
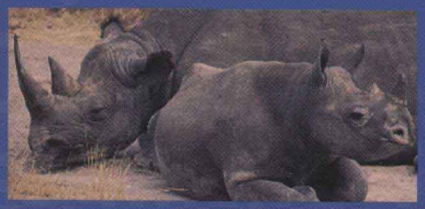
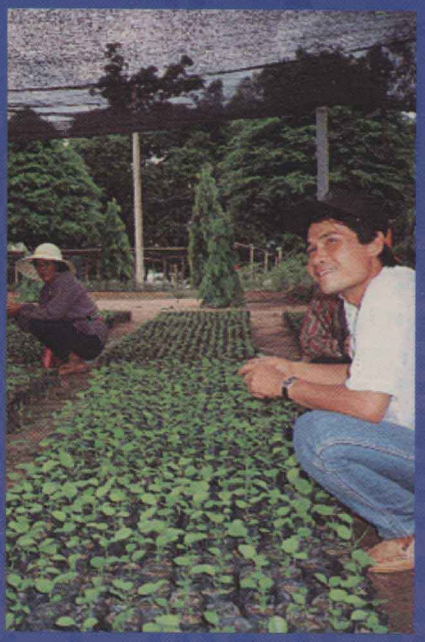



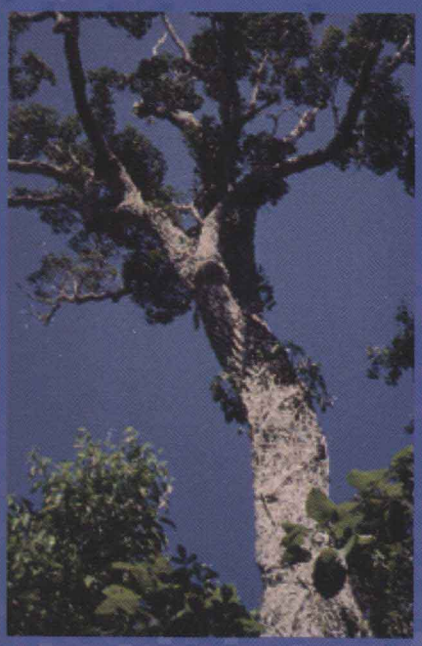


National Biodiversity Planning

Guidelines Based on Early Experiences Around the World

This report represents a timely, technical contribution to the efforts of countries around the world as they engage in the implementation of the Convention on Biological Diversity. Its sponsors take responsibility for choosing and focusing the study topics and guaranteeing its authors and researchers freedom of inquiry. The report's authors have also solicited and responded to the guidance of leaders and experts from countries currently working on this topic, and to peer review workshops and correspondence. The views of the authors expressed in this report do not necessarily reflect those of the United Nations Environment Programme (UNEP),The World Conservation Union IUCN), World Resources Institute (WRI), or the participating countries. Unless otherwise stated, all the interpretations and findings set forth here, and analyses of the national case studies, are the sole responsibility of the authors.

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Foreword

Awareness of the Earth's dwindling biotic wealth spread far and wide during the three years leading up to the 1992 Earth Summit in Rio de Janeiro. Once governments everywhere began recognizing how invaluable—and how endangered—biodiversity is, they embraced the idea that something had to be done to improve the ways we use biological resources to benefit both the generations now living and those to come.

This shared sense of urgency led 156 nations and the European Union to sign the legally binding Convention on Biological Diversity during the Rio conference.

Many others have signed since. As they ratify the convention, governments accept responsibility to safeguard and comprehend the profusion of species, genetic materials, habitats, and ecosystems that make up the natural world. They agree to foster development that uses biological resources sustainably. They agree to recognize each nation's sovereignty over the biodiversity found in its territory. What's more, they agree to correct the imbalance between who benefits from biodiversity protection and who pays—committing to find equitable ways to share biodiversity's monetary and non-monetary values, to spur technology cooperation, and to establish mechanisms to finance investments in maintaining the diversity of life on Earth.

