Report of the Tenth

Global Biodiversity Forum

1-3 May 1998

Bratislava, Slovakia

Convened by

The Regional Environmental Center for Central and Eastern Europe, Local Office Slovakia
Slovak Union of Nature and Landscape Protectors (SZOPK)
IUCN - The World Conservation Union
World Resources Institute (WRI)
African Centre for Technology Studies (ACTS)
United Nations Environment Programme (UNEP)
Biodiversity Action Network (BIONET)
Indigenous Peoples Biodiversity Network (IPBN)

in collaboration with

the Secretariat to the Convention on Biological Diversity (SCBD)

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Background

1. The **Convention on Biological Diversity** (CBD) entered into force on 29 December 1993. By May 1998, 174 States had ratified the Convention.

2. The 1992 WRI-IUCN-UNEP **Global Biodiversity Strategy** identified a wide range of actions needed to save, study and sustainably use the world's biological diversity. In recognition of the need for a broad and open discussion and dialogue of biodiversity-related topics with open participation, the Strategy called for establishing a forum that would allow governments, non-governmental organisations (NGOs), communities dependent on biological resources, scientists, natural resource managers, and others to meet together to discuss and guide international decisions concerning biodiversity.

3. The **Global Biodiversity Forum** (GBF) was therefore conceived as a continuing and strategic process to provide information and generate debate on critical issues, which could then feed into international biodiversity-related meetings, such as the Conference of the Parties (COP) to the CBD, its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA), and other environmental treaties. The GBF seeks to complement other processes at government level by:

- providing a broad spectrum of perspectives, proposals and experiences from all stakeholders;
- looking for innovative approaches to enrich national policies and inter-sectoral positions;
- building diverse partnerships among stakeholders (for example, governments, indigenous groups, local communities, NGOs and the private sector); and
- identifying areas of agreement and points of conflict on key biodiversity issues.

4. The GBF is not a representative body of any of the groups or sectors that participate in Forum events, and the GBF should not be considered by the CBD, United Nations organisations, or other institutions to represent Forum convenors and participants, or to offer a full consensus.

5. A resolution passed at the 1994 IUCN General Assembly in Buenos Aires called on IUCN to institutionalise the GBF. Nine global and three regional sessions of the GBF had been hold by April 1998, covering a wide range of biodiversity-related topics. Reports from preceding GBF meetings are available in English, French and Spanish from IUCN's Biodiversity Policy Coordination Division.

6. The following report summarises the discussions and recommendations that emerged from the themes of the 10th GBF, held immediately prior to the COP of the Convention on Biological Diversity, in Bratislava, Slovakia. The views and recommendations contained in this report are aimed at stimulating a continuing dialogue on the topics addressed. They do not seek to represent a consensus from the different workshops and their respective

participants; rather, they aim to capture the variety of viewpoints and discussions that were evoked at the Forum.

Objectives and Structure

7. More than 300 participants from 57 countries on 6 continents attended GBF10-COP4, representing research, education, resource management, industry, government, NGOs, local and traditional communities. A participants list can be found in Annex 1 of this report. GBF10-Bratislava was convened by the Regional Environmental Center for Central and Eastern Europe, Local Office Slovakia, Slovak Union of Nature and Landscape Protectors (SZOPK), IUCN-The World Conservation Union, World Resources Institute (WRI), African Centre for Technology Studies (ACTS), United Nations Environment Programme (UNEP), Biodiversity Action Network (BIONET), and the Indigenous Peoples Biodiversity Network (IPBN), in collaboration with the Secretariat to the Convention on Biological Diversity (SCBD).

8. The timing, location and workshop themes of the Forum were chosen specifically to provide input to COP4. The Forum focused on eight themes: Sharing the Benefits arising from the Utilization of Genetic Resources; Traditional Knowledge and Article 8j; CBD Clearing-house Mechanism: Building a Network of Networks; Tenure and Sustainability of Resource Use; Financial Innovations for Biodiversity; An Ecosystem Approach to the Management of Inland Water Systems and Biodiversity; Public Education and Awareness: How to put it into Practice; and Trade and Biodiversity.

9. On 4 May 1998, the Forum presented a short statement, which can be found on page 83 of this report, to the opening session of COP4, summarising the most important conclusions and recommendations from the Forum. The statement was also made available to COP4 participants in written form, along with the specific conclusions and recommendations from each of the eight workshops.

Opening Plenary Presentations

10. The Opening Plenary was chaired by Kenton Miller, from the World Resources Institute in Washington, USA. Participants were invited to an evening reception at the SUZA hotel. He noted that the informal nature of the GBF has proven indispensable in providing an important independent source of scientific and technical input into the implementation of the Convention on Biological Diversity.

11. This was followed by an overview of the expectations of the coming Conference of Parties, presented by the Secretary General of the CBD, Dr. Calestous Juma. Hemanta Mishra, from the Global Environment Facility, then provided an overview of the work of the GEF in supporting the Convention on Biological Diversity.

12. Following these presentations, the workshop themes were introduced by the respective organizers. The Forum then broke into the workshops.

Sharing the Benefits Arising from the Utilization of Genetic Resources

Organizers:

Asociacion para la Defensa de los Derechos Naturales (ADN), Peru
Department of Environment and Natural Resources (DENR), Philippines
International Institute for Environment and Development (IIED), UK
Royal Botanical Gardens, Kew, UK
Socieded Peruana de Derecho Ambiental (SPDA), Peru
World Conservation Union Environmental Law Centre (IUCN-ELC), Germany
World Resources Institute (WRI), USA
World Wide Fund for Nature (WWF), Switzerland

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13. The workshop on "Sharing the Benefits Arising from the Utilization of Genetic Resources" addressed a difficult set of questions that reside at the very heart of the CBD. The Convention states that genetic resources lie under the sovereign control of states which have the authority to regulate access to them. It also obliges states to facilitate access to genetic resources, but this access must be under agreed terms which encompass an equitable sharing of the benefits arising from their use. Despite a great deal of attention from the Parties and other stakeholders to this issue over the past five years, only recently has a sufficient fund of experience on the ground emerged about how best to move forward. This workshop provided the participants with an important opportunity to take stock of the initiatives, successes and frustrations that providers and users of genetic resources are experiencing as they try to deal with real-world access and benefit-sharing issues. This workshop provided a valuable arena for the exchange of ideas between a wide range of interests – government, industry, academia and indigenous peoples – who came together to discuss the experiences of access and benefit-sharing measures to date, and to consider the possible routes towards a more collaborative approach to these complex issues.

Case Studies Presented

14. The workshop examined several examples of the first generation of CBD-inspired access and benefit-sharing laws. Many access regimes to date have been criticised repeatedly for imposing burdens on both scientific researchers and efforts to negotiate legitimate bioprospecting partnerships. This is partly a result of bureaucratic inefficiencies and the newness of the regimes, but a number of substantive inherent problems do pose challenges to successful implementation. The importance of devising a strategy to assess a country's genetic, human and institutional resources, national priorities for capacity

building and other forms of benefit-sharing should also be included as an early step in considering the most appropriate and feasible access regime. Attention to such issues should ultimately be re-linked with the underlying intent of ensuring that benefits of any kind truly serve the goals of sustainable development, poverty alleviation and conservation.

◊ The Philippines

15. A full session was dedicated to the Philippine experience of Executive Order 247, enacted in 1995. The world's first comprehensive national law regulating access and benefit-sharing, it brought together the views of academia, government, NGOs and indigenous people. Reflection on three years of experience pioneering the new and complex area of law and policy has reconfirmed support for the principles embodied in the legislation, such as "Prior Informed Consent" (PIC) of local and indigenous communities, and the necessity of concrete and tangible sharing of benefits from commercial use of genetic resources. There remain concerns, however, that the bureaucratic complexity of the law has obstructed legitimate domestic scientific research and has frustrated efforts to conclude international bioprospecting agreements. The Philippine government recognizes that the Executive Order was intended to be an experimental measure to be improved upon in light of experience, and that changes in the laws were likely in the near future to remedy the difficulties encountered. One key change already underway is the establishment by the University of the Philippines system of an internal set of rules and procedures – fully endorsed by the government – which should lessen the burden on legitimate domestic scientists. Despite widespread complaints, the scientific community is very much a part of the implementation process; what remains is the integration of local communities. Indeed, the role of partnerships between stake-holders has received a great deal of attention in the Philippine experience.

16. The Executive Order defines two types of research agreements – Academic and Commercial. The academic/commercial determination is proving difficult, due to the uncertain future of research that may be passed on and further developed post-agreement. To date, there have been no approvals, although there are currently one academic and five commercial applications in the process of consideration.

17. While perhaps the most difficult provision of EO 247 to implement full respect for and implementation of PIC remains non-negotiable. Furthermore, Prior Informed Consent should not be viewed as the beginning and end of indigenous and local participation. Rather, mechanisms must be devised to ensure that their participation is present throughout the negotiation and implementation of bioprospecting agreements. In upholding the Executive Order's commitment to Prior Informed Consent, mechanisms must be fully institutionalized so that funding can be secured to guarantee the monitoring of PIC negotiations. In fact, the Prior Informed Consent requirement is embodied not only in EO247 but also in the new law on Indigenous Rights, and applies to all resource uses, not just bioprospecting.

18. The Philippine experience suggests an important lesson that, in dealing with these issues, interested parties should take care to define a realistic scope of activities to be regulated, while ensuring that sufficient budgetary support for implementing the regime is available. Raising awareness throughout the government and society is still a crucial need, as the dissemination of information concerning the Executive Order has not yet reached

the majority of its audience. Finally, conservation objectives should be a part of any access legislation.

◊ The Andean Pact Nations

19. The Andean Pact's Decision 391, a framework law on genetic resources access and benefit sharing, was enacted in 1996 by Bolivia, Colombia, Ecuador, Peru and Venezuela. This law embodies many of the principles of the CBD, and parallels many features of the Philippines Executive Order. Similar to the Philippine Executive Order, national implementation efforts have begun to show that Decision 391 may be too bureaucratically burdensome to be fully implemented by the member countries.

20. A full workshop session addressed the case of Peru, which has not yet passed national implementing legislation. An international bioprospecting agreement has been concluded with an indigenous group in the Peruvian Amazon, in which innovative mechanisms for protecting indigenous knowledge and rights possible under such a contractual regime play a key role. However, it is widely agreed that even the best of contracts cannot substitute for effective national legislation. Particularly noteworthy, in this contractual arrangement, was the acceptance by a major international pharmaceutical firm of the proposal made by the indigenous people to use a "know-how" license to control the use of their knowledge. Under this mechanism, the company can use the traditional knowledge while the indigenous community retains effective control and obtains annual fees.

21. Several areas of difficulty have arisen with contracts in the absence of a *sui generis* regime to protect indigenous rights, such as the identification of rights and rights holders (local communities, regional federations, national organizations), identification of law (customary, national international, human rights, IPR), establishment of an appeals process, lack of state intervention to protect the national interest, and lack of legal certainty. A *sui generis* regime to recognize the rights of indigenous peoples is an important part of enacting a national measure to ensure the sharing of benefits arising from the use of genetic resources.

22. Regional NGOs have placed great importance in the full transparency and participation by indigenous peoples in preparation of such legislation. An inappropriate regime poses grave dangers to indigenous cultures – in fact, these dangers may outweigh any economic losses that could arise from the current situation. Therefore, interim measures are needed to prevent the unapproved use of traditional knowledge, while at the same time providing indigenous people the time to develop their own regimes, and allowing participation in a consultation process that is a genuinel two-way dialogue.

◊ Brazil

23. The Sao Paulo State Environment Bureau has encountered the complexities of dealing with access and benefit-sharing in the context of a federal system where powers are shared between national and state governments. A draft law on access and benefit-sharing has been under debate at the national level for some time, but is not yet in force. Meanwhile, Sao Paulo is faced with mounting requests for access and bioprospecting activities within its territory. In this legal limbo, state authorities are unsure whether they should act on their own, or await decisive action from the national

government. The governments of Malaysia and Australia are also moving forward to deal with questions of access and benefit-sharing arrangements within a federal system.

◊ Africa

24. Two full sessions addressed developments in Africa. The many initiatives in Nigeria provide a unique view on innovative arrangements for access and benefit-sharing. Notably, one international bioprospecting agreement includes a benefit sharing trust fund with several years experience. This trust fund has been able to incorporate the participation of a wide range of stakeholders, including local communities and traditional healers. While still new, the trust fund appears to be an effective mechanism for transferring benefits arising from access to genetic resources into community development investments, especially health care. The Nigerian agreements stress that the continuing vitality of traditional social institutions is an important prerequisite for early successes.

25. In Cameroon the importance of utilizing existing legislation to control access and share benefits in the absence of more comprehensive access legislation demonstrates another approach to this issue. The special conditions for sharing benefits related to protected areas are illustrated by the experiences of Cote d'Ivoire and Uganda. In the Ugandan case, mechanisms for sharing a wide range of benefits – such as those from eco-toursim – may be applicable to bioprospecting in the future.

26. South Africa's exceptionally rich biodiversity and developed technological infrastructure has attracted increasing numbers of bioprospectors. A national biodiversity planning process is underway, and includes attention to access and benefit sharing issues, but the ethnic complexity and troubled political history of the country complicate the process.

27. In general, the African case studies demonstrate the considerable benefit from efforts to add value locally before international agreements are entered into. This often involves a consortium of bioprospectors, which creates problems concerning ownership and the realization of benefit sharing strategies. The linking of community development with access and benefit-sharing is especially evident in some of the strategies devised in Africa.

◊ South Asia

28. A regional workshop was held last year in Madras under IUCN auspices to explore South Asian approaches to access and benefit sharing. Action to protect the interests of providing nations effectively must take place not only in the source countries, but also in those countries where the resources are eventually utilized. This has become a topic of particular concern in South Asia, where the importance of codes of conduct as an interim measure is recognized. However, progress in establishing codes of conduct should not be considered as a substitute for national legislation. Also, in formulating mechanisms to equitably share benefits, a balance is needed between the benefits to those who provide genetic resources and those who add value to them.

◊ Industry Perspective

29. Representatives from two major pharmaceutical and biotechnology firms stressed their commitment to complying with the CBD, which has been recognized as a useful basis for the establishment of partnerships. To that end, parts of industry have developed internal codes of conduct on access and benefit sharing that mirror the objectives of national legislation designed to implement the access and benefit sharing requirements of the CBD. Natural products will continue to be important if they are competitively priced compared with other sources, and if they can be sourced under collaborative agreements which protect the rights of the supplier and the destination user. Considerable uncertainties exist concerning the actual level of demand for genetic resources and the possibility that overly onerous regulation of access will deter partnerships, and shift research and development into other areas altogether.

30. Most of the successful collaboration between industry and local institutions has evolved in a bottom-up manner, building on a multi-directional dialogue within a clear legal framework. Industry concerns include the length and expense of the drug development process access, continuity of agreements, and the complexities of obtaining Prior Informed Consent. The selection of competent authorities within the supplier country is essential to the smooth negotiation of Prior Informed Consent.

31. Industry interests also need information on national legal and policy measures regarding access and benefit-sharing, the distinction between different genetic resources and uses, a reliable and legitimate documentation of legal Prior Informed Consent once obtained, and a greater role in the implementation of access and benefit-sharing measures.

◊ Indigenous Perspective

32. While there is a strong voice for the simplification of the Prior Informed Consent process, indigenous and local peoples' insist that PIC is a non-negotiable necessity for any access and benefit-sharing agreement. Indeed, perceptions of the role that indigenous peoples may play in the negotiating process show some doubt as to the manner in which the relations between interested parties are becoming institutionalized. The representative of the Indigenous Biodiversity Network voiced his concern that widespread use of terminology concerning "stakeholder" discourse was seen by many indigenous peoples as a threat to their interests. The concept of a varied group of undifferentiated "stakeholders" disguises the fact that indigenous peoples hold prior and complete rights over many resources, while other so-called stake-holders may in fact hold far less long-standing or legitimate claims. In short, the owner of a house and the thief who tries to rob it cannot be accurately described as just two morally equivalent "stake-holders". And while the message of industry was in favour of a simplified process for PIC, this tends to prejudice the bargaining position of indigenous peoples.

CONCLUSIONS AND RECOMMENDATIONS

Perspectives on how best to implement Article 15 vary among different stakeholders. Users of genetic resources – whether commercial or scientific – are looking for speedy and simple procedures for obtaining access to genetic resources including streamlined

processes for obtaining the prior informed consent of source communities, and legal certainty in the long term with respect to any agreements that they negotiate and genetic material they acquire under those agreements.

The crucial role of intermediaries – those institutions, such as universities and *ex situ* collections, that are often the actual collectors and transmitters of genetic resources – is widely recognized and should be the focus of further investigation and discussion. National governments need to take account of these institutions' important activities, and the intermediaries themselves need to develop their own codes of conduct in line with the CBD's provisions. When genetic resources pass from community to intermediary to ultimate user, all such transfers must be legally valid and certain.

Contractual arrangements and voluntary codes of conduct can play an important role as supplements to legislation and other formal measures by clearly setting out a workable set of minimum terms and conditions. Ongoing partnerships are providing one of the richest sources of practical experience on how to reconcile the interests of users and providers, and are a testing ground for the diversity of ways that benefits can be defined and distributed. The voluntary codes of conduct being developed by some pharmaceutical and biotechnology firms, and similar efforts by botanical gardens and other ex situ facilities, are increasingly important examples of non-legislative measures to implement the access and benefit-sharing provisions of the Convention. Codes of conduct are an important first step towards shared responsibility on the part of both users and providers. However, more formal efforts are needed to ensure that states importing genetic resources do so in accordance to the laws operative in the providing country. This may entail the introduction or application of measures such as import regulations.

Genetic resource providers – whether national governments or local and indigenous communities – stress the complexity of the issues and actors involved, the need for sufficient time to develop their access and benefit-sharing regime and the importance of a participatory process for inclusion of all relevant stakeholders in policy development. From the provider point of view, the need for the active participation of indigenous people in the design of national measures, taking into account the need to build their capacity to make informed decisions, and the special issues raised when traditional knowledge is used by others for commercial benefit remains an issue of critical import.

In developing measures to implement Article 15, it is important to distinguish between different kinds of genetic resources (micro-organisms versus plants, for example), and the varied end uses to which genetic resources are put. Different commercial uses – pharmaceuticals versus agriculture or phytomedicines, for example – have different implications for the benefit-sharing terms of agreements. In addition, genetic resources are often sought for non-commercial uses by scientists. In devising access regulation measures, countries need to ensure that the scope of their provisions is not overly broad and that it focuses on the most important resources and uses.

Similarly, "benefits" come in many forms. While much attention has been paid to monetary benefits such as cash payments and royalties from commercial bioprospecting, in actual practice there is much greater potential for non-monetary benefits related to capacity-building, information exchange, and technology transfer. Where benefits are of a monetary nature, careful provision must be made for their equitable and efficient allocation and distribution. Trust funds offer one promising mechanism. Existing systems

for sharing the benefits of eco-tourism with local communities around protected areas may offer inspiration for those designing benefit-sharing mechanisms for genetic resources.

It is essential that the dialogue between providers and users of genetic resources be continued and advanced. There are still many areas which suffer from a general lack of understanding, but which can also be clarified through open exchanges of ideas and interests. Direct communication between the wide array of interested groups is vital to the successful accomplishment of the goals of access and equitable sharing of the benefits arising from the use of genetic resources as stated in the Convention.

Recommendations to the COP

The diverse and valuable experiences from around the world provide a point of view from which to consider what the next steps should be. The lack of existing national and international legislation to implement the Convention may in some cases leads to undesired obstacles to the achievement of equitable benefit sharing.

Based on these considerations, the workshop participants recommend that:

- ☐ The Parties should request the Secretariat to broaden the scope of its work on access and benefit-sharing to include case studies on a wider variety of topics, including the use of voluntary measures being adopted by companies and ex situ institutions.
- ☐ Parties and governments that are users of genetic resources from other countries should adopt measures to ensure that all genetic resources imported into the country were acquired lawfully from the countries providing them.
- ☐ Parties should identify authorities competent to authorise access and subsequently certify that all legal requirements, including prior informed consent, have been acquired;

The workshop participants also recommend that the Conference of the Parties should:

- ☐ encourage companies and *ex situ* institutions to adopt corporate policies on access and benefit sharing;
- ☐ explore the need to develop, under the Convention, such instruments as codes of conduct, best practices or guidelines for commercial and non-commercial users of genetic resources;
- ☐ urge GEF to support capacity building measures to develop competent authorities to deal with access issues;
- ☐ raise awareness of legal obligations and best practice among providers, users and intermediaries; and
- ☐ encourage the establishment of clear and simple interim measures on access and benefit sharing to allow partnerships to continue during the development of more detailed legal regimes for access and benefit sharing.

AGENDA

Session 1: Genetic Resources Access and Benefit Sharing under the Convention on Biological Diversity (CBD): Overview (Chair: Charles Barber, World Resources Institute, USA)

Access and benefit-sharing under the CBD: overview of the issues, by *Lyle **Glowka**, IUCN Environmental Law Centre, Germany*

The private sector and generic resources access and benefit-sharing: findings of a survey on private sector practices and perspectives, by *Kerry **ten Kate**, Royal Botanic Gardens, Kew, UK*

Indigenous peoples and genetic resources access and benefit-sharing under the CBD: an overview of concerns and recent developments, by *Alejandro **Argumedo**, Indigenous Peoples Biodiversity Network (IPBN), Peru*

Regional approaches to genetic resources access and benefit-sharing: relfections on the Andean Pact experience, by *Manolo **Ruiz**, Sociedad Peruana de Derecho Ambiental, Peru*

Access to genetic resources policy in Sao Paulo State, Brazil, by *Cristina **Azevedo**, Sao Paulo Environment Bureau, Brazil*

The way forward: lessons from Pioneer projects on sharing benefits, by *Balakrishna **Pisupati**, M.S. Swaminathan Research Foundation, India*

Session 2: The Philippines' Executive Order 247 on Genetic Resources Access and Benefit-Sharing: Reflections on Three Years of Experience (Chair: Mary Jean Caleda, Department of Environment and Natural Resources (DENR), Philippines)

Implementing Executive Order 247, 1995-1998: lessons learned, by *Antonio **La Viña**, Undersecretary for Legal, Legislative Affairs and Attached Agencies, DENR*

The impacts of Executive Order 247 on the Philippine Scientific Community, by *Amelia **Guevara**, University of the Philippines*

NGO perspectives on Executive Order 247, by *Elpidio **Peria**, Southeast Asia Regional Institute for Community Education (SEARICE), Philippines*

Executive Order 247 and indigenous territories and knowledge, by *Datu Migketay **Saway**, National Commission on Indigenous Peoples, Philippines*

Session 3: Development of Genetic Resources Access and Benefit-Sharing Policies in Peru (Chair: Manolo Ruiz, Sociedad Peruana de Derecho Ambiental)

Access and benefit-sharing under the International Cooperative Biodiversity group (ICBG) Initiative in Peru: an attorney's perspective, by *Brendan **Tobin**, Asociacion para la Defensa de los Derechos Naturales (ADN), Peru*

The ICBG contract and indigenous rights, by *Cesar **Sarasara**, Presidente, Confederacion de Nacionalidades Amazonicas de Peru (CONAP)*

Protecting indigenous knowledge under Peruvian law, by *Begona **Venero**, Department of New Inventions, INDECOPI, Peru*

Meaningful participation in genetic resource access and benefit-sharing arrangements, by *Flavia **Noejovich**, Sociedad Peruana de Derecho Ambiental, Peru*

Session 4: African Experiences with Genetic Resources Access and Benefit-Sharing, Part 1 (Chair: Sarah Laird, University College, London, USA)

Overview of the African ICBG Initiative, by *Maurice **Iwu**, Bioresources Development and Conservation Programme, Nigeria*

The Trust Fund model for benefit-sharing under the CBD – the Nigerian experience, by *Kent **Nnadozie**, Bioresources Conservation and Development Programme, Nigeria*

Legal and financial mechanisms for benefit-sharing: Nigeria case study, by *Katy **Moran**, the Healing Forest Conservancy, USA*

Strengthening national abilities to regulate access to genetic resources and share benefits: issues and considerations for Eastern and Southern Africa, by *John **Mugabe**, African Center for Technology Studies, Kenya*

Access and benefit-sharing in South Africa: policy issues and experiences, by *Rachel **Wynberg**, Biowatch, South Africa*

Session 5: African Experiences with Genetic Resources Access and Benefit-Sharing, Part 2 (Chair: Nancy Vallejo, WWF International, Switzerland)

Development of ABS legislation in Cameroon, by *Estherine **Lisinge**, WWF Cameroon Programme Office*

Genetic resources access and benefit-sharing in Tai National Park, Côte d'Ivoire, by *Jeanne **Zoundjihékpon**, WWF Côte d'Ivoire*

Sharing benefits from biological and genetic resources with local communities: the case study of initiatives around Bwindi Impenetrable National Park, Uganda, by *Erie S. **Tamale**, WWF Eastern Africa Regional Programme Office, Kenya*

The OAU draft legislation on Community rights and access to biological resources, by *Johnson **Expere**, OAU Scientific, Technical and Research Commission*

Session 6: Private Sector Perspectives and Practices on Genetic Resources Access and Benefit-Sharing (Chair: Kerry ten Kate, Royal Botanic Gardens, Kew, UK)

Discovering new medicines from nature: the pharmaceutical industry and the CBD, by *Melanie **O'Neill**, Glaxo Wellcome, UK*

Access and benefit-sharing under the CBD – the Novo Nordisk experience, by *Hanne **Gurtler**, Novo Nordisk A/S, Denmark*

From Norway to Novartis: a source country experience with bioprospecting, by *Hanne **Svarstad** and Hans Chr. **Bugge**, University of Oslo, Norway*

Access to genetic resources and means for fair and equitable benefit-sharing: results of a survey of Swiss pharmaceutical firms and university researchers, by *Benno **Bättig**, Federal Office for Foreign Economic Affairs, Switzerland,* and *Karine **Richard**, Swiss Federal Institute of Intellectual Property, Switzerland*

Session 7: Genetic Resources Access and Benefit-Sharing for Botanic Gardens (Chair: Katy Moran, the Healing Forest Conservancy, USA)

Benefit-sharing with tribals in India: a model for tropical botanic gardens and research institutes, by *Rai **Rana**, WWF- India*

The genetic resources access and benefit-sharing policies of the Royal Botanic Gardens, Kew, by *Kerry **ten Kate** and Laura Touche, Royal Botanic Gardens, Kew, UK*

Session 8: Discussion of workshop statement to GBF Plenary (Chair: Charles Barber)

Workshop on Traditional Knowledge

Organizers:

Indigenous Peoples' Biodiversity Network (IPBN)
Indigenous Knowledge Programme (IKP)
Indigenous Biodiversity Information Network (IBIN)
International Association of the Mataatua Declaration
International Alliance
COICA
Asian Indigenous Peoples Pact

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33. The COP has consistently affirmed that the participation of indigenous peoples is central to the implementation of the CBD. At the conclusion of the medium term programme of work, the promise of COP decisions has not been fulfilled.

34. Indigenous peoples sought to address these issues at the Madrid Intersessional Workshop on Traditional Knowledge and Biodiversity and, in particular, at the Second International Indigenous Forum on Biodiversity. More than 148 indigenous peoples' nations and organizations demonstrated their commitment to the effective implementation of the CBD through their active participation in these meetings. The Intersessional Workshop agreed on the need to identify principles that can guide the Parties in the effective and timely national implementation of Article 8j, as well as 10c and related articles. It was agreed that these principles should reflect the concerns, perspectives and experiences of the holders of traditional knowledge, innovations, and practices and, therefore, must be drawn up in a process that allows for the full and effective participation of indigenous peoples, as well as local communities.

35. Following up on the Madrid Mandate, the GBF workshop emphasized the perspectives and experiences of indigenous peoples. Workshop participants included indigenous people from Africa, Asia, the Pacific and the Americas. Among them were indigenous members of national delegations, indigenous people who are working in existing programmes for knowledge protection and promotion, and indigenous people who are working to evolve new programs and activities at the national, regional and international levels. The sessions in this workshop explored and discussed a variety of programmes and frameworks relating to the national implementation of Article 8j, including an indigenous clearinghouse mechanism and the nature and importance of indigenous peoples' knowledge and practices to the control and management of coastal and marine biodiversity.

36. Workshop participants agreed that indigenous knowledge is a cultural heritage and a living system of collective innovation that is inseparable from the lands and waters and

from indigenous peoples' relationship to these ecosystems. Respect and protection for these knowledge, innovations, and practices must begin with the full recognition of indigenous peoples' rights over their traditional territories, including the right to access and control the traditional resources of those territories. Participants expressed the importance of harmonizing national implementation of Article 8j with those international standards where the territorial rights of indigenous peoples have been considered in greatest detail, such as ILO 169 and the United Nations Draft Declaration on the Rights of Indigenous Peoples. Concern was also expressed that the protection and maintenance of traditional knowledge, innovations and practices are often undermined by conservation measures such as the establishment of those forms of protected areas which deny indigenous peoples and local communities access to their traditional lands, waters and resources.

37. From the perspective of indigenous peoples equitable benefit sharing implies benefit both to present and to future generations. For indigenous peoples, benefits encompass such things as restoration of traditional values, conserving and improving local crop diversity, the opportunity and the resources to improve and adapt local knowledge systems to the changing circumstances of indigenous peoples, and the secure management of the resources of their territories. Therefore, participants were concerned over the potential impact which access agreements, commercialization of traditional knowledge and intellectual property rights could have on these non-financial benefits which should be promoted under Article 8j.

38. Participants expressed concern that the Convention's Clearing House Mechanism, as it is currently being discussed within the CBD, fails to adequately address the need for indigenous peoples to be brokers of their own knowledge, as required in Article 8j. As a consequence, participants identified the need both for greater indigenous participation in the Clearing House Mechanism and for support for alternative indigenous communications systems, including initiatives at the local level and information exchange among indigenous groups.

39. The participants in the session on marine and coast diversity noted that indigenous peoples did not have an opportunity to participate in the development of the work programme on marine and coastal diversity. Nor does the programme include explicit measures for such participation in its implementation. The arbitrary separation of coastal and marine diversity from inland waters contradicts indigenous peoples' holistic understanding of the unity and interdependence of these systems.

National Implementation of Article 8j

40. The traditional knowledge, innovations, and practices of indigenous peoples are intimately bond to the territories in which indigenous peoples live. As one participant, Datu, said: *"If we regard the forest as a source of economic survival, it's like a marketplace. But the forest is also like a pharmacy. It's a place where our ceremonies take place and it's an area of governance where our customary laws evolve. Every forest is also a school, a university for indigenous peoples where we learn the names of the birds and the insects, where we learn to identify the medicines. So the identity of the forest spans the identity of the people."*

41. The recognition of this close relationship between indigenous peoples and biodiversity is central to the CBD (ie., Preamble Paras. 1, 12, 13). But despite this, efforts by the Parties to facilitate the implementation of the Convention has been marked by a piece, meal approach that by and large treats indigenous knowledge as separate and distinct from other equally fragmented units such as forests, agricultural diversity, inland waters, and marine and coastal diversity.

42. To date consideration of indigenous knowledge issues has largely been confined to the debate around implementation of Article 8j, which calls on the Parties to "respect, preserve and maintain" the "knowledge innovations, and practices of indigenous peoples and local communities, to ensure that the wider application of this knowledge occurs only with the approval and involvement of the knowledge holders, and to encourage equitable sharing of the benefits."

43. These requirements will be implemented primarily through actions undertaken by states at the national level. The particular wording of 8j, which is prefaced by the phrase "subject to its national legislation" suggests that states, in fact, have an obligation to harmonize existing legislation with those protections and other measures called for in the article, or to pass new legislation to do so.

44. This workshop looked at implementation of indigenous knowledge issues at the national level, and at the potential programmes and frameworks which could be adopted by the CBD to facilitate this implementation. The three sessions examined indigenous knowledge issues in relation to Article 8j, to the clearinghouse mechanism, and to the CBD's programme of work on marine and coastal biodiversity.

45. Since the CBD came into force, a handful of states have passed national legislation recognizing indigenous peoples' rights over their traditional territories, including the right to control and benefit from the resources of those territories. Although not specifically part of an implementation process these new laws are seen as significant steps toward the traditional resource rights protections required by the Convention. As the result of a long struggle by indigenous peoples in the Philippines, the government has recently passed The Indigenous Peoples' Rights Act which recognizes territorial and property rights over ancestral lands and waters. Under the act, any use of biological resources within these territories by outsiders, including use by governments for conservation efforts, requires the free and prior informed consent of indigenous peoples, determined in accordance with their respective customary laws and practices (RA 8371, section 3).

46. Similarly, the government of New Zealand has recently developed a new fisheries management law in relation to the customary law of the Maori. This new law provides for tribal management of selected traditional fishing areas. Although based on a treaty settlement process rather than the CBD per se, the new legislation is consistent with the calls for knowledge protection under the Convention.

47. At the same time, many states continue to pass laws, carry out policies, or take actions that violate and undermine the rights of indigenous peoples to maintain, control, and benefit from their knowledge, innovations and practices. One of the issues of gravest concern to indigenous peoples is the expanded scope of new intellectual property rights legislation, often the result of multilateral trade agreements like TRIPs or to bilateral trade

agreement, that permits the patenting of the living resources of indigenous peoples' territories and the associated knowledge systems of indigenous peoples.

48. Ironically, national actions taken in the name of in situ biodiversity conservation, the theme of Article 8 as a whole, can themselves lead to disruption of indigenous knowledge systems and so violate the specific requirements of Article 8j. The setting up of protected areas, which remains one of the most common forms of national implementation of in situ conservation, is often characterized by little or no consultation with the people living in the area, exclusion of subsistence use of the land and water, and the transfer of control to outside experts. The consequence is that local populations are alienated from their land base. And as this link between peoples and biodiversity is severed, the environment often suffers depriving them of access to resources.

49. The absence of concrete and effective protections for indigenous knowledge, innovations and practices in national legislation means that indigenous peoples must rely exclusively on their own resources to maintain the integrity of their cultures and territories. Many peoples have, in fact, been highly successful in this regard, but in every region of the world the pressure upon indigenous peoples are mounting steadily.

Intersessional discussions of implementation

50. The Madrid Intersessional Workshop on Indigenous Knowledge and Biodiversity broke new ground within the UN system. It was the first time that an intergovernmental meeting was organized specifically to consider traditional knowledge and how traditional knowledge is relevant to the conservation and sustainable use of biodiversity. During the meeting, indigenous people co–chaired working groups sessions and advised the chairs of the plenary. These unprecedented departures from the usual procedures of the UN system are a symbol of the growing recognition among states of the centrality of indigenous participation in the implementation process. The extraordinary number of indigenous people who took part in the meeting and the preceding Indigenous Forum on Biodiversity – more than 135 in total – demonstrates the importance of these negotiations to indigenous peoples themselves.

51. At Madrid, indigenous peoples presented a common position that any implementation should be guided by a set of principles based on indigenous peoples' views on their knowledge, how it should be protected, and how benefits should be shared. At that time indigenous peoples recommended that the COP could assist national governments in implementation by establishing a special body where such principles could be elaborated through the full and effective participation of indigenous peoples. Indigenous peoples also agreed that greater linkages are needed between the CBD and other international instruments such as TRIPs, to address the potential contradictions that might arise at the national level, such as the conflicting requirements for patenting (TRIPs) and for protection, consent and benefit sharing for traditional knowledge systems and knowledge holders.

52. These positions have been supported by a number of intersessional activities initiated by indigenous peoples. For example, a North American indigenous contact group agreed with the need for a body to provide guidelines for implementation, especially for access and equitable benefit.

53. In March, women from 24 Asian indigenous peoples' organizations met in Bangkok in one of the first international indigenous women's meetings in the region. Participants came from a wide range of backgrounds including women from refugee camps, women who had been removed from their land by development projects, women from regions of military conflict, and women facing violence and abuse within their own communities. The first African indigenous women's conference, held April 23, examined violence against indigenous women, the role of indigenous women as knowledge holders, and the importance of indigenous women as the cultural centres of their communities. These two conferences discussed a much wider range of issues than are usually considered in debates around the CBD. But since women play a primary role in maintaining biodiversity and related knowledge systems – as the CBD itself recognizes – these issues must assume greater prominence as Parties move toward national implementation.

Sui Generis Systems and Customary law

54. Interest is growing in the question of the development of a formal *sui generis* system of intellectual property rights for indigenous peoples. For indigenous peoples, this interest is fuelled by the gravity of the threats to traditional knowledge from existing Western IPR regimes, and that elaboration of a formal *sui generis* systems is one of the few remaining option for the protection of indigenous rights allowed by regimes such as TRIPs.

55. Any *sui generis* system needs to "respect, preserve and maintain" as well as build upon the customary rights by which indigenous peoples have managed their knowledge and resources since time immemorial. Customary law is a vital component of indigenous peoples knowledge, innovations and practice. As has been said about indigenous knowledge systems in general, customary laws are both a collective inheritance from past generations and a living process of adaptation and invention for the needs of the present and the future. Like indigenous knowledge systems as a whole, customary law is highly specific to the people and to their territory.

56. Four fundamental principles for integrating customary law into national implementation measures include: the primary responsibility for protection and enhancement of traditional knowledge lies with the holders of such knowledge; decisions on implementation must be inclusive of the diversity of perspectives and concerns of indigenous peoples; implementation is a joint venture between government and the holders of traditional knowledge in which indigenous peoples must be full participants; and this relationship must be enshrined in law, rather than being subject to the arbitrary will of governments and their bureaucracies.

57. Representatives of the World Intellectual Property Organization (WIPO), the specialized organization which administers more than 20 treaties on IPR, explained that the organization is launching a new programme that includes consideration of the "IPR needs, objectives of holders of traditional knowledge and the needs for access to this knowledge by new investigators." This new programme could support the development of *sui generis* models of indigenous cultural heritage rights. However, WIPO's new initiative could shift the debate over the protection of indigenous knowledge, innovations and practices away from the CBD and into a forum where indigenous peoples do not have a recognized right to participate.

Benefit Sharing

58. State parties have tended to see benefit sharing only terms of financial benefits secured through a commercial contract. From the perspective of indigenous peoples, the phrase equitable benefit sharing implies benefit both to present and to future generations. These benefits must encompass such things as restoration of traditional values, conserving and improving local crop diversity, the opportunity and the resources to improve and adapt local knowledge systems to the changing circumstances of indigenous peoples, and the secure management of the resources of indigenous territories. Participants were concerned over the potential impact which access agreements, commercialization of traditional knowledge and intellectual property rights could have on these non-financial benefits which should be promoted under Article 8j. This fundamental differences between indigenous peoples and most governments in their understanding of benefits highlights the need for guidelines or principles to guide implementation of Article 8j.

Indigenous Peoples and the Implementation of the Jakarta Mandate on Marine and Coastal Biodiversity

59. Consequently, the report that is being filed at COP4 on the issue of coastal and marine environments fails in its mandate not addressing issues of indigenous knowledge. A second concern for indigenous peoples is the separation of inland-waters from marine and coastal diversity in the CBD. The two water systems interact and many species inhabit both systems. As Maori say, the ocean begins at the tops of the mountains.

60. As a consequence of the exclusion of indigenous knowledge, indigenous perspective's and indigenous peoples themselves from the CBD programme of work, indigenous peoples organizations have sought to encourage implementation through initiatives carried among indigenous peoples. This work has been severely limited by lack of resources, but has nonetheless produced many positive results.

61. One initiative was to develop a regional inter–indigenous treaty on management of aquatic diversity. This initiative began small with a treaty specific to salmon negotiated among indigenous peoples in the US and Canada. This treaty has gradually broadened to include other species and to include indigenous peoples from Hawaii and the Pacific. Annexes tabled under that treaty could eventually include whales, halibut, tuna and other species.

62. In addition, indigenous people in the Pacific Northwest have prepared their own programme of work that includes the preparation of case studies, a call for a monitoring system to evaluate aquatic diversity and impacts from the perspectives of indigenous peoples, and projects to facilitate local and international capacity building. The plan is eventually coordinate this programme of work with programmes prepared by indigenous peoples in other regions.

63. Maori rights to control and benefit from aquatic diversity are protected under the Treaty of Waitangi which states that there should be no disturbance of the Maori fisheries. Although Parliament has attempted to restrict these rights to non-commercial uses, a tribunal found in 1985 that Maori fisheries had subsistence, recreational, spiritual and commercial components in pre-European times and that these components were capable

of adaptation to contemporary contexts. In a separate claim, the tribunal found that the tribe had an exclusive right to all fish out to 12 miles and a development interest in all fish out to 200 miles.

64. As a result of the negotiations that followed, the New Zealand government recognized an exclusive Maori right over the inshore fisheries. The government also nationalized one of the largest national fisheries corporations and then turned the corporation over to the Maori. The sum of these actions was to effectively grant the Maori a 40% share of the commercial fisheries.

65. Under this arrangement, Maori are able to administer non-commercial fishing under customary law. For example, local management arrangements allow maintenance of customary practices even when these contradict with the government regulations. However the customary laws of the Maori are still recognized only for non-commercial uses, while commercial use continues to be regulated by the government.

