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WORKSHOP ON SUSTAINABLE USE  
OF BIOLOGICAL DIVERSITY  
Second meeting  
Hanoi, Viet Nam  
9-12 January 2002

**SUSTAINABLE USE: PROGRESS ON DEVELOPMENT OF PRACTICAL PRINCIPLES,  
OPERATIONAL GUIDELINES AND ASSOCIATED INSTRUMENTS**

*Report of the Second Regional Workshop on Sustainable Use of Biological Diversity, 9-12  
January 2002 –Hanoi, Vietnam*

**INTRODUCTION****A. Background**

1. In paragraph 3 of decision V/24 adopted at its fifth session, in May 2000, the Conference of the Parties, *inter alia*:

“Request[ed] the Executive Secretary to assemble (...) practical principles, operational guidelines and associated instruments, and guidance specific to sectors and biomes, which would assist Parties and Governments to develop ways to achieve the sustainable use of biological diversity, within the framework of the ecosystem approach ...”

2. In response to that request, the Executive Secretary convened a series of three regional workshops on sustainable use of biological diversity, with financial support provided by the Government of the Netherlands. The first workshop was held in Maputo, from 24 to 27 September 2001. This second meeting was held in Hanoi at the kind invitation of the Government of Vietnam. The third workshop will be convened in Ecuador in February 2002.

3. The purpose of the workshops is to develop practical principles, operational guidelines and associated instruments for the sustainable use of biological diversity. The Maputo Workshop focused on key elements relating, in particular, to the sustainable use of dryland resources and wildlife utilization

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in Africa. The Hanoi workshop focused on forest biological diversity, including timber and non-wood forest products, with reference to agrobiological diversity. The Ecuador Workshop will focus on marine biological diversity and freshwater fisheries.

## ***B. Attendance***

4. The meeting was attended by 30 government-nominated experts, experts selected from the CBD roster of experts, representatives of organizations who participated as observers and resource persons (see document UNEP/CBD/WS-Sustainable Use/INF1/Rev.1).

5. Experts from the following countries attended the workshop: Argentina, Australia, Bhutan, Botswana, China, Ecuador, Ghana, Japan, Republic of Korea, Lebanon, Malaysia, Mongolia, Sri Lanka, Tajikistan, Mozambique, Russian Federation, Vietnam, the Netherlands.

6. The following intergovernmental and non-governmental organizations were also represented in the workshop: Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Food and Agriculture Organization (FAO) and the International Tropical Timber Organization (ITTO), IUCN- The World Conservation Union and WWF, the World Wide Fund for Nature.

## **ITEM 1. OPENING OF THE MEETING**

7. The Workshop was opened by the representative of the Executive Secretary of the Convention on Biological Diversity at 9:30 a.m., on Wednesday 9 January 2002.

8. Introductory remarks were made by the representative of the Secretariat of the Convention on Biological Diversity and Dr. Pham Khoi Nguyen, Vice-Minister of the Ministry of Science, Technology and Environment, on behalf of the host government.

9. In his statement, the SCBD representative expressed his appreciation to the Government of Vietnam for hosting the meeting and to the Government of the Netherlands for its financial support to the Workshop. He reminded that participants had been selected on the basis of their extensive and diverse expertise on sustainable use of forest biological diversity.

10. The SCBD representative stressed the need for participants to elaborate on a clear set of operational guidelines for sustainable use, focusing on the benefits that sustainable use could generate for humankind. Biodiversity sustains human and natural ecosystems and provides fundamental services for their survival. Unsustainable use and overexploitation of biodiversity threaten the very basic elements of life on earth. Since 1992 the Convention on Biological Diversity provides the framework for international cooperation on the conservation and sustainable use of biological resources and the equitable and fair access and sharing of benefits arising from their use. Although more than 180 Parties have ratified the Convention, not much progress has been achieved in the field of sustainable use. In this context, the Conference of the Parties at its fifth meeting in 2000 requested the Secretariat to compile information and assess case studies to provide practical principles and operational guidelines on the issue of sustainable use of biological diversity. The Secretariat has organized three regional workshops. The first one was held in Maputo and focused mainly on the sustainable use of dryland biodiversity. The

second one, taking place in Hanoi, Vietnam, focuses on the sustainable use of forest biological diversity. The third one, to be held in Ecuador, will focus on sustainable use of marine biological diversity and freshwater fisheries.

11. He concluded by reminding participants of the need to preserve biological resources for future generations. He remarked how serious the consequences would be if we fail in our conservation and sustainable use efforts, which will lead to the partial or even entire disappearance of the web of life on earth. A call was made on individual and societal responsibilities for sustainable development and awareness raising in the field of sustainable use.

12. In his statement, Dr. Pham Khoi Nguyen welcomed participants to the meeting and to Vietnam. The Government of Vietnam ratified the Convention on Biological Diversity in October 1994. Since the ratification a series of actions have been implemented by the Government to achieve the three objectives of the Convention. The Government of Vietnam recognizes that the absence of sustainable use of biological diversity and the equitable sharing of its benefits will result in the failure of the value of conservation. Vietnam, taking into account the need to conserve the variety and complexity of its forest biodiversity and tropical forests ecosystems, has adopted a number of measures to protect its natural resource base, thus responding both to a national and international call for sustainable development.