The national biodiversity strategies and action plans called for in Article 6 are key vehicles for implementing the Convention. The process of preparing such plans can not only help each country articulate its own priorities for domestic actions and for international cooperation, it can also strengthen the capacity of its people and institutions to address the full array of Convention mandates.

As leaders of the three institutions that spearheaded this study, we are pleased to offer these guidelines and country profiles to governments, community leaders, nongovernmental organizations, indigenous groups, and leaders of business and industry—all of whom must play design and implementation roles if national strategies and action plans are to live up to their promise. The backbone of this independent analysis is the pioneering work carried out by eighteen countries—some developed, some developing, some in transition from centrally-planned to market economies, and some small island states—all of which freely shared their experiences with creating national strategies and action plans by writing case studies, talking with our researchers, and taking part in a peer review workshop.

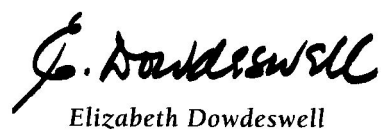
The paramount lesson learned so far is how crucial it is to engage everyone with a stake in the outcome in the preparation of national strategies

and action plans, so that "biodiversity planners" become "biodiversity implementors." Shaping policies and plans that are in both a nation's interest and nature's interest requires input from all sectors of government and society, just as carrying out such plans demands widespread cooperation.

Like all efforts to implement the biodiversity convention, these guidelines are necessarily preliminary. Such questions as how to prepare project proposals for financial support, ways to control access to genetic resources, and modes of technological cooperation still await decisions by the Convention's Conference of the Parties. Other practical aspects, such as how to weave biodiversity provisions throughout government policies, will remain experimental until there is widespread experience to learn from. Scientists and field practitioners are continually refining their techniques for assessing biotic resources. Thus, we anticipate that countries will adapt, test, and revise these guidelines as they develop their national strategies and plans—and that new guidelines will eventually evolve that take account of all this added experience and knowledge.

Since 1988, the World Resources Institute, the United Nations Environment Programme, and The World Conservation Union have been partners in a joint international biodiversity conservation program, beginning with the process that produced the 1992 *Global Biodiversity Strategy,* which is available in eight languages. Our cooperative effort will continue to seek ways to broaden the international constituency and the debate on biodiversity matters through published research on key issues, workshops, briefings, and such mechanisms as the ongoing Global Biodiversity Forum.

Jonathan Lash
President
World Resources Institute



Elizabeth Dowdeswell
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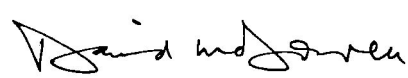

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Acknowledgments

This report was the product of a cooperative effort headed by Kenton R. Miller and Steven M. Lanou of the World Resources Institute, in collaboration with the United Nations Environment Programme (UNEP) and the World Conservation Union (IUCN). The report has benefitted tremendously from the advice of Hamdallah Zedan, Paul Chabeda, and Feargul Duff at UNEP and from the able guidance and essential contributions of Allen Putney, Jeffrey McNeely, Jeremy Carew-Reid, and Martha Rojas at IUCN.

These guidelines are the result of extensive inquiry and discussion with many countries and individuals from all the world's regions. The case studies prepared by partner countries provide the central research basis of the report. Hence, a special word of appreciation is owed to Marc Auer, Richard Bagine, Charles Barber, Roger Bendall, Esam Ahmed Elbadry, Wang Enmin, Rodrigo Gámez, John Herity, Mohamed Isahakia, Jorge Larson, Jeffrey McNeely, Josephine Mummery, Consuelo Muñoz, Iosefatu Reti, Bart Romijin, Peter Schei, Gudrun Schneider, Jorge Soberón, Wang Sung, Marcel Vernooy, and Andrzej Weigle. More details concerning the case study contributors can be found in Annex E.

The report also owes much to those who commented on the three draft manuscripts. A list of reviewers who submitted written comments is in Annex E. WRI colleagues Walt Reid, Nels Johnson, Chip Barber, Laura Lee Dooley, and Walter Arensberg provided essential insights into the whole research and drafting process.

