralised Cooperation Programme

The Decentralized Cooperation Programme aims to provide local authorities and local actors with the necessary training and best practices to achieve access to basic services (such as water, sanitation, waste management, transportation, energy, information and communication and health protection). The Programme's training activities are based on the exchange of urban best practices, and are organized with the involvement of UN agencies and other international organizations, associations of local authorities, NGOs, local and global private companies and academia. The UN

Global Compact has recognized the Decentralized Cooperation Programme as a training leader for public-private partnership with local authorities in the field of access to basic services. In this context, the Decentralized Cooperation Programme serves as a hub for information, communication and training on sustainable urbanization facilitating the development of south-south city-to-city cooperation projects. It has, as a Type 2 Initiative of the WSSD, played a convening role at the local level in the implementation of the Millennium Development Goals.

The Decentralized Cooperation Programme is engaged in two types of activities connecting the local with the global:

Training Network

DCP provides training through exchange of experiences between all constituencies to plan and implement locally effective strategies that translate global policies into programmes relevant to national and local contexts. This activity aims at reinforcing the capacities of local authorities (parliamentarians, mayors) and their local partners (civil society and the private sector) in the field of sustainable urban development (water and sanitation, waste management, transportation, energy), the information society (e-governance, e-administration, e-democracy) and humanitarian affairs (AIDS, cultural diversity, urban safety). This objective is achieved through a network of regional associated training centres called **CIFAL** (French Acronym for International Training Centre for Local Actors) located in:

- Kuala Lumpur (Malaysia) and Shanghai (China) for Asia-Pacific
- Ouagadougou (Burkina Faso) and Durban (RSA) for Africa
- Curitiba (Brazil) for Latin America and the Caribbean
- Plock (Poland) for Central and Eastern Europe
- Divonne-les-Bains and Lyon (France), Bilbao and Barcelona (Spain) for Europe
- Projects : Atlanta (USA), Medellin (Columbia)

Exchange through a multi-stakeholder deliberative approach

DCP organizes exchanges through a multi-stakeholder deliberative approach to encourage ways of building and reinforcing cooperative efforts and synergies between the UN and all constituencies. This activity takes two approaches:

Reinforcing cooperation between UN agencies and programmes with local authorities

At the request of several associations of local authorities that wished to understand, develop, and reinforce their cooperation with United Nations Programmes and Agencies, and vice versa, to respond to a number of United Nations Programmes and Agencies conscious of the potential of cooperation at the local level, a high level meeting was organized (with UNOG, UN-HABITAT, WACLAC, the Swiss Federal Authorities, and Canton and City of Geneva) between the Associations of Cities and the United Nations Programmes and Agencies. A series of concrete suggestions from the participants aimed at reinforcing the partnership between the local authorities and the United Nations System has emerged with suggestion for the creation of a Working Group between the United Nations Agencies and Programmes and the Associations of Cities and Local Governments.

Cooperation for the provision of access to basic services for all

At the request of the private sector and local authorities to recognise their role and responsibilities in implementing the MDGs in general and in providing access to basic services (water and sanitation, waste, transport, energy) in particular, UNITAR and UN-HABITAT have jointly prepared a working paper on "Access to basic services for all: partnerships and right-based approach". This was presented at the CSD12 and discussed in detail with representatives of all stakeholders. All parties expressed their common interest for "internationally agreed principles" which would assist each government and the different stakeholders to improve the provision of basic services for all. According to the participants, the objectives of the meeting were fully achieved, since a.) the working paper was discussed and suggestions for a revised second version were made, b.) the terminology "access to basic services" was discussed and clarified, c.) a need for a "Declaration of principles" on access to basic services for all was expressed, and d.) concrete future actions were recommended.

Training Tools

To support local authorities in achieving international development goals locally, the Programme offers the following training tools: training manuals, knowledge management tools and **CIFAL WEB**, a web-based network complementing the network of training centres, containing information on urban services related to environment, administrative and institutional mechanisms as well as follow-up to the training sessions.

4- Environmental Law Programme (ELP)

UNITAR's Environmental Law Programme (ELP) was established in 1997 with a view to strengthening the capacities of the Member States of the United Nations in the field of international environmental law. The overall goal of the programme is to raise awareness and to improve general knowledge in international environmental law, strengthening human capacities for a more effective participation in the efforts to implement multilateral environmental agreements (MEAs) and to pursue sustainable development.

To achieve its goals ELP promotes several training activities: a distance-learning training course on international environmental law, capacity building programmes for the implementation of MEAs and training programmes for specific stakeholders.

Distance-Learning Training Course on International Environmental Law

The Distance-Learning Training Course on Environmental Law is a self-tailored programme, designed to assist government officials, NGO representatives, lawyers, judges, prosecutors, academics and students, working in the field of environmental law policy and administration, to improve their qualifications for the application of environmental law at the national level.

The Environmental Law Programme has published ten course-books covering the main topics of international environmental law and specifically designed for distance-learning training. The Distance-Learning Course is currently available in English, French, Spanish (e-version) and Chinese (forthcoming) and reaches a large number of people throughout the world.

E-Learning

ELP offers an e-learning platform based on the course materials of the Distance-Learning Training Course on Environmental Law. A pilot version of the platform, developed for French-speaking African countries, is now online running four modules of the distance-learning programme (courses 1, 3, 4 and 9). ELP envisages making the e-training package available in Spanish and English.