66. The agency in NZ charged with implementation of the CBD is a traditional conservation organization that believes that the environment is best protected by separating people from protected areas. This agency seeks to lock up 10 percent of the coast as marine reserves. This policy would extinguish Maori customary title, and prevent the practice and therefore the continuation of Maori knowledge.

67. This application of conservation principles, without regard to the concerns of indigenous peoples, would violate national agreements between the Maori and the government of New Zealand and the requirements of Articles 8j and 10c. This case study highlights the clear and pressing need for greater participation by indigenous peoples in CBD programme of work on marine and coastal diversity and at the national level in the implementation of this programme.

Indigenous Communication

68. The workshop on indigenous communication explored issues related to creating networks that allow indigenous peoples to better understand and engage the issues of the CBD, to meaningfully participate in the negotiations of the Convention with the Parties, and to more effectively communicate among themselves on biodiversity issues.

69. Indigenous communication occurs at several different scales, and there are communication needs appropriate to each level. Five different levels with distinctive communication needs must be addressed by any clearing-house mechanism:

- communication within and among indigenous communities;
- communication between indigenous representative organizations and their communities;
- communication among indigenous representative organizations within States;
- communication between indigenous representative organizations and States; and
- communication among indigenous representative organizations internationally.

70. One of the primary concerns of participants was to increase the richness of communication among indigenous communities to aid in the transmission of indigenous knowledge. Article 8j requires States, subject to national legislation to "respect, preserve and maintain knowledge, innovations and practices." It does no good to define rights related to indigenous knowledge at the international level if the base knowledge and cultural diversity is being continually eroded. If rights are not to exist in a vacuum, serious attention must be given to support traditional education and communication at the community level. Indigenous knowledge is not encoded in textbooks, and requires close connections among elders and apprentices in close contact to cultural traditions and the natural world in order to thrive from generation to generation. This will require support for indigenously controlled local institutions, and modes of communication that include music, dance, poetry and community-meetings. Non-traditional technologies, such as the development of databases, publications, and Internet-based information services should be supported where it is appropriate and locally supported.

71. Indigenous representative organizations participating in the CBD and other related international processes need support to bring the issues for discussion within their communities. The principle of prior informed consent for negotiating the values used in the equitable sharing of benefits will not be fulfilled unless indigenous communities understand the issues and are able to provide their culturally-appropriate values before any initiative to use their knowledge and resources can be put into place. It is important to emphasize that this process involves a larger dialogue and process of consensus-building than within a single indigenous community or a single initiative. Negotiations by States or non-governmental organizations directly with individual indigenous communities without a prior long-term communication process fail to meet the requirement of informed consent. Organizations seeking to use indigenous knowledge should work through indigenous representative organizations on a regional scale.

72. Indigenous representative organizations need more support to carry on these regional- and national-scale activities. Several indigenous groups now hold regular national and regional workshops and meetings on issues before the CBD, such as those organized by Kuna representatives for Central America. These kinds of meetings need to be expanded considerably, and supplemented by the development of electronic networks and services.

73. Indigenous representative organizations need a greatly expanded and timely access to information on the CBD and related conventions, and more reliable connections among themselves. Much of this networking can be accomplished using the global Internet, but progress in setting up information gateways has been slow due to a lack of funding for Internet services. Alternative mechanisms for information exchange are also being explored, as in the recently developed CD-ROM "Library of Indigenous Knowledge and Biodiversity" produced by the Indigenous Biodiversity Information Network, the Indigenous Knowledge Programme and the IUCN – The World Conservation Union. States and NGOs should consider funding and expanding these indigenous initiatives.

74. Although detailed guidelines at the international level are not appropriate, and cannot be imposed without the consent of indigenous communities, participants recognized the need to develop broad principles for international collaboration and communication. Indigenous peoples are greatly concerned about the lack of knowledge and oversight about primary indigenous knowledge contained in public and private

databases, and for the potential for the CHM of the CBD to foster the spread and use of indigenous knowledge without community consent. The European Database Directive and the recent World Trade Organization (WTO) attempt to strengthen private property rights to information contained in databases without regard to the origin of the information is a particular concern.

75. National implementation and international initiatives should recognize and honour the principles developed by indigenous peoples for working with their knowledge, such as those elaborated in the Maatatua Declaration of the First International Conference on the Cultural & Intellectual Property Rights of Indigenous Peoples, Whakatana, 12-18 June 1993 in Aotearoa, New Zealand. Governments, NGOs and individuals should seek out and respect local protocols whenever they engage in any communication with indigenous communities.

76. Indigenous peoples have two major security concerns in the development of increased communication capacity. Strategically, they need to create private networks in order to discuss issues among themselves to promote values, develop goals and plan without outside interference. They also need to develop mechanisms for recording and managing their knowledge for their own use. Many property rights provisions fail to protect knowledge that has been publicly revealed, and many indigenous groups are reluctant to reveal to governments or others the location of cultural resources, such as the location of sacred sites, traditional hunting territories, or medicinal gardens.

77. A second security concern is that of personal security. Indigenous peoples are often minorities within their States and are engaged in land titling and resource control issues that are quite contentious. Improved open communication systems can be a double-edged sword. While they improve the ability of indigenous representatives to organize, they also make it easier for hostile governments, groups or individuals to discover their identities, activities and locations, and put them at a higher risk for retaliation.

78. Databases can be copied, on-line systems can be invaded by outsiders and by unscrupulous service providers. In many countries, indigenous peoples would have very little legal protection against government agencies seeking access to records of their e-mail, their activities on-line and their databases. As indigenous peoples adopt new technologies for recording and managing their knowledge, more attention needs to be paid to security issues and training indigenous organizations on the implications of using the technologies. States should also drafting or considering legislation to guarantee indigenous rights to privacy and control over their information.

Culturally Appropriate Clearing-houses

79. To date, the clearinghouse mechanism of the CBD has focused on the use of the Internet and print publications written in high academic language. This information will need to be translated into culturally-appropriate terms, and a much wider range of communication mechanisms will have to be used in order for indigenous peoples to meaningfully participate in the Convention. Some of these mechanisms include videos, cassettes, comic and colouring books, and radio broadcasts in native languages. This is not a one-way process, and participants felt that the CBD needs to institute mechanisms to receive indigenous submissions to the implementation process in the same formats.

80. The language of communication is a vital issue for indigenous peoples. Indigenous knowledge is itself encoded in local languages which are currently being extinguished at a rate that is at least an order of magnitude greater than the extinction of species. The Internet, the medium of choice for the CHM, does not support the use of native languages except in special circumstances which cannot be currently be achieved by most indigenous groups. Many of the Convention documents are only available in English, and though this is improving they are not generally made available sufficiently before meetings of the CBD and its bodies for meaningful indigenous participation. The word “biodiversity” itself often has no direct meaning for indigenous peoples – if the core term of the convention is not understood, then what is the validity of negotiations over other terms?

Funding

81. Indigenous peoples occupy a unique position in the CBD. They are the only “major group” of Agenda 21 to have specific obligations and duties on the part of States, and the use of their knowledge will be crucial to the successful implementation of the convention. However, there is no specific funding mechanism to support their role within the convention, and indigenous participation has been chronically under-funded and fragmented. Indigenous peoples have made attempts to create some initial networks to deal with issues under the Convention (e.g.: Inakrri 2000 "http://www.inkarri.net" http://www.inkarri.net and the Indigenous Biodiversity Information Network http://www.ibin.org http://www.ibin.org but none of these attempts have received the long-term funding require to make them lasting institutions.

82. One of the major barriers has been the need to construct open communication using a topically-oriented network. Most networks using the Internet centre around the activities of a particular organization, and reflect their policies and points-of-view. Funds come from operating budgets or grants to organizations, and there is a clear product that can be clearly attributed to each organization. Topically oriented networks are diffuse, have no clear owners, and attempt to create an open forum for the presentation of ideas rather than promote a single policy. The advantage is that they can foster cooperative information exchange without consensus or imposition of a single viewpoint. A disadvantage is that because the do not have a clear owner, they do not have the funding sources of organization-based services. Topical networks on indigenous knowledge are also providing a public good that is non-commercial, and so cannot secure private capital for it operation.

83. Participants felt that the creation of open networks is crucial for implementation of the Convention. These networks should be indigenously managed and controlled, and not simply a service provided for indigenous peoples by a non-indigenous organization. Funding for the operation of an indigenous clearinghouse mechanism may therefore have to be split among numerous indigenous organizations without single ownership of the network. One mechanism is for the CBD to direct the Global Environment Facility (GEF) to include a communications component in any project that includes indigenous peoples.

Conclusions and Recommendations

Workshop participants agreed on the following recommendations:

- ☐ the Secretariat or an appropriate body should initiate a process whereby appropriate guidelines can be formulated to assist national governments in the implementation of Article 8j. The full and effective participation of indigenous peoples in this process must be fully ensured;
- ☐ the COP should ensure indigenous peoples' participation in the implementation of the Clearing House Mechanism, including representation on the advisory committee;
- ☐ the COP should open the meetings of all committees, working groups or other bodies of the COP to the participation of indigenous peoples;
- ☐ the Parties should provide financial support to indigenous people to maintain and develop locally appropriate communications systems and strategies, including protocols and ethical considerations;
- ☐ noting that the work programme on coastal and marine biodiversity did not incorporate the knowledge, innovations and practices of indigenous peoples and local communities, as was directed by Decision II/10, the Parties should amend the workplan to incorporate these in the implementation of the work programme through national action plans, national legislation and international agreements. The full and effective participation of indigenous peoples should be a prerequisite for the implementation of this work programme;
- ☐ States should need to set up permanent and reliable relationships with indigenous focal points, and arrange for full participation of indigenous peoples in the elaboration and national implementation of provisions of the CBD;
- ☐ relevant organizations should develop common directories of organizations and contacts, publications, meeting calendars, and other materials related to indigenous peoples and the CBD;
- ☐ States and funding bodies need to significantly expand their support for translating the issues of the CBD into culturally appropriate forms, and to generally support efforts to revitalize the use of indigenous languages as a critical component of cultural survival.; and
- ☐ Parties should ensure the harmonization of the work programmes on coastal and marine biodiversity and inland waters.

Agenda

Workshop Overview:

Workshop logistics, by *Andrea **Lindores**, Indigenous Knowledge Programme, Canada*

Report on the Madrid Workshops, by *Stella **Tamang**, Nepal Tamang Ghedung, Nepal*

National implementation of Article 8(j) under the CBD: overview of the issues, by *Alejandro **Argumedo**, IPBN, Peru*

Indigenous knowledge, the information clearing-house and the implementation of Article 8(j): overview of the issues, by *Fred **Fortier**, Indigenous Knowledge Programme, Canada*

Coastal and Marine Biodiversity: the CBD and Article 8(j): overview of the issues, by *Aroha **Mead**, Government of New Zealand*

Report of the Asian Conference on Indigenous Women's, by *Asian Indigenous Peoples' Pact*

Report of the African Conference on Women, by *Lucy **Mulenkei**, Kenya Broadcasting Corporation, Kenya*

Session 1:Challenges on the National Implementation of Article 8(j) (Organizers: Andrea Lindores and Alejandro Argumedo)

Opportunities and limitations in the National Implementation of Article 8(j): a case from the North West Territories, Canada, by *Barney **Masuzumi**, NWT, Canada*

General principles for national implementation: government perspective, by *Tony **La Viña**, Government of the Philippines*, and *Aroha **Mead***

Key issues and priority activities in the national implementation of Article 8(j): an NGO perspective, by *Ashish **Kothari**, Indian Institute of Public Administration, India*

Respecting, preserving and maintaining indigenous knowledge, innovations and practices: biopiracy and national implementation of Article 8(j), by *COICA*

Promoting the wider application of indigenous knowledge and issues of approval by peoples and communities concerned: principles and guidelines for the promotion of forest-related knowledge, by *Marcial **Arias**, International Alliance*

Equitable sharing of benefits: principles and guidelines for agricultural biodiversity: a case from Sabah, by *Jannie **Lasimbang**, Indigenous Knowledge Programme, Malaysia*

Protecting and encouraging customary use of biological resources: the role of customary laws, by *Mwananyanda Mbikusita **Lewanika**, Southern African Traditional Leaders' Council for the Management of Natural Resources, Zambia*

Lessons from Madrid: where we go from here? By *Atencio **Lopez***

Session 2: Coastal and Marine Biodiversity: The CBD and Article 8(j) (Organizer: Aroha Mead)

Interactive roundtable: "How can the CBD give effect to the customary rights of indigenous peoples, to access, utilize and protect marine and aquatic resources, for cultural and/or development purposes?"

Session 3: The Indigenous Information Clearing-house and the National Implementation of Article 8(j) (Organizer: Fred Fortier, Indigenous Knowledge Programme, Canada)

The needs of indigenous communities for information sharing, and what they are asking from governments, by *Fred **Fortier***

Getting the institutions right: the early experience of the Indigenous Biodiversity Information Network, by *Preston **Hardison**, ICONS Project, USA*

National and international legal issues in the exchange of indigenous knowledge, by *David **Downes**, CIEL, USA*

Workshop on CBD Clearing-House Mechanism: Building a Network of Networks

Organizers:

Biodiversity Conservation Information System (BCIS)
Inter-American Biodiversity Information Network (IABIN)
with the cooperation of
the Secretariat of the Convention on Biological Diversity (SCBD)

Report

84. The objective of this workshop was to raise awareness and understanding of the CBD/CHM and to strengthen linkages between members of the CHM Informal Advisory Committee. It was attended by 40 participants from governmental and non-governmental (NGO) organizations from 15 countries.

85. The CHM Workshop provided an opportunity for the information management community to exchange perspectives and experiences with the information user community. It allowed information specialists to hear about the real needs and constraints of people working on the ground. Attendees were able to find out first hand about the various informatics initiatives underway, which will help them understand how best to take advantage of these systems and services. The Workshop also re-emphasized the importance of information exchange mechanisms such as the CHM in facilitating flows of data, information and expertise.

Workshop Presentations and Findings

86. The workshop was divided into three areas: structure, content, and capacity building. Within each of these, presentations provided national, regional, global and thematic perspectives. The first presentation outlined emerging information networks and their potential for contributing to the CHM. This was followed by two thematic perspectives: the Biodiversity Conservation Information System (BCIS) and the G-8 project on Environmental and Natural Resources Management (ENRM). All three emphasized the need for standards at the network, content, and policy (institutional) levels. Recurring themes were the challenge of obtaining metadata and need for leadership.

87. The CHM Informal Advisory Committee could assist through advising and supporting the Secretariat of the CBD. It could help implement the vision through raising awareness of key principles needed to catalyze networking between networks. Attention was drawn to experience held in existing regional, national and thematic networks and the need to ensure linkages among them. While the Contracting Parties are the drivers of the CHM,

thematic networks increase synergy and, by providing multiple access routes to information, facilitate transparency.

88. Regional perspectives came from the Commission for Economic Cooperation (North American Biodiversity Information Network - NABIN), the Inter-American Biodiversity Information Network (IABIN), the Southeast Asia Biodiversity Data Network (SEA-BD), and the OECD Megascience Forum Working Group on Biological Informatics. A common theme was the need for better coordination of these diverse initiatives, moving toward achieving “inter-initiative” compatibility and cooperation.

89. One concern raised in all presentations was protection of copyright of data held in databases and transmitted over the Internet. "Bits of Power", a US National Academy study, was cited as an excellent resume of the issues. Indigenous peoples are affected, as are individuals and nations.

90. The second day of the workshop turned to perspectives at the national level: India, Canada, Zanzibar, Poland, and Brazil. Although these countries are at different stages of development, all have made substantial progress in data management in the context of the CBD and the CHM. Recurring themes included intellectual property, the relationship between content and technology, the importance of educational objectives for the data, a willingness to share experiences in the context of the CHM, and information collection and dissemination as a means to increase communication and build relationships.

91. Presentations were given on “economics of biodiversity” and the need to build informational linkages between the CBD and the other environmental conventions, in particular the Framework Convention on Climate Change. These raised the issues of how data, information and expertise should be further extended and enriched using the Clearing House Mechanism. The conclusion was that priorities for data collection in the context of any convention are usually nationally driven.

92. The workshop's final topic was capacity building. Three papers were presented. UNEP’s Biodiversity Data Management Project (BDM) provided a framework and guidelines that helped 10 countries develop plans for data management which are consistent with the CHM process. A second was on the indigenous peoples' perspective, where the theme of access to needed technology was outlined. Finally, a presentation on capacity building emphasized that this is needed regardless of the level of national development. “Sharing and synergy” summarized the relationship of the many initiatives that were presented throughout the course of the workshop.

93. The final discussion concluded that much already has been done to develop the CHM. Many of the pieces have, in fact, been implemented, through both top-down and the bottom-up initiatives. However, there is a need for leadership in guiding further implementation and support for national biodiversity inventories and make the necessary linkages to the CHM.

Summaries of the Presentations

94. The introduction by the BCIS Programme Manager outlined a vision for the CHM and suggested that there must be balance among the functions that various groups want to

ascribe to it: decision support, information exchange, and capacity building. It was suggested that there have been a family of visions for the CHM and it is now time to distil them into a single overriding vision.

95. In reviewing emerging information networks and their potential contribution to the CHM, four conceptual levels were described: 1) political: conventions and agreements, ways people and organizations relate to each other, and resulting policy and priority setting; 2) organizational: corporate jurisdictions and objectives, and program and projects; 3) operational: collaborative networking, project coordination, custodianship, metadata, data access agreements, and capacity-building; 4) scientific and technological: standards, quality assurance, integrative analysis, and dissemination tools. Networks will develop around themes and geographic areas and must address all these levels. Delivery will be through individual networks working toward corporate goals and trading with others, where synergy and value-added will exceed the overhead costs of collaboration. The benefits are higher-value products and services, increased visibility, and access to new resources. The costs are the staff time in meetings and liaison and constraints on current, independent modes of operation. The challenges are primarily social and institutional rather than technological. The next steps in the development of CHM as a network will be in assessing the real needs of users; establishing harmonized systems for handling metadata; linking thematic areas; developing delivery systems; undertaking demonstration projects; and harmonizing treaties that have relevance to Biodiversity.

96. BCIS was presented as an example of a thematic network. The 12 member agencies, some of them networks in themselves, saw the benefits of joining as enhanced capability and greater impact through data sharing. A framework for information sharing has been created.

97. The G-8 Environment and Natural Resources Management (ENRM) project seeks to enhance accessibility of data and information. A Metadata Working Group is building a virtual library to interconnect catalogues and directories around the world. The Global Environmental Locator System (GELOS) allows multi-attribute searches across the 48 external databases.

98. The Thailand Environment Institute, an NGO, provided another regional perspective. It seeks to coordinate biodiversity issues in Southeast Asia. One of the challenges that a country like Thailand faces is that it has few scientists in the field. Sharing of personnel and expertise in the region is essential, thus the need for network. The network initially comprises Philippines, Thailand, Malaysia, and Indonesia. It's objectives are to: 1) exchange information, 2) build capacity, 3) coordinate research projects, and 4) stimulate a policy dialogue among members. Thailand linked seven local networks into a Thai network that will be part of the Southeast Asian network. A survey of access and benefit sharing was launched. It became clear that there are misunderstandings between government and local NGOs -- they view the implementation of the CBD differently. It is important to have an ongoing dialog.

99. The Inter-American Biodiversity Information Network (IABIN) initiative is an opportunity to build the CHM at a regional level. It encapsulates national efforts to reduce barriers to information sharing. The decision to develop IABIN was taken at the highest political level at the Santa Cruz Summit. IABIN development is focusing on issues of implementation and is linked to development of the CHM. Common objectives and key

principles were laid out at expert planning meetings. IABIN is already cooperating with other initiatives such as BCIS and MAB.

100. A North American Biodiversity Information Network (NABIN), comprising Canada, Mexico, and the USA has, as its operating principles, a neutral venue, standards, responsibilities vested in data custodians, an ecosystem focus, and equitable distribution of responsibilities and benefits. Tools have been developed for analysis, visualization, prediction and geographic computations. NABIN offers a forum for discussion; standards; a means to integrate databases; and experience in making information readily available. It has similarities to CHM in that it seeks to promote scientific and technical cooperation and is seen as a building block of IABIN and CHM.

101. The OECD Megascience Forum has developed a report that recommends the development of a Global Biodiversity Information Facility (GBIF). The rationale is that: 1) biodiversity and ecosystems information is critically important; 2) it is not yet readily accessible; and 3) OECD can show leadership and share capacity in this area. The overriding goal is to make information available to all, while protecting the intellectual property rights of data owners. Development of standards is very important. The GBF concept is node-based, some of which may be concurrent with CHM nodes. It is open-ended and encourages modular growth.

102. India is taking a bottom-up approach to creating the CHM. India believes the CHM must be experience-based and use what is available. Initiatives include: 1) Community Biodiversity Registries that document biodiversity within different communities; 2) Technical Resource Centres for Traditional Knowledge that look at knowledge of tribes on agricultural practices, farming methods and varieties, and the rationale for practices. When translated among local languages, it cross-fertilizes understanding and practices across areas. It is also useful to the local governments. These initiatives can be viewed as CHM implementations at the local level.

103. China is developing a Chinese Biological Information System (CBIS). It was suggested that all GEF supported projects should have a CHM component to ensure proper information capture and exchange. Regional efforts funded by the CHM also help build national capacity.

104. The CHM national focal point for Brazil pointed out that the challenges are very large and complex. They are actively exploring partnerships. The full importance of biodiversity is not well understood. It is critical that the entire population be made aware of the issues. BINBrazil has been decentralized and Internet-based since 1992. The concepts are still the same, but the tools are vastly improved. Brazil sees communication as a vital objective. The Internet is not just for communication, but also to encourage active participation. One observation about networked information dissemination is that it is much cheaper than book publishing. Instead of 400 people, over 350,000 people can see material put on the Web.

105. Biodiversity information initiatives in Zanzibar included a national plan, comprising four phases: 1) listen and learn; 2) develop strategy; 3) pilot; and 4) mainstream. Many information gaps were identified and there was an attempt to raise the awareness of politicians as well as the public to biodiversity issues. There was a need for a rapid appraisal of the status of biodiversity. Issues were prioritized: a lack of information,

inadequate information management systems and confusing mandates. Access to traditional knowledge systems was a priority. The conclusion of the national plan was that leadership is needed. There also needs to be a high level of political commitment. Multiple stakeholders and trainable personnel are available. Focal points and partnerships are needed. Information needs to be translated among politicians, scientists, and the public. In the end, there was a concept of the need for community CHMs. They need guides and metadata to capture traditional knowledge, tools for assessment and monitoring, and a need to bring social and economic issues into an environmental context.

106. A Canadian presentation recognized problems common to developed and developing countries: ability to collect data; providing access to data; and barriers to information sharing. Governance in Canada is shared by national, 10 provincial, two territorial, aboriginal and subordinate government structures. The vision is to increase national accessibility to authoritative biodiversity information, requiring political leadership and an institutional focal point.

107. A report from UNEP discussed developing country concerns about biodiversity issues. Twelve countries with developing or transitional economies have conducted Biodiversity Country Studies. They studied the science of biodiversity and generated considerable data that required organization. Out of this came the Biodiversity Data Management Project (BDM). Ten countries participated. The objectives were to: 1) assess requirements for data management and applications; 2) strengthen mechanisms and institutions for information dissemination; 3) enhance abilities, skills, and know-how; and 4) apply a series of information and management tools. The output for each country was to be a BDM plan.

108. The Indigenous Biodiversity Information Net is to develop a clearinghouse for indigenous knowledge (IK). The CBD is strong on advocating protection of indigenous knowledge. Copyright issues prevalent in western culture are not relevant to indigenous knowledge, since it is collective in its nature. The use of oral media is basic. Low literacy levels creates a challenge of working with technologies. IK issues are not part of the mainstream concepts. The CHM should support the replication of IK and help to apply technology to its capture.

Conclusions and Recommendations

The CHM is widely recognized as a fundamental building block for the implementation of the CBD. Many global biodiversity informatics initiatives recognize the centrality of the CHM and are working as partners through collaboration and complimentary. The CHM has a positive impact on shaping these biodiversity informatics efforts and, in turn, is enriched by inputs from these other efforts. A number of countries and regional cooperatives have made impressive progress in implementing their CHMs and more are initiating their efforts. The key to completing the successful pilot phase is full recognition and support by the Secretariat of this vital role.

Therefore, the GBF recommends that:

- ☐ all countries assess progress on their CHMs and commit to full implementation beyond the pilot phase;

- ☐ the CHM should place a priority, on continuing its leadership role for all interested entities;
- ☐ the COP should reinforce the high priority that the GEF give to proposals supporting biological diversity informatics and CHM initiatives;
- ☐ the COP should endorse continuing support for the Secretariat to ensure the transition to and sustainability of full operation of the CHM; and
- ☐ a brief on the global biological diversity informatics initiatives should be prepared so that interested partners can see the interrelationships, complementarity and synergies.

AGENDA

Session 1: The CHM and its Relation to the Emerging Global, Regional and National Networks – Major Thematic Networks Contribution to the CHM: Part 1: Structure (facilitator: Gladys A. Cotter, IABIN, USA)

Introduction to the CHM and its structure of focal points

The Internet and emerging information networks: their potential contribution to the CHM, by *John **Busby,*** Thematic focal point: BCIS, by *Kevin **Grose**, IUCN, Switzerland*

Thematic perspective: ENRM, by *Lawrence **Enomoto**, NOAA/NESDIS, USA*

Session 2: Regional Networks Contribution to the CHM and National Approaches to Link to the CHM: Part 1: Structure, Regional and National Nodes

Regional perspective: IABIN perspective, by *Marcos **Silva**, Commission for Environmental Cooperation, Canada*

Regional focal point: IABIN perspective, by *Bráulio **Dias**, Ministry of the Environment, Brazil*

Regional perspective: Southeast Asia Biodiversity Data Network (SEA-BD), by *Jesdapipat **Sitanon**, Chulalongkorn University, Thailand*

National perspective: INDIA: Bottom-up approach to the CHM, by *Balakrishna **Pisupati**, M.S. Swaminathan Research Foundation, India*

Session 3: Part 1: Structure, Panel Discussion

OECD Megascience Forum Working Group on biological informatics, by *Ebbe **Nielsen**, CSIRO Entomology, Australia*

PANEL DISCUSSION: needs to strengthen structure:

- Focal points and Informal Advisory Committee
- Improve interaction, exchange?
- Funding?
- Access to Internet, e-mail?
- Standards

Conclusions

Session 4: CHM Information Resources: International and National Perspectives – Review of agenda and Part 1 session conclusions (Facilitator: John Busby, BCIS, UK)

National focal point: Canada, by *Mark **Cantwell**, Biodiversity Convention, Canada*

National focal point: Brazil, by *Vanderlei **Canhos**, Fundaçao Tropical de Pesquisas e Tecnologia "André Tosello", Brazil*

Economics of biodiversity information at IUCN, by *Frank **Vorhies**, IUCN, Switzerland*

Session 5: Information Linkages Between Environmental Conventions and for National Planning and Action: Part 2: Content, concluded

Emerging issue: CHM and other Conventions (e.g., Climate), by *Brett **Orlando**, IUCN, USA*

Information needs for Biodiversity Strategies and Action Plans: Zanzibar and Djibouti, by *Abdulrahman **Issa*** and *Chris **Magin**, IUCN, Kenya*

Panel discussion

What is needed:

- Priorities to build useful content?
- Pilot projects?
- Support from GEF, etc.

Session 6: What has been done to Build Capacity at International and National Level to Access CHM-Based Information and to Develop Information Resources: Review of agenda and Part 1 and 2 sessions. Part 3: Capacity-Building

CHM status of capacity-building

UNEP/GEF BDM approach, by *Paul **Chabeda**, UNEP, Kenya*

Indigenous perspective: IPBN/IBIN, by *Alejandro **Argumedo**, IPBN, Peru*

Session 7: What are the Practical Examples of what is available and can be done now. What is needed for the Future. Part 3: Capacity-Building, concluded

Tools and capacity-building services, by *Jerry **Harrison**, WCMC, UK*

Panel discussion

What is needed:

- Development of NFPs for CHM
- Review of existing CHMs "good practice"
- Linking/harmonization among NFPs and thematic FPs
- Needs to implement assessments
- Needs for training

Conclusions and workshop round-up on Parts 1-3

Workshop on Tenure and Sustainability of Resource Use

Organizers:

IUCN Sustainable Use Initiative
Indigenous Peoples Biodiversity Network
Shuswap Nation Fisheries Commission
ZERO

REPORT

109. The workshop was organised by the IUCN Sustainable Use Initiative (SUI) and the Zimbabwean-based Regional Environment Organisation (ZERO). The principal objective of the workshop was to examine the nature of the relationship between tenure and sustainable use of natural resources, and the extent to which this relationship constitutes a key factor in the conservation of biological resources and achieving the objectives of the CBD.

Summarised Workshop Contents

110. The workshop comprised seven thematic sessions and a closing session. An introductory session examined the principles of tenure and access rights from a global perspective and identified those provisions of the CBD, the implementation of which may be enhanced by considering the role of tenurial systems. Overview presentations on Europe, Africa, Asia, Latin America and the Pacific Islands exposed commonalties and differences in the manner in which tenurial systems and access rights operate. Some regional overviews were complemented by specific case studies which demonstrated a positive relationship between tenure, sustainable use and conservation. A closing session identified the major conclusions that could be drawn from the presentations and associated discussions in order to articulate a statement on the outcomes of the workshop.

◊ Europe

111. Over many centuries, agriculture has had an immense impact throughout Europe in changing, shaping and adapting the natural environment. These impacts have been so immense and widespread that what is commonly referred to as nature by the European general public, is in reality extensively modified semi-natural landscape.

112. The regional overview and case study presentations for the European Region focused on the issue of sustainable agriculture. For convenience, the Region was divided into three sub-regions (*viz*. Western Europe - EU; Central and Eastern European Countries - CEEC; and Commonwealth of Independent States - CIS). Nevertheless, it is possible to draw the following general conclusions. Firstly, a common characteristic of European

agriculture has been the historical concern related to food security. The inability to satisfy the nutritional requirements of peoples during World War II and its aftermath strongly motivated European states to enhance food production. Food security in Europe has largely been achieved, but not, without incurring some environmental costs. Highly productive agricultural systems account for much of the loss of biodiversity in Europe. Excessive use of chemicals has resulted in contamination of soils and ground-water and the eutrophication of water bodies. Monocultures, mechanised cultivation practices and irrigation schemes have led to large-scale conversion and fragmentation of natural habitats.

113. Although the problems may differ in the various countries, agricultural reform, through greater privatisation and further liberalisation of market forces, is required throughout Europe in order to promote overall sustainability. In the case of EU countries the "reform via market mechanism" should comprise simply removing extensive government intervention in price formation and in production and trade subsidies. In CEEC and CIS countries a complete transition to a market-based economy can only be achieved by a redefinition of land ownership. The process of "extensification" of agriculture in the CEEC and CIS countries in recent years, which has resulted in reduced agricultural production, has been more a result of financial and economic difficulties at the farm level than reflecting a definitive shift in policy.

114. The management of natural resources in farmlands in order to produce an agricultural output which satisfies individual subsistence or commercial needs, necessarily affects the environment, positively and negatively. These environmental impacts are relevant to the "quality of life" of present and future generations, and are thus of interest to the general public. In this regard, farmers play a dual role - that of entrepreneurs attempting to maximise outputs and benefits, while at the same time fulfilling the responsibilities of managers of public goods - the environment. This inseparable dual role of farmers gives rise to questions on the linkages between land-use for agricultural production and farmers' stewardship functions to manage the environment. The capacity of markets to influence the allocation of resources for agricultural output and provide the means of satisfying the private interests of farmers is well defined. Market mechanisms largely fail to operate properly with respect to environmental management. Because of the public nature of environmental goods and the degree of public interest in the environment, including the associated social and intergenerational issues that are raised, the concept of democratically-elected governments acting as public agents to compensate farmers for the environmental goods and services they would provide is gaining consensus among the western European public. In addition to being paid for environmental goods and services, it is appropriate for farmers and associated industries to be considered accountable for environmental damages that accrue from unsustainable agricultural practices.

115. In the case of Europe, OECD (1997) stated that "... Private ownership may or may not be superior to public ownership, depending on policies; and most any allocation (public, private or "customary") is better than no allocation. ..." In recent years, when agricultural policies in the EU, CEEC and CIS countries were directed to enhancing production, neither private nor public ownership of land guaranteed sustainable agriculture.

◊ Asia

116. Historically, the predominant tenure system in Asia was communal tenure by which whole communities owned a resource and possessed communal rights to its use. Colonisation of Asia in the middle of the nineteenth century by the industrially advanced and wealthy European countries played a significant role in forcing a change and breakdown in local values and institutions - particularly those relating to property rights. Legislation governing the use of all wild resources transferred the tenure of these resources from local communities to government. Rather than conserving these resources, the colonial powers exploited particular resources primarily to generate revenue for further resource extraction within Asia and to establish a system that supported colonial rule.

117. Tenure policies imposed by the colonial administrations never gained legitimacy among the majority of local people nor were they able to be effectively enforced. As a result, traditional and customary tenure systems continued to exist, albeit “illegally” and with weakened authority.

118. At present four types of common property rights regimes operate in Asia: open access; communal property; private property; and State property. Resources under open access tenure are usually public commodities (e.g., water bodies, parks or mountains etc.). Most open access resources are State property not subject to any management regime and with poorly or undefined rights of access or use. Historically, most of the open access resources were formerly under communal tenure and were later alienated from local people.

119. The communal property regime is perhaps the most common widespread tenure system in Asia governing the management and use of wild resources. A natural resource under a communal property regime is controlled by a community, which is able to regulate its use. This also includes the ability to exclude access to it by non-community members. Under colonial legislation, most of this type of management is considered illegal. Because all resources are owned by the State, communities do not have legal title to either communal property rights or open access regimes. In an effort to retain their traditional systems in order to survive, many communities in Asia continue to deny encroachment by the State on their resources. This State-community conflict forms the core of the tenure and sustainability debate in Asia. Nowhere is this conflict more intense than in State-managed protected areas.

120. Efficient management of a tenure system requires that the transaction costs be lower than the benefits derived from the resource. Experience has shown that low transaction costs are more readily achieved through equitable management. In this context, equity does not mean that resource users get equal shares, rather that management of a tenure system is consistent with prevailing social standards of representation, distribution, transparency and conflict resolution. The present system of protected area management fails to satisfy any of these criteria because it has engendered an inherent perception of illegitimacy among local peoples that encourages non-compliance with the system.

121. The present capacities of governments to apply appropriate management and enforce legal controls in protected areas is grossly inadequate. As a consequence, illegal activities such as poaching, fishing and logging continue unabated. This has resulted in

some species of wildlife becoming threatened with extinction through overharvesting or loss of essential habitat. Illegal hunting and fishing is a direct result of weak State enforcement capacity and the absence of communal control. Poachers from outside encroach on traditional communal lands and remove animals with relative impunity. Most countries in Asia possess fully-fledged national parks departments, but these departments consume scarce government resources and rarely achieve their fundamental objective of conserving biodiversity in protected areas. The protected area management system can be generally described as inefficient, with high transaction costs and no apparent benefits.

◊ Africa

122. As in Asia, a similar process which resulted in the replacement of customary tenurial systems by State-controlled management of resources occurred in the European colonisation of Africa. In the African context, tenure systems define relationships between people - not simply between people and some physical property. More than just owning land, tenure encompasses a suite of rights and responsibilities relating to a range of renewable and non-renewable resources. Land resources throughout most of Africa are administered through three overarching tenure systems - State, traditional and private. Traditional communal tenure systems entail all members of a community having a right of access to land for cultivation, grazing, hunting, fishing and residence. Social or family organisation was intimately linked with use of the land. More than a means of production, land represented a hereditary right to belong to a community.

123. In rural areas, post-colonial governance has featured the ascendancy of a system based on co-management by democratic local and central governments. Democratically elected local authorities have formally replaced customary authorities. However, despite the law, traditional customs and a sense of community remain the organising principles of communal land. So long as communal land resources are both formally State land and informally customary land, authority and management will continue to be compromised and open access tendencies will thrive. Although community and private sector authorities may seem fragile in comparison to the State, the effective regulatory authority of the State is nowhere more illusory than in regard to what actually occurs in the day-to-day reality of life.

124. Internationally the need to devolve responsibility for the management of natural resources to clearly defined local communities is gaining increasing support. Communities should be involved in planning and implementing projects, and enhanced economic benefits of resource use should accrue directly to them. Unfortunately, these good intentions often fail to achieve sustainable use of natural resources. The actual outcome is often the co-option of local elites and leadership for programmes which fail to devolve responsibility.

125. In recent years, wildlife management policies in southern and eastern Africa have introduced the concept of sustainable use and encouraged the integration of conservation and development objectives. New policies in the region have attempted to re-empower local communities with valuable wildlife use rights. As communal property, wildlife can compete with domestic livestock to occupy rangelands. Failure to establish policies that promote wildlife outside protected areas as a positive land use option, will perpetuate a continuation of the loss of natural habitats to mono-species production systems.

◊ Latin America

126. Tenure is an important consideration for the conservation of biological diversity in Latin America. The region is important on a global scale because several megadiversity areas are included in Latin America, but the region is also one with the highest disparity in the distribution of land ownership. This inequitable distribution of land ownership has been repeatedly identified as one of the principal factors influencing environmental degradation.

127. Most governments in Latin America have created restrictions on ownership of property and access to and use of natural resources. Restrictions on the size of land that can be owned and the rights associated with land ownership were imposed in an effort to restructure the large land-holdings that were established during the colonial period and redistribute land to dispossessed rural communities. Ownership of natural resources became vested in the State in order to ensure they remained as a national heritage. Although laudable in intent, these measures have enjoyed limited success, because the restrictions often created confusion regarding overlapping regimes such as those that have occurred with the management of public forests that excluded local communities from decisions and benefit sharing.

128. Accountability for the extent to which natural resources are used will require rules of access to, and use of, resources that are clearly defined by appropriate legislation, and that are well understood by all interested parties. The inequitable distribution of land ownership, traceable to the Spanish and Portuguese colonisation of South and Central America, results in environmental degradation as landless peasants are expelled to the fringes and are forced to over-exploit resources to make a living.

129. Approximately 5.6 percent of Latin America has been dedicated to conservation in the form of national parks and protected areas. However many of these protected areas are far from secure as they are occupied by communities that are dependent on resources contained within the conservation area. The unclear tenure relationships and tenuous economic status of these peoples often result in degradation and destruction of the ecological integrity of protected areas. Common property regimes, where user groups develop, monitor and enforce rules for resource use, have proven to be effective means to assure sustainable use of resources. In Latin America, forest management initiatives under communal regimes have implemented management plans which include timber extraction with the conservation of biodiversity. Under conditions of clear boundaries and membership, adequate use rules, monitoring, enforcement and mechanisms for conflict resolution, common property regimes can result in the conservation of biodiversity while simultaneously providing economic returns to local communities.

◊ Pacific Islands

130. Pacific Island countries, territories and their Exclusive Economic Zones occupy an area in excess of 38 million square kilometres of the Pacific Ocean. Land masses, comprising thousands of large and small islands, account for less than two percent of this area. Large scale industrial fishing and logging in the Region have depleted valuable natural resources while providing minimum benefits to local communities.

131. At present conflict exists between the private sector seeking a reasonable return on investment; governments pursuing national economic growth and social development, and

local communities wanting an improved quality of life for present and future generations while maintaining respect for community values. This complex dynamic of conflicting interests and objectives is resulting in the serious loss of natural resources throughout the region with little positive return for any one stakeholder.

132. Land tenure is deeply embedded in wider political relationships, and the issue is not easily reduced to a code upon which everyone is able to agree. Customary landowners are seen to be gaining a steadily increasing share of the benefits that flow from resource use, while the private sector provides local services that are beyond the resources of government to supply. Unlike many other regions in the world, most Pacific Island countries have emerged from the colonial era with systems of customary land ownership, in some form, largely intact. Land tenure systems which characterise the Pacific Islands vest ownership in the traditional occupants. Land cannot be bought or sold. In this regard, land tenure in Pacific Island countries differs markedly from western systems.

133. The bond between traditional land ownership and sustainable use of natural resources can occur, but accountability for benefit sharing and resource use must be built on an understanding and appreciation of the deep spiritual, ecological, economic and social bonds between land and the peoples of the Pacific Islands Region. Sustainable development and the sharing of benefits from the use of natural resources is dependent on understanding the way in which business negotiations are conducted in traditional cultures and the ways in which access to and use of resources is traditionally managed by Pacific Island cultures.

134. One presentation examined the effect of internationalisation on the sustainability of wildlife use. The use of wildlife for international trade or harvesting wildlife on the high seas, where the ability to control access is severely limited, introduce factors that may be beyond the knowledge and control possible at the local level. The creation of international demand for a particular resource may stimulate markets that are only able to be satisfied by harvest regimes elsewhere, beyond local control, that may be unsustainable and, in some cases, illegal. In situations where wildlife use is internationalised -- particularly in response to a market demand, there is a greater need for a cooperative, international instrument, such as CITES, to operate in support of local or customary tenurial control systems.