The final document was revised by a peer review workshop held at Williamsburg, Virginia, that brought together individuals from all regions who have actual experience in biodiversity planning in their own countries or on associated biodiversity-planning research. The document gained much from their collective experience and guidance. A complete list of the workshop participants can be found in Annex E.

Finally, the hard work and dedication of Lisa Sullivan and Donna Dwiggins who helped organize the Williamsburg Workshop, assisted in the preparation of the report, and kept the whole process on track, deserve a special thank you.

Executive Summary

One hundred and fifty-six governments made a statement at the Earth Summit at Rio de Janeiro in 1992: They are prepared to accept responsibility for conserving the full diversity of plant, animal, and microbial life in their countries, to begin using biological resources sustainably, and to seek the equitable sharing of benefits from biodiversity. Rich nations committed themselves to providing technological and financial resources to help poor countries build the capacity to save, manage, and employ their biotic wealth.

The commitment made at Rio had its roots in the United Nations Environment Programme Governing Council's declaration of the need for concerted international action for effectively conserving the world's biodiversity. Among the earliest steps taken by countries before Rio was initiating country studies—the systematic assessment of their biodiversity. Later, within the text of the Convention, the Parties agreed to formulate national strategies and action plans and to integrate biodiversity activities into all relevant sectors. This guide offers a method that "biodiversity planners" can use to initiate a national biodiversity planning process that builds upon country studies and other planning efforts.

At the invitation and with the strong support of the United Nations Environment Programme (UNEP), the World Resources Institute (WRI) initiated this study in 1992. Also, the World Conservation Union (IUCN) contributed its considerable experience with national strategy work in developing countries and its extensive capability in areas related to biodiversity.

Eighteen countries joined with WRI, UNEP, and IUCN to examine their own experiences with biodiversity planning. Although much of this experience is recent, these developing and developed nations, along with those with economies in transition and the small island states, have already learned a great deal that will be of value to those who follow. Seventeen countries provided a written case study on their work—the basis for later interviews by WRI and IUCN project staff. Most participated directly in the review of early drafts and in the peer review workshop held at Williamsburg, Virginia, in September 1994.

Drawing from this early experience, an illustrative seven-step biodiversity planning process is spelled out here as a guide to those willing to make choices and get them implemented.

1. Getting organized—establish a focal point in government, get an adequate high-level mandate, form a partnership with governmental agencies, nongovernmental organizations (NGOs), indigenous peoples, community leaders, and business and industry, and obtain adequate funds.

2. *Assessment (country study)*—gather and evaluate information on the status and trends of the nation's biodiversity and biological resources, laws, policies, organizations, programs, budgets, and human capacity; select preliminary goals and objectives; identify gaps between desired and current situations; review options to close gaps; and estimate costs, benefits, and unmet needs.

3. *Developing a strategy*—determine goals and operational objectives; analyze and select specific measures to close the gaps identified in the assessment; hold further consultations and dialogue until consensus is reached on acceptable targets and mechanisms for action; and identify the potential roles of stakeholder groups.

4. *Developing a plan of action*—determine which public and private organizations and groups will implement which activities denoted in the strategy, in which location or region, by what means, and with which people, institutions, facilities, and funds, and set a time table for action.

5. *Implementation*—launch activities and policies in practical ways so that partners take charge of particular elements of the plan and biodiversity planners become "biodiversity implementors;" in other words, individuals from the key ministries, NGOs, communities, indigenous groups, business, and industries, each with self, group, or business interests and commitment move forward to seek results from their plans and action.

6. *Monitoring and evaluation*—observe and measure the impact of the plan on the economy, ecosystems, and social indicators; note changes in laws and policies, behavioral responses, conservation improvement, sustainability, and enhanced equity; and note changes in capacity and investment.