Capacity Building Programmes (national, regional and sub-regional workshops)

Capacity building programmes are specialized intensive training initiatives developed to enhance the implementation of multilateral environmental agreements and to facilitate the management of natural resources. Seminars and workshops are organized at the national, regional or sub-regional levels and provide a general overview of international environmental law or treat specific subjects, following the requests presented by interested states.

ELP's capacity building programmes cover various subjects of environmental law, including biological diversity management, environment and tourism, integrated coastal zone management, sustainable waste management and water management. Programmes have been offered in the following geographical zones: Asia-Pacific, Indian Ocean, West Africa, North Africa and the Mediterranean Basin.

Tailor-Made Training Programmes

Tailor-made programmes target the specific training needs of stakeholders involved in the implementation of environmental obligations. The training sessions cover international as well as domestic aspects of environmental law. The participants may include legal professionals such as judges, prosecutors and lawyers, who do not necessarily have a background in environmental law and other professionals who work in the field of environment but do not necessarily have a background in law. These professionals include planners, inspectors, employees of private companies and local authorities.

In the near future the ELP will extend its training activities to parliamentarians who are, among other tasks, mandated to implement the various international environmental obligations at the national level.

5 Environmental Information Management and Monitoring Systems – SISEI

SISEI's objective is to establish information communities that will access useful information to elaborate policies for poverty reduction, taking inspiration from the United Nations Millennium Declaration. SISEI assists in developing national capacities to use information and communication technologies (ICT) applications for environmental management. SISEI aims to promote efficient processes and mechanisms for sharing data and information and to establish networks of institutions – information users and providers, and to enhance the value of the existing scientific, technical and cultural heritage, as well as maintain "institutional memory".

SISEI believes that the integrated management of data and information is a prerequisite to implement multilateral environment agreements, such as biodiversity,

climate change or desertification, and to formulate enlightened environmental policies that contribute to sustainable development.

National and Subregional Sharing Workshops

SISEI provides assistance for institutional building to increase synergy and synchronization among stakeholders; for technical mastering of information and communication technologies; and for the development of a legal framework on the access to and dissemination of environmental information. SISEI's driving force is the promotion of south expertise enhancing south/south cooperation.

Training Tools and Information Sharing Platform

SISEI has developed an "Open Source" web platform in which support materials, training tools and information management applications are made available to associated countries. SISEI offers "shell country space" on its web server, allowing participating countries to set up their own environmental information portal, in which they can post and modify information relevant to their own needs. Practicing their information-technology skills prepares countries for transferring the adapted "country space" onto their own web server. Training on the use and appropriation of the platform are organized at both national and sub regional levels.

Further references

www.unitar.org

14. The United Nations University (UNU)

Mandate

United Nations University is a unique global institution, bringing together the international communities of academia and policymaking. With thirteen research and training centers and programs (RTC/Ps) around the world, its mission is to “*to contribute, through research and capacity building, to efforts to resolve the pressing global problems that are the concern of the United Nations, its Peoples and Member States.*”

Objective/s of the environment related capacity building and technology support activities

Enhancing capacity, particularly in developing nations, to promote peace, good governance, environmental management and sustainable development.

Major environment related capacity building, technology transfer activities

Capacity Development Activities :

Since capacity building is central to UNU’s mission, the following discussion cannot detail all of its activities in this area. Instead, it reviews thematically some of the programs most relevant to the drafting of the Intergovernmental Strategic Plan for Technology Support and Capacity-Building.

Identifying needs for achieving environmental security

The UNU-Institute of Environment and Human Security (UNU-EHS), is UNU’s newest branch. It opened its doors in December 2003, and is located in Bonn, Germany. Though it is just beginning its program activities, its work on vulnerability indicators will serve an important role in identifying capacity needs. Specifically, UNU-EHS seeks improve the in-depth understanding of the cause-effect relationships to find possible ways to reduce risks and vulnerabilities to environmental hazards and disasters. In so doing, it will provide critical information about what capacities are needed to respond to these events.

Renewable Energy

Responding to climate change is one of the most pressing global challenges of the coming century, and closely linked to economic and social development. UNU’s training activities in renewable energy are one way to respond to this challenge. The objective of the Geothermal Training Programme (UNU-GTP), now in operation for 25 years, is to assist developing countries with significant geothermal potential to build up or strengthen groups of specialists that cover most aspects of geothermal exploration and development. The six-month specialized courses, for approximately 20 professionals each year, aim to provide the participants with sufficient understanding and practical experience to permit the independent execution of projects in their home countries. Participants already possess experience in

geothermal work in their home countries, and are given the possibility of extending their studies to a MSc degree in geothermal sciences or engineering.

Biodiversity and Biotechnology

Building on its core competencies in resource management, UNU-Centre coordinates two programmes aimed at enhancing developing country capacity to manage and preserve biological diversity. The *People, Land Management and Environmental Change* (PLEC) project aims to develop sustainable and participatory approaches to biodiversity conservation within agricultural regions located in priority ecosystems, such as forests, mountains, semi-arid, freshwater and wetlands. Working in close collaboration with farmers and local communities, PLEC aims to integrate locally developed knowledge with scientific assessments so that crop and management diversities are maintained. In cooperation with the University of Ghent, UNU Centre also organizes a 6-month *Training Programme on Biological Diversity*, which offers developing country professionals in the fields of monitoring, conservation and management of biological diversity in-depth training to broaden their theoretical knowledge and practical capabilities.

UNU-BIOLAC, based in Caracas, Venezuela, examines the role of biotechnology in promoting social and economic development in the region. It offers postgraduate fellowships, as well as short training courses in bioethics and infectious diseases. The Biosafety Network (RNBio) offers fellowships to professionals in Central America and the Caribbean to be trained as regulators in technical commissions in their home countries. The goal of the network is to develop and strengthen training and research capacities in biosafety, risk assessment and management of agricultural and agri-food biotechnology. It focuses particularly on the objectives of the Cartagena Protocol, and its legal implications for the region. Fellows develop biosafety knowledge for courses to be held in Costa Rica, as well as abroad in recognized technical Commissions on Biosafety and in laboratories specialized in detection of LMOs. In 2002, UNU-BIOLAC hosted over 300 people through its training and post-graduate fellowships.

Agricultural Production and Food Security

In Africa, UNU-Institute for Natural Resources in Africa (UNU-INRA), works with International Agricultural Research Centers (IARCs) and National Agricultural Research Systems (NARS) to develop more sustainable farming systems involving diversified uses of indigenous African food crops alone or in combination with introduced staples. Following successful courses in 1998, 1999 and 2000, UNU-INRA organized the fourth training course in plant tissue culture jointly with the International Plant Genetic Resources Institute (IPGRI), International Institute for Tropical Agriculture (IITA), the Plant Genetic Resources Centre of Ghana's Council for Scientific and Industrial Research (CSIR), and the Botany Department of the University of Ghana. In 2002, the courses involved 11 participants from Côte d'Ivoire, Ghana, Nigeria, South Africa, Togo and Zambia. To date, UNU-INRA has provided training to a total 42 scientists and technologists from 23 universities and research institutes in 9 countries of sub-Saharan Africa.

In Japan, the Agriculture for Peace Fellowship program, co-sponsored by UNU-IAS and the International Science Foundation, sponsors African scholars to conduct research in-situ on food security and its relationship with political stability.

Researchers spend time at UNU-IAS, where they are matched with Japanese academics. UNU-Centre also coordinates a year-long training programme at the National Food Research Institute (NFRI) in Tsukuba, Japan. Each year since 1993, the programme trains five researchers from developing countries, mostly in the Asia-Pacific region. Fellows are assigned to one of NFRI's laboratories where they work with NFRI scientific staff on individual research projects relevant to the work of their home institutions. UNU-Centre also offers research fellowships for placement at the Central Food Technological Research Institute (CFTRI) in Mysore, India for specialists in traditional foods, oilseed proteins, nutrition and adaptable technologies.

Fisheries and Coastal Management

The management of the world's fisheries is a critical issue in terms of preserving biodiversity, maintaining ecosystem function and serving as a food source. Nonetheless, many of the world's fisheries are in dire straits. The UNU-Fisheries Training Programme (UNU-FTP) helps contribute to effective management of this important natural resource through six-month training courses offered each year that are focused on fisheries management. The post-graduate course is targeted at professionals and experts from the developing world, who are drawn from the public and private sectors as well as academia. During their six-months in Iceland, participants receive in-depth training and conduct an independent project related to work in their home countries. Cooperating partners include the University of Iceland, the University of Akureyri, and the research institutes the Icelandic Fisheries Laboratories and the Marine Research Institute. Nineteen fellows (nine of them women) from 13 developing countries joined the programme in August.

In Asia, UNU-INWEH and UNU ESD coordinate a capacity development project on "Environmental Monitoring and Governance in the East Asian Coastal Hydrosphere". This project encompasses regional pollution monitoring initiatives in nine East Asian countries and leadership of an international network of experts focusing on conservation of the coastal environment in Asia and the Pacific. The project aims to increase the regional capacity for coastal management by strengthening environmental monitoring and research. Particular importance is given to coastal pollution by persistent organic pollutants from land-based sources. The project is jointly implemented with UNU ESD and supported by Shimadzu Corporation (Kyoto, Japan). UNU-INWEH is also a scientific partner in a large GEF/World Bank project on "Coral Reef Targeted Research and Capacity Building." Specific, targeted research will seek to fill critically important gaps in fundamental understanding of the factors determining coral reef ecosystem sustainability and the application of this knowledge to improve management and policy interventions globally.

Water

UNU-INWEH, in collaboration with the UN Department of Economic and Social Affairs, has developed the *Water Virtual Learning Center*, offers an annual training focused on mangrove ecosystems, which maintains an integrated approach towards management of coastal ecosystems. The course provides young professionals holding a postgraduate degree in marine sciences or a closely related field with training in the methodology for assessing, monitoring and conserving biodiversity in mangrove ecosystems. In 2002, UNU Centre sponsored 9 of the 13 participants in the course. In addition, its Water Virtual Learning Center, developed in collaboration with the UN Department of Economic and Social Affairs, provides distance learning

opportunities for water professionals to enhance their capacity on best practices for water management in developing countries. The program provides training in Integrated Water Resources Management (IWRM) through a core curriculum in distance learning. It is intended as a specialised, undergraduate-level program for individuals, usually with undergraduate degrees, but with little or no previous training in the IWRM-related aspects of environmental engineering, natural science and social science.

