

CONTENTS

List of tables, maps and figures	IX	<i>Biodiversity of agricultural ecosystems</i>	107
Foreword	XI	<i>What is agricultural biodiversity?</i>	107
Executive Summary	1	<i>Where does agricultural biodiversity occur?</i>	107
		<i>The status of living agricultural resources</i>	111
Introduction	55	Impacts of global environmental problems on biological diversity	115
		<i>Climate change</i>	115
		Monitoring trends in biodiversity	117
Chapter 1: Status and Trends of Global Biodiversity		Chapter 2: The Convention on Biological Diversity	
Introduction	59	Introduction	119
<i>The Convention's approach to biodiversity</i>	59	<i>International environmental agreements</i>	119
<i>The extent and occurrence of global biodiversity</i>	60	<i>Making the connections</i>	119
Trends in genetic diversity	65	<i>Financial resources for global environmental protection</i>	120
<i>Declining genetic diversity</i>	66	<i>The negotiation of the Convention on Biological Diversity</i>	121
<i>Manipulating genetic diversity</i>	66	The objectives and approach of the convention	122
Trends in species diversity	70	Institutional structure of the convention	124
<i>Extinction</i>	70	<i>Cartagena Protocol on Biosafety</i>	126
<i>Threatened species</i>	73	The decision-making process	127
Trends in ecosystem diversity	77	Obligations on Parties to the Convention	129
<i>Biodiversity of marine and coastal ecosystems</i>	77	<i>Article 6: National strategies and plans</i>	129
<i>The major zones of the oceans</i>	77	<i>Article 7: Identification and monitoring of biodiversity</i>	130
<i>Major marine communities</i>	77	<i>Article 8: Conservation of biodiversity in situ</i>	131
<i>Major values and uses of marine and coastal ecosystems</i>	79	<i>Article 9: Conservation of biodiversity ex situ</i>	132
<i>Major impacts on marine and coastal ecosystems</i>	80	<i>Article 10: Sustainable use</i>	132
<i>Status and trends of species in marine and coastal ecosystems</i>	80	<i>Articles 11-14: Measures to promote conservation and sustainable use</i>	132
<i>Biodiversity of inland water ecosystems</i>	83	<i>Articles 15-21: Benefits</i>	133
<i>Major inland water systems</i>	84	Assessing implementation of the Convention	135
<i>Diversity in inland water ecosystems</i>	86	Cooperation	135
<i>Major values and uses of inland water ecosystems</i>	86		
<i>Major impacts on inland water ecosystems</i>	86	Chapter 3: The Operations of the Convention	
<i>Status and trends of species in inland waters</i>	89	Meetings of the Conference of the Parties and SBSTTA to date	137
<i>Biodiversity of forest ecosystems</i>	91	<i>The Subsidiary Body on Scientific, Technical and Technological</i>	
<i>Where are forests?</i>	91	<i>Advice (SBSTTA)</i>	140
<i>Major forest types</i>	91	<i>The form and content of decisions</i>	141
<i>Changes in forest cover</i>	94	<i>The ecosystem approach</i>	141
<i>Major values and uses of forests</i>	97	The major thematic areas covered by COP decisions	143
<i>Major impacts on forests</i>	97	<i>Marine and coastal biological diversity - the Jakarta Mandate</i>	143
<i>Status and trends of species in forests</i>	97	<i>Forest biological diversity</i>	144
<i>Biodiversity of dry and sub-humid land ecosystems</i>	99	<i>Agricultural biological diversity</i>	145
<i>Major types of dry and sub-humid lands</i>	100	<i>Biological diversity of inland waters</i>	146
<i>Major values and uses of drylands</i>	102	<i>Biological diversity of dry and sub-humid lands</i>	147
<i>Major impacts on drylands</i>	103		
<i>Status and trends in species in dry and sub-humid lands</i>	105		

<i>Mountain biological diversity</i>	147	Chapter 4: Review of Implementation of the Convention	
Cross-cutting issues covered by COP decisions	149	at the National Level	
<i>Identification, monitoring and assessment, and indicators including the Global Taxonomy Initiative</i>	149	Introduction	167
<i>Knowledge, innovations and practices of indigenous and local communities</i>	150	<i>Information on implementation</i>	167
<i>Alien species</i>	151	<i>First National Reports</i>	168
<i>Tourism</i>	151	<i>Reporting on the status of biological diversity and its conservation</i>	169
<i>Biodiversity and climate change</i>	152	Status of national biodiversity strategy and action planning	170
<i>Migratory species</i>	153	<i>Action to integrate conservation and sustainable use into other sectors</i>	173
<i>Incentive measures and economic valuation of biological diversity</i>	154	<i>Action to identify and monitor biological diversity and impacts upon it</i>	174
<i>Public education and awareness</i>	154	<i>Article 8(j) and related provisions</i>	176
<i>Impact assessment, liability and redress</i>	155	<i>Protected areas</i>	177
<i>Access to genetic resources</i>	155	<i>Sustainable use</i>	178
<i>Clearing-house mechanism</i>	156	<i>Incentive measures</i>	179
<i>National reporting</i>	157	<i>Environmental impact assessment</i>	179
Adoption of protocols	158	<i>Access and benefit sharing</i>	181
<i>Biosafety</i>	158	<i>Financial and human resources</i>	182
<i>Biosafety Clearing House</i>	159	<i>Mechanisms for sharing national experience</i>	183
<i>The relationship between the Protocol and the WTO</i>	160	<i>Implementation of policies and actions across international borders</i>	184
Financial arrangements and the financial mechanism	160	An in-depth case: agricultural biological diversity	185
<i>The financing of the Convention</i>	160	<i>Identification, monitoring and assessment</i>	185
<i>Financial resources</i>	161	<i>Research, best practices and technologies</i>	186
<i>The Global Environment Facility</i>	162	<i>Strategies, programmes and action plans</i>	187
<i>Additional financial resources</i>	164	<i>Policies and legislation</i>	188
<i>Annex to chapter 3</i>	164	Conclusion	189
<i>The conduct of meetings</i>	164	Chapter 5: Global Implementation of the Convention and Cooperation with other Conventions and Processes	
<i>Voting</i>	164	Introduction	191
<i>Regional coordination and representation</i>	165	Relevant international and regional agreements	192
<i>The Group of 77</i>	165	<i>Institutional mechanisms for cooperation</i>	193
<i>Small Island Developing States</i>	165	<i>The potential for harmonisation among biodiversity-related conventions</i>	193
		Relevant regional and global processes under the major articles of the Convention	194
		<i>Cooperation</i>	194
		<i>General measures for conservation and sustainable use</i>	195
		<i>Identification and monitoring</i>	197
		<i>In situ conservation</i>	198
		<i>Site-based approach</i>	198
		<i>Specis approach</i>	199
		<i>Restoration of degraded ecosystems</i>	203

<i>Alien species</i>	203	<i>Effective national reporting</i>	241
<i>Traditional knowledge</i>	204	<i>National level indicators of biodiversity</i>	241
<i>Ex situ conservation</i>	205	<i>Universal membership</i>	242
<i>Sustainable use of components of biological diversity</i>	207	Support for national action	242
<i>Tourism</i>	208	<i>Improving scientific assessment procedures</i>	242
<i>Incentive measures</i>	209	<i>Reforming multilateral and bilateral aid mechanisms</i>	243
<i>Research and training</i>	209	Operations of the Convention	244
<i>Public education and awareness</i>	210	<i>Improving institutional mechanisms</i>	244
<i>Impact assessment and minimising adverse impacts</i>	210	<i>Strategic planning</i>	244
<i>Access to genetic resources</i>	211	<i>Measuring and improving compliance</i>	245
<i>Access to and transfer of technology</i>	212	Cooperation and governance	246
<i>Exchange of information and technical and scientific cooperation</i>	212	<i>The World Summit on Sustainable Development</i>	248
<i>Biosafety Clearing House</i>	213	Annex 1: Biodiversity information by country	249
<i>Handling of biotechnology and distribution of its benefits</i>	213	Annex 2: Membership of Multilateral Environmental Agreements	253
<i>Financial resources</i>	214	Annex 3: GEF biodiversity projects	257
<i>National reporting</i>	215	Annex 4: Information sources and further reading	270
Thematic work programmes	215	Annex 5: Terminology, acronyms and abbreviations	272
<i>Marine and coastal biological diversity</i>	215	Index	279
<i>Inland water biological diversity</i>	216		
<i>Forest biological diversity</i>	217		
<i>Agricultural biological diversity</i>	219		
<i>Biological diversity of dry and sub-humid lands</i>	220		
Conclusion	221		
<i>Annex to chapter 5</i>	222		
Chapter 6: Outlook			
National action	237		
<i>Investing in public education and awareness</i>	237		
<i>Increasing stakeholder involvement in decision-making</i>	238		
<i>Completing and implementing national biodiversity strategies and action plans</i>	238		
<i>Improving sectoral and cross-sectoral integration</i>	239		
<i>Strengthening protected area networks</i>	239		
<i>Improving EIA legislation and procedures</i>	240		
<i>Strengthening the role of the national focal point</i>	240		
<i>Achieving policy coherence in national positions under different international instruments and processes</i>	240		
<i>Increasing information, training and capacity development</i>	240		

TABLES, FIGURES AND MAPS

Tables

Table 1.1	Estimated numbers of described species, and possible global total
Table 1.2	A selection of genetically modified living organisms
Table 1.3	Examples of human-induced antibiotic resistance in pathogenic bacteria
Table 1.4	Threatened and extinct species
Table 1.5	Some Critically Endangered marine species
Table 1.6	The world water resource
Table 1.7	Some Critically Endangered inland water animal species
Table 1.8	Global areas of 22 main forest types
Table 1.9	Estimated annual change in forest cover 1990-1995
Table 1.10	Some Critically Endangered forest species
Table 1.11	World dryland areas
Table 1.12	Some Critically Endangered dryland species
Table 1.13	Agricultural biodiversity: functional groups
Table 1.14	Agricultural land in relation to total world land cover
Table 1.15	Loss of crop plant genetic resources: examples at country level
Table 1.16	The global status of major plant and animal genetic resources for food
Table 3.1	Meetings of the Conference of the Parties
Table 3.2	Major themes of the Conference of the Parties
Table 3.3	Meetings of the Subsidiary Body on Scientific, Technical and Technological Advice
Table 3.4	The ecosystem approach
Table 3.5	Developed country Parties
Table 3.6	Small island developing States
Table 5.1	Global biodiversity-related conventions
Table 5.2	United Nations bodies and agencies relevant to implementation of the CBD
Table 5.3	Partners with memoranda of cooperation with the CBD
Table 5.4	Agreements and programmes related to trade and intellectual property rights
Table 5.5	The World Commission on Dams
Table 5.6	Forests under the Commission on Sustainable Development
Table 5.7	The Global Plan of Action for the Conservation and Sustainable Use of Plant Genetic Resources for Food and Agriculture

Figures

Figure 1.1	World area of land classed as "agricultural" 1961-1998
Figure 2.1	Institutions of the Convention

Maps

Map 1	Biodiversity at country level
Map 2	Selected regions of high biodiversity value
Map 3	Vertebrates extinct since 1600 AD
Map 4	Threatened birds at global and country level
Map 5	Threatened mammals at global and country level
Map 6	Coral reefs
Map 7	Marine fisheries catch
Map 8	Inland waters
Map 9	Freshwater fish biodiversity
Map 10	Freshwater fish food supply
Map 11	Present forest cover
Map 12	Present forest types
Map 13	Land cover in world drylands
Map 14	Land degradation in susceptible dryland
Map 15	Centres of crop plant diversification
Map 16	Food crop interdependence
Map 17	Livestock breeds
Map 18	Parties and signatories to the Convention on Biological Diversity
Map 19	Mountains of the world
Map 20	World protected areas
Map 21	Sites managed under international protected area agreements
Map 22	Protected areas in polar regions
Map 23	Parties and signatories to the Convention on Migratory Species
Map 24	Parties to the Convention on Wetlands
Map 25	Parties to the Desertification Convention
Map 26	Parties to the Climate Change Convention