13. Dr. Nguyen explained that after the ratification of the Convention on Biological Diversity Vietnam approved a “Biodiversity Action Plan” (BAP) in 1995. The action plan is considering the expansion of forest protected areas and has proposed the creation of sixteen marine protected areas. The Government is also considering the development of a national wetland programme. To tackle forest resource over-exploitation, the Government decided to ban natural forest exploitation in most provinces, except where local demand is highly justified. In addition, the National Assembly has approved a five million hectare reforestation and plantation programme to be undertaken in the period 1998-2010.

14. The Vice-Minister noted that every national plan makes clear that environment protection and the conservation of biodiversity are a priority for Vietnam, together with socio-economic development. To implement programmes and plans for the conservation of biological diversity the Vietnamese Government has received assistance from the international community. Dr. Nguyen took the opportunity to express his sincere gratitude to the international organizations, governments and non-governmental organizations as well as the Secretariat of the Convention on Biological Diversity for their financial and technical assistance to implement the Biodiversity Action Plan.

## **ITEM 2. ORGANIZATIONAL MATTERS**

### ***2.1. Officers***

15. At the opening session of the Workshop, on 9 January 2002, participants elected Mr. Tran Lien Phong, Head of the Nature Conservation Division of the National Environment Agency in Vietnam, as chair of the meeting.

## **2.2. Adoption of the agenda**

16. The Workshop adopted the following agenda on the basis of the provisional agenda proposed in document UNEP/CBD/WS-Sustainable Use/2/2:

1. Opening of the meeting;
2. Organizational matters:
  - 2.1. Election of officers;
  - 2.2. Adoption of the agenda;
  - 2.3. Organization of work.
3. Introduction to the Convention on Biological Diversity.
4. Feedback from the first regional workshop on sustainable use of biological diversity held in Maputo, Mozambique.
5. Presentation of case studies.
6. Operational guidelines on sustainable use, with focus on forest biodiversity, including timber and non-timber forest resources (NTFR).
7. Other matters.
8. Adoption of the report.
9. Closure of the meeting.

## **2.3. Organization of work**

17. At its opening plenary meeting, the Workshop decided to establish two working groups for the consideration of item 6, on the understanding that the results of their deliberations would be brought together in a final report to be agreed in plenary. Other agenda items were considered in plenary.

### **ITEM 3. INTRODUCTION TO THE CONVENTION ON BIOLOGICAL DIVERSITY**

18. A member of the Secretariat of the Convention of Biological Diversity (SCBD) and Dr. Herbert Prins, of Wageningen University in the Netherlands, appointed moderator of the workshop, presented a brief account of the CBD objectives and programme of work and introduced the main issues relating to the sustainable use of forest resources.

19. The member of SCBD recalled that with Article 10 of the Convention on Biological Diversity contracting Parties committed themselves, *inter alia*, to integrate conservation and sustainable use in their national decision-making processes and adopt measures to minimize adverse impacts on biological

diversity and protect and encourage its customary use. She also updated participants on upcoming meetings of the Conference of the Parties in April 2002 and the Subsidiary Body on Scientific, Technical and Technological Advice in 2003 and their relevance for the themes sustainable use and forests.

20. Dr. Prins made a presentation on the structure of the Convention. To this end, he distributed a flow chart of the relationship between the different articles of the Convention as it relates to sustainable use (see Annex I).

21. The member of the Secretariat explained that the Convention of Biological Diversity considers forest biodiversity, the variability among forest living organisms and the ecological complexes of which they are part, at three different levels: ecosystem, species and genetic diversity. For each of these levels the Convention recognises their ecological, social, scientific, educational and cultural values as well as their capacity to provide essential goods and services. Examples of services offered by forest biological diversity at the three different levels were presented. The member of the Secretariat introduced a description of the term sustainable use as contained in the Convention on Biological Diversity and emphasized that the challenge for the conservation of the biological diversity is to maximize human livelihood while minimizing human negative impacts on the natural resource base. Recalling decision V/24 of the Conference of the Parties, she reminded the participants of the main objectives of the workshop: to assemble practical principles, operational guidelines and associated instruments which would assist Parties and Governments to develop ways to achieve the sustainable use of biological diversity. Principles, guidelines and associated instruments should build on the Maputo principles, developed during the first regional workshop, and should be based on practical experiences and case studies.

22. Dr. Prins highlighted the need to expand and further develop the Maputo principles, focusing in particular on the development of operational definitions of the terms contained in the description of sustainable use in Article 2 of the Convention on Biological Diversity. He elaborated on the concept of “components” and their levels of aggregation. For each of the levels considered, he proposed possible measures of their decline. He stresses that if sustainable use is going to be operationalized, then visions and goals have to be defined for each level of aggregation. To set goals and to define operational targets a concrete time frame is also needed.

#### **ITEM 4: FEEDBACK FROM THE FIRST REGIONAL WORKSHOP ON SUSTAINABLE USE OF BIOLOGICAL DIVERSITY HELD IN MAPUTO, MOZAMBIQUE**

23. Mr. Francisco Mabjaia, Vice-Minister, Ministry of Coordination for Environment Affair (MICOA) of the Government of Mozambique and chairman of the First Regional Workshop on Sustainable Use of Biodiversity reported on the outcome of the meeting in Maputo.

24. Mr. Mabjaia commented on the Maputo principles and stressed how they recognize the need to take into account a multiplicity of elements, such as socio-economic, environmental, institutional, political and cultural factors, in order to enhance the sustainable use of biodiversity. He also stressed the importance of community participation, incentive measures and communication among all stakeholders involved as essential factors to achieve the sustainable use of biological resources. After a brief

presentation of the structure of the document containing the Maputo principles (UNEP/CBD/SBSTTA/7/INF/9), he focused on the recommendations made by participants. Questions from the floor followed the presentation.

25. Dr. David Lawson, Director of the Parks and Wildlife Commission of the Northern Territory of Australia introduced document UNEP/CBD/WS-Sustainable Use/INF/2. The document is based on the Maputo principles on sustainable use contained in document UNEP/CBD/SBSTTA/7/INF/9 and consists of a clustering of the principles and explanatory notes which have been added to each principle, with a view to making the text more accessible to a wide range of stakeholders.

## **ITEM 5: PRESENTATION OF CASE STUDIES**

26. The following countries presented case studies on the sustainable use of forest biodiversity: Vietnam, Sri Lanka, Argentina, the Russian Federation, Ecuador and China.

27. Mr. Nguyen Quang Tung of the Forest Protection Department of the Ministry of Agriculture and Rural Development of Vietnam made an overview of forest biodiversity resources in Vietnam and of the main causes of forest loss and biodiversity degradation. Efforts for the conservation and sustainable use of forest biodiversity include the establishment of a system of protected areas, composed of national parks, nature protected areas and landscape protected areas, and measures to develop and use forest resources in a sustainable manner.

28. In his concluding remarks, Mr. Tung made some recommendations for the sustainable use of forest biodiversity. He stressed, *inter alia*, the need for the improvement of awareness raising for biodiversity conservation. In Vietnam the promotion of forest plantations and regeneration as well as the gradual improvement of living standards of rural residents are important factors for the sustainable use of forest resources and their conservation. At the national level, Mr. Tung recommended the development of a comprehensive national system of “special-use” forests and the development of strategies and management plans for protected areas and their buffer zones. At the international level, he stressed the need to develop cooperation frameworks on biodiversity conservation as well as the commitment to international agreements.

29. Dr. Herath Gunatilake, of the Faculty of Agriculture of the University of Peradeniya presented the case of forest biodiversity of Sri Lanka. Natural forest cover has declined drastically during the last century. Some of the remaining lowland rain forests and mountain forests harbour a large amount of biodiversity. Therefore, their protection becomes a priority. The impact of large-scale agricultural expansion and shifting cultivation, which was the major contributors to deforestation, is no longer significant. Illegal extraction of timber seems to be the most important cause of deforestation. About 14% of the land in Sri Lanka is under some protection. Healthy sustenance of these protected areas depends on the sustainable management of forests outside protected areas.

30. Dr. Gunatilake described four possible policy options for the sustainable management of forests: legal measures, forest plantations, improvement of efficiency at sawmilling industry, and timber trade liberalization. Legal actions have been taken to protect the forests of the country. However, excessive

regulations can contribute to illegal logging through corruption and formation of cartels between timber traders and government officers. As a result, timber growers get very low prices and consumers pay very high prices. Low prices received by producers discourage cultivation of trees while high consumer prices induce illegal logging. Private sector involvement in tree growing is discouraged by heavy regulation despite reasonable profitability. There is a considerable inefficiency in the milling industry. Complete elimination of inefficiency can save about 28% wood inputs while getting the same sawn wood output, relieving pressure on forests. Elimination of broader charges can reduce local supply of timber by about 35% through increased imports. A combined effort that includes legal reforms, improvement of technical efficiency, timber trade liberalization and incentives for private sector investment on timber production is necessary for sustainable management of forests in Sri Lanka.

31. Dr. Jorge Rabinovich of the University of La Plata in Argentina presented the ELE Project on the talking parrot. In the 80's Argentina was the largest single provider of this species, marketed as a pet. Between 1985 and 1989 more than 210,000 specimens of talking parrots were legally harvested from Argentina without any regulation of this activity in place. The project aims at changing current practices where (a) trees where the talking parrots nest are usually cut down in order to capture the newborns, thus destroying the basic resource for their reproduction and replacement, (b) there is an illegal trade that is extremely difficult to control, and (c) the trade system does not benefit the local people. In 1991 Argentina established a zero quota for the exportation of the talking parrot. Although trade for export was temporarily controlled, habitat destruction kept accelerating, and the talking parrot populations did not show sign of recuperation and seemed to keep declining in the areas with stronger forest to agriculture conversion. However the species is still present with relatively abundant populations in a large area in Argentina.

32. Dr. Rabinovich reported that between April 1990 and January 1992 the National Wildlife Department of Argentina carried out studies on the biology and trade of the talking parrot, including distribution, habitat use, dispersal, diet, and status of wild populations, modes of collection, and the trading system. Based on preliminary studies carried out between April 1990 and January 1992 by the National Wildlife Department of Argentina, by the end of 1994, with CITES funds administered by an Argentinean NGO, the project was carried out to evaluate the possibilities of a sustainable use of this species, starting in 1997. In 1998 and 1999 the captured talking parrots respected (and were even below) the established annual quota.

33. Dr. Igor Chestin, World Wide Fund for Nature, Russian Federation, sustained the thesis that often market adjustment leads to the improvement of environmental conditions without government or public interference. Subsequent to the elimination of agricultural subsidies in the Russian Federation in the early 1990s, nearly extinct European broad-leafed forests and steppes started to recover to the extent that reintroduction of the European bison became possible. In many natural areas, forests in particular, goods and services are not assigned a monetary value and the global markets do not yet capture this value. Conflicts may arise between global, regional or national demand in these goods and services and needs of local communities. Production of commercial timber is a highly centralised market: only 100 companies produce 50% of all worlds' commercial timber. However, the case of the Russian Federation shows that often these large producers are much more sensitive towards their own environmental performance than local producers and therefore more willing to adopt sustainable practices.

34. Dr. Chestin addressed also the mobilization of market incentives, market efficiency at a local, national and global scale, and the mobilization and involvement of large businesses. The question on how to match local needs and market efficiency and how the global market could capture ecosystem services were also addressed.

35. Mr. Hans Thiel, Vice-Minister of the Ministry of Environment of Ecuador, described the national forest management reform, elaborating in particular on the question of whether voluntary forest certifications would be able to make any substantial contribution to address the causes of deforestation and illegal logging. Since in Ecuador voluntary forest certification may not have any significant impact on the majority of forests, the Ecuadorian government decided not to insist on the relatively high standards associated with certification processes or the traditional over-regulatory frameworks and state control measures, but to radically simplify the forest legislation in order to create minimum standards for enhanced forest management. Ecuador reformed its forest legal framework introducing five basic principles and criteria of sound forest management into forest legislation: sustainability of yield/production; maintenance of the forest cover; reduction of environmental impacts; conservation of biodiversity; co-responsibility of the forest owner. For each of the criteria measurable and verifiable indicators were developed and included in the technical normative establishing general rules for improved forest management.

36. Mr. Thiel added that besides these substantial legal reforms, Ecuador is implementing a comprehensive public-private control and monitoring system, which aims at the elimination of illegal logging and the enhancement of responsible forest management. In his conclusions, he remarked that in countries where only scarce public resources can be invested in the management and monitoring of the use of biodiversity, innovative public-private approaches and management instruments are needed.

37. Dr. Liu Can, from the National Forestry Economics and Development Research Center of China, discussed constraints and policy opportunities for the sustainable use of forest biodiversity in China, with a particular focus on the sustainable management of Chinese herbs. Lack of environmental awareness, financial constraints, limited participation of stakeholders and high transactions costs were listed as some of the main problems encountered. Investments in public awareness campaigns through different media and the creation of appropriate methods and means to increase public participation were described as the main policy opportunities to overcome some of the constraints. The creation of associations of beneficiaries and the introduction of effective actions to exclude non-payers are identified as policy solutions to the problem of free riding. Mechanisms to ensure participation of local suppliers in the determination of payment systems and revenue will guarantee their channelling to providers.

#### **ITEM 6: OPERATIONAL GUIDELINES ON SUSTAINABLE USE, WITH A FOCUS ON FOREST BIODIVERSITY, INCLUDING TIMBER AND NON-TIMBER FOREST RESOURCES (NTFR)**

38. Before splitting into two Working Groups, the Workshop took up agenda item 6 at the 1st plenary session of the meeting, on Wednesday 9 January 2002. In addressing the item, the Workshop had before it a note by the Executive Secretary entitled "Framework for the development of elements for guidelines for the sustainable use of biological diversity as a cross-cutting issue" (UNEP/CBD/WS-Sustainable Use/1/2), documents UNEP/CBD/SBSTTA/7/INF/9 and UNEP/CBD/WS-Sustainable Use/2/INF/2 entitled respectively the "Sustainable use: Progress on Development of Practical



Principles, Operational Guidance and Associated Instruments” and “ Clustering of the Maputo Principles” and addition of explanatory notes with a view to making the principles more accessible.

39. The two working groups met five times, after which a drafting group was established to integrate the result of this work in a single document. The Hanoi Guiding Principles on Sustainable Use of Biological Diversity, contained in annex II below, were discussed and agreed in two plenary meetings on Saturday, 12 January 2002. Recommendations on the future use are contained in annex III below.

40. On Friday 11 January, a plenary brainstorming session was organized by the Secretariat to discuss and identify measures to enhance the sustainability of the use of components of biodiversity. The session continued on Saturday morning, 12 January. The result of the open discussion, to be forwarded to the next workshop on sustainable use of biodiversity to be held in Ecuador, are contained in Annex II as “implementation suggestions”.

#### **ITEM 7. OTHER MATTERS**

41. Mr. Hans Thiel invited the Secretariat to consider the possibility of having a five-day workshop in Ecuador, to allow participants to dedicate more time to open discussions as well as to have a more thorough analysis of the documents under discussion.

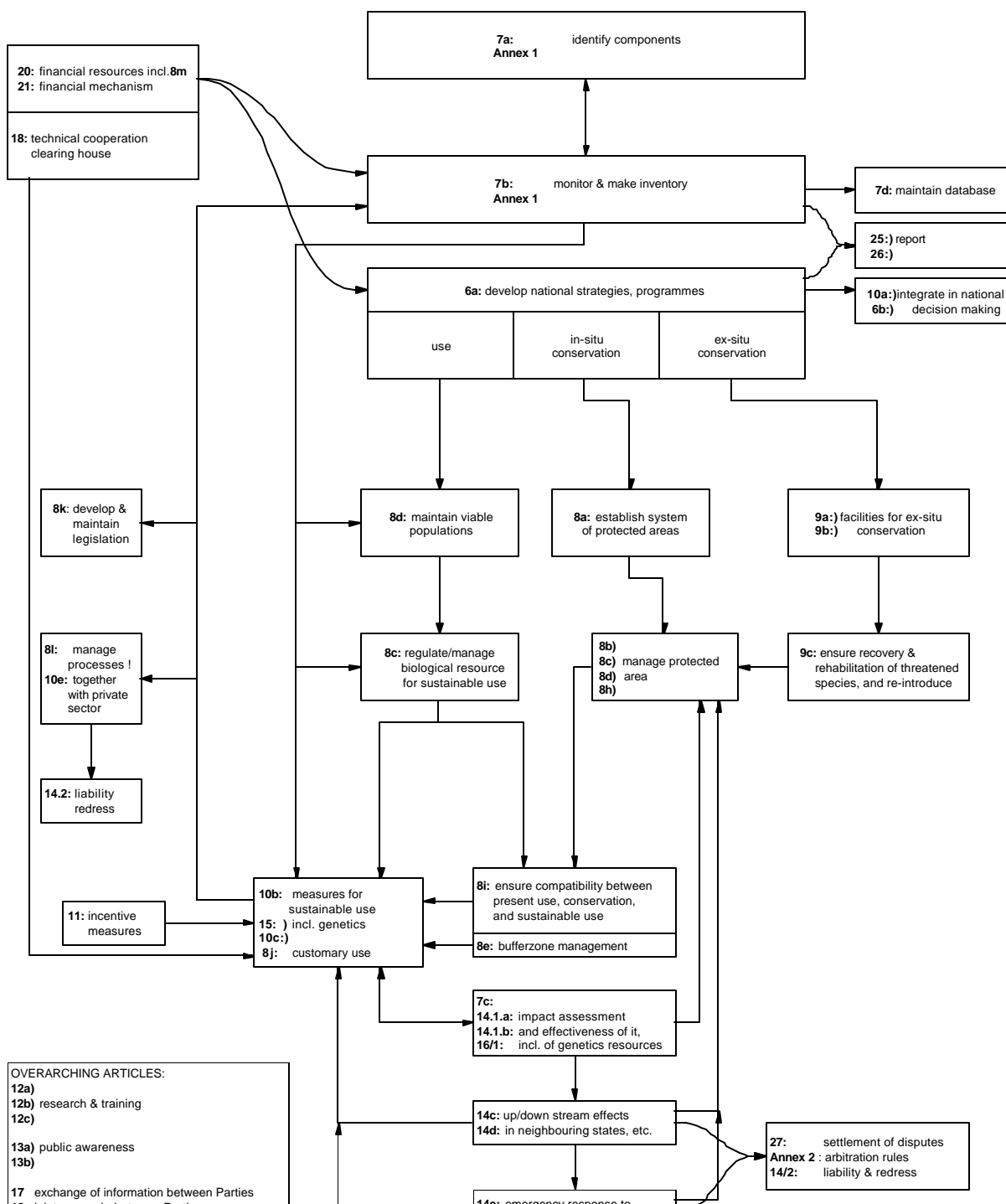
#### **ITEM 8. ADOPTION OF THE REPORT**

42. The present report was adopted at the third plenary meeting, on Saturday 12 January 2002, on the basis of the draft report prepared and presented by the chair.

#### **ITEM 9. CLOSURE OF THE MEETING**

43. Following the customary exchange of courtesies, the Workshop was closed at 1 p.m. on Saturday 12 January 2002.

ADDENDUM: The structure of the convention centered on sustainable use  
(bold figures refer to articles)



## ANNEX II

### HANOI GUIDING PRINCIPLES ON SUSTAINABLE USE OF BIOLOGICAL DIVERSITY

Participants to the Hanoi Workshop built on the outcome of the Maputo meeting and further elaborated the Maputo Axioms and Principles. In addition, the participants noted there was a need to define some terms contained in the Convention, which meaning and interpretation could have a significant influence on the process to elaborate principles and operational guidelines for the sustainable use of biological diversity and in their understanding and implementation.

### USE OF TERMS

The participants noted that the articles of the Convention related to sustainable use contain words for which further clarification was needed. It was felt that there were several other words used in sustainable use for which it would be advisable to provide working definitions. Examples of such words/terms are “components” (of biological diversity), “decline” and “long-term”. In such cases the participants felt that there was a need to provide advice/interpretation to assist the Parties’ understanding/implementation of any principles of sustainable use. The participants did not feel it necessary to provide a definition/interpretation in those instances where words/terms were either defined previously in the Convention, or were being addressed by other initiatives.

#### **‘Components’ of biological diversity**

The objectives of the Convention on Biological Diversity are “the conservation of biological diversity, the sustainable use of its **components** and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources”.

It is considered that these components will include:

- (a) genetic material. The definition is given in Article 2 of the Convention.
- (b) species. Groups of populations which can potentially interbreed or are actually interbreeding, that can successfully produce viable, fertile offspring (without the help of human technology).
- (c) population. Individuals of a species occurring in a defined area. Populations may include metapopulations which are a number of populations of the same species linked through genetic exchange, often in an ecological network.
- (d) communities. An assemblage of interacting populations species in a defined area (an ecosystem)
- (e) other aggregated terms that denote the “other biotic components of ecosystems” such as forests, coral reefs and other undifferentiated vegetation cover.

## **‘Decline’ of components of biological diversity**

To assess the decline of the components of biological diversity, one has to define what is understood by the term ‘*decline*’. To be useful to the Convention any definition of ‘decline’ should allow distinct measurement of such decline.

The following operational definitions are provided for “decline” in the context of sustainable use in regards to the different components of biological diversity:

### Genetic material:

A measurable reduction in any appropriate measure of genetic diversity in a population.

### Species:

A measurable reduction of the total number of individuals, populations or geographical races of a species or increase in fragmentation or decrease in size of a species’ range below the limits necessary for the maintenance of viable populations.

### Population:

A measurable reduction in the distribution and numbers of individuals of a population or increase in fragmentation or decrease in size of population range.

### Community:

A measurable reduction of the number, variety and composition of species within a defined management area,

### Other aggregated terms that denote the “other biotic components of ecosystems” such as forests, coral reefs and other undifferentiated vegetation cover:

A measurable reduction in the extent or amount of the biotic component within the management area.

A measurable decrease in the provision of ecosystem services and goods.

## **‘Long term’ declines**

In considering what is meant by long-term and to meet the requirement that biological diversity be maintained for future generations (Article 2), the working group recommends that the target for maintaining biological diversity should be no net loss of biological diversity measured over five human generations or 100 years, whichever is shorter.

## **Vision and goals**

In addition, it would be useful to develop a vision and goals for the different components of biological diversity described above.

The overall vision is suggested to be “The rationale for maintaining the components of biological diversity is to avoid loss of the actual and potential benefits provided for present and future generations of people and the maintenance of the integrity of the earth’s life support systems”.

### **Relevance to Ecosystem Approach**

Maintenance of ecosystems is essential to ensure delivery of goods (e.g., clean water, fertile soils, clean air) and services (e.g., carbon sequestration, water filtration, oxygen production). Unsustainable uses of species and habitats can adversely affect the delivery of such ecosystem goods and services.

The Axioms and Principles of sustainable use developed at the Hanoi Workshop are interlinked, and should be considered in relation to each other. They should also be seen as supporting or complementing those Principles of the Ecosystem Approach previously adopted by the Parties. They should not be viewed as prescriptive guidance – but rather as a broad framework of key factors or conditions which governments, resource managers, and other interested stakeholders should consider to optimise the sustainability of uses of biological diversity.

They provide a framework within which those who have responsibility for managing biological diversity for sustainable use can be accountable for their actions. But, again, it most likely will require different institutional structures for different modes of use. In all cases management should be directed at reducing the risk of compromising key functions at the ecosystem level and thus should be done with precaution.

Sustainable use, both consumptive and non-consumptive, is increasingly viewed as a dynamic process toward which one strives in order to maintain biodiversity and enhance ecological and socio-economic services for livelihood security. In the context of the Asian region, these axioms and principles apply equally to both consumptive and non-consumptive uses of biological diversity.

### **Axioms**

Axioms, as used here, are considered universal truths. They are provided in this format to establish a common ground in relation to which a series of principles derived from this workshop are presented. They have been developed in the context of forest ecosystems with the emphasis on the Asian region , and they have been inspired by the work of the Maputo workshop. These axioms are intimately linked together and must be read in total.

### **Ecological context**

- 1. Ecosystems, ecological processes within them and genetic variation change over time whether or not they are used.*

2. *Sustaining biological diversity along with resilience of ecosystems depends on maintaining ecological processes and species above thresholds needed for long-term viability.*
3. *Biological diversity has an intrinsic limit to the benefits it can provide.*

### **Social context**

4. *Biological diversity is used.*
5. *Survival of people and cultures is dependent on direct and indirect uses of biological diversity.*
6. *Use of biological diversity can take place with ecological processes, species and genetic variability remaining above thresholds needed for long-term viability*
7. *Current human population growth and consumptive patterns are placing increasing demands on biological diversity, the consequences of which become apparent only sometime in the future.*
8. *Sustainable use of biological diversity is a means to conserve genetic variability, species and habitats.*
9. *Sustainable use of biological diversity is a means of realizing its market and non-market values.*
10. *Sustainable management is crucial for the survival of some habitats.*
11. *Sustainable use is crucial for the survival of threatened species.*
12. *Maintenance of biological diversity is enhanced when the people living with it derive benefits from its sustainable use.*
13. *Biological diversity conservation will be enhanced when incentives outweigh disincentives.*
14. *Conserving and sustainably utilizing biodiversity varies from one location to another and is a matter of societal choice.*

### **PRINCIPLES**

#### **Legal Policy Framework**

1. *Sustainability of uses of biological diversity will be enhanced if governments devolve rights, responsibility and accountability to those who use biological resources.*

Guidance:

- The means of conserving and sustainably utilizing biological diversity and the allocation of responsibility for its management varies from one location to another and is a matter of societal choice.
- Individuals, communities, and/or other entities, including public, private and non-government organisations may be responsible for the management of biological diversity.

2. *Sustainability of uses of biological diversity will be enhanced if those who conserve, use or manage biological resources are sufficiently empowered and supported by established rights to be responsible and accountable for their use.*

Guidance:

- To ensure that those conserving, managing or using biological diversity can meet responsibility requirements, there is need to ensure that they have the needed capacity and sufficient financial resources.

3. *Sustainability of uses of biological diversity will be enhanced if supportive incentives, policies, laws, and institutions are in place at all levels of governance and that there are effective linkages between these levels.*

4. *Managerial regimes are compatible with the ecological and socio-economic scale of the use and impacts.*

Guidance:

- Sustainability of uses of biological diversity will be enhanced if management rights are compatible with the ecological and socio-economic scales of the management regime, taking into account impacts of a use.
- Linking responsibility and accountability to the ecological/geographic scale of use is reflected in Principles 2 and 7 of the Principles of Ecosystem Approach.

5. *Sustainability of uses of biological diversity will be enhanced if arrangements for international cooperation are facilitated where multi-national decision-making and coordination are needed.*

Guidance:

- Arrangements for international cooperation are particularly important when the distribution of populations or communities/habitats being used span two or more nations.

6. *Sustainability of uses of biological diversity will be enhanced if national and international policies, laws and regulations that distort markets, promote habitat alteration or destruction, and unsustainable use are identified and removed or adjusted.*

Guidance:

- Over regulation of uses of biological diversity can increase costs, foreclose opportunities, and encourage unregulated uses thus decreasing sustainability of uses.
  - Likewise, total lack of governmental control of uses may decrease sustainability of uses.
7. *Sustainability of uses of biological diversity will be enhanced if national and international policies and decisions affecting the use of biological resources are supported by sound scientific information and take full account of these guiding principles.*
8. *National and international policies recognize and take into account all values derived from the use of biological diversity and the market forces affecting the use.*

Guidance:

- It is particularly important that this principle be considered in relation to land use/habitat conversion tradeoffs.
  - Governments should consider how national “green” accounts can accommodate these values.
9. *Appropriate administrative, market and/or communal mechanisms are used to guide financial and human resource allocation.*
10. *Sustainability of uses of biological diversity will be enhanced if efficiencies in harvest, processing, marketing and use of products are increased to enhance socio-economic and ecological benefits.*

## **Framework for Management**

10. *Sustainability of uses of biological diversity will be enhanced if an interdisciplinary, participatory approach is applied at different levels of governance related to the use.*

Guidance:

- Interactive communications are in place between and among stakeholders at the individual, community, sub-national, national, regional and international levels.
- Socio-economic, political, biological, ecological, institutional, religious and cultural factors are considered, at the individual, community, sub-national, national, regional and international levels in an interdisciplinary approach.



- The term “interdisciplinary, participatory approach” is used to mean that the specialists in the social, economic, biological and other disciplines necessary to optimize sustainability of uses engage in resource management simultaneously and in direct communication with each other.

11. *Sustainability of uses of biological diversity will be enhanced if effective communications are in place between and among stakeholders, including resource managers, at the individual, community, sub-national, national, regional and international levels.*

Guidance:

- It is essential that such communications are interactive and participatory and involve all people at levels noted.

12. *Sustainability of uses of biological diversity will be enhanced if adaptive management is practised and relies on sound science and traditional and local knowledge and an iterative process of timely and transparent feedback derived from monitoring the use, the socio-economic effects, resource and ecological changes.*

13. *Sustainability of uses of biological diversity will be enhanced if, in all cases, management goals and practices do not compromise ecosystem functions and are implemented with precaution and care.*

Guidance:

- Precaution in this context is consistent with the definition of the “precautionary principle” provided in paragraph 15 of the Rio Declaration.

14. *Sustainability of uses of biological diversity will be enhanced if research into all aspects of the use and conservation of biological diversity is promoted and supported.*

15. *Sustainability of uses of biological diversity will be enhanced if the contribution and needs of those who live with and are impacted by the use and conservation of biological diversity, in particular indigenous peoples and local communities, are appropriately reflected in the distribution of the benefits from the use of those resources.*

16. *Sustainability of uses of biological diversity will be enhanced if the costs of those who manage biological diversity, in particular wild living resources, are appropriately reflected in the distribution of the benefits from the use of those resources.*

17. *Sustainability of uses of biological diversity will be enhanced if provisions are made for mitigation, remediation, compensation, and/or rehabilitation if losses of biological diversity as a result of use are identified.*

18. *Sustainability of uses of biological diversity will be enhanced if appropriate measures are taken for the protection of biological resources against harmful effects of pollution, fire, civil and armed conflicts, displaced people and other externally derived impacts.*

Guidance:

- As a general observation, these effects derive from outside of the management area and are generally the cause of people's activities.

19. *Sustainability of uses of biological diversity will be enhanced if a long-term process of education and public awareness is implemented.*

**Guidance:**

- In planning such education and public awareness activities the following topics are considered particularly important: management, value of sustainable use, changing consumptive patterns, value of biodiversity in the lives of people.
- Investments in education are needed to bring about changes in behaviour and lifestyles, and to prepare societies for the changes needed for sustainability.
- A long-term process of public education is needed to bring about changes in behaviour and lifestyles, and to prepare societies for the changes needed for sustainability.

### **Suggestions for the implementation of practical principles and guidelines**

The workshop of experts, based on an open discussion session, provisionally identified a number of measures and actions that are believed to enhance the sustainability of the use of components of biodiversity. As the text was developed late in the meeting, the experts recommend that it be forwarded to the workshop scheduled in Ecuador for consideration.

#### **Policy actions:**

In considering policy there is need to:

- Develop the political will to bring changes about that foster the sustainable use of the components of biological diversity.
- Adopt guiding principles for sustainable use of the components of biological diversity into the national policies.
- Create the enabling environment called for at all necessary levels of government and bureaucracy.
- Acknowledge the fact that much illegal trade and illegal harvesting takes place.

- Recognize that market forces are not always sufficient to improve living conditions or increase sustainability in the use of components of biological diversity.

Socio-economic conditions:

In relation to socio-economic conditions there is need to consider:

- Needs for poverty alleviation in areas near or around the management area.
- Development of alternatives for the (non-sustainable) use of a biological resource for other livelihoods.

Administrative procedures:

Administrative procedures need:

- To implement good management plans (do not just leave them in an office).
- Clarity of management responsibilities.
- Clarity around issues of tenure and ownership.

Law and law-enforcement:

In regards to national laws and law-enforcement there is need to:

- Review existing legislation and regulations.
- Not assume that all illegal use is necessarily unsustainable.
- Consider legalizing uses, where illegal and/or uncontrolled use is sustainable.
- Consider ways to bring uncontrolled use of biological resources into a legal and sustainable use framework.
- Set legal standards for use compatible with local socio-economic conditions.
- Consider local customs and traditions (and customary law where recognized) when drafting new legislation and regulations.
- Keep enabling legislation and associated procedures for legal uses as simple, transparent, and accessible as possible.
- Stop and prevent illegal uses of components of biological diversity.
- Stop and prevent illegal trade in the components of biological diversity.
- Ensure that the penalties for unsustainable, illegal uses should exceed the potential profit of the use.

Best practices:

To promote best practices there is need to:

- Improve efficiencies in the use of the components of biological diversity.
- Recognize that unrealistically high standards frustrate and undermine adoption of practices that will promote sustainability; better to set realistic standards that positively reinforce wise practices and promote capacity development.
- Appreciate that small steps in improving management may result in greater improvements in sustainability of biological diversity uses.
- Improve the monitoring and assessment of the stocks, yields, and uses of the components of biological diversity.
- Ensure acquisition and communication of timely and reliable information on resource management.
- Use sound science in combination with local and indigenous knowledge in developing and implementing sustainable use activities.
- Integrate scholarship on use of timber and non-timber resources in the forestry education curricula.
- Improve education at all levels around issues of the sustainable use of components of biological diversity.
- Take whatever measures appropriate to capture as much added value from the use of biological diversity as possible.

Overall:

In general, there is need to:

- Adopt and apply the principles for the sustainable use of the components of biological diversity.
- Audit and review national policies on land use, trade and development to determine impacts on sustainable use of biological diversity.

## ANNEX III

**RECOMMENDATIONS**

## 1. The Participants in the Workshop recommended that:

- a) the Subsidiary Body on Scientific, Technical and Technological Advice of the Convention implement a process to develop criteria and indicators to monitor changes in biological diversity in communities or ecosystems. This process should consult, strengthen and fully coordinate with other ongoing processes such as those to develop and implement criteria and indicators for sustainable forest management;
- b) the Secretariat of the Convention on Biological Diversity collect further comments from the participants of the Hanoi Workshop on the rationale and guidance for the guiding principles and the suggestions for implementation contained in Annex II, through an e-mail round ([hanoi@biodiv.org](mailto:hanoi@biodiv.org)). Comments collected will be made available to the next workshop on sustainable use to be held in Ecuador.
- c) the Secretariat consider developing a process to elaborate the working definitions and measurement parameters (e.g. decline, sustainability, scale of use, temporal scale) of sustainable use of the components of biological diversity (subject to available funding);
- d) the Ecuador workshop to look at principles of sustainable use in a Latin America/marine biodiversity and freshwater fisheries perspectives, taking into account of threats to the sustainable use of biological diversity from habitat loss, disease, veterinary and phytosanitary control measures, invasive and alien species;
- e) guidelines and other instruments regarding sustainable use practices, principles, or measures that are relevant to the next workshop are available to the participants in advance of the workshop.