Efficient utilization of water in arid areas is a key component of both agricultural production and management of marine resources. The Integrating Land Management in Dry Areas project, run by UNU-Centre, assists developing countries in dry areas to manage their land resources while achieving sustainable utilization of water and biodiversity resources contained therein. Integrated management of natural resources and developing multidisciplinary approaches is the key to achieving these objectives. The project functions as a network of researchers and institutions working together through project activities and research programmes.

To promote the efficient management of the Pantanal Wetlands, UNU-Pantanal Regional Environmental Programme (UNU-PREP) in collaboration with UNU-IAS, has begun capacity building activities and policy discussions to promote an interlinkages approach for wetland management in the Pantanal, which promotes synergy and coordination among multilateral environmental agreements. A meeting convened in October 2003 brought together policymakers, scholars, civil society and intergovernmental organizations to exchange best practices and to develop coherent policies for the sustainable development of the Pantanal wetlands focusing on the integrated approach for wetland management. To this end, the workshop discussed the major related international instruments, including the Ramsar Convention, the Convention on Biological Diversity, the Framework Convention on Climate Change, the Convention on Migratory Species, and the World Heritage Convention.

Governance

UNU has a number of capacity building programs related to environmental governance and the linkages between environmental governance and the social and economic pillars of sustainable development. The Interlinkages program, a joint initiative between UNU and the Japanese Ministry of Environment, seeks to promote greater connectivity between ecosystems and societal actions. On a practical level, this involves a greater extent of cohesiveness among institutional, environmental issue-based, and development focused responses to the challenges of sustainable development, shared by a range of international, regional and national mechanisms. The Interlinkages programme, in partnership with UNEP, the Economic Commission for Africa, the South Pacific Environmental Programme and the Association of Southeast Asian Nations, is undertaking a thirteen-country case study, with the aim of transferring lessons of implementation at both the national and regional levels.

Recognizing the important links between trade and sustainable development, the WTO University Professor Training Programme run by UNU-IAS, aims to enhance the ability of officials in developing countries to undertake international trade negotiations in a well-informed and productive manner. One way developing countries can themselves work towards this goal is by introducing the relevant curricula in their tertiary institutions. This “training the trainers” approach allows

universities in developing countries to enhance their own capacity, while disseminating knowledge about the trade regime, and its impacts on sustainable development, to present and future policymakers. In a similar training programme, UNU-IAS has convened negotiators from ASEAN nations to discuss the links between trade, biotechnology and sustainable development. The most recent of these trainings was held in Hanoi in January 2004 and trained participants from 9 ASEAN nations. UNU-IAS has also organized trainings for developing country negotiators just prior to negotiating sessions, such as before COP7 of the CBD. It is seeking to expand these efforts through a comprehensive capacity building program for developing country negotiators entitled *ENHANCE*: Environmental Negotiations Hands-on Capacity Building Exercise.

UNU-IAS also conducts regional capacity development activities in Central Asia, on access to genetic resources, benefit sharing and biosafety. These workshops aim to raise stakeholder awareness of global, regional and national activities related to access to genetic resources and benefit-sharing (ABS), traditional knowledge and biosafety, to create a basis for further cooperation and research, and to share information on best practices. UNU-IAS also provides capacity development for national delegations, NGOs, indigenous and local community organizations with regard to the functioning of the CBD and its Working Groups. It seeks to help developing countries build capacity to effectively participate in the negotiation and implementation of the WSSD-mandated international ABS regime.

Mountains

UNU-Centre, in partnership with the Centre for Development and Environment (CDE) at the University of Berne, Switzerland, has developed a comprehensive programme on sustainable mountain development. It aims to contribute to improved understanding of the status of different mountain systems in relation to global change, the pressures these mountains are exposed to, including their consequences on human, natural, economic resources, and the responses created by different social groups and mountain societies. The project enables local research institutions to partner with other institutions to develop their competence and capacities, while UNU itself functions as a coordination and information centre for mountain research activities.

International Courses

Each year, UNU-Centre organizes and co-sponsors a series of short training courses. These UNU International Courses, which are approximately a month long each year, are taught by a faculty of UNU academic staff and nearly two dozen external experts from academia, the UN, and other governmental and non-governmental institutions. Three of the four courses offered in 2002 contained important material for biodiversity management, namely “Environment and Sustainable Development,” “Human Rights: Concepts and Issues” and “International Cooperation and Development.” In 2002, 53 participants (selected from some 320 applicants) from 36 countries attended the 3rd regular session of the UNU International Courses. This included 31 participants from developing countries, 20 of whom received UNU fellowships.

Technology Support Activities :

Educating future leaders

In tandem with its training and capacity building activities, UNU also uses technology and supports the development of technology to promote sustainable development. The Global Virtual University (GVU), which was initiated in 1996 at UNU-IAS, is now a freestanding entity within the UNU, located in Arendal, Norway. GVU is an online network university for sustainable development, and aims to meet the educational needs of the developing world. It provides appropriate higher education ensuring that the people in developing countries can take charge of and manage their natural resources for a sustainable development. The GVU, which is a joint initiative of UNU, UNEP, Adger University College, was officially opened in June 2003. Through the GVU, students enrolled in partner universities can earn an M.Sc. in Global Environment and Development Studies (GEDS). The GVU attempts to bridge the digital divide through the co-development of online courseware between institutions of the North and South, and decentralized delivery of courseware in the developing world supported by face to face interaction between students and lecturers.

Promoting computer sciences in the developing world

Environmental modeling is another key technological challenge in environmental governance, and the need for information technologies to develop integrated models is clear. Yet, developing countries need to generate their own modeling and decision support capacity, but the costs are high in terms of investment and required expertise. Thus, collaborative efforts are needed, based on open source IT systems that are designed to be generic and applicable with minimum adjustments for many different applications. UNU-IIST is contributing to these efforts by helping developing countries strengthen their education and research in computer science and their ability to produce computer software. Its capacity building programs focus on postgraduate training, and also aim to aid computer science departments at universities in developing countries. With 343 participants in its training courses in 2002, all of whom come from the developing world, UNU-IIST had the largest number of participants among the RTC/Ps. UNU-IIST also provides access to literature and free software for institutions collaborating with IIST, and is developing an on-line repository of UNU research materials to disseminate to disseminate knowledge at no cost and with maximum efficiency.

Information for resource management

The application of computers to the analysis and management of Africa's natural resources also has a key role to play in environmental governance and resource management. Yet, Africa lacks the technical skills in GIS mapping, remote sensing and database management needed to inform and enhance decisions on judicious use of natural resources. UNU-INRA, in collaboration with the University of Yaoundé I, has since 1998 been engaged in capacity-building in professional skills in computer technology required as aid to better decision-making and management of the natural resources. UNU-INRA has mounted two types of training. The "train-the-trainers" course for academics and scientists from African universities and research institutions aims to equip managers of natural resources with computer-based up-to-date technological skills. Postgraduate courses are designed to give future environmental managers and decision-makers with analytical tools that will enhance their professional abilities. The African Millennium Initiative for Science and Technology,

also run by UNU-INRA, has established an online database of African scientists, academics and technologists at home and in the Diaspora to use education and knowledge sharing in science and technology to improve the management of African natural resources.

Finally, in cooperation with the International Environmental Research Center at the Gwanju Institute of Science and Technology (GIST) in Korea, UNU has established a four-month training programme for postgraduate students from developing countries. The programme matches students with laboratories in the Department of Environmental Science and Engineering, where they conduct research and take courses under the supervision of the professor overseeing the laboratory. Students present their research at the end of the program, and receive a certificate of completion from the International Environmental Research Center.

Understanding technology and innovation policies for sustainable development

UNU-INTECH, in collaboration with the African Technology Policy Studies Network, is developing modular workshops aimed at building awareness in Africa of the underlying technological issues in development policy and practice. The workshops are designed for policy makers and their advisors, use of case study materials derived from UNU-INTECH research. Three workshops (in Lesotho, Zimbabwe and Senegal) were held in 2003. In addition, UNU-INTECH holds one week capacity-building workshops twice a year, designed for policy-makers in Ministries of Science and Technology, Agriculture, Industry and Trade who are called upon to make policies of relevance to the innovation process in their countries. The objective of the workshop is to provide an overview of the variety of different policies that have an impact on innovation and the way these interact to shape the parameters within which actors in the national system make decisions about innovation. The workshop also emphasizes the need for continuous evaluation and feedback and provides an analysis of tools for doing so. Finally, it also holds weeklong capacity building workshops in developing countries and at UNU-INTECH to train researchers and policy-makers in new approaches to the analysis of policy issues related to innovation and sustainable development. On the agriculture side these include issues of stakeholder participation, small-holder development in a context of technological change, the application of biotechnology to agriculture and the consequences for sustainability in ecological and socio-economic terms. On the biopharmaceutical side they deal with biological, chemical and genetically engineered bases for pharmaceutical products. They thus include indigenous knowledge and broader sustainability issues in looking at current biological bases for new drugs, the application of IPRs and the ways in which developing countries are building local systems of innovation in the biopharmaceutical sector.

Future Challenges

This document provides an outline of the capacity building and technology support activities that UNU is currently conducting. As the Intergovernmental Working Group moves forward, UNU will consider how to improve its contribution to this intergovernmental process and others in the future. Ultimately, this will strengthen not only its capacity building activities, but also the institution as a whole. The Integrated Capacity Approach outlined earlier affirms that UNU's capacity building

efforts are inextricably linked to its research and policy activities. In this sense, strengthening the former will contribute to improvements in the latter.

Tracking capacity building activities

The UNU could collect more in-depth information on the participants in its capacity building activities and the recipients of its training. Not only should it track nationality and gender, but also the sectors and positions in UNU “alumna” are employed. Are those trained in resource management or engineering or other professions remaining in these fields? Are they returning to their countries of origin or moving elsewhere? This information will help create a broader picture about how UNU’s capacity building activities are contributing to long-term changes in capacity and expertise; it will help UNU better understand the outcomes, and not just the outputs, of its efforts.

In addition, it would be useful to know if those educators and practitioners who are trained in order to train others are in fact carrying out this mission. This would not only allow UNU to assess the effectiveness of its training, but also the number of people which it eventually impacts through the “training the trainers approach.” Similarly, as the Global Virtual University and the Water Virtual Learning Center progress, statistics on users, hits and graduates should be tracked, and followed up on in a similar manner. Finally, because postgraduate training is a major component of UNU’s work, it should centralize information on the number of doctoral and postdoctoral fellows, not just the amount of money spent on their training.