Conclusions and Recommendations

Tenure - the way in which people hold, or do not hold, individually or collectively, exclusive rights to land and all or part of the resources above or below its surface - is one of the principal factors determining the evolution of the landscape, the way in which resources are managed and used, and the manner in which the benefits of such use are distributed.

The regional overview presentations and case studies showed that the replacement of customary tenure systems with government management regimes has operated largely to the detriment of conservation of biological diversity. In contrast to this, where well-defined tenure and access rights have been devolved to the local level (i.e., land-holders and

communities that live with, know or use the resources), sustainability of resource use has been significantly enhanced.

No single model exists for the successful devolution of tenurial rights and that governments need to collaborate with communities and/or land-holders in order to formulate tenurial mechanisms that suit particular social, cultural and economic circumstances. However, in situations where governments and communities have achieved effective devolution of tenurial rights that also provided for equitable sharing of benefits, conservation of biodiversity and sustainable use of its components were enhanced.

Although clearly defined tenurial rights and responsibilities are fundamental to achieving sustainable use, these must be accompanied by supportive policies and incentives, and institutions that provide for negotiated levels of accountability.

Following the analysis by the Secretariat (UNEP/CBD/SBSTTA/2/3), which identified land tenure as one of the ultimate causes of threats to biological diversity, the workshop noted that appropriately structured systems of tenure are essential to achieve the objectives of the Convention.

The positive relationship between tenure and sustainability was particularly relevant to implementing Articles 8(j) and 10(c) of the Convention as these relate respectively to traditional knowledge and customary use; Article 11 on incentive measures; Article 12 on research and training; Article 13 on public education and awareness; and Article 15 on regulating access to genetic resources.

At the international level, the workshop recommended that the Conference of the Parties to the Convention:

- ☐ consider tenure and access rights for incorporation into its thematic workplans; and
- ☐ explore collaborative mechanisms with other relevant international instruments to institutionalise and further strengthen tenure and access rights.

At the national level, Contracting Parties to the Convention should:

- ☐ undertake studies, in collaboration with community and/or land-owner organisations, on the full spectrum of tenurial regimes to identify appropriate systems for application; and
- ☐ review existing policies, legislation and incentive schemes with a view to promoting appropriate tenurial systems.

Tenure community was urged to continue the dialogue on this issue as it relates to sustainability of natural resource use, and coordinate its efforts with a view to promoting the tenure agenda in the context of the CBD.

AGENDA

Session 1

Context, issues, methodology, follow-up: introduction, by *Peter **Hislaire**, Switzerland*

Session 2: European Region

Current changes in agricultural use of natural resources in European countries: regional overview, by *Ricardo **Simoncini**, IUCN/ESUSG, Italy*

Sustainable agriculture and steppe biodiversity in Russia and Ukraine: case study, by *Paul **Goriup**, Nature Conservation Bureau, UK*

Session 3: Asia Region

Tenure in the context of sustainable use in Asia: regional overview, by *Ashish **Kothari**, Indian Institute of Public Administration, India*

Community tenure of wild resources: a case study from Northern Pakistan, by *Javed **Ahmed*** and *Marc Aljoscha **Gloeker***

Session 4: Africa Region

Natural resources tenure in the context of sustainable use: regional overview, by *Rowan **Martin**, SASUSG, Zimbabwe*

The interface between land tenure, land reform and conservation of biodiversity: the case of Southern Africa, by *Nelson **Marongwe**, ZERO, Zimbabwe*

Session 5: Pacific Islands Region

Tenure in the context of sustainable use in the Pacific Islands: regional overview, by *Gaikovina **Kula**, Conservation International, Papua New Guinea*

Knowledge, contral and traditional practice: the effect of internationlization on sustainability of wildlife use, by *Ronald **Orenstein**, Human Society of the United States, Canada*

Session 6: Latin America Region

Tenure in the context of sustainable use in Latin America: regional overview, by *Alberto **Vargas**, Institute for Environmental Studies, USA*

Mechanisms and difficulties for the application of land rights of the Qullombos remnant communities in natural protected areas in the State of Sao Paulo, Brazil, by *Lucila **Pinsard Vianna***

Session 7: Synthesis

Workshop on Financial Innovations for Biodiversity

Organizers:

IUCN Economics Service Unit
IUCN US Country Office
UNEP Financial Services Initiative

Report

135. The GBF10 workshop on Financial Innovations for Biodiversity was organised by IUCN and UNEP. More than 45 participants from some 20 countries and a wide array of international and inter-governmental organisations, industry, academia, governments and non-governmental organisations attended the workshop. Drawing from a wide range of case studies, the workshop had two main purposes: to broaden the scope of discussions on financing biodiversity conservation and sustainable use beyond reviews of the Global Environment Facility (GEF) and beyond calls for increases in official development assistance (ODA); and to explore innovations in both public and private finance which generate substantive investments in support of the global biodiversity agenda.

Financing the CBD agenda

136. The workshop consisted of seven sessions. The first session provided a general overview on the current status of financing the implementation of the global biodiversity agenda. The Convention on Biological Diversity (CBD) was presented as complex set of deals: a deal between North and South, a deal between the public sector and the private sector; a deal between national governments and local communities; and a deal between present and future generations. Deals imply some type of exchange, be it in-kind or financial. Thus in order to understand the financial aspects of the global biodiversity agenda, it is necessary to understand the implications of these deals.

137. The CBD calls for new financial resources in support of its implementation. Article 20 calls on national governments to provide financial resources and incentives. It also calls on developed countries to provide additional financial resources to developing countries to support their implementation efforts. Article 21 establishes a financial mechanism which, as stated in Article 39, is the GEF. Article 21 also calls on Parties to the CBD to strengthen existing financial institutions in support of the objectives of the CBD. Other articles, such as Article 8(m) on in situ conservation, also call for new investments in biodiversity.

138. Finance had been a major agenda item in the first three meetings of the Conference of the Parties (COP) and it again featured prominently on the agenda of COP4. Several participants were concerned that the focus of COP4 would again be on ODA which has not been very innovative in bringing new finances for biodiversity. Indeed COP4 made little

progress on the topic of financial innovation and thus the insights from this workshop should be considered again at COP5.

139. With regard to GEF, the participants noted that sustainable use projects appear to be disadvantaged for financing because of the need to justify incremental cost-financing in terms of global environmental benefits. For the most part, sustainable use projects generate local benefits rather than global ones. In contrast, projects to mitigate climate change are perceived as having clear global benefits and are therefore more likely to be financed by the GEF. Climate change is a global environmental problem requiring global solutions, while biodiversity is a problem of global significance requiring local solutions. Thus the incremental costs approach for sustainable use projects needs to be reconsidered.

140. The participants also explored developing criteria and indicators for investments that support the sustainable use of biological resources. Options include certification processes and ecolabelling schemes for forestry, fisheries, tourism, farming, mining and so on. If we are to promote new investments, especially of private capital, in biodiversity-related activities, we ought to have some means of identifying the impacts of the activities on biodiversity.

141. Overall there is a need to bridge the gap between the private benefits and costs of biodiversity conservation at the local and commercial levels, and the public benefits and costs at national and global levels. One way to approach this challenge is to link financing measures under Articles 20 and 21 to incentive measures under Article 11. Again indicators and criteria for investments in sustainable use and sustainable trade of biological resources are critical.

142. This session also pointed out that most Parties have completed or are now drafting national biodiversity strategies and action plans. Few if any of these, however, include a financial strategy. A biodiversity strategy without a financial strategy is actually not very strategic. Hence many Parties are likely to face severe financial constraints in implementing their action plans. Financial innovation is needed to finance the implementation of the CBD at the national level.

Establishing biodiversity funds

143. Trust funds for biodiversity are also known as environmental funds, national environmental funds or conservation funds. Trust funds vary widely in structure depending on the ways funds are sourced, managed and distributed. Nevertheless most funds are governed by a mix of government and NGO representatives. These funds are ideal vehicles for leveraging additional finance to innovative projects that fall outside the bounds of traditional development projects. For example, the Foundation for the Philippine Environment generates additional funds from various sources ranging from international agencies such as USAID, the World Bank, the MacArthur Foundation, and Keidanren Nature Conservation Fund to local companies, banks and foundations.

144. Trust funds also have shortcomings. In some cases, fund revenues may be captured by a government agency or by a NGO with little of the money reaching the intended objectives. Funds also often have very high overhead and administrative costs and are

generally far too conservative or unsophisticated with regard to investment strategies. Further the objectives of the donors sometimes differ markedly from those of the intended recipients. In the case study of the Mgahinga and Bwindi in Uganda, for example, the donors are concerned with biodiversity, while the local community recipients are concerned with improving their quality of life.

145. Despite their shortcomings, trust funds provide a promising long-term mechanism for financing biodiversity and thus should play a central role in the implementation of the CBD. Several participants suggested that the GEF might want to support targeted research on innovative trust funds, such as funds which are replenished by local user fees or private capital. The Clean Development Mechanism of the Kyoto Protocol may also provide opportunities for innovative biodiversity-related funds. Small private initiatives at the community level – as indicated by examples from Nepal, Pakistan, the Philippines, and Uganda – are likely to be more cost-effective and innovative than government-run funds. More research on fund innovations would provide useful guidance for the future of biodiversity trust funds.

New Directions in Biodiversity Finance

146. Private benefits of biodiversity can be traded in markets. Property rights can be established which will facilitate the emergence of biodiversity markets. One example is the introduction of individual transferable quotas in the fisheries sector. On the other hand, public benefits of biodiversity are more complex, such as the value of biodiversity for research or the existence values of unique habitats. Public benefits are thus more difficult to market and to finance. Since benefits from biodiversity have both public and private aspects there is a need for the innovation of financial instruments and processes which address both aspects. Such a strategy was termed market plus – hybrid instruments that combine economic incentives for private actors with conditionalities to ensure the provision of the public good aspects of biodiversity.

147. In the US Rocky Mountains, the Great Outdoor Colorado programme is financed through earmarked state lottery funds. This allows residents and visitors to support conservation through gambling! The lottery has already provided US$100 million for over 800 conservation projects. There is also a proposed Colorado Wilderness Tax on non-consumptive users of natural resources which would be levied on items such as cameras, films, binoculars, and camping equipment. The revenues raised from this sales tax would be earmarked to conservation activities. Social factors, such as community's tolerance for gambling, and political factors, such as acceptance of earmarked consumption taxes, must be considered in developing new instruments to finance biodiversity.

148. Wildlife conservation in Kenya is also generating financial innovations. Despite the high economic value of Kenya's wildlife – both in national and international terms – it has failed to generate sufficient financial returns to cover the costs of conservation. Kenyan conservation also faces an inequitable distribution of benefits and costs, with benefits primarily accruing at the national and international levels and costs accruing at the local level. The funding gap and inequitable distribution of benefits and costs are due to a complex array of government and market failures. These lead to the inability of wildlife to pay for itself and thus ultimately to the loss of wildlife. Kenya's wildlife sector aims to

overcome these distortions by innovations such as increasing the financial autonomy of government wildlife operations, restructuring existing wildlife markets, developing new markets and financial mechanisms for wildlife products and services, sharing government-earned revenues with private and communal landholders, devolution of rights to manage and use wildlife, the promotion of new wildlife enterprise partnerships, and innovative forms of capturing increased global funding. For a low-income developing country like Kenya, financial innovation is absolutely essential to the conservation of biodiversity.

149. Wealthy countries are also exploring new ways of financing biodiversity. In Switzerland, the reformed Swiss agricultural policy contributes to biodiversity conservation and sustainable use by providing direct payments to farmers who apply biodiversity-sound management practices. And the Swiss Foundation for the Conservation of Cultural Landscapes is financed by federal, cantonal, communal and private donations to support specific nature and landscape conservation projects.

150. Innovative economic policies could stimulate new financial resources. Such policies are more likely to succeed if they are focused, initiative-based, locally-driven, vertically-integrated, based on good science, provide the right incentives, are culturally acceptable, and are socially appropriate.

Engaging the Private Sector

151. Several initiatives are engaging the private sector in biodiversity finance. Over the last five years of the International Finance Corporation (IFC) – the private sector investment bank within the World Bank Group has begun to co-finance biodiversity-linked enterprise in sectors such as forestry, agriculture, tourism and wildlife use. One programme has focused on small and medium-sized enterprises which generally do not have access to long-term capital. Additionally the IFC is setting up a private venture capital fund for biodiversity enterprises in Latin America. This fund will start up with a base of US$ 20-50 million from various sources including the GEF, the IFC, the governments of Brazil and Switzerland and private sector sources. The IFC experience indicates that the major challenge is not finding the money, but rather finding viable biodiversity projects in which to invest.

152. An innovative Dutch scheme for green investment funds uses a fiscal tax subsidy to promote private investments in environmental projects. It allows Dutch citizens to put their savings or investments into green funds run by commercial banks. The interest on loans from these funds are exempt from tax as long as the money is invested in green projects. Starting in 1998, the funds will be able to invest in a selection of countries outside the Netherlands, because the funds have attracted far more capital than can be invested in green projects within the country. This approach shows how a well-targeted 2% tax subsidy can generate billions of dollars of private finance for biodiversity.

153. In an exciting new biodiversity partnership between a private company and an NGO, British Petroleum has teamed up with Flora and Fauna International to develop a corporate biodiversity strategy. Just as national governments are developing biodiversity strategies under the CBD, it also provides a framework for national companies and multinational corporations to develop their own corporate biodiversity strategies. BP is

taking the lead in exploring new opportunities for directing their corporate earnings as well as corporate investments in ways that support biodiversity.

154. Finally, UNEP's Financial Services Initiative includes more than 100 of the world's largest financial institutions. All have signed the *UNEP Statement by Financial Institutions on the Environment and Sustainable Development* which commits them to incorporate environmentally-sound practices into their external and internal operations. The financial services sector harbours key skills, technologies and economic resources which could contribute to biodiversity conservation. As the most important contributor of private sector credit, the signals they send to their clients about the relationship between environmentally-sound management practices and credit lending rates is critically important for biodiversity finance. This is especially true in the context of globalization, since banks and other financial intermediaries are inextricably linked through international lending and investment practices to activities that can degrade biodiversity. Investments in the provision of biodiversity goods and services are also increasingly becoming attractive due to emerging biodiversity markets. The UNEP initiative can provide a forum for bridging the gap between private banking and biodiversity conservation.

155. The underlying factors behind private sector biodiversity finance include:

- institutional failures, such as missing markets and non-existent property rights for biodiversity goods and services;
- information failures, such as lack of scientific knowledge, lack of public awareness and lack of sustainability criteria; and
- enforcement failures, such as lack of appropriate legal systems.

156. To address these failures and to conserve biodiversity targeted structural reforms of the systems of public finance and private finance need to be considered. Such structural adjustment for biodiversity is probably necessary to stimulate financial innovations.

Exploring Opportunities for Investing in Biodiversity

157. The desperate situation of biodiversity loss calls for financing emergency actions for biodiversity conservation. Financing emergency actions involves an adaptive management process which could include:

- acquisition or renting of representative and unknown ecosystems;
- restoration and management of natural environments;
- increased research, inventories and training;
- compensation to eligible parties for losses; and
- opening of profitable markets for wild products issuing from sustainable extraction.

158. To finance these actions, governments could agree to levy a sales tax of 10% on exports of biological products. The revenues from this tax would be substantial and could be earmarked for national biodiversity programmes. Though the participants supported the idea of focusing on emergency actions, they were sceptical about the practicality of such a global wildlife sales tax.

159. A fresh perspective on how bankers perceive biodiversity highlighted examples from the Peruvian situation, noting that financing biodiversity through private banks requires bridging the gaps in understanding, approach, philosophy, language and perception between bankers and conservationists. Today a banker's perception might allow for investments in brown issues, but more needs to be done to encourage bankers to consider green issues as well. If we are to attract private finance to biodiversity, we need to connect the language of biodiversity to that of banking.

160. A comprehensive set of tools for landowners and policy makers to support ecosystem management and increase financial resources would include six broad categories: property rights; tax policies; incentive-based tools; private-public partnerships; government programmes; and voluntary initiatives.

161. The challenges and opportunities for linking two Rio Conventions – the CBD and the Framework Convention on Climate Change (FCCC) – were also explored. The Kyoto Protocol could potentially create incentives and generate significant financial resources for more effective and sustainable management of forests and other carbon-sequestering ecosystems. Three measures are included: joint implementation, the clean development mechanism; and emission; trading. These measures will allow countries to buy, sell or trade reductions in greenhouse gas emissions. It is still too early to assess the potential impacts of the Kyoto Protocol for biodiversity, but with careful consideration of both the climate change and biodiversity agendas, the Kyoto Protocol could be developed as an innovative financial instrument that supports the objectives of both the FCCC and the CBD.

Conclusion and Recommendations

Financial innovations for implementing the biodiversity agenda are crucial. These innovations need to be developed as part of the broader framework of enabling conditions which include clearer definition of property rights, strengthening of the legal system, reform of fiscal policies, increased public awareness, and new partnerships between public agencies, private companies and NGOs. Financial innovations is a necessary, but not sufficient, component of any national or corporate biodiversity strategy.

Biodiversity conservation will not and cannot be achieved by governments acting alone. The private sector has a pivotal role to play and should become involved not as a matter of corporate philanthropy, but as a matter of self-interest. Business should profit from the sustainable use of biological resources and in the interest of its stakeholders – customers, employees and shareholders – business should ensure that its activities do not threaten biodiversity.

Agenda

Session 1: Financing the CBD Agenda (chair: Josh Bishop, IIED, UK)

Financing the global biodiversity agenda, by *Frank **Vorhies**, IUCN, Switzerland*

Criteria for innovative financial incentive measures, by *Jan **Keppler**, OECD, France*

Innovative financial mechanisms for sustainable use projects, by *Ivonne **Higuero**, UNEP, Kenya*

Session 2: Establishing Biodiversity Trust Funds (chair: Con Bartel, UNEP, Switzerland)

Recent experience of biodiversity conservation funds, by *Barry **Spergel**, WWF, USA*

Financing biodiversity protection: the potential of environmental funds - Ricardo Bayon (IUCN-US) and Carolyn Deere, presented by *Jakob Lau **Holst**, IUCN, Ecuador*

Environmental foundations: funding community innovations for biodiversity conservation, by *Julio G. **Tan**, Foundation for the Philippine Environment, Philippines*

Prospects for financing biodiversity conservation in Nepal, by *Bishwambher **Pyakuryal**, IUCN, Nepal*

Session 3: Targeting Biodiversity Funds (chair: Jakob Holst, IUCN, Ecuador)

Financial mechanisms for protecting biodiversity in Romania, by *Elena **Dinu**, Geomatics International Inc., Canada*

Many a slip "twixt donor and recipient", by *Christine **Oryema-Lalobo**, Mgahinga and Bwindi Trust, Uganda*

Village conservation funds: small but sustainable? By *Kent **Jingfors**, IUCN, Pakistan*

Financing open spaces in Colorado, USA, by *Andrew **Seidl**, Department of Agriculutral and Resource Economics, Colorado State University, USA*

Innovations for financing wildlife conservation in Kenya, by *Lucy **Emerton**, IUCN, Kenya*

New and additional sources of finances for implementing CBD provisions, by *Balakrishna **Pisupati**, Swaminathan Research Foundation, India*

Financial innovations for biodiversity - the Swiss experience, by *Oliver **Schelske**, Institute of Environmental Science, University of Zurich, Switzerland*

Session 4: Engaging the private sector in biodiversity finance (chair: Lucy Emerton, IUCN, Kenya)

Financing private sector biodiversity projects, by *Michael **Rubino**, International Finance Corporation, USA*

The Dutch Green Investment Funds, by *Theo **von Bellegem**, Dutch Ministry of Housing, Physical Planning and Environment*

BP-FFI, by *Caroline **Pollard**, BP Exploration Operating Company Ltd, UK* and *Niall **Marriott**, Fauna and Flora International, UK*

Insights from the UNEP Financial Service Initiative, by *Con **Bartel**, UNEP, Switzerland*

Session 5: Exploring Opportunities for Investing in Biodiversity (chair: Ivonne Higuero, UNEP, Kenya)

Financial innovations for biodiversity: financing emergency actions for biodiversity conservation, by *Bertrand **des Clers*** and *Charles **Fougea**, International and Foundation for Conservation of Wildlife, France*

Environmental finance: linking two worlds, by *Jose **Salazar**, Peruvian financial consultant, Peru*

Economic and legal incentives to support ecosystem management in the United States, by *Paige **Brown**, WRI, USA*

Implications of the Kyoto Protocol, Forest Management and Biodiversity Conservation, by *Brett **Orlando*** and *Joy **Hecht**, IUCN, USA*

Session 6: What is to be Done?

An open discussion chaired by Frank Vorhies, IUCN, Switzerland

Workshop on an Ecosystem Approach to the Management of Inland Water Systems and their Biodiversity

Organizers:

IUCN Commission on Ecosystem Management (CEM)
IUCN Species Survival Commission (SSC)
IUCN Environmental Law Programme (ELC)
IUCN Economics Programme
Ramsar Bureau
ICLARM

Report

162. The objective of this workshop was to provide COP4 with recommendations on two topics: the development of a *modus operandi* of an Ecosystem Approach under the Convention; and the programme of work proposed by SBSTTA3 on the biological diversity of inland waters.

163. The COP to the CBD has chosen to adopt an Ecosystem Approach to address the three objectives of the Convention in its provisions, its programme of work, and three thematic areas: marine and coastal, agricultural and forest biological diversity. An Ecosystem Approach was also recommended by SBSTTA3 to address inland water systems.

164. However, the Ecosystem Approach has only just begun to be adopted by international environmental instruments, and in general is still far from being successfully understood, much less implemented. Consequently an agreed understanding of its principles, methods, substantial and procedural elements is required in the CBD. As a first step towards this the Secretariat held an informal workshop on the Ecosystem Approach during SBSTTA3. As a second step, the Secretariat organised a workshop on "an Ecosystem Approach" in January 1998, convened by the governments of Malawi and the Netherlands. The workshop participants discussed three questions: "*What is an Ecosystem Approach?*" "*Why should we take an Ecosystem Approach*" and "*What are the principles of an Ecosystem Approach*". The findings of the workshop were reported in the document UNEP/CBD/COP/4/Inf.9. Therefore, although the Ecosystem Approach was not a separate theme on the agenda for COP4, it formed an integral part of agenda items related to the medium and the long term programme of work as well as the *modus operandi* of the Convention.

Inland Water Ecosystems and their biological diversity

165. At its third meeting, SBSTTA provided COP with a recommendation (III/1, in document UNEP/CBD/COP/4/2) that constitutes a programme of work on the biological diversity of inland water ecosystems. COP4 was invited to endorse the recommendation and include this programme of work in the longer-term programme of work considered under item 13 of the agenda.

Workshop description

166. This report briefly describes the presentations and discussions of the workshop, session by session. In total, 40 participants from 19 different countries attended the workshop, with an average of 20-30 attending each session. A "hard core" of 20 participants attended all sessions of the workshop, and played an important role in finalising the recommendations during the seventh and final session . The organisers were particularly grateful to these participants.

Ecosystem Management, the Malawi Workshop

167. The session began with a summary of the workshop report (document UNEP/CBD/COP/4/Inf.9) by Herbert Prins. Discussion focused first on the difficulty of determining the scale at which ecosystems should be managed. This had been discussed during the Malawi workshop, and resulted in the development of principle 7 in the information document. This principle suggests that management objectives should define the boundaries of the ecosystem. The discussion then shifted to whether ecosystems should be managed to meet global or local objectives. The majority of participants felt that a "top-down" or global management of ecosystems would be inappropriate or undesirable.

168. Participants agreed that the 12 "principles" of the report (shown to them on overhead sheets) captured the essence of the wealth of work on ecosystem management performed by many different nations. However, it might be more helpful to describe them as elements of an Ecosystem Approach rather than principles. Participants with expertise in marine ecosystems agreed that the principles were applicable to marine as well as terrestrial ecosystems. Other points raised during the discussion included the need to recognise that:

- the productivity of any ecosystem is limited;
- the structure of an ecosystem determines the services and goods it provides;
- ultimately all parts of the landscape/seascape should be under a regime of "protection" in order to avoid erosion and maintain biodiversity and carbon and water balances; and
- information needs for management can be met by local knowledge as well as science.

169. Participants agreed that there was a need for the CBD to clarify the distinction between ecosystem based and biome based approaches. Finally, participants felt that adaptive management and the precautionary approach are not yet commonly applied. The

CBD could help promote their application by defining these concepts within the thematic programmes of work of the Convention. In conclusion, the CBD should now focus efforts on the practical implementation of the 12 "principles", taking account of work already under way.

Impact of Natural Resource Management on Inland Water Ecosystem Biodiversity

170. Presentations highlighted the general need for: harmonisation and development of data collection systems between nations; integration between sectors dependent on water; and improved institutional capacity and partnerships to facilitate ecosystem management. Project design should: be based on the best possible understanding of an ecosystem; be relevant to the country and policy context (including resource access rights); and include components and tools for adaptive and ecosystem management. Discussion on the relationship between watersheds and ecosystems ended in agreement that watersheds are not always equivalent to ecosystems and in such cases they need to be managed within an Ecosystem Approach. The need to integrate the management of watersheds and coastal and marine zones was stressed.

171. SBSTTA recommended to COP that SBSTTA "*compile case studies of effective watershed management and best practices, to synthesize the lessons that emerge from these studies, and to disseminate information through the clearing-house mechanism.* One of the five areas where SBSTTA is advised to concentrate efforts are on*"examples of watershed management that incorporate inland water biological diversity with special reference to examples that use the ecosystem-based approach to meet water management goals".* Participants questioned the need for SBSTTA to compile such studies as (1) it was not clear whether these case studies would follow guidelines to ensure consistency, and (2) many case studies have already been compiled. Finally, participants drew attention to the need to integrate and streamline environmental impact assessment in the decision making process at country level so as to avoid overburdening assessors.

Economic and Legal Implications of an Ecosystem Approach to Inland Waters

172. So far, little thought has been given to the legal implications of an Ecosystem Approach. At present law is tied to areas of land or water, to species or to activities or processes. The starting point for creating a legal framework to support implementation of an Ecosystem Approach may be to identify the threats (direct and indirect) to these systems and their biodiversity. Direct threats are individual human mediated activities amenable to traditional command and control. Indirect threats are human mediated processes amenable to legal, economic and awareness techniques. Once threats are identified, the level of action and jurisdiction (who controls the different components of inland water biodiversity) need to be identified and a continuum of legal tools to tackle these be created and applied.

173. The complexity of the Columbia River System makes implementing an Ecosystem Approach very difficult. Programmes that try to adopt an ecosystem management

approach within this system were described, together with the new tools in resource management that had emerged as a result. The data and policy problems that need to be overcome prior to adopting such methods were highlighted. The creation of water markets is a possible resource management tool. Participants briefly discussed the unforeseen effects of mitigation measures that can have a greater negative impact than the action they try to mitigate.

174. Participants agreed that supportive legal and economic mechanisms will need to be developed to enable Parties to the CBD to implement an Ecosystem Approach. Some countries do not have any mechanisms which affect inland water ecosystems and both perverse as well as positive incentives need to be reviewed. To provoke change, national legal, institutional, economical and financial mechanisms need to be developed and revised and negative incentives removed.

175. As inland waters are often transboundary, mechanisms should also be reviewed at a regional level. International liability for the loss of biodiversity should be established, and the onus should be on those proposing environmental change to prove that changes will *not* have negative impacts on the system, rather than on the "environmentalist" to show that the change *will* damage the system.

Stakeholder Participation in an Ecosystem Approach to Inland Waters

176. Ensuring strong stakeholder participation in management strategies in Slovakia has proven difficult. Stakeholder participation could be strengthened through: increasing transparency in decision making; improving communication among stakeholders, taking into account the economic objectives of the local population, and demonstrating the economic benefits of nature protection and biodiversity conservation. In the management of the Hadejia-N'guru wetlands in North Nigeria and its 5000 square km inland delta, the stakeholders are many and diverse. Some of the limitations on stakeholder participation in this project include: poor communication between stakeholder groups, conflicts over access to water, and the failure of studies/information to influence ministries. In general, the time, economic cost, and political sensitivity involved in achieving stakeholder participation is very high and should not be underestimated.

177. The discussion concentrated on the problem of identifying the stakeholders in any management plan. For example, should external consumers of goods be viewed as stakeholders? The greatest debate was over whether government agencies could be stakeholders. Some participants thought that stakeholders could be identified as those people who "shared the risk of management" that is, those who would suffer if an area was managed unwisely. Discussion then focused on whether government officials "shared the risk" by being held professionally accountable for management plans for areas they did not reside in, though no consensus was reached. Finally, the most important aspect of stakeholder participation is transparency within the decision making process. The chance for stakeholders to understand and review decisions needs to be build into the management framework. One way to ensure this is to involve cross sectoral National Advisory Commissions.

Institutional Implications of an Ecosystem-based Approach to the Management of Inland Water Biodiversity

178. What role can NGOs adopt in implementing an Ecosystem Approach, and what factors affect their success? Influential factors include the structure and mandate of the NGO, but also whether or not the society it works within has the level of organisation necessary to support ecosystem management. Hurdles to implementing an Ecosystem Approach may include a weak human rights situation, weak legal system and enforcement, unequal economic relationships, lack of resources and a top down approach. Economic disincentives may also need to be overcome.

179. The discussion concentrated on the need to change institutional arrangements to practically implement an Ecosystem Approach. Specific points raised were the need identify and remove bottlenecks, establish inter agency co-operation and overcome competition between sectoral institutions. Key processes discussed included: conflict resolution, compromise, transparency, co-operation, attitude, behaviour and decentralisation to the appropriate level.

Capacity-building Related to Developing and Implementing an Ecosystem Approach to the Management of Inland Water Ecosystems and their Biodiversity

180. Drawing on examples of capacity building for implementing an Ecosystem Approach to the management to fisheries (including the importance of taxonomic knowledge, training, computing, data repatriation, networking and partnerships) and the value of databases in the process of capacity building for implementing an Ecosystem Approach to fisheries management, participants discussed the need for synergy and connectivity of instruments and tools provided to ecosystem managers to avoid confusion and to maximise benefits. One suggestion was that a clearing house mechanism was necessary to facilitate such synergy. Participants also stressed that the end-users of capacity building tools needed to be involved in the process of developing the tools. Decision and policy makers are particularly in need of information and tools to improve their ability to make and develop good policies.

Conclusions and Recommendations

Discussion of the Malawi report:

- ☐ The GBF endorses the twelve principles for applying an Ecosystem Approach (as an integrated whole) and further recommends that adaptive management, precautionary measures, and monitoring be considered in the whole process of an Ecosystem Approach to implementing the CBD.

- ☐ Further, the GBF recommends that COP pursue the development of guidelines on implementing an Ecosystem Approach which Parties to the CBD could use and work

within their respective regional, national and local strategies, policies, plans and programmes.

- ☐ The GBF recommends that SBSTTA define, in operational terms, the elements of a precautionary approach to the conservation and sustainable use of inland water ecosystems and their biological diversity.

Management of Inland Water Ecosystems. In carrying out the inland waters work programme, GBF recommends that SBSTTA:

- ☐ be supported by an expert panel.
- ☐ distil lessons learned and tools for implementing an ecosystem approach from relevant documented case studies for implementing the ecosystem approach.
- ☐ develops mechanisms to allow application of the ecosystem approach to inland water biological diversity conservation within a watershed framework. These might include modification of information collection protocols and stakeholder participation at appropriate catchment scales for more effective ecosystem management.
- ☐ considers the sustainable use of fish and other aquatic organisms (for fisheries, aquaculture and other purposes) as an integral part of natural resources management, especially with respect to the multipurpose use of freshwater.

Economic and legal implications of adopting an ecosystem approach. GBF wishes to bring to the attention of COP, the need for Parties to:

- ☐ Review, revise and implement policy, legal and economic mechanisms to ensure they support an ecosystem approach to Inland Waters Biodiversity management at national and regional levels.
- ☐ Identify and resolve conflicting cross-sectoral and transboundary policy, legal and economic mechanisms.
- ☐ remove perverse incentives and market distortions.
- ☐ develop legal and economic instruments which recognize liability for loss of or damage to inland water biological diversity.

Stakeholder Participation. GBF recommends to COP that:

- ☐ SBSTTA develop practical guidelines for involvement of stakeholders in the policy and planning processes of developing an ecosystem approach for management of inland waters biological diversity at all levels. In doing so, SBSTTA is urged to take note of work already in process in this area. For example, the development of guidelines for the involvement of local and indigenous people in the management of wetlands being developed by IUCN and others on behalf of the Ramsar Convention on Wetlands, and similar work by others.

- ☐ Parties be encouraged to develop transparency with, and communications between, all stakeholders in decision-making for the management of inland water ecosystems. This could include establishing cross-sectoral national advisory committees.

Institutional implications. To foster inter-agency cooperation and inter-disciplinary collaboration for sustainable, adaptive management, GBF recommends to COP that:

- ☐ Parties be urged to review institutional arrangements and establish necessary mechanisms to implement an ecosystem approach to the management of inland water biological diversity, noting in particular that these should be addressed during the development of national biological diversity strategies. This should include:
  - ☐ Identifying and removing barriers which prevent collective decision making in the planning, formulating, appraising and implementing stages of inland water resources programmes.
  - ☐ Putting in place innovative and flexible communication pathways and tools to facilitate information exchange, conflict resolution and participatory management.
  - ☐ Developing ISO 9000 operational standards for the implementation of the ecosystem approach to ensure transparency in the decision making process.

Capacity Building. GBF recommends that:

- ☐ COP request GEF to devote more resources to supporting capacity building so as to enable Parties to implement an ecosystem approach to the conservation and sustainable use of inland waters biological diversity.
- ☐ Capacity building should be strongly supported through partnerships between countries that develop tools and information sources, and the ability to practically apply them. This should include tools and information sources that assist decision makers in policy development, as well as material for extension and out-reach programmes.

AGENDA

Session 1: The Ecosystem Approach under the CBD

Welcome and outline of objectives

Report on the Workshop on the Ecosystem Approach, by *Herbert **Prins**, Wageningen Agricultural University, The Netherlands*

Discussion of Malawi report/ecosystem approach

Result: unified idea about the ecosystem approach

Session 2: Impact of Natural Resource Management on Inland Water Ecosystem Biodiversity

Watersheds of the world: ecological value and vulnerability, by *Carmen **Revenga**,* and *Janet **Abramovitz**/Kenton **Miller**, World Resources Institute, USA*

Integrating freshwater biodiversity in development: some emerging lessons, by *Kathy **MacKinnon**, World Bank, USA*

Discussion on what the CBD could do to encourage/enable Parties to implement actions

Result: list of recommendations and requirements to change management

Session 3: Economic and Legal Implications of an Ecosystem Approach to Inland Waters

Economic implications of an ecosystem approach to the management of inland water systems and their biodiversity, by *Venkatesh **Sundararaman**, University of Washington, USA*

Presentation on legal problems and potential solutions, by *Lyle **Glowka**, IUCN-ELC, Germany*

Discussion on what the CBD can do to encourage/enable countries to adapt their institutional arrangements to implement an ecosystem approach to inland waters

Result: list of recommendations on adapting institutional, economic and legal arrangements

Session 4: Stakeholder Participation in an Ecosystem Approach to Inland Waters

Will nature protection in economies in transition move towards sustainability, by *Tatiana **Kluvankova**, Slovak Academy of Sciences, Slovakia*

The process of stakeholder participation in the South, by *Misael **Kokwe**, IUCN, Zimbabwe*

discussion on what the CBD can do to encourage/enable countries to implement stakeholder participation

Result: list of recommendations on enabling stakeholder participation in an ecosystem approach

Session 5: Institutional Implications of the Ecosystem-Based Approach to the Management of Inland Water Biodiversity

Challenges and opportunities for NGOs in ecosystem management, by *Andrew **Seidl**, Colorado State University, USA*

Protecting biodiversity and establishing sustainable development in the Sabana-Camaguey Ecosystem, by *Elisa Eva **García**, Agencia de Medio Ambiente, Cuba*

Discussion

Result: list of recommendations on what needs to be done

Session 6: Capacity-Building related to Developing and Implementing an Ecosystem Approach to the Management of Inland Water Ecosystems and their Biodiversity

Capacity-building for an ecosystem management approach to fisheries, by *Roger **Pullin*** and *Villy **Christensen**, ICLARM, Philippines*

GIS and an ecosystem-based approach to inland fisheries and aquaculture, by *Devin **Bartley**, FAO, Italy*

Discussion

Result: list of recommended actions for capacity-building

Session 7: Final review of Conclusions and Recommendations

Reporting back on the Malawi report, by *Jameson **Seyani**, National Herbarium and Botanic Gardens, Malawi*

Chance for participants to review the recommendations made over the last two days and make final changes

Workshop on Public Education and Awareness: How to put it into Practice

Organizers:

Ministry of Environment, Norway
IUCN Commission on Education and Communication

Report

181. For the first time, Article 13 on public education and awareness was to be discussed by COP4. Since many of the threats to biodiversity are a result of human action, public awareness and education need to play a large role if the CBD is to be successfully implemented. The GBF workshop aimed to bring up-to-date thinking on how Article 13 could be implemented and accordingly make recommendations to the Parties.

182. Article 13 states that *the Contracting Parties shall:*

> *Promote and encourage understanding of the importance of, and the measures required for, the conservation of biological diversity, as well as its propagation through media, and the inclusion of these topics in educational programmes; and*
>
> *Cooperate, as appropriate, with other States and international organizations in developing educational and public awareness programmes, with respect to conservation and sustainable use of biological diversity.*

183. Around 50 people attended from 23 countries representing NGOs, governments and indigenous peoples. Cases were presented that explored the role and principles for organising and managing education/communication programmes for biodiversity conservation and sustainable use. The workshop was marked by a high degree of accord from the lessons learned.

Defining the Issue: Making Biodiversity Realistic and Tangible

184. One problem in communicating biodiversity is getting clear exactly what is the issue, and what exactly do we want to achieve. The challenges facing biodiversity communication and education are:

- to make something boring and remote to most people real and personally relevant. In other words replace the feeling that “I can’t influence it anyway” to something personalised;

- make a large issue small enough to be solved as biodiversity tends to be all inclusive and is hard to narrow down. So translate it from something complex to something easy to grasp. Change the issue from something unclear to a clear issue which can be evoked by a symbol or visual story;
- to change the communication from wordy arguments about why to what results are wanted;
- to use other more accepted issues as a way to lever interest in biodiversity;
- to access the hearts and minds of the target audience; and
- to concentrate on those who have high influence, either negative or positive, and spend little on those who have weak negative influence.

185. The issue is often expressed as a traditional management goal and must be clearly stated and kept in focus, since the communication or education programme is an instrument to assist attaining that goal. Management approaches often are ecosystem based; but when it comes to practical application it is sometimes easier to understand a problem in terms of species, populations, or habitats. Remember that what is about to be accomplished must be real and “do able” to many people.

Specific Approaches for Specific Groups

186. There is a widespread tendency to try to address biodiversity conservation issues through broad mass media campaigns to educate the public at large. A significant body of educational research disputes this approach. Rather than attempting to reach vast generalised public audiences, educational initiatives should be designed for specific groups within specific contexts. This targeted approach has much in common with the concept of market segmentaton in the corporate sector based on the argument that knowledge is dependent on context and actively constructed and reconstructed within the world of real practice. Thinking is intimately interwoven with the context of the problem to be solved so the programme for a fisherman or an ecotour leader is distinctly different. Programmes designed to create a generalised understanding of biodiversity are therefore less effective than those targeted toward a specific biodiversity concept relevant to a specific group.

187. Educational research also recognises that people learn when engaged on real projects, and exchange information with others.

Understanding Perceptions and Motivation

188. People’s actions determine if biodiversity is conserved or sustainably used. Those practices that degrade or destroy biodiversity need to change, whereas positive practices need to be encouraged. Changing practices or behaviour is difficult as it can create hardship or inconvenience. What people do depends on their intentions and attitudes which are shaped by many influences such as past experience, values, culture, personality, emotions, knowledge, and expectations.

189. Acting as if the only important thing about learning is the manipulation of information in the learner’s mind fuels an erroneous assumption that biodiversity action

can be brought about simply by presenting people with information about animals or environments and explaining the problems that confront them. Learning involves the senses, desires, longings, feelings and motivation, not just the mind.

190. Attitudes, social relationships and social structures all play a role in how a person reacts to a situation, and determine the action they would take. Values and beliefs determine the attitudes people have. Values are standards that influence how people perceive fact and are used to guide action. Beliefs refer to what an individual perceives as knowledge and may be factual or based on personal opinion.

191. People are not empty vessels waiting to be filled with new knowledge. Decades of educational research indicate that recipients of scientific knowledge are far from passive but interact with science, test it against personal exerience, overlay it with local knowledge, and evaluate its social and institutional origins. The idea of one way flow of information from scientist to public is inadequate.

192. Perceptions colour what people hear, even among children. This demands that education encourages people to explore and challenge their own knowledge and beliefs about biodiversity in relation to accepted and socially held views.

193. Reality therefore depends on how a person perceives it. Coming to terms with these different realities is part of any stakeholder negotiation, roundtable, or conflict resolution process. By working to better understand the different perceptions, people adjust their own world view and can find ways to develop a shared understanding, or goal.

194. Difficulties experienced because of different perceptions was highlighted by the issue of sustainable use of wildlife in southern Africa. Development is an imperative for people in southern Africa where people need to gain economic benefits from using wildlife in order to play a role in conserving it. Yet conservation ideology from more developed western nations has set up a trading block on many of the species that can be harvested. This seriously reduces the income that can be derived from marketing wildlife products. To influence “northern “ perceptions an active communication programme has begun.

The Role of Government to “Promote and Encourage Understanding”

195. As signatories to the Convention, governments have an obligation to promote and encourage understanding of the Convention and its measures. Public information to promote and encourage public understanding differs radically from press information provided by governments. The way countries inform their citizens depends often on the provisions of their Government Information Act. Information can be provided:

- in a reactive form, on request or
- in an active form to provide information **on** policy and policy plans,
- through communication **as** a policy instrument, and
- communication **in** the policy making process.

Informing on policy and plans

196. Informing the public about policy and plans has traditionally been one of government's main duties. The basic aim is to inform relevant groups within the general public as soon as this is required in order to ensure that the decision making process is effective. Once a policy is adopted, the aim of information is to let people know what is expected of them and what they should do or not do.

197. Governments have obligations to prepare biodiversity strategies and action plans to implement the CBD. Yet many countries are experiencing difficulties because of inadequate understanding of biodiversity issues among sectors and stakeholders, frustrating a participatory approach in planning and implementation.

198. In developing its National Biodiversity Strategy, Argentina aims at a consensus building approach to involve the public in designing a national action framework. At first the role of education and communication in this preparatory phase was not appreciated but it soon became apparent that it was of primary importance. In the first phase of consultations the difficulties encountered were a lack of information on Argentina's commitments to biodiversity conservation; how to involve some key sectors in the process; and a lack of interest from the media. The strategy for communication education at this initiation phase is promoting the National Biodiversity Strategy and building capacity of key groups to effectively become involved and implement the action plan.

199. In Norway a level of competence was assumed in other Ministries in requiring them to prepare sectoral strategies according to an agreed format. The Ministry of Environment gave feedback over many years to encourage and foster the ideas and strategies. However encouragement has to be sustained to see these strategies become action plans, funded and implemented.

200. Increasingly governments are turning to web pages as ways of making information available and as part of the Clearing House Mechanism under the Convention. The Ministry of Environment Norway supports GRID UNEP to provide state of the environment reporting in condensed and simplified ways, enabling the user to delve deeper for more detail if wanted. Information is presented in graphs and maps where possible to make the information more succinct. The Norway model for state of the environment reporting is being used by other countries which will make comparisons possible. The web site also has applications to formal education and guidance on how to use it is provided to schools.

Communication as a policy instrument

201. Many policy measures under the Convention are designed to influence or change behaviour of citizens and firms in such a way that they start doing something new or stop doing something. Communication – including instruction, education, information, public relations, and marketing and advertising – by itself may not be a sufficiently strong instrument to bring about change in behaviour. When used together with another policy instrument such as a subsidy or tax credit it can have the desired effect. In addition to supporting and strengthening other policy instruments, communication may also be used to: generate public debate on a particular topic; raise awareness of backgrounds and causes; increase involvement; ensure policy plans have a greater chance of being accepted and influence attitudes and behaviour.

202. Financial resources are an important part of triggering action. The Norwegian Ministry for the Environment has provided financial as well as technical information on environmental education that has developed a new core curriculum from 6 years to university. This was achieved through cooperation with Ministries involved in education and environment. Educational programmes are linked to the Ministries monitoring of biodiversity, so that the student's work feeds into municipal and state-wide information on biodiversity.

Communication in the policy making process

203. The underlying goal of communication as a factor in the policy making process is to act as a catalyst in improving relations between the government and the public.

204. The normal practice has been for policy to be cooked up in the ivory towers of civil servants. There may be even a perception that there has been involvement of "stakeholders" in the process. Frequently these are an elite group that does not adequately reflect the reality. In South Africa even at the protected area level, elites have tended to dominate participatory processes and used these positions to try to provide benefits to their own group.

205. In Norway the government is responsible for making information available to the public, having open communication and participation in decision making. The National Biodiversity Strategy was agreed to by seven Ministries with each sector being responsible for defining its own strategy. Public consultation was a part of each sectoral action plan. At the request of the Ministry of Environment, municipalities are also drawing up plans for contributing to conservation and sustainable use of biodiversity thereby involving communities in more local planning initiatives. To stimulate this input the Ministry funded 435 environment officers in municipalities; most municipalities now continue funding them.

206. When governments devise policies and measures in order to bring about certain changes which they deem desirable they often have trouble getting these policies and measures accepted by the public. In the Netherlands the government is increasingly aware that it is not possible for them to bear the responsibility for certain changes, but also that they should not aspire to do so either. For this reason civil servants to seek to make policy in conjunction with relevant groups, because such groups can play a role in implementing the policy in question and their experience and knowledge of what is feasible in practice can make a valuable contribution to moulding the substance of the policy. Bringing together politicians, policy makers and general public to provide an answer to the question of how to involve the public in policy formulation is a task for which a communication expert is eminently suited.

207. In the Netherlands the Nature Policy aimed to create new boglands and forests, and to link existing natural areas with corridors, seeking to buy land to create new natural areas. However, in the Peeleven region, farmers do not see the government's nature policy plan in the same way as the government. Farmers' lack trust in the authorities, and see them as affecting their economic well being. Farmers also have a different perception of nature to conservation groups. Farmers were not happy about any wild areas of nature being recreated, as they had worked hard to change wild land to farming land over the past generations. Environmental NGOs were confrontational, objecting to developments on farms, and advocating for wildness. They were seen as enemies by the farmers. Therefore

trying to implement these policies and realising these goals is a problem of the government and it is not seen as the farmers' problem. So there is a gap between the general interest and the individual -private interest.

208. In this new way of working the government has to clarify its role in the process as the intent of its communication depends on how much the government is trying to influence. Communication can be used to generate support and commitment if the government is acting as a stage manager of the process. Or it can create new information via a process of interaction in negotiation. When the government plays simply the role of mediator it facilitates the process towards solving problems which become the responsibility of the organisations involved. Here the government plays the role of independent advisor and facilitates the smooth flow of information.

209. Once the communication process undertaken by government changes, government processes also have to change. For example in the Netherlands it is important to cut down on bureaucracy when becoming more sensitive to working with communities and to increase financial incentives to support the agreed changes and indeed the time of people to participate in the process.

210. Therefore communication is one of the key critical factors determining the success of government policy and government itself. Without strategic communication management both government and mangement are deaf, blind and paralysed.

211. Communication management can be effective only if it is a full and integral part of the policy process. That means that it is used as a tool for interactive policy making, and in all phases of the policy process. It is used in combination with other instruments and is adapted in process and vehicles to objectives, target groups and the substance of policy.

The Role of NGOs and Intermediaries in Government Communication

212. NGOs provide an important influence for environmental policy, helping to put issues on the government agenda, and initiating programmes in lieu of government action. Governments are increasingly inclined to join forces with NGOs and other intermediary organisations for communication purposes as NGOs may:

- foster public debate on an issue;
- raise support amongst the target groups associated with them;
- feed in information to the government about the public's views;
- pass on messages, education or training;
- fill in gaps in terms of geographical reach; and
- to be a more trusted agent of the message for some target groups.

213. In the UK, the British Trust for Volunteers has practical skills in mobilising community involvement in conservation and is used by the government to gain support for biodiversity conservation management practices in local government managed nature conservation areas. The NGO is able to provide training and back-up services to maintain community interest and confidence.

214. Mobilising community involvement to care for the marine and coastal environment is encouraged by an Australian government-NGO sponsored programme, the *Marine and Coastal Community Network.* Funds provide financing for community facilitators in each state and the provision of information and educational workshops aimed at presenting different views on issues. Members of the network are involved in defining a national ocean policy, carry out surveys on community attitudes to coastal development proposals, provide input to marine national parks and monitor marine species.

215. An NGO, the *Quebec Labrador Foundation* works in collaboration with the Canadian Wildlife Service to address the problem of declining sea bird populations. To do so the programme has had to develop a sustained improvement in local knowledge, attitudes and behaviour towards sea birds as well as greater local participation in the mangement process. In the longest running and evaluated project, this example presents essential steps to planning eduaction programmes based on its 20 years experience. Above all it proved the efficacy of eduaction and the result has been an increase in sea bird populations.

216. Often the initiative to work with government comes from an NGO, as in many governments there are insufficient people to efffectively organise a communication programme. However this approach can have its pitfalls. In Sri Lanka with backing of the Ministry of the Environment an NGO *March for Conservation*, based on university staff, trained hundreds of officers of state agencies in a comprehensive series of workshops on biodiversity conservation. Despite the apparent government support and engagement of its personnel in extensive training (even Directors, and Secretaries of Ministers were trained), the trainees were not subsequently involved in biodiversity policy or preparation of the action plan. This suggests that it is preferable at the start to institutionalise the training efforts for certification and evaluation professionally. It is also indicates that NGO actions on non-formal education cannot be carried out in a vacuum if they are to really have an impact on the course of action.

Lessons Learned from Managing Networks to Mobilise Communities

217. Networking facilitates links between groups and individuals and encourages more informed and energetic groups. Some of the lessons presented in the workshop include:

- the strength and dynamism of a network comes from grass roots participation;
- emphasis must be placed on cross linkages between participants, rather than establishing a top-heavy hierarchy of responsibility;
- identify the issue(s) carefully so that the network can address them. Avoid extremely controversial issues that could polarize the network polarized;
- take time to establish trust so that coordinators, groups and individuals can begin working together;
- be relevant – people need to see tangible results from the effort;
- a coordinator or facilitator can provide continuity so resources for this are essential; and

- build laterally, rather than vertically. Networking facilitates links between groups and individuals and encourages more informed and energetic groups.

Conclusions and Recommendations

Education and communication are essential to achieve the objectives of the Convention on Biological Diversity, providing the means to connect people to biodiversity. Only then can responsibility for biodiversity be engaged. Results from educational programmes can be as concrete as an increase in different species of seabird populations. But this is not education modelled on the idea that people are empty vessels into which we need to pour ever more information to effect change. It is education and communication based on building relationships and shared understandings. It is a process that engages people to participate in solving problems.

The presentations at the workshop led to a high degree of accord amongst the lessons learned. These the participants felt could be presented as a set of guiding principles to the Parties including:

- defining a shared goal among stakeholders;
- incorporating local knowledge and culture;
- involving stakeholders to plan, implement and evaluate policy and programmes; and
- facilitating networks at all levels.

The perspectives that arose in the workshop are not those indicated by Article 13 of the Convention which sees public education and awareness as separate activites rather than as an integral component of making policies and implementing them. Education and communication are important policy tools, just as economic and legal instruments.

Obligations

The imperative obligation of the Parties to Article 13 is clear as the Convention directs that the Parties *shall* undertake public education and awareness. This obligation demands the Parties to take responsibility at the national level and allocate human and financial resources to this instrument. The workshop suggested some measures to make this more accountable such as reporting on work undertaken on Article 13 at each COP meeting; tabling public education and awareness action plans in connection with biodiversity action plans; and to report specifically on how Article 13 is being implemented as an integral instrument in each theme.

Funding

Parties are urged to allocate budgets to fully meet their obligations under Article 13 and to lever funds by making it a GEF programme area, including developing capacity in biodiversity education and communication; seek support from the World Bank and other multi-lateral and bi-lateral funding agencies; and stimulate increased funding for biodiversity education in formal education systems.

Capacity Building

Human capacity to mobilise communities and individuals is limited. Therefore it is recommended that the Parties develop institutional capacity to manage biodiversity education and communication programmes and facilitate training of practitioners.

International cooperation

Parties should develop as part of their action plans ways to co-operate regionally and in all other relevant Conventions to develop the most cost effective ways of working.

The Parties should consider endorsing the UN ECE Convention on "Access to Environmental Information and Public Participation in Environmental Decision Making" going before the Aarhus Environment for Europe Conference, June 1998.

AGENDA

Introduction to the Workshop

Start by Understanding Perceptions and Communication

Organisations, individuals and groups have different ways of seeing the world, understanding these perceptions and ways of working is essential for good communication. People may feel threatened by conservation actions for the wrong reasons, and instead of co-operating are in conflict...what does this mean as to how information is used? by *Hans **Otterlei**,*

Dealing with Farmers' Perceptions

How the Netherlands dealt with conflict with farmers on their nature policy - the implications for interactive policy development, de Peel region, by *Jan **van Rijen**, Ministry of Agriculture, Nature Management and Fisheries, Netherlands*

Discussion

Public attitudes towards biodiversity conservation in Europe: implications for African Strategies, by *Juan **Ovejero**, Africa Resources Trust, Belgium*

Biodiversity education, awareness and training in Canada: challenges to the stereotypes on education, by *Elin **Kelsey**, King's College London, UK*

Mobilizing Communities to Take Action

Research on attitudes/knowledge as a basis for developing a public awareness campaign to gain participation in protected areas, by *Miroslava **Cierna**, DAPHNE Centre for Applied Ecology, Slovakia*

Care for coastal ecosystems and species in Australia. An NGO/Government initiative, by *Diane **Tarte**, Australian Marine Conservation Society, Australia*

Restoring depleted seabird populations through education, by *Kathleen **Blanchard**, Quebec-Labrador Foundation, USA*

Public education in the Peruvian Amazon, by *Fiorella **Cerutti**, Sociedad Peruana de Derecho Ambiental, Peru*

Discussion: advice to the Parties

Communication planning for national strategies

Norway: Securing consensus among seven ministries. Procedures for communicating with decision-makers on lower administrative levels with the aim of integrating biodiversity into municipal activities. Contributing to understanding within an organization (public/private sectors): using communication as a tool for achieving environmental objectives. Differentiating tasks within the same organization but at different levels: national, regional, local, by *Sylvi **Ofstad**, Royal Ministry of Environment, Norway*

Managing Information National State of the Environment reporting. Using environment indicators to compress the bulk of information. Information dissemination strategy to avoid information overload ; pedagogical use; and use in communication, by *Aake **Bjoerke**, UNEP/GRID, Norway*

Progress on the UK Biodiversity Action Plan: moving to action through education and partnerships, by *Graham **Donald**, Biodiversity Action Plan Secretariat, UK*

Case study Argentina: the process to develop a governmental strategy on biodiversity education / communication and capacity-building, NGO input, by *Marta **Andelman**, Conservation and Management Foundation, Argentina*

Campaings for protected areas and air pollution in Sau Paulo, by *Maria Cecilia Wey **de Brito**, PROBIO/SP, Brazil*

Harnessing education and training for biodiversity conservation: Sri Lankan experience, by *Kyhana **Raheem**, Open University of Sri Lanka, Sri Lanka*

Education to build support and stakeholder participation in protected areas, by *Solly **Mosidi**, Environmental Education, South Africa*

Discussion: what are the blocks to Education and Communication at the government level?

Using indigenous knowledge in education – How to responsibly use information in education from indigenous groups, yet protect that knowledge, by *Barney **Masuzumi**, Dene Cultural Institute, Canada*

Getting the media involved – experiences from the Nepal Journalists Forum, by *Mangal Man **Shakya**, Nepal Forum of Environmental Journalists, Nepal*

Regional cooperation – South Pacific Regional Environment Programme SPREP cooperation on a turtles and coral reef campaign, by *Sue **Miller**, South Pacific Regional Environment Programme, Samoa*

Discussion

Synthesis

Conclusions and recommendations to the Parties. This session is to highlight our best advice and the most important actions for governments, as these points will go forward from the workshop to the Conference of the Parties. The Parties make decisions

on the way funds are allocated by the Global Environment Facility GEF, determine their own key actions, how information on education can be shared and international co-operation facilitated.

The key points to emphasise about public education and awareness?

The priority needs to support implementing article 13?

Trade and Biodiversity

Organizers:

IUCN - The World Conservation Union
IISD
FIELD
ICTSD

Report

Introduction

218. The international trade regime imposes disciplines and restrictions on governments that limit their scope to pursue environmental aims, including those of biodiversity conservation. Furthermore, commitments under the trade rules are mandatory and enforceable. Violations can lead to economic sanctions. The biodiversity regime, represented by the CBD, calls for actions that might be held to conflict with the trade regime as currently defined. The workshop on trade and biodiversity co-sponsored by the World Conservation Union, the International Institute for Sustainable Development (IISD) and the Foundation for International Environmental Law (FIELD) focused on the linkages between the Convention on Biological Diversity and the international trade regime.

219. A background report – "Integrating implementation of the CBD and the rules of the World Trade Organisation" – was prepared by the Center for International Environmental Law (CIEL). The workshop began with general discussion on linkages between biodiversity and trade and areas of conflict and complementarity between the CBD and international trade regime. Workshop sessions followed focusing on the fisheries sector, intellectual property rights, and forest ecosystems. Participants identified several general priorities for action in all of these areas. The workshop also identified a number of specific recommendations, particularly in the area of intellectual property rights. Rather than summarising the presentations which were made during the workshop, the following aims to highlight the main points that were raised in discussion.

Discussion: General

The Effects of Trade on Biodiversity

220. The WTO has declared itself incompetent to analyse the effects of trade on the environment. One presentation proposed that the effects of trade on biodiversity should be assessed at three levels: the indirect effects of trade on biodiversity through trade's primary effects on economic activity; product effects, e.g., effects on production,

transportation, consumption and disposal or recovery of the product scale effects, e.g., increased overall level of economic activity leading to increased effects on biodiversity structural effects, e.g., changed patterns of economic activity the direct or independent effects of trade on biodiversity (due to increased commoditisation, internationalisation of investment capital, and spatial separation of consumption and production); intensification of natural resource extraction for export intensification of monoculture development and land-use pressures linked to servicing trade introductions of alien species and the effects of trade and trade rules on public policy. Increased pressure for policies encouraging development in trade-intensive sectors concerns about the consequences of environmental policies on competitiveness obligations not to develop policies inconsistent with trade rules.

221. This framework could provide a point of departure for much-needed research on trade effects on biodiversity. The SBSTTA could provide a forum for such research. In addition, the Clearinghouse Mechanism could provide for collection and dissemination of information on trade and biodiversity.

222. It must also be considered that most real changes occur at the national level. It is important to educate the trade community about biodiversity and why its conservation is both ecologically and economically imperative. To do so, a proposal was made that country-specific briefings should be encouraged. These would draw on the expertise of national biodiversity communities.

MEAs and Unilateral Actions

223. The discussion of the CBD/WTO interface may fit into the broader discussion on multilateral environmental agreements and the WTO. This is high on the agenda of the WTO Committee on Trade and Environment, but as with other aspects of their discussion, no real solution has been found. As a practical matter, compatibility between MEAs and the WTO should be decided by matching membership in the different regimes. However, a major difficulty lies in the fact that MEAs may not give clear or specific directives to use trade measures. In such cases, trade measures are regarded by the WTO as unilateral and in conflict with international trade rules. It will be important to define more clearly when countries can pursue multilateral environmental goals through trade-related measures – a multilateral basis for unilateral action should be created.

Relative Power Structures

224. Sir Leon Brittan has emphasised that, unless environmental and other issues such as labour, are properly addressed by the international trade regime, trade liberalisation will lose popular support. One proposal is to construct another process, outside the WTO, to address environmental policy in respect of issues at the trade/environment interface. However, care would need to be taken to make this at a sufficiently high political level for it to be relevant. The trade system enjoys a vast amount of political power. How is it possible to provide an effective environmental counterweight to this? As MEAs are a disparate group of agreements, suggestions have been made that a forum to establish coherence between the MEAs is necessary to help provide a counterbalance to the political strength of the international trade regime.

225. In general, the legal agreements of the international trade regime are much more specific and detailed than those in the environment, including the CBD. The WTO has a constant presence on the world stage.

Dispute Settlement Mechanisms

226. In particular, the dispute settlement mechanism of the WTO is well established. The WTO dispute settlement mechanism is a very important focal point to influence. The review of this mechanism will begin late this year, and pressure should be put to improve its openness to environmental arguments. The CBD could also offer an alternate road to settlement of disputes relating to matters with a biodiversity sphere of competence. Indeed, some voiced the opinion that a method should be established to ensure the use of CBD mechanisms in settlement of disputes that can be characterised as conservation issues. As it presently exists only on paper, governments cannot now make use of this option. Making the mechanism a reality could be a win-win option since the WTO DSM is swamped and reluctant to take on disputes of a primarily environmental character.

Win-win Solutions

227. Win-win solutions should be encouraged. Environment Ministries are relatively weak in terms of political power. As environmental policy-makers are playing a weak hand against the trade community, it is important to find mutually compatible interests to get trade/environment issues to the table.

Subsidies

228. Subsidies are often both economically and ecologically perverse. Encouraging the abolition of these would be non-threatening to the trade policy-makers. However, subsidies should be looked at carefully and creative solutions should be used to ease transitions for those workers and communities who reap short-term benefits from them, particularly in the developing world.

229. The fishing industry as it currently operates is obviously unsustainable and largely survives on subsidies. Subsidies may cover any aspect of the fishing industry – for example fuel subsidies are common. There are too many boats and too few fish. A reduction of subsidies is considerably less painful than a fishery collapse. What subsidies might be acceptable for environmental, developmental or social purposes?

Production and Processing Methods (PPMs)

230. The point was made in the context of fisheries and forests that in most cases, sales of products are made into a market. Therefore consumer power is very important – consumer preferences and consumer awareness need to be taken into account. However, the current definition of “like products” greatly limits the incentive for sustainable production. At the same time, there are good reasons to be suspicious of proposals to open the PPM debate. Trade policy objections to differentiating between products on the basis of production and processing methods can be made on three grounds: (1) they may be parochial definitions of sustainability which apply poorly elsewhere; (2) they may constitute “eco-imperialism” and effectively constitute pressure on countries to adopt high environmental standards; (3) they may be protectionism in disguise. How can distinctions be fairly accommodated within the trading system?

231. Cyanide fishing in coral reefs for live food fish or live ornamental fish is an interesting case. It threatens even the most remote reefs and is therefore particularly worrisome. In the Philippines there is a new regime that outlaws the export of illegally caught fish. This national effort at conservation will need a supportive framework of international trade rules that recognise that the process by which live fish are captured is a valid ground for discrimination in favour of some import sources and discriminating against others, even when the fish are outwardly the same product.

232. The WTO stance on PPMs will have to change – this may be the only way ultimately to reach agreement on the appropriate use and limits of unilateral measures.

Discussion: Intellectual Property Rights

233. The biodiversity and intellectual property debate is extremely complex and requires political will as well as technical work. IPR links to the CBD include (1) access to genetic resources; (2) benefit sharing; (3) indigenous people's knowledge, innovations and practices; and (4) technology transfer. The Global Intellectual Property Issues Division of the World Intellectual Property Organisation (WIPO) has identified several global challenges to the existing system for protection of intellectual property. These are the acceleration of technological and ecological change, the integration of national systems into regional and international systems, and the expansion of the role of intellectual property.

WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs)Local and Community Knowledge (LCK) and Traditional Knowledge (TK)

234. The WTO TRIPs Agreement encourages IPR regimes which may be inappropriate for local and community knowledge. However, scope for action does exist within TRIPs in Articles 8 and 27.2 and in the development of effective *sui generis* regimes. Such *sui generis* regimes could consist of regimes limited to plant varieties, as narrowly defined under TRIPs Article 27.3(b), or could consist of entirely new regimes for protection of bodies of knowledge previously unprotected by conventional IPRs. Changes in the application systems such as acknowledging previous knowledge, proof of prior informed consent (PIC) from the country/community, as well as the use of copyrights and geographic appellations, allow scope for action. It was recommended that WIPO should look more carefully at the PIC issues. Alternatives to TRIPs include challenging IPR regimes under the CBD if they violate Article 8j. Community-based IPR regimes incorporating traditional resource rights and farmers' rights are another option. Defensive IPRs which do not allow misuse or monopolisation of LCK should be encouraged.

235. An institutional capacity building initiative is necessary for communities that would profit from benefit-sharing arrangements. Also, the apportionment of benefits from intellectual property is liable to be very difficult in the case of patents for substances with various uses. Some way of addressing this question must be found.

236. There is also a need to link traditional knowledge questions to the concept of sustainable use of the resource in question.

TRIPs Review

237. Furthermore, the TRIPs Review (scheduled to begin later this year) provides the opportunity for improvement. Ideally, some would like to abolish patents on life forms. More realistically, it was argued that in the TRIPs Review the introduction of flexibility in all matters relating to IPRs on LCK should be pushed for, allowing countries and communities to decide for themselves. Also, the scope of what is patentable should be reduced.

238. In general, the expansion of the TRIPs regime must be slowed if only because of the difficulties in assessing different regimes. Exclusions from norms should be increased to allow flexibility. Capacity building efforts should be stepped up. The CBD could intervene at the WTO Committee on Trade and Environment and seek to play an active role at the TRIPs Review, based on extensive consultation with the Parties and other appropriate groups.

Innovative Ideas

239. The Andean Pact Decision 391 requires patent offices to have applicants prove the legal origin of the genetic resources. The patent offices have to stay in contact with authorities on genetic access. A plant breeder's rights application has to provide information on the content and origin of plant genetic material and information on the type of knowledge used to produce the variety – which poses a number of implementation difficulties. This is not an additional requirement but rather a part of the normally required administrative/formal process. In any case, TRIPs is a minimum requirement and does not exclude the expansion of IPR regimes through *sui generis* systems to protect indigenous and local knowledge.

240. However, the general shift in the debate from opposition to patenting to a discussion of new forms of intellectual rights recognition can be a dangerous development. There is a risk of the expansion of IPRs at the expense of the public domain. The need for flexibility to be retained should be strongly upheld. Article 27 exclusions should be upheld. New rights forms must also be kept short-term or be otherwise limited in order to resist monopolisation in any form.

241. Financial profits are not the only incentive for creativity. Public sector research and development is based on goodwill, social recognition, and remuneration. A tax on biodiversity-based industry could channel funds to public sector research. Incentives to the informal sector such as benefit-sharing arrangements, tax incentives and compensation for lost opportunities must also be incorporated. Voluntary codes of ethics for researchers are another non-regulatory path which could be followed.

242. A memorandum of understanding between WIPO and the CBD could help act as a counterbalance to the TRIPs regime.

Conclusions and Recommendations

General

The workshop recommends that:

- ☐ the COP encourage exploration of the possible policy responses to biodiversity threats, up to and including trade measures.

- ☐ the COP should encourage the establishment of mechanisms to facilitate synergies on trade issues among biodiversity related interests to create a more effective counterbalance to the world trade system.

- ☐ COP member states should consider establishing an ombudsman mechanism to help overcome mutual suspicion – a mediation element can be useful in bringing positions among trade and environment interests together.

- ☐ the workshop urges the COP to lend support to initiatives to establish a Standing Conference on Trade and Environment, bringing together environmental organisations, conventions and civil society to forge consensus on trade and environment issues.

- ☐ the CBD's role in resolving trade and environment conflicts should be strengthened, including through development of its own dispute settlement procedures.

- ☐ subsides should be systematically examined and discourages where they are found to not meet the objectives of the Convention.

- ☐ the workshop recommends that Parties note the importance of innovative initiatives between the conservation community and the private sector, for instance that concerning the aquarium fish industry, and facilitate as appropriate the development and execution of these projects.

- ☐ the CBD should establish biodiversity-friendly production guidelines in its work on ecosystem themes. The COP should recognise the value of suitably designed ecolabels and certification measures to encourage the sustainable use of biological resources.

Awareness-raising on trade and biodiversity issues

- ☐ The increasing physical delinking of production and consumption patterns means that truly educated consumer choices are increasingly rare and more difficult. The CBD should encourage Parties to develop consumer education strategies.

- ☐ To inform trade negotiators of the benefits and necessity of biodiversity conservation, arrangements should be made of the provision of briefings to WTO delegations. Members of the biodiversity community in each country should contribute to such briefings.

- ☐ The Clearinghouse Mechanism should include the collection and dissemination of information on the trade-related aspects of biodiversity.

- ☐ The SBSTTA should give high priority to the assessment of the effects of trade liberalisation on biodiversity.

Forests

- ☐ The workshop recommends that COP4 establish a Thematic Panel for Forest Biological Diversity that will develop an effective and action-oriented programme of work without further delay.

IPRs

- ☐ There is a critical need for better information on the developments of the international regime of Intellectual Property Rights as they relate to biodiversity. COP4 is requested to mandate the CBD Secretariat to monitor and report to the COP on such developments, particularly focusing on the work at the multilateral level (relevant instruments under the WTO and WIPO) as well as on the main regional economic integration schemes (i.e., NAFTA, FTAA, SADC, EU, APEC, etc.).

- ☐ The Secretariat of the CBD should seek to play an active role at the TRIPs review, based on extensive consultation with the Parties and other appropriate entities to ensure that the results of the review are supportive of the objectives of the CBD.

- ☐ The COP should urge the Parties to the CBD to research, develop, and report on models of various *sui generis* regimes. Due consideration should be given to distribution of benefits where the resource has multiple uses.

- ☐ The Executive Secretary of the CBD should initiate discussions with the Director General of the World Intellectual Property Organisation to develop a Memorandum of Understanding on co-operation between the two organisations.

- ☐ The COP should urge Parties to implement Decision III/17 on intellectual property rights from the COP3.

- ☐ The COP should ask the Parties to put into place institutional strengthening and capacity building mechanisms to assist communities potentially benefiting from the use of genetic resources.

AGENDA

(Day 1. <u>Chair</u>: James Cameron, FIELD, UK)

Session 1: CBD/WTO Complementarities and Conflicts, part I

Integrating implementation of the CBD and the rules of the World Trade Organization, by *David **Downes***, CIEL, USA

Session 2: CBD/WTO Complementarities and Conflicts, part II

A framework for assessing the relationship between trade liberalization and biodiversity conservation, (Tom Conway), presented by *Dave **Runnalls**, International Institute for Sustainable Development, Canada*

CITES and Thailand: implications for Thailand's global environmental commitment, CITES/CBD connection, by *Jesdapipat **Sitanon**, Chulalongkorn University, Thailand*

*Jeff **McNeely**, IUCN, Switzerland* and *Richard **Tarasofsky**, IUCN-ELC, Germany,* as discussants

Session 3: Fisheries Sector

Fisheries subsidies, by *James **Cameron**, FIELD, UK*

Fisheries conservation and trade rules: ensuring that trade law promotes sustainable fisheries, by *David **Downes**, CIEL, USA*

The international trade in live reef fish: making it sustainable, by *Chip **Barber,** WRI, Philippines*

(Day 2. Chair: David Runnalls)

Session 4: Intellectual Property Rights, part I

Valuing indigenous and local knowledge, by *Ashish **Kothari**, Indian Institute of Public Administration, India*

IPRs and alternatives for benefit-sharing, by *Manolo **Ruiz**, Sociedad Peruana Derecho Ambiental, Peru*

Legal aspects, by *Lyle **Glowka**, IUCN-ELC, Germany* (discussant)

Session 5: Intellectual Property Rights, part II

The WIPO Programme on Global Intellectual Property Issues, by *Richard **Owens*** and *Shakeel **Bhatti**, WIPO, Switzerland*

Developing synergistic models for biodiversity success, a Kenyan perspective, by *Luke **Odhiambo Ouko**, Edge Wise Communications, Kenya*

Session 6: Forest Ecosystems

Opener: *Richard **Tarasofsky**, IUCN-ELC, Germany*

Labeling and certification, by *David **Downes***

Report on IPF/IFF and trade, by *Micha **Torres**, SCBD, Canada*

Labeling and certification, by *David **Downes***

Session 7: Finalizing of Workshop Statements and Recommendations

Statement of the 10th Session of the Global Biodiversity Forum to the Fourth Meeting of the Conference of the Parties of the Convention on Biological Diversity (May 1998)

Mr Chairman, Distinguished Delegates, Ladies and Gentlemen,

The 10th session of the Global Biodiversity Forum met from 1 to 3 May 1998 in Bratislava, to address eight key themes on the implementation of the Convention on Biological Diversity. Some 40 institutions were involved in the organization of the 8 workshops and more than 300 participants from 57 countries attended. They represented research, education, resource management, industry, government, NGOs, local and traditional communities. The GBF provides an independent mechanism for multi-stakeholder involvement in an open dialogue. It addresses key ecological, economic, social and institutional issues related to biodiversity.

Education and communication *are essential to achieve the objectives of the CBD. They are the means to connect biodiversity to people. Only then can we build responsibility through participation. Through analysis of projects around the world, participants of the workshop on putting Education and Communication into practice noted that education and communication are shown to be effective instruments to combine with others, to mobilise people to conserve and sustainably use biodiversity. Therefore, education and communication are CBD policy instruments of equal importance to economic and legal instruments. It is now time to put public education and awareness to work as vital instruments to engage adults – where the damage is occurring – as well as children, to overcome biodiversity loss.*

Article 13 states a clear and mandatory obligation. For this reason, the GBF recommends that Parties report at each COP on Article 13 and prepare communication strategies for action plans and themes for COP5.

To really support implementation, the GEF should invest in capacity-building within institutions for education and communication, adopt it as a programme area and require comprehensive education and communication plans within GEF funded projects.

The workshop on ***Financial Innovations for Biodiversity*** *recognised the need to develop clear criteria and indicators for investments that support biodiversity conservation and sustainable use, such as the certification of sustainable practices in forestry, fisheries, agriculture, and tourism. The participants noted that strategically targeted public policies, such as differential tax rates, based on environmental criteria can provide new opportunities to leverage private financing for biodiversity. They encouraged the development of corporate biodiversity strategies and initiatives linking banking and biodiversity. Participants also urge Parties to develop financial strategies in support of national biodiversity action plans and to ensure that other multilateral environmental agreements are financed in ways that are compatible with the objectives of the CBD.*

Trade can have major impacts on biodiversity and the achievement of the objectives of the CBD. Whether trade liberalisation has negative or positive impacts on biodiversity depends in large part on whether trade policy is consistent with the goals and requirements of the CBD. The participants of the workshop on ***Trade and Biodiversity*** *noted that there is an urgent need for greater integration between the CBD and trade regime so that, to the extent possible, they are fully compatible and mutually supportive. This will require greater coherence in the environmental policies and positions in respect of trade and building environmental considerations into trade policy.*

The workshop urges Parties to work within the framework of the CBD to evaluate biodiversity impacts of trade and trade policy and to take steps to ensure that trade policy supports achievement of the objectives of the Convention. Reduction of environmentally and economically harmful subsidies in sectors such as agriculture and fisheries is one area where action in the CBD and WTO processes could make a major contribution to implementation of the objectives of both regimes. Other areas where the CBD process should contribute include controlling and preventing the introduction of alien species and exploration of possible modifications of the intellectual property rights system.

The workshop on ***Sharing the Benefits Arising from the Utilization of Genetic Resources*** *addressed a contentious set of questions that lie at the very heart of the CBD. It was encouraging to note that the diverse stakeholders represented at the workshop – often at odds in the past – endorsed the basic CBD principles on access and benefit-sharing, such as prior informed consent and on mutually agreed terms. However, perspectives on how best to implement Article 15 vary between the providers and users of genetic resources. A first generation of national access measures are now in place, and are evolving in light of experience and problems encountered.*

Particularly noteworthy among the workshop's recommendations are the following:

- *Parties and governments that are users of genetic resources from other countries should adopt measures to ensure that all genetic resources imported into the country were acquired lawfully from the countries providing them.*

Further, the Conference of the Parties should:

- *encourage companies and ex situ institutions to adopt corporate policies on access and benefit sharing;*
- *explore the need to develop, under the CBD, codes of conduct, best practices or guidelines for commercial and non-commercial users of genetic resources;*
- *urge contracting parties, as a matter of priority, to identify authorities competent to authorise access and who can subsequently certify that all legal requirements, including prior informed consent, have been acquired; and finally*
- *encourage the establishment of clear and simple interim measures on access and benefit sharing to allow partnerships to continue during the development of more detailed legal regimes.*

Indigenous participants in the workshop on ***Traditional Knowledge and Article 8(j)*** *characterized the present discussion around protecting and maintaining the knowledge,*

innovations and practices of indigenous peoples and local communities as one that has blurred the distinction between the legitimate owner of a house and someone who has broken into the house to rob it. These concerns highlight the urgent need for the Secretariat or another body of CBD to initiate a process whereby appropriate guidelines can be formulated to assist national governments in the implementation of Article 8j. The participation of indigenous peoples in this process must be fully ensured.

Tenure – the way in which people hold rights to land and resources – is fundamental to achieving all three objectives of the Convention: the conservation of biological diversity; sustainable use of its components; and equitable sharing of its benefits. Participants at the workshop on the ***Influence of Tenure and Access Rights on the Sustainability of Natural Resource Uses*** *noted that the systematic replacement of customary tenure systems with government management regimes has operated largely to the detriment of conservation of biological diversity.*

Based on experience gained from successful case studies in Africa, Asia, Europe, Latin America, and the Pacific Islands, the workshop concluded that sustainable use of resources was achieved in situations where well-defined tenure and access rights had been devolved to communities and land-holders that live with, know and use the resources.

The ***Clearinghouse Mechanism*** *is widely recognized as fundamental to the successful implementation of the Convention. Many global and regional biodiversity informatics networks recognize the centrality of the CHM and are working as partners through collaboration and complementarity. At the national level many countries have made impressive progress. In order that progress continue, the participants of the Workshop on the Clearing-House Mechanism of the CBD urged the Parties to commit to its full implementation and to continue support for the Secretariat during the CHM pilot phase and beyond.*

Ecosystems adapt and evolve. Applying the ecosystem approach means your management framework should too. The workshop on an ***Ecosystem Approach to Management of Inland Waters and their Biological Diversity*** *endorsed the Malawi report (info. doc. 9) which describes the ecosystem approach under the CBD. The workshop report shows how this can be applied to inland waters.*

Mr Chairman, distinguished delegates, more detailed written conclusions and recommendations from the eight workshops have been annexed to the written version of this statement and are available to you. We hope that the results of our discussions will assist you to more effectively and efficiently promote our common objectives of conservation, sustainable use, and equitable sharing of benefits.

Thank you.

Acknowledgements

First and foremost, we would like to thank you, the 300 participants and presenters from 57 countries, for devoting your time, experience, ideas and energy to this event over the last 2.5 days.

An impressive number of institutions and individuals voluntarily committed themselves to the organization of the 8 workshop themes and are deeply thanked. To spare our hands, I invite you to applause them after I have gone through the list. They are:

For the workshop on Sharing the Benefits Arising from the Utilization of Genetic Resources

- Asociacion para la Defensa de los Derechos Naturales (ADN), Peru
- Department of Environment and Natural Resources (DENR), Philippines
- International Institute for Environment and Development (IIED), UK
- Royal Botanical Gardens, Kew, UK
- Socieded Peruana de Derecho Ambiental (SPDA), Peru
- IUCN Environmental Law Centre (IUCN-ELC), Germany
- World Resources Institute (WRI), USA
- World Wide Fund for Nature (WWF), Switzerland

CBD Clearing-House Mechanism

- Biodiversity Conservation Information System (BCIS)
- Inter-American Biodiversity Information Network (IABIN)
- with the cooperation of the Secretariat of the Convention on Biological Diversity (SCBD)

Public Education and Awareness

- Ministry of Environment, Norway
- IUCN Commission on Education and Communication

Financial Innovations for Biodiversity

- IUCN Economics Service Unit
- IUCN US
- UNEP Financial Services Initiative

Trade and Biodiversity

- IUCN
- IISD
- FIELD
- ICTSD

An Ecosystem Approach to the Management of Inland Water Systems and their Biodiversity

- IUCN Commission on Ecosystem Management (CEM)
- IUCN Species Survival Commission (SSC)
- IUCN Environmental Law Programme (ELC)
- IUCN Economics Services Unit
- Ramsar Bureau
- ICLARM

National Implementation of Article 8(j)

- Indigenous Peoples' Biodiversity Network (IPBN)
- Indigenous Knowledge Programme (IKP)
- Indigenous Biodiversity Information Network (IBIN)
- International Association of the Mataatua Declaration
- International Alliance
- COICA
- Asian Indigenous Peoples Pact

And finally, the Influence of Tenure and Access Rights on the Sustainability of Nature Resources Uses workshop

- IUCN Sustainable Use Initiative
- Indigenous Peoples Biodiversity Network
- Shuswap Nation Fisheries Commission
- ZERO

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And finally, last but certainly not least, we are grateful for the financial support we received from the Governments of Switzerland, UK and Norway, as well as the Global Environment Facility and Secretariat to the CBD.

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