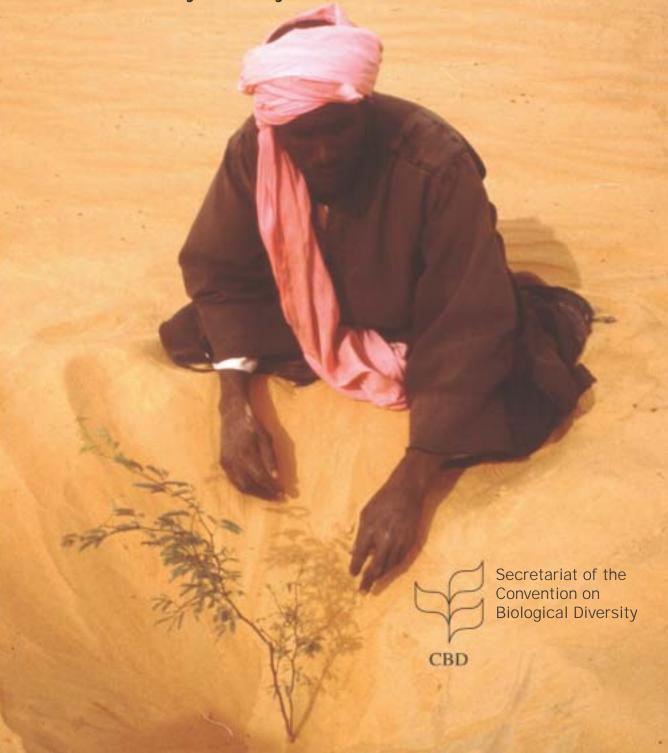
Programme of Work on the Biological Diversity of Dry and Sub-humid Lands



PROGRAMME OF WORK ON THE BIOLOGICAL DIVERSITY OF DRY AND SUB-HUMID LANDS



Published by the Secretariat of the Convention on Biological Diversity

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ISBN 92-9225-001-9

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Citation: Secretariat of the Convention on Biological Diversity (2004). Programme of Work on the Biological Diversity of Dry and Sub-Humid Lands, 14 p. (CBD Programmes of Work Series).

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The Secretariat gratefully acknowledges the financial assistance of the Government of the Netherlands for the publication of this Programme of Work.

Photo: FAO/12925/M. Roodkowsky

World Food Programme Multipurpose Project, Mali.

This publication is printed on recycled paper

Foreword

Biological diversity -- the variability among living things and the ecosystems that support them -- is the foundation upon which human civilizations have been built. Sustaining that biodiversity, in the face of considerable threats from human activities, constitutes one of the greatest challenges of the modern era. The importance of this challenge was universally acknowledged at the Earth Summit held in Rio de Janeiro in 1992. The Convention on Biological Diversity arose from this summit and entered into force in the next year. There are now 188 Parties to this international legally binding treaty, reflecting a virtually universal participation.

The objectives of the Convention 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. The Convention sets out broad commitments by Governments to take action at the national level for the conservation and sustainable use of biological diversity. Since its entry into force, the Parties have translated the Convention into a series of programmes of work. Each programme of work establishes a vision for, and basic principles to guide, future work, identifies goals, objectives and activities, determines potential outputs and suggests a timetable and means for achieving these outputs.

The programmes of work are adopted by the Conference of the Parties to the Convention on Biological Diversity, the Convention's governing body, which meets every two years. They represent far-reaching decisions, which are negotiated and agreed upon by consensus of all participating Parties. In preparation for the meetings of the Conference of the Parties, experts from all parts of the globe, including representatives from other United Nations bodies, intergovernmental and non-governmental organizations, indigenous and local communities and the private sector, contribute to drafting a text, which is subsequently discussed and amended by meetings of bodies mandated to provide recommendations to the Conference of the Parties. The programme of work on the biological diversity of dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems, in short "the biological diversity of dry and sub-humid lands", contained in this publication, was adopted by the fifth meeting of the Conference of the Parties to the Convention in 2000, after going through a process of multiple refinements.

The programme of work deals with biodiversity-related aspects, including conservation and sustainable use and assessments, in dry and sub-humid lands. It should be noted that biodiversity was prominent as one of the key issues during the preparation for the World Summit for Sustainable Development (WSSD), which highlighted water, energy, health, agriculture, and biodiversity (WEHAB) as key issues for sustainable development worldwide. In the context of the biodiversity of drylands, the WSSD Plan of Implementation contains provisions directly related to the conservation, sustainable use and management of dryland biodiversity resources in support of sustainable livelihood development, emphasizing the need for poverty alleviation. To ensure the conservation and sustainable use of the biological diversity of dry and sub-humid lands is therefore a global obligation.

Dry and sub-humid land ecosystems are significant repositories of the planet's terrestrial biodiversity critical to the livelihoods of people. The Convention has evolved into a comprehensive programme of work, which is now moving fully into a phase of implementation. The implementation of the programme of work on the biodiversity of dry and sub-humid lands is expected to contribute to the 2010 target of achieving a significant reduction in the current rate of biodiversity loss. This involves a greater emphasis on practical results, such as the identification and pursuit of outcome-oriented targets for achieving by 2010 a significant reduction in the current rate of loss of biological diversity at the global, regional and national levels as a contribution to sustainable development, poverty eradication and the Millennium Development Goals.

The programme of work on the biological diversity of dry and sub-humid lands provides a framework for action to achieve the goals of the Convention. I therefore urge you to use this document and to bring it to the attention of your colleagues and collaborators. Please also share with us your experiences and any suggestions you may have to improve our collective efforts.

Hamdallah Zedan Executive Secretary

Introduction

All life requires water. On land the abundance and diversity of life as well as the kinds of life forms that exist in any given area are influenced by the amount of available moisture and the temperature. Some 60% of the world's land surface may be considered as arid to some degree. In such areas shortage of available liquid water is a major constraint on living systems. Although some dry and sub-humid lands ecosystems may contain relatively low levels of biodiversity, the levels may be crucial to maintain ecosystem functions, productivity and livelihood security.

Drylands are home to over 2 billion people and their ecosystems, which occupy more than 40% of the Earth's terrestrial surface area, are under severe risk of desertification/land degradation. It has been estimated that about 70% of the total dryland areas worldwide are affected by desertification. Although such statistics can only be indicative, a link between poverty and dryland ecosystems is apparent. More than 35% of the world's population lives in these areas and depend directly on drylands natural resources biodiversity for their daily livelihoods. In such areas, the sustainable use of biological diversity resources can potentially contribute to sustainable livelihoods.

The programme of work on the biological diversity of dryland, Mediterranean, arid, semi-arid, grassland and savannah ecosystems, in short "the biological diversity of dry and sub-humid lands", adopted by the fifth meeting of the Conference of the Parties (COP-5) of the Convention on Biological Diversity (CBD) in 2000, responds to identified needs, including the need to combat desertification and the impacts of land degradation on biodiversity. It addresses the many interrelationships between desertification/land degradation and biological diversity loss, and the conservation and sustainable use of biological diversity. In addition, the potential effects of biodiversity loss on poverty are being studied and addressed.

This programme of work seeks to fill gaps in the knowledge base by assessing the status of, and threats to, biodiversity in dry and sub-humid lands. It supports best management practices through targeted actions in response to identified needs. It further aims to promote synergies and coordination between related conventions, in particular the United Nations Convention to Combat Desertification (UNCCD). The outcomes of the programme of work facilitate the implementation of the Convention on Biological Diversity and the United Nations Convention to Combat Desertification. Both conventions support sustainable development agendas together with environmental concerns, and are implemented at local, national, regional and global levels.

Although dry and sub-humid lands may contain relatively low levels of biodiversity, the levels may be crucial to maintain ecosystem functions, productivity, and livelihood security. The fifth meeting of the Conference of the Parties called particular attention to the loss of biodiversity resources in such areas and acknowledged the importance of implementing the Convention on Biological Diversity in a sustainable development context. Four years later, at the seventh meeting of the Conference of the Parties, held in February 2004, further details of the work programme and its implementation were adopted in decision VII/2, including a synthesis table which identifies activities,

expected outcomes and timeframes, potential actors, and indicators of progress in its implementation. Parties are the key actors on most of these activities and should integrate the components of the programme of work into their national and operational strategies such as the national biodiversity strategies and action plans (NBSAP) under the Convention on Biological Diversity and also national action programmes (NAP) under the United Nations Convention to Combat Desertification and other relevant policy frameworks.

The programme of work has two parts: (A) assessments; and (B) targeted actions. These two components are to be implemented in parallel. Knowledge gained through the assessments will help guide the responses needed, while lessons learned from activities will feed back into the assessment.

The Conference of the Parties has recognized that most aspects of the nine main activities in the programme of work will be implemented by Parties, with support from other organizations and collaborating partners. Ways and means of implementing part A will include the consolidation of information from various ongoing sources, targeted research, and multidisciplinary and interdisciplinary case studies on management practices. The implementation of part B will primarily be achieved through capacity building especially on the local and national levels, establishment of an international network of demonstration sites, case studies on successful management of dry and sub-humid lands, improved consultation and information sharing, enhanced interactions between activities from the Convention on Biological Diversity and the United Nations Convention to Combat Desertification, and partnerships between all stakeholders.

In the context of the programme of work on the biological diversity of dry and sub-humid lands, reports, case studies, and best practices derived from the implementation of the various activities at local, national, regional, and global levels should be fed-back to the Conference of the Parties to guide its further development. The continuous development and shaping of global environmental agreements, such as the Convention on Biological Diversity, should ultimately be driven by the lessons learned and the specific requirements of the implementing Parties. In this context it is important to note that the programme of work on dry and sub-humid lands biodiversity will be reviewed in-depth at the eighth meeting of the Conference of the Parties in the year 2006. The next round of national reports on the implementation of the Convention are to be considered at the same meeting and will include a detailed review section on the biodiversity of dry and sub-humid lands. Underpinning the Parties commitment to significantly reduce biodiversity loss by the year 2010, important conservation targets are being developed under the programme of work, which will need to be achieved by 2010.

The present publication is part of a series of CBD publications on the programmes of work of the Convention and is intended to raise awareness and communicate the work programme to a wider audience and thereby stimulate the necessary actions.

PROGRAMME OF WORK ON THE BIOLOGICAL DIVERSITY OF DRY AND SUB-HUMID LANDS

I. INTRODUCTION

- 1. The overall aim of the programme of work is to promote the three objectives of the Convention in dry and sub-humid lands. ¹
- 2. The elaboration and implementation of the programme of work should:
 - (a) Build upon existing knowledge and ongoing activities and management practices, and promote a concerted response to fill knowledge gaps while supporting best management practices through partnership among countries and institutions;
 - (b) Ensure harmony with the other relevant thematic programmes of work under the Convention on Biological Diversity, as well as the work on cross-cutting issues;
 - (c) Promote synergy and coordination, and avoid unnecessary duplication, between related conventions, particularly the United Nations Convention to Combat Desertification, and the programmes of various international organizations, while respecting the mandates and existing programmes of work of each organization and the intergovernmental authority of the respective governing bodies;
 - (d) Promote effective stakeholder participation, including the identification of priorities, in planning, in research and in monitoring and evaluating research:
 - (e) Respond to national priorities through the implementation of specific activities in a flexible and demand-driven manner;
 - (f) Support the development of national strategies and programmes and promote the integration of biological-diversity concerns in sectoral and cross-sectoral plans, programmes and policies, in furtherance of Article 6 of the Convention on Biological Diversity, in seeking harmonization and avoiding duplication when undertaking activities relevant to other related conventions, in particular the United Nations Convention to Combat Desertification.
- 3. The elaboration and implementation of the programme of work should aim at applying the ecosystem approach adopted under the Convention on Biological Diversity. Implementation of the programme of work will also build upon the knowledge, innovations and practices of indigenous and local communities consistent with Article 8(j) of the Convention.

II. PROGRAMME OF WORK

4. The programme of work is divided in two parts, "Assessments" and "Targeted actions in response to identified needs", to be implemented in parallel. Knowledge gained through the assessments will help guide the responses needed, while lessons learned from activities will feed back into the assessments.

Part A: Assessments

Operational objective

5. To assemble and analyse information on the state of the biological diversity of dry and sub-humid lands and the pressures on it, to disseminate existing knowledge and best practices, and to fill knowledge gaps, in order to determine adequate activities.

Rationale

6. Ecosystems of dry and sub-humid lands tend to be naturally highly dynamic systems. Assessment of the status and trends of the biological diversity of dry and sub-humid lands is therefore particularly challenging. A better understanding of the biological diversity of dry and sub-humid lands, their dynamics, their socio-economic value and the consequences of their loss and change is needed. This also includes the merits of short-term adaptive management practices compared with long-term management planning. This should not, however, be seen as a prerequisite for targeted actions for the conservation and sustainable use of the biological diversity of dry and sub-humid lands. Indeed, lessons learned from practices, including indigenous and local community practices, contribute to the knowledge base. Since water constraints are a defining characteristic of dry and sub-humid lands, effective water management strategies underpin their successful management. This requires an appropriate balance between the immediate water requirements of humans, their livestock and crops, and water required to maintain biodiversity and ecosystem integrity.

Activities

Activity 1. Assessment of the status and trends of the biological diversity of dry and sub-humid lands, including landraces, and the effectiveness of conservation measures.

- Activity 2. Identification of specific areas within dry and sub-humid lands of particular value for biological diversity and/or under particular threat, such as, inter alia, endemic species and low lying wetlands, with reference to the criteria in Annex I to the Convention on Biological Diversity.
- Activity 3. Further development of indicators of the biological diversity of dry and sub-humid lands and its loss, for the various ecosystem types, for use in the assessment of status and trends of this biological diversity.
- Activity 4. Building knowledge on ecological, physical and social processes that affect the biological diversity of dry and subhumid lands, especially ecosystem structure and functioning (e.g., grazing, droughts, floods, fires, tourism, agricultural conversion or abandonment).
- Activity 5. Identification of the local and global benefits, including soil and water conservation, derived from the biological diversity of dry and sub-humid lands, assessment of the socio-economic impact of its loss, and the undertaking of studies on the interrelationship between biodiversity and poverty, including analysis of: (i) the benefits from biodiversity for poverty alleviation; and (ii) the impact of biodiversity conservation on the poorest.
- Activity 6. Identification and dissemination of best management practices, including knowledge, innovations and practices of indigenous and local communities that can be broadly applied, consistent with the programme of work under the Convention on Article 8(j) and related provisions.

Ways and means

- 7. The activities of part A are to be carried out through:
 - (a) Consolidation of information from various ongoing sources, including those under other international conventions, the Global Observing Systems, and other programmes. This process would draw upon ongoing work of these existing programmes, with additional catalytic activities, such as workshops, further use of the clearing-house mechanism under the Convention on Biological Diversity, and partnerships between organizations, including, where appropriate, joint

- activities of the secretariats of the Convention on Biological Diversity and of the Convention to Combat Desertification, drawing upon the elments contained in the note by the Executive Secretary on possible elements of a joint work programme between the two secretariats on the biological diversity of dry and sub-humid lands (UNEP/CBD/COP/5/INF/15) in determining priorities for these activities;
- (b) Targeted research, including existing programmes of international and national research centres and research systems and other relevant international or regional programmes, with additional funding for priority work needed to overcome barriers to the conservation and sustainable use of the biological diversity of dry and sub-humid lands;
- (c) Multidisciplinary and interdisciplinary case-studies on management practices, carried out primarily by national and regional institutions, including civil-society organizations and research institutions, with support from international organizations for catalysing the preparation of studies, mobilizing funds, disseminating results, and facilitating feedback and lessons learned to case-study providers and policy makers. New resources could be needed to promote such studies to analyse the results and to provide necessary capacity-building and human-resource development;
- (d) Dissemination of information and capacity-building required by assessment activities.

Part B: Targeted actions in response to identified needs

Operational objective

8. To promote the conservation of the biological diversity of dry and subhumid lands, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and subhumid lands and its socio-economic consequences.

Rationale

- 9. The activity needed to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands will depend on the state of the dry and sub-humid lands resources and the nature of the threats. Hence, a range of options needs to be considered, from sustainable use to *in situ* and *ex situ* conservation.
- 10. Many dry and sub-humid land resources must be managed at the level of watersheds, or at higher spatial levels, implying community or

inter-community, rather than individual, management. This is often further complicated by multiple user groups (e.g., agriculturalists, pastoralists and fisherfolk) and the migratory habits of some animal species and users of biological diversity. Institutions need to be developed or strengthened to provide for biological diversity management at the appropriate scale and for conflict resolution.

11. Sustainable use of biological diversity in dry and sub-humid lands may require the development of alternative livelihoods, and the creation of markets and other incentives to enable and promote responsible use.

Activities

- **Activity 7.** Promotion of specific measures for the conservation and sustainable use of the biological diversity of dry and subhumid lands, through, *inter alia*:
- (a) The use and the establishment of additional protected areas and the development of further specific measures for the conservation of the biological diversity of dry and sub-humid lands, including the strengthening of measures in existing protected areas; investments in the development and promotion of sustainable livelihoods, including alternative livelihoods; and conservation measures:
- (b) The rehabilitation or restoration of the biological diversity of degraded dry and sub-humid lands, with the associated benefits arising thereof, such as soil and water conservation;
- (c) The management of invasive alien species;
- (d) The sustainable management of dry and sub-humid land production systems;
- (e) The appropriate management and sustainable use of water resources;
- (f) Where necessary, the conservation *in situ* as well as *ex situ*, as a complement to the latter, of the biological diversity of dry and sub-humid-lands, taking due account of better understanding of climate variability in developing effective *in situ* biological conservation strategies;
- (g) The economic valuation of the biological diversity of dry and sub-humid lands, as well as the development and the use of economic instruments and the promotion of the introduction of adaptive technologies that enhance productivity of dry and sub-humid lands ecosystems;
- (h) The sustainable use or husbandry of plant and animal biomass, through adaptive management, bearing in mind the potential population fluctuation in dry and sub-humid lands, and the support by Parties of national policies, legislation and land-use practices, which promote effective biodiversity conservation and sustainable use;
- (i) The establishment and promotion of training, education and public awareness;

- The facilitation and improvement of the availability, the accessibility and exchange of information on sustainable use of the biological diversity of dry and sub-humid lands;
- (k) The establishment and promotion of research and development programmes with a focus on, *inter alia*, building local capacity for effective conservation and sustainable use of the biological diversity of dry and sub-humid lands;
- (l) Cooperation with the Ramsar Convention on Wetlands and the Convention on the Conservation of Migratory Species with regard to, *inter alia*, integrated catchment management incorporating wetlands ecosystems as. integral parts of dry and sub-humid lands, and the creation of migratory-species corridors across dry and sub-humid lands during seasonal periods, as well as with the Convention on International Trade in Endangered Species (CITES) with regard to rare and endangered species in dry and sub-humid lands;
- (m) Cooperation with all relevant conventions, in particular with the Convention to Combat Desertification with respect to, *inter alia*, the sustainable use of the biological diversity of dry and sub-humid lands, the application of the ecosystem approach, the assessment of the status and trends of this biological diversity as well as to its threats.
- **Activity 8.** Promotion of responsible resource management, at appropriate levels, applying the ecosystem approach, through an enabling policy environment, including, *inter alia*:
- (a) Strengthening of appropriate local institutional structures for resource management, supporting indigenous and local techniques of resource use that enable conservation and sustainable use in the long term, and/or combining appropriate existing institutions and techniques with innovative approaches to enable synergies;
- (b) Decentralization of management to the lowest level, as appropriate, keeping in mind the need for common resource management and with due consideration to, *inter alia*, involving indigenous and local communities in planning and managing projects;
- (c) Creating or strengthening appropriate institutions for land tenure and conflict resolution:
- (d) Encouraging bilateral and subregional cooperation to address transboundary issues (such as facilitating access to transboundary rangelands), as appropriate, and in accordance with national legislation and international agreements;
- (e) Harmonizing sectoral policies and instruments to promote the conservation and the sustainable use of biological diversity of dry and sub-humid lands, including by, *inter alia*, taking advantage of the

existing national action programmes under the Convention to Combat Desertification frameworks at the country level, as well as, as appropriate, other existing and relevant sectoral plans and policies.

Activity 9. Support for sustainable livelihoods through, *inter alia*:

- (a) Diversifying sources of income to reduce the negative pressures on the biological diversity of dry and sub-humid lands;
- (b) Promoting sustainable harvesting including of wildlife, as well as ranching, including game-ranching;
- (c) Exploring innovative sustainable uses of the biological diversity of dry and sub-humid lands for local income generation, and promoting their wider application;
- (d) Developing markets for products derived from the sustainable use of biological diversity in dry and sub-humid lands, adding value to harvested produce; and
- (e) Establishing mechanisms and frameworks for promoting fair and equitable sharing of the benefits arising out of the utilization of the genetic resources of dry and sub-humid lands, including bioprospecting.

Ways and means

The activities of part B to be carried out through:

- (a) Capacity-building, particularly at the national and local levels, as well as investments in the development and promotion of sustainable livelihoods, including alternative livelihoods, and conservation measures, through participatory and bottom-up processes, with funding from bilateral and multilateral sources, and catalytic support from international organizations;
- (b) Establishment of an international network of designated demonstration sites to facilitate the sharing of information and experience in implementing the programme of work, as well as to demonstrate and to promote conservation and sustainable use integration on the context of dry and sub-humid lands;
- (c) Case-studies on successful management of dry and sub-humid lands that could be disseminated through, *inter alia*, the clearing-house mechanism;
- (d) Improved consultation, coordination and information-sharing, including, *inter alia*, documentation on knowledge and practices of indigenous and local communities, within countries among respective focal points and lead institutions relevant to the implementation of the Convention to Combat Desertification, the Convention on Biological Diversity and other relevant global conventions and programmes,

- facilitated by the secretariats of the various conventions and other international organizations;
- (e) Enhanced interaction between the work programmes of the Convention on Biological Diversity and the Convention to Combat Desertification, through, *inter alia*, the regional networks and action plans of the latter, drawing upon the elements contained in the note by the Executive Secretary on possible elements of a joint work programme between the two secretariats on the biological diversity of dry and sub-humid lands (UNEP/CBD/COP/5/INF/15) in determining priorities for this interaction; and
- (f) Partnerships between all relevant stakeholders at all levels, including international organizations and programmes, as well as national and local partners, scientists and land users.

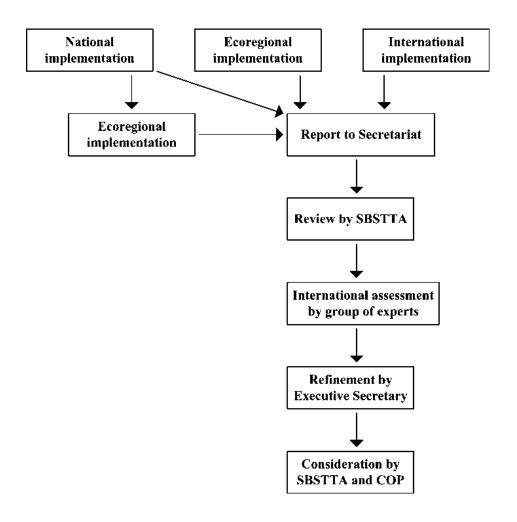
III. REPORTING FRAMEWORK

- 12. It is proposed that Parties and other bodies be requested to report on the implementation of the programme of work through, *inter alia*:
 - (a) Appropriate sections of the national reports on biological diversity prepared for the Conference of the Parties under Article 26 of the Convention on Biological Diversity; and/or
 - (b) Reports made in the context of the Convention to Combat Desertification and other relevant conventions, with due regard to, *inter alia*, promoting harmonization, avoiding duplication, and enhancing transparency.
- 13. The Subsidiary Body on Scientific, Technical and Technological Advice is to review such reports and make recommendation for the further prioritization and refinement of the programme of work at that time. Thereafter, the implementation of the programme is to be reviewed as determined by the Conference of the Parties.

INDICATIVE LIST OF LEVELS OF IMPLEMENTATION OF THE PROGRAMME OF WORK ON DRY AND SUB-HUMID LANDS

Activity	Level of implementation	Level of coordination
1	National	Ecoregional
2	National	Ecoregional
3	Ecoregional	
5	National, ecoregional, international	
6	Ecoregional	
7a	National, ecoregional	
7b	National	
7c	National, ecoregional	
7d	National	Ecoregional
7e	National, ecoregional	
7f	National, international	
7g	National	Ecoregional
7h	National	Ecoregional
7i	National	Ecoregional
7j	Ecoregional, international	
7k	National, ecoregional	
71	International	
7m	International	
8a	National	Ecoregional
8b	National	Ecoregional
8c	Ecoregional	
8d	National, ecoregional	
8e	National	Ecoregional
9a	National	Ecoregional
9b	National	Ecoregional
9c	National	Ecoregional
9d	National	Ecoregional
9e	National, international	

ILLUSTRATION OF THE PROCESS OUTLINED IN PARAGRAPHS 5, 6 and 7 OF DECISION V/23



Biodiversity - the variety of plant, animal and micro-organisms on Earth and the ecosystems they form - is essential for human well-being. Through the Convention on Biological Diversity, 188 Parties have agreed to conserve and sustainably use biological diversity and ensure the equitable sharing of benefits arising from the use of genetic resources.

Programmes of work establish the vision and basic principles that guide the implementation of the Convention. The results of far-reaching decisions adopted by the Conference of the Parties, these programmes of work have been developed on the basis of wide expertise and stakeholder involvement.

By publishing the programmes of work under the Convention on Biological Diversity, these important tools are being made available to a wide audience including international and regional organizations, indigenous and local communities, and non-governmental and civil society organizations.

More information on the programmes of work may be obtained from the <u>national focal points for the Convention or the Convention Secretariat.</u>

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