Capacity Building and Institutional Issues

Gathering and analyzing the information outlined above could be an important tool for UNU to improve institutional structures and function. Not only can compiling these data provide a baseline against which to measure future performance, it can help identify gaps in UNU’s current array of programs—either in terms of unmet demands, underserved geographical areas or groups, or emerging policy issues. Moreover, collecting longitudinal data can help institutionalize procedures for tracking UNU “alumna” and for sharing this information with other RTC/Ps as well as organizations beyond UNU. This not only strengthens networks of UNU alumna, but also affords them additional contact with UNU and potentially, with other scholars and practitioners affiliated with UNU networks. Finally, collecting this type information about UNU’s capacity building activities can only help UNU track its impacts, and thus make a stronger case for its added value in the areas of education, training and capacity building.

Annex I: UNU Training and Fellowship Information

TABLE 1: FELLOWSHIPS AND INTERNSHIPS IN 2002

Functional Unit	Cost (US\$ 000s)	Recipients		
		Total	From Developing Countries	Women
UNU Centre ESD	29	7	5	5
UNU Centre PG	10	10	4	5
UNU Capacity Development	668	76	62	35
UNU/GTP	200	19	19	2
UNU/FTP	180	14	14	3
UNU/WIDER	63	11	7	6
UNU/INTECH	91	18	17	9
UNU/IIST	199	34	34	11
UNU/INRA	0	0	0	0
UNU/IAS	450	10	7	4
UNU/INWEH	30	1	0	1
UNU/ILA	100	23	20	8
UNU/BIOLAC	100	155	155	83
TOTAL	2,120	378	344	172

[Note: ESD – Environment and Sustainable Development Programme; PG – Peace and Governance Programme.]

TABLE 2: TRAINING COURSES IN 2002

Unit	Cost (US\$000)	Courses in 2002		Participants				
		Total	In Developing Countries	Total	From Developing Countries	Women	Policy Makers	UN Staff
UNU/GTP	690	2	0	19	19	2	0	0
UNU/FTP	591	1	0	14	14	3	3	0
UNU Centre ESD	48	1	1	20	15	3	0	1
UNU Centre PG	0	0	0	0	0	0	0	0
UNU Capacity Development	202	2	0	68	41	35	0	5
UNU/WIDER	0	3	1	59	23	25	0	0
UNU/INTECH	3	12	0	234	158	80	3	43
UNU/IIST	92	8	8	343	343	42	0	0
UNU/INRA	20	1	1	11	11	2	0	0
UNU/IAS	143	8	2	188	140	40	29	25
UNU/ILA	180	2	2	56	39	25	30	1
UNU/INWEH	150	8	8	70	70	12	16	3
UNU/BIOLAC	150	6	6	165	165	103	20	0
TOTAL	2,269	54	29	1,247	1,038	372	101	78

[Note: ESD – Environment and Sustainable Development Programme; PG – Peace and Governance Programme.]

15. World Health Organization (WHO)

Mandate

WHO's objective, as set out in its Constitution, is the attainment by all peoples of the highest possible level of health. Health is defined in WHO's Constitution as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. WHO is governed by 192 Member States through the World Health Assembly. The Health Assembly is composed of representatives from WHO's Member States. The main tasks of the World Health Assembly are to approve the WHO programme and the budget for the following biennium and to decide major policy questions.

Building on past achievements and lessons learned, in the proposed Program Budget 2006-07, WHO places greater attention to the challenges faced by global public health. The linkage of health, environment and development is now clearly established. The importance of focusing on achievement of MDGs and on developmental processes such as Poverty Reduction Strategy Papers through intersectoral and cross-cutting work is recognized. These developments are very encouraging and positive and WHO is committed to fulfilling its mandate and fully meet the expectation of Member States.

Objective/s of the environment related capacity building and technology support activities

To achieve safe, sustainable and health-enhancing human environments, protected from biological, chemical and physical hazards, and secure from the adverse effects of global and local environmental threats.

To facilitate incorporation of effective health dimensions into regional and global policies affecting health and environment, and into national development policies and action plans for environment and health, including legal and regulatory frameworks governing management of the human environment

Environment Related capacity building and technology support portfolio

Capacity building and technology support are core activities in WHO 's work program as mandated by its Member States. These are clearly stated in the Organization-wide expected results in many Areas of Work in the Program Budget 2004-05. (The website on WHO 's Program Budget is listed below for reference.) The WHO Secretariat at country offices, regional offices and headquarters collectively is committed to delivering these expected results.

Major environment related capacity building, technology transfer activities:

- Developing evidence-based normative and best practice guidance,
- Supporting countries in health impact assessments in key environmental health areas including water, sanitation and hygiene, ambient and indoor air

pollution, workplace hazards, chemical safety, radiation protection, transport and climate change,

- Utilizing environmental and health information to formulate inter- sectoral policies and action plans,
- Implementation of the health and environment linkage initiative (HELI),
- Integrating health in the mainstream of development activities,
- Accelerating progress towards MDGs through improving child survival, reducing maternal mortality,
- Addressing global pandemics of HIV/AIDS, tuberculosis and malaria
- Promoting healthy environments with special focus on vulnerable populations,
- Strengthening national development plans, budgets, poverty reduction strategy papers and investment in health.

Further information

http://www.who.int/health_topics/environmental_health/en/

16. World Bank

The World Bank's approach to capacity building

The Bank addresses environment-related technology and capacity development in client countries at several levels: through the project cycle, policy dialogue and specific capacity development initiatives. Capacity development has always been an important part of the World Bank's overall development strategy to enable countries to eventually graduate from concessionary lending. Technology support has gone hand-in-hand with the implementation of World Bank projects in all major sectors of society.

Because of the Bank's emphasis on *national* implementation, technology support and capacity building is accomplished throughout implementation of World Bank projects, from preparation to appraisal to implementation. Countries deliver projects based on accepted operational policies and guidelines on, for example, environmental impact assessment, financial management and procurement, and in doing so, have the opportunity to build in-country skills with on-going guidance by the Bank.

In the nineties, the Bank moved away from addressing capacity issues principally through the different phases of the project cycle to a more upstream approach through policy dialogue. This has been done mainly through the Country Assistance Strategy (CAS) as well as through economic and sector work (ESW). Most recently, this approach has included the Poverty Reduction Strategy Paper (PRSP) which is a country-owned strategy that provides the framework for development assistance. This strategic support not only builds institutional capacity within a client country, but ensures that the country is in the driver's seat and its priorities are reflected in the development of support programs.

The Bank's Environment Strategy sets out a vision for helping countries to address their environmental challenges. A key element of the strategy is to help build capacity, transfer experience, and promote good practice in technical and policy issues. This is being achieved through systematic environmental studies—such as country-level diagnostic studies and strategic environmental assessments—that will help consider environmental issues at earlier stages of the decision-making process, as well as integrate them into the policy dialogue, and the poverty reduction and country assistance strategies. In this context, Country Environmental Analysis (CEA) has been identified as one of the key country-level, diagnostic tools designed to enhance the Bank's knowledge of the environmental aspects of client countries' development and help prepare a strategy for enhancing their environmental management framework, capacity, and performance. The analysis of relevant global environment concerns is an important part of this analysis.

The World Bank is revising its operational policy on adjustment lending which will, as a result, put more emphasis on country capacity. The new development policy will provide a uniform framework for all World Bank lending that supports policy reforms (as opposed to investment projects). It is congruent with the Environment Strategy in that development policy operations will be expected to draw upon analytical work,

including work on environmental issues, at the stage of the design of the operation. At the level of the operation, the policy will require the Bank to assess the likelihood of significant effects on poverty, social, and environmental issues, the capacity of the borrowing government to manage these effects, and the steps that will be taken to bolster government capacity where it is deemed to be lacking.

The World Bank Institute (WBI), which is the Bank's training arm, has provided training support to client countries in strengthening their capacity to manage World Bank Group investments as well as address policy issues. An increasing, though still insufficient trend has been to coordinate capacity development in investment projects and policy dialogue with the WBI.

The Bank has also leveraged a considerable variety of funds to support capacity building directly, some of which specifically strengthens capacity for addressing environment concerns. These initiatives include: Technical assistance loans; PRSPs; PHRD Japan grants; and Institutional Development Fund (IDF) Grants. However, it is important to note that typically these are not stand-alone activities but linked to an investment operation. At the project level, particularly through cofinancing by the Global Environment Facility (GEF) and grant financing by the Multilateral Fund for the Implementation of the Montreal Protocol (MFMP), significant efforts have been made in strengthening capacity of client countries to address global as well as local environmental concerns.

Capacity Development in Bank-GEF Projects

Capacity development is included as an important process element or an outcome necessary for ensuring the sustainability of global environment benefits in some 90% of Bank-GEF projects. It has been most closely associated with and a key element in contributing to sustainability through the following activities:

- Biodiversity projects: management of ecosystems, including establishing or strengthening protected area management capabilities as well as putting in place national systems of protected areas and establishment of associated policy, legal and institutional frameworks;
- Climate change projects: market-oriented technology demonstration and market transformation in both energy efficiency and renewable energy project;
- International waters (IW): building capacity of relevant national and regional institutions to better manage shared water bodies including support of regional agreements.
- Persistent Organic Pollutants (POPs): assisting countries understand the extent of stocks and sites, as well as patterns of use of POPs and develop appropriate action plans.

Capacity development has been more pronounced in IW and climate change projects than in biodiversity. In terms of project design, it has featured more as part of the overall project objective than as a project activity, although such categorization is not mutually exclusive.

There are several examples of successful capacity building efforts in GEF projects. Training has been the most common activity and is obviously most effective where trainees can directly apply skills learned. For example, the China Energy Conservation Project has trained over 500 professional energy efficiency specialists of whom 200 apply these skills in Energy Management Companies formed through the project.

Several projects have also strengthened organizations and institutions at national, local and community levels. For example, the Guatemala Laguna del Tigre National Park Project promoted establishment of a municipal Environment and Natural Resources Commission that has created the opportunity for municipalities to participate in conservation. The Indonesia COREMAP created local level multi-agency coastal zone management committees that have prepared community-based management plans with villages that are now implementing these plans. The strengthening of NGOs and local government conservation partnerships, capacities and awareness was instrumental in the prevention of new roads and mining within the national park. The African Stockpiles Programme is a regional and multi-partner approach to addressing stocks of obsolete pesticides in a sustainable manner. A key objective is to catalyze development of prevention measures and provide capacity building and institutional strengthening on chemicals-related issues.

A number of projects have brought about changes in policy, legal and regulatory frameworks in relevant sectors. The China Efficient Boilers Project developed new industrial boiler efficiency standards for China. The Indonesia Solar Home Systems Project helped pilot the first product-specific consumer credit scheme in the country.

Capacity Development in Bank MFMP Projects

Similarly, technical and capacity development are implicit in the over 400 completed and ongoing projects to phase out the use of ozone-depleting substances (ODS), under the Bank's Montreal Protocol program. The World Bank has helped its clients go beyond straightforward technical conversion projects by utilizing national execution to build in-country capacity, providing sound technical advice through a technical expert group it established and guiding countries in the evolving MFMP guidelines and monitoring and evaluation procedures to allow them to track and measure their performance and apply them to future policy. The World Bank has worked closely with its clients to develop country-specific, innovative approaches to help them meet treaty obligations while limiting the overall economic impact. These include sector and national approaches which are performance-based (meaning that funding is provided after specified targets are met) and which give maximum flexibility to the countries to take the lead in overall implementation, direct funding to priority areas and develop complementary policies.

Issues in Capacity Building

Definition

As seen above, there are several ways in which the World Bank assists its client countries to develop and build their capacity. Some of these approaches are direct and

some occur in the process of meeting clearly defined goals as part of the overall process of development. Capacity building encompasses a range of categories including institutional, regulatory, technical and personal. It may take the form of training or learning by doing, for example. Thus, when assessing the scope and effectiveness of capacity building efforts at an institutional and international level, it is important to have a clear understanding of what exactly constitutes capacity building.

Sustainability

An important challenge is ensuring the sustainability of capacity development once a project closes. The complaint is often heard that staff trained move to other organizations or organizations strengthened falter due to lack of budget support. At the same time, the Bank's experience has been that institutional sustainability is key in ensuring the overall sustainability of the intervention. Some lessons from the Bank's experience for supporting sustainability include the following:

- Establish strategic partnerships that support long-term programmatic approaches beyond the typical project cycle, for example, greater involvement of national and regional educational and training institutions;
- Inter-sectoral and international partnerships to facilitate transfer of knowledge and experience;
- Use of innovative lending instruments such as the Adaptable Program Loan (APL), which operates as multiple funding tranches for sustained investment and policy operations ranging from 8 to 12 years duration;
- Expanded use of in-country advocates to more firmly establish and continue support for policies established under a project, and to deepen technical experience as well as secure long-term advocacy;
- Use of supporting tools such as policy frameworks and standards that are not easily changed by for example political interventions;
- Ensuring financial sustainability through greater market development and involvement of the private sector.

Indicators and Benchmarks

Linked to the issue of sustainability is the ability to measure and assess the effectiveness of an intervention. The development of indicators for capacity development is still in a nascent stage, however, the World Bank intends to cooperate with its GEF partners in establishing a suitable monitoring and evaluation framework.

Further information

<http://www.worldbank.org/>

17. World Trade Organization (WTO)

Mandate

The World Trade Organization (WTO) is the only global international organization dealing with the rules of trade between nations. At its heart are the WTO agreements, negotiated and signed by the bulk of the world's trading nations and ratified in their parliaments. The goal is to help producers of goods and services, exporters, and importers conduct their business.

Objectives of the environment related capacity building and technology support activities

Capacity-building activities delivered by the WTO secretariat are aimed at assisting resource-constrained Members to adjust to WTO rules and disciplines, implement their obligations, and effectively exercise their rights of membership. The Doha Ministerial Declaration adopted in 2001 emphasizes the importance of technical assistance and capacity-building for WTO Members, including in the field of trade and environment, and further reaffirms Members' commitment to the objective of sustainable development.

Environment related capacity building and technology Support portfolio

As part of its technical assistance activities in this area, the WTO secretariat has organized workshops addressed to Government officials from the Trade and Environment Ministries of least-developed and developing country Members, as well as acceding countries, at both national and regional levels. These workshops aim at enhancing dialogue and coordination among trade and environment officials from participating countries, and at facilitating the participation of these countries in ongoing WTO negotiations.

These activities provide participants with an in-depth understanding of the different linkages between trade and the environment, including issues such as the relationship between WTO rules and multilateral environmental agreements (MEAs); trade in environmental goods and services; and the effects of environmental requirements on market access for developing country exports.

Major environment related Capacity building, technology transfer activities:

The WTO secretariat has collaborated with UNCTAD, UNEP, as well as certain MEAs in the context of these workshops, building on the expertise and work of the respective organisations. Furthermore, the UNEP and UNCTAD have held a number of activities back-to-back with WTO workshops within the framework of their Capacity-Building Task Force (CBTF) on Trade, Environment and Development.

In addition, the WTO secretariat has held side-events at Meetings of the Parties of certain MEAs, in order to brief environment experts, and especially participants from developing countries, on developments relating to the trade and environment

negotiations in WTO. These briefings have provided a useful opportunity for information exchange between the WTO secretariat and MEAs.

Finally, the subject of trade and environment is an integral part of all trade policy courses and other training activities for least-developed and developing countries organized every year by the WTO secretariat as part of the WTO Technical Assistance and Training Plan. More information on WTO's technical assistance activities is available on the website at:

http://www.wto.org/english/tratop_e/devel_e/teccop_e/tct_e.htm

References for further information

http://www.wto.org/english/tratop_e/devel_e/teccop_e/tct_e.htm
