

Annex II

ADDIS ABABA PRINCIPLES AND GUIDELINES FOR THE SUSTAINABLE USE OF BIODIVERSITY

1. The Addis Ababa Principles and Guidelines for the Sustainable use of Biodiversity consist of fourteen interdependent practical principles, operational guidelines and a few instruments for their implementation that govern the uses of components of biodiversity to ensure the sustainability of such uses. The principles provide a framework for advising Governments, resource managers, indigenous and local communities, the private sector and other stakeholders about how they can ensure that their use of the components of biodiversity will not lead to the long-term decline of biological diversity. The principles are intended to be of general relevance, although not all principles will apply equally to all situations, nor will they apply with equal rigour. Their application will vary according to the biodiversity being used, the conditions under which they are being used, and the institutional and cultural context in which the use is taking place.

2. Sustainable use is a valuable tool to promote conservation of biological diversity, since in many instances it provides incentives for conservation and restoration because of the social, cultural and economic benefits that people derive from that use. In turn, sustainable use cannot be achieved without effective conservation measures. In this context, and as recognized in the Plan of Implementation of the World Summit on Sustainable Development, sustainable use is an effective tool to combat poverty, and, consequently, to achieve sustainable development.

3. Agricultural biodiversity was not fully addressed in the process leading up to the development of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity and there is a need for their further elaboration specifically with respect to domesticated species, breeds and varieties in the context of the programme of work on agricultural biodiversity.

4. The practical principles in most instances apply to both consumptive and non-consumptive uses of biodiversity components. They take into account requirements related to: (i) policies, laws, and regulations; (ii) management of biological diversity; (iii) socio-economic conditions; and (iv) information, research and education.

5. It is a fundamental assumption that the application of the practical principles and operational guidelines is set within the context of the ecosystem approach (decision V/6 of the Conference of the Parties). For the practical principles, footnotes provide cross references to the relevant principle(s) of the ecosystem approach.

6. Progress towards sustainability will require the political will to bring about changes to create the necessary enabling environment at all levels of government and society. The operational guidelines are intended to provide functional advice on the implementation of the principles. These guidelines have been developed taking into account regional and thematic differences and best practices and lessons learned that have been documented in case-studies on the sustainable use of biological diversity in different biomes as well as existing codes of conduct.

7. The operationalization of the principles will require an enabling institutional, legal and administrative structure at all levels of government and society within each Party. Further, to be effective, policies and regulations that are adopted should ensure that the application of the principles is flexible and adaptable to different local realities and adjustable to specific ecosystems. In this context, seven underlying conditions should be taken into account as a framework for the correct implementation of the principles and guidelines, as listed in section A below.

A. Underlying conditions for sustainable use

8. In structuring a sustainable use programme and the attendant policies, laws and regulations to implement such a programme, there are a few underlying conditions that should be taken into account in government and natural resource management planning:

(a) It is possible to use biodiversity components in a manner in which ecological processes, species and genetic variability remain above thresholds needed for long-term viability, and thus all resource managers and users have the responsibility to ensure that use does not exceed these capacities. It is crucial that the biodiversity in ecosystems is maintained, or in some cases recovered, to ensure that those ecosystems are capable to sustain the ecological services on which both biodiversity and people depend;

(b) Ecosystems, ecological processes within them, species variability and genetic variation change over time whether or not they are used. Therefore, governments, resource managers and users should take into account the need to accommodate change, including stochastic events that may adversely affect biodiversity and influence the sustainability of a use;

(c) In circumstances where the risk of converting natural landscapes to other purposes is high, encouraging sustainable use can provide incentives to maintain habitats and ecosystems, the species within them, and the genetic variability of the species. Also, for particular species, such as crocodiles, sustainable use has provided substantial incentives for conserving a dangerous animal that represents a threat to humans;

(d) The basic necessities of life, such as food, shelter, freshwater and clean air are produced either directly or indirectly from using biological diversity. In addition, biodiversity provides many direct benefits and ecosystem services necessary for life. In many countries, there is complete or substantial dependence on harvested plants and animals by millions of people, often among the poorest, for their livelihoods. Increasingly other uses such as pharmaceuticals for disease prevention and cure are becoming evident and are also met from using biological diversity. Finally, indigenous and local communities and their cultures often depend directly on the uses of biological diversity for their livelihoods. In all of these instances, governments should have adequate policies and capacities in place to ensure that such uses are sustainable;

(e) The supply of biological products and ecological services available for use is limited by intrinsic biological characteristics of both species and ecosystems, including productivity, resilience, and stability. Biological systems, which are dependent on cycling of finite resources, have limits on the goods they can provide and services they can render. Although certain limits can be extended to some degree through technological breakthroughs, there are still limits, and constraints, imposed by the availability and accessibility of endogenous and exogenous resources;

(f) To ameliorate any potential negative long-term effects of uses it is incumbent on all resource users, to apply precaution in their management decisions and to opt for sustainable use management strategies and policies that favour uses that provide increased sustainable benefits while not adversely affecting biodiversity. Likewise, Governments should be certain that licensed or authorized sustainable uses of biological diversity are taking such precaution in their management;

(g) In considering individual guidelines provided below, it is necessary to refer to and apply the provisions of Article 8(j), Article 10(c) and other related provisions and their development in relevant decisions of the Conference of the Parties in all matters that relate to indigenous and local communities.

B. Practical principles, rationale and operational guidelines for the sustainable use of biodiversity

9. Sustainability of use of biodiversity components will be enhanced if the following practical principles and related operational guidelines are applied:

Practical principle 1: Supportive policies, laws, and institutions are in place at all levels of governance and there are effective linkages between these levels.

Rationale: There is need to have congruence in policies and laws at all levels of governance associated with a particular use. For example, when an

- Review existing regulations to see if they can be used for delegating rights; amend regulations where needed and possible; and/or draft new regulations where needed. Throughout local customs and traditions (including customary law where recognized) should be considered;
- Refer to the programme of work related to the implementation of Article 8(j) with regard to indigenous and local community issues (decision V/16), implement and integrate tasks relevant for the sustainable use of biodiversity components, in particular element 3, tasks 6, 13 and 14;
- Provide training and extension services to enhance the capacity of people to enter into effective decision-making arrangements as well as in implementation of sustainable use methods;
- Protect and encourage customary use of biological resources that is sustainable, in accordance with traditional and cultural practices (Article 10(c)).

Practical principle 3: International, national policies, laws and regulations that distort markets which contribute to habitat degradation or otherwise generate perverse incentives that undermine conservation and sustainable use of biodiversity, should be identified and removed or mitigated. 4

Rationale: Some policies or practices induce unsustainable behaviours that reduce biodiversity, often as unanticipated side effects as they were initially designed to attain other objectives. For example, some policies that encourage domestic over production often generate perverse incentives that undermine the conservation and sustainable use of biological diversity. Eliminating subsidies that contribute to illegal, unreported and unregulated fishing and to over-capacity, as required by the WSSD Plan of Implementation in order to achieve sustainable fisheries, is a further instance of the recognition of the need to remove perverse incentives.

Operational guidelines

- Identify economic mechanisms, including incentive systems and subsidies at international, national levels that are having a negative impact on the potential sustainability of uses of biological diversity;
- Remove those systems leading to market distortions that result in unsustainable uses of biodiversity components;
- Avoid unnecessary and inadequate regulations of uses of biological diversity because they can increase costs, foreclose opportunities, and encourage unregulated uses thus decreasing the sustainability of the use.

4/ See principle 4 of the ecosystem approach.

Practical principle 4: *Adaptive management should be practiced, based on:*

- (a) *Science and traditional and local knowledge;*
- (b) *Iterative, timely and transparent feedback derived from monitoring the use, environmental, socio-economic impacts, and the status of the resource being used; and*
- (c) *Adjusting management based on timely feedback from the monitoring procedures.* 5/

Rationale:

Biological systems and the economic and social factors that can affect the sustainability of use of biological diversity are highly variable. It is not possible to have knowledge of all aspects of such systems before a use of biological diversity begins. Therefore, it is necessary for the management to monitor the effects of that use and allow adjustment of the use as appropriate, including modification, and if necessary suspension of unsustainable practices. In this context, it is preferable to use all sources of information about a resource when deciding how it can be used. In many societies traditional and local knowledge has led to much use of biological diversity being sustainable over long time-periods without detriment to the environment or the resource. Incorporation of such knowledge into modern use systems can do much to avoid inappropriate use and enhance sustainable use of components of biodiversity.

Operational guidelines

- Ensure that for particular uses adaptive management schemes are in place;
- Require adaptive management plans to incorporate systems to generate sustainable revenue, where the benefits go to indigenous and local communities and local stakeholders to support successful implementation;
- Provide extension assistance in setting up and maintaining monitoring and feedback systems;
- Include clear descriptions of their adaptive management system, which includes means to assess uncertainties;
- Respond quickly to unsustainable practices;
- Design monitoring system on a temporal scale sufficient to ensure that information about the status of the resource and ecosystem is available to inform management decisions to ensure that the resource is conserved;
- When using traditional and local knowledge, ensure that approval of the holder of that knowledge has been obtained.

Practical principle 5: *Sustainable use management goals and practices should avoid or minimize adverse impacts on ecosystem services, structure and functions as well as other components of ecosystems.* 6/

Rationale:

For use of any resource there is a need to take into account the functions that resource may fulfil within the ecosystem in which it occurs, and that use must not adversely affect ecosystem functions. For example, clear felling in a

5/ See principles 9 and 11 of the ecosystem approach.

6/ See principles 3, 5 and 6 of the ecosystem approach.

watershed could lead to erosion of soil and impairment of the water filtration function of the ecosystem. Avoidance of this situation would involve setting conservative cutting quotas with appropriate harvesting techniques and monitoring the effects of the harvest as it occurs. As another example, the shrimping industry has developed nets that can separate out juveniles and by-catch and also reduce negative effects on benthic and other associated communities.

Operational guidelines

- Ensure management practices do not impair the capacity of ecosystems to deliver goods and services that may be needed some distance from the site of use. For example, selective cutting of timber in a watershed would help maintain the ecosystem's capacity to prevent soil erosion and provide clean water;
- Ensure that consumptive and non-consumptive use does not impair the long-term sustainability of that use by negatively impacting the ecosystem and species on which the use depends, paying special attention to the needs of threatened components of biological diversity;
- Apply a precautionary approach in management decisions in accordance with principle 15 of the Rio Declaration on Environment and Development;
- Identify successful experiences of management of biodiversity components in other countries in order to adapt and incorporate this knowledge in their efforts to resolve their own difficulties;
- Where possible consider the aggregate and cumulative impact of activities on the target species or ecosystem in management decisions related to that species or ecosystem;
- Where previous impacts have degraded and reduced biodiversity, support formulation and implementation of remedial action plans (Article 10(d)).

Practical principle 6: Interdisciplinary research into all aspects of the use and conservation of biological diversity should be promoted and supported.

Rationale:

International conventions and national decisions that affect use should always apply the best information on which to base decisions and be aware of the local circumstances where a use is undertaken. In addition, there is need to ensure that research is supported into the biological and ecological requirements of the species to ensure that the use remains within the capacity of the species and ecosystem to sustain that use. Further, to enhance incentives that promote sustainability, there would be value in investing in research to open up new economic opportunities for stakeholders.

Operational guidelines

- Ensure that the results of research inform and guide international, national policies and decisions;
- Invest in research into techniques and technologies of management of biodiversity components that promote sustainability in both consumptive and non-consumptive uses of biodiversity;
- Encourage active collaboration between scientific researchers and people with local and traditional knowledge;
- Encourage international support and technology transfer, relating to both consumptive and non-consumptive uses of biodiversity;
- Develop cooperation between researchers and biodiversity users (private or local communities), in particular, involve indigenous and local communities as research partners and use their expertise to assess management methods and technologies;

- Investigate and develop effective ways to improve environmental education and awareness, to encourage public participation and to stimulate the involvement of stakeholders in biodiversity management and sustainable use of resources;
- Investigate and develop means of ensuring rights of access and methods for helping to ensure that the benefits derived from using components of biodiversity are equitably shared;
- Make research results available in a form which decision makers, users, and other stakeholders can apply;
- Promote exchange programmes in scientific and technical areas.

Practical principle 7: The spatial and temporal scale of management should be compatible with the ecological and socio-economic scales of the use and its impact. 7/

Rationale: Management of sustainable use activities should be scaled to the ecological and socio-economic needs of the use. If, for example, fish are harvested from a lake, the owner of the lake should be in charge of, and accountable for, the management of the lake subject to national or, as appropriate, subnational policy and legislation

Operational guidelines

- Link responsibility and accountability to the spatial and temporal scale of use;
- Define the management objectives for the resource being used;
- Enable full public participation in preparation of management plans to best ensure ecological and socio-economic sustainability.
- In case of transboundary resources, it is advisable that appropriate representation from those states participate in the management and decisions about the resources.

Practical principle 8: There should be arrangements for international cooperation where multinational decision-making and coordination are needed.

Rationale: If a biodiversity resource is transboundary between two or more countries then it is advisable to have a bilateral or multilateral agreement between those states to determine how the resource will be used and in what amounts. Absence of such agreements can lead to each state implementing separate management regimes which, when taken together, may mean that the resource is over-utilized.

Operational guidelines

- Make arrangements for international cooperation when the distribution of populations or communities/habitats being used span two or more nations;
- Promote multinational technical committees to prepare recommendations for the sustainable use of transboundary resources;
- Have bilateral or multilateral agreements between or among the States for the sustainable use of transboundary resources;
- Establish mechanisms involving the collaborating states to ensure that sustainable use of transboundary resources does not negatively impact the ecosystem capacity and resilience.

7/ See principles 2 and 7 of the ecosystem approach.

Practical principle 9: *An interdisciplinary, participatory approach should be applied at the appropriate levels of management and governance related to the use.*

Rationale: Sustainability of use depends on biological parameters of the resources being utilized. However, it is recognized that social, cultural, political and economic factors are equally important. It is therefore necessary to take such factors into consideration and involve indigenous and local communities and stakeholders, including and the private sector, and the people experienced in these different fields, at all levels of the decision making process.

Operational guidelines

- Consider providing mechanisms that encourage interdisciplinary cooperation in management of biodiversity components;
- Set standards for resource management activities that promote interdisciplinary consultations;
- Facilitate communication and exchange of information between all levels of decision-making;
- Identify all relevant stakeholders and seek their participation in planning and executing of management activities;
- Take account of socio-economic, political, biological, ecological, institutional, religious and cultural factors that could influence the sustainability of the management;
- Seek guidance from local, traditional and technical specialists in designing the management plan;
- Provide adequate channels of negotiations so that potential conflicts arising from the participatory involvement of all people can be quickly and satisfactorily resolved.

Practical principle 10: *International, national policies should take into account:*

- (a) *Current and potential values derived from the use of biological diversity;*
- (b) *Intrinsic and other non-economic values of biological diversity and*
- (c) *Market forces affecting the values and use.*

Rationale: Recent work in calculating the potential costs of replacing natural systems with man-made alternatives has shown that such natural systems should be valued very highly. It follows that international and national policies that guide trade and development should compare the real value of natural systems against any intended replacement uses before such development is undertaken. For instance, mangroves have the function of fish-spawning and nursery sites, erosion and storm-surge alleviation and carbon sequestration. Coral reefs provide protection for juvenile fish and many species, as well as coastal zone protection.

Operational guidelines

- Promote economic valuation studies of the environmental services of natural ecosystems;
- Incorporate this information in policy and decision making processes, as well as educational applications;
- Consider this principle in relation to land use/habitat conversion tradeoffs. Recognize that market forces are not always sufficient to improve living conditions or increase sustainability in the use of components of biological diversity;
- Encourage governments to take into account biodiversity values in their national accounts;

- Encourage and facilitate capacity building for decision makers about concepts related to economic valuation of biodiversity.

Practical principle 11: Users of biodiversity components should seek to minimize waste and adverse environmental impact and optimize benefits from uses.

Rationale: Users should seek to optimize management and to improve selectivity of extractive uses through environmentally friendly techniques, so that waste and environmental impacts are minimized, and socio-economic and ecological benefits from uses are optimized.

Operational guidelines:

- Eliminate perverse incentives and provide economic incentives for resource managers to invest in development and/or use of more environmentally friendly techniques, e.g., tax exemptions, funds available for productive practices, lower loan interest rates, certification for accessing new markets;
- Establish technical cooperation mechanisms in order to guarantee the transfer of improved technologies to communities;
- Endeavour to have an independent review of harvests to ensure that greater efficiencies in harvest or other extractive uses do not have a deleterious impact on the status of the resource being used or its ecosystem;
- Identify inefficiencies and costs in current methods;
- Conduct research and development into improved methods;
- Promote or encourage establishment of agreed industry and third party quality standards of biodiversity component processing and management at the international and national levels;
- Promote more efficient, ethical and humane use of components of biodiversity, within local and national contexts, and reduce collateral damage to biodiversity.

Practical principle 12: The needs of indigenous and local communities who live with and are affected by the use and conservation of biological diversity, along with their contributions to its conservation and sustainable use, should be reflected in the equitable distribution of the benefits from the use of those resources.

Rationale: Indigenous and local communities and local stakeholders often shoulder significant costs or forgo benefits of potential use of biological diversity, in order to ensure or enhance benefits accruing to others. Many resources (e.g., timber, fisheries) are over-exploited because regulations are ignored and not enforced. When local people are involved as stakeholders such violations are generally reduced. Management regimes are enhanced when constructive programmes that benefit local communities are implemented, such as capacity training that can provide income alternatives, or assistance in diversifying their management capacities.

Operational guidelines:

- Promote economic incentives that will guarantee additional benefits to indigenous and local communities and stakeholders who are involved in the management of any biodiversity components, e.g., job opportunities for local peoples, equal distribution of returns amongst locals and outside investors/co-management;
- Adopt policies and regulations that ensure that indigenous and local communities and local stakeholders who are engaged in the management of a resource for sustainable use receive an equitable share of any benefits derived from that use;

- Ensure that national policies and regulation for sustainable use recognize and account for non-monetary values of natural resources;
- Consider ways to bring uncontrolled use of biological resources into a legal and sustainable use framework, including promoting alternative non-consumptive uses of these resources;
- Ensure that an equitable share of the benefits remain with the local people in those cases where foreign investment is involved;
- Involve local stakeholders, including indigenous and local communities, in the management of any natural resource and provide those involved with equitable compensation for their efforts, taking into account monetary and non-monetary benefits;
- In the event that management dictates a reduction in harvest levels, to the extent practicable assistance should be provided for local stakeholders, including indigenous and local communities, who are directly dependent on the resource to have access to alternatives.

Practical principle 13: The costs of management and conservation of biological diversity should be internalized within the area of management and reflected in the distribution of the benefits from the use. 8/

Rationale: The management and conservation of natural resources incurs costs. If these costs are not adequately covered then management will decline and the amount and value of the natural resources may also decline. It is necessary to ensure that some of the benefits from use flow to the local natural resource management authorities so that essential management to sustain the resources is maintained. Such benefits may be direct, such as entrance fees from visitors to a national park paid directly to, and retained by, the park management authority or indirect, such as stumpage tax revenue from timber harvesting paid by loggers that flows through a national treasury to a local forest service. In some cases licence fees for fishing rights are paid directly to the management authority, or to the national treasury.

Operational guidelines

- Ensure that national policies do not provide subsidies that mask true costs of management;
- Ensure that harvest levels and quotas are set according to information provided by the monitoring system, not the economic needs of the management system;
- Provide guidelines for resource managers to calculate and report the real cost of management in their business plans;
- Create other alternative mechanisms to invest revenues from biodiversity management;
- Provide economic incentives for managers who have already internalized environmental costs, e.g., certification to access new markets, waiver or deferral of taxes in lieu of environmental investment, promotion of “green-labelling” for marketing.

8/ See the operational guidance for the application of the ecosystem approach (decision V/6, annex, section C, para. 11).

Practical principle 14: Education and public awareness programmes on conservation and sustainable use should be implemented and more effective methods of communications should be developed between and among stakeholders and managers.

Rationale: To ensure that people are aware of the connectivity between different parts of biological diversity, its relevance to human life, and the effects of uses it is advisable to provide means to engage people in education and awareness of the opportunities and constraints of sustainable use. It is also important to educate people on the relationship of sustainable use and the other two objectives of the Convention. An important way to achieve sustainable use of biological diversity would be to have in place effective means for communications between all stakeholders. Such communications will also facilitate availability of the best (and new) information about the resource.

Operational guidelines

- Plan education and public-awareness activities concerning: management, values of sustainable use, changing consumptive patterns and the value of biodiversity in the lives of people;
- Ensure that public-awareness programmes also inform and guide decision makers;
- Target all levels of the chain of production and consumption with such communications;
- Report lessons learned about sustainable use activities to the clearing-house mechanism of the Convention on Biological Diversity;
- Encourage and facilitate communication of lessons learned and best practices to other nations;
- Ensure that resource users report to government on their activities in a manner that facilitates broader communications;
- Increase awareness of the contributions of knowledge, practices and innovations of indigenous and local communities for the sustainable use of biological diversity.