7. *Reporting*—prepare reports for important constituencies; such documents can include country studies, national strategies, action plans, reports to the Convention, and reports to the country's chief executive and general public.

Biodiversity planning is an open-ended process that develops continuously as further information and experience is gained. The process is cyclical, with the same steps repeated round after round. It is adaptive because participants learn from past experience about shifts in nature and society, and it also involves multiple stakeholders and sectors. A partnership is needed among all those committed to making choices and taking action, from all parts of society, and from all sectors of government and the economy.

The preliminary lessons learned from the countries that cooperated in this study provide considerable guidance to those countries seeking to undertake a similar process. The array of institutional, scientific, legal, and policy obstacles encountered by these countries were met with

actions that show promise and innovation. Among the most potent factors for facilitating biodiversity planning and action are solid political will and commitment by the highest levels of government.

The process of developing guidelines for biodiversity planning will necessarily be an iterative one. Several key components of the planning process await policy guidance from the Parties to the Convention on action. Such topics as project formulation, criteria and priorities for access to the Convention's funding mechanism, technology cooperation, and access to genetic resources can be expected to enter the deliberations and workplans of the Conference of the Parties. But since any attempt to offer guidelines on these topics right now would be speculative and without empirical grounding, users are urged to consider how Parties can clarify policies and criteria. Parties and their subsidiary scientific and technical bodies can set the stage for future documentation. Future guidelines can be expected to address these and other critical topics, again drawing from fieldwork.

Experience already shows how all the countries studied have successfully used an open, participatory approach. Transitional economies have found themselves with outstanding human, scientific, technological, and management capability, but often without clear mandates and political and institutional commitment. Distinctively, small island states have found considerable value in regional collaboration, sharing well-experienced personnel and focusing attention on priorities of common interest. The developing countries may have only limited experience with comprehensive planning and limited funding for planning and implementation, but their expertise in relevant technical fields is typically noteworthy. In contrast, developed countries often find themselves dealing with complex public institutions with overlapping jurisdictions and with no interest in changing how they operate.

It is hoped that this guide will help agency officials, NGOs, communities, indigenous people, and business leaders orient their initial efforts in biodiversity planning. The guide should also help in capacity-building workshops and team planning. No doubt, it will be supplemented by national-level guides as soon as countries develop their own methods and formulate materials for dealing with their peculiar issues and opportunities.

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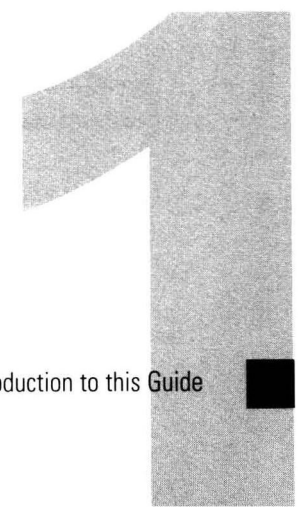

In this Chapter:

Introduction to this Guide

INTRODUCTION

The future of life on Earth captured worldwide attention at the Earth Summit in Rio de Janeiro in 1992 when 155 nation states and the European Union signed the Convention on Biological Diversity (UNEP, 1992). This act signaled their intention to join with other nations to form a global cooperative to protect habitats, species, and genes, to shift to sustainable modes of resource use, and to make the necessary policy, economic, and managerial adjustments to guarantee that the benefits to be gained from forest and range ecosystems, soils, agricultural production, wildlife management, fisheries, and genetic resources are equitably shared across local, regional, national, and global societies.

Nations also adopted a comprehensive global work plan for national actions and international cooperation for sustainable development and global environmental protection well into the 21st century. Named *Agenda 21*, the plan contains 40 chapters of non-binding recommendations spanning the full range of social, economic, and environmental issues (U.N., 1993). One chapter is devoted to the conservation of biological diversity, and biodiversity-related activities are featured throughout other chapters.

With agreements to conserve biodiversity, foster the sound utilization of forests, fisheries, agriculture, and other resources, transfer related technologies, share in financial investments, and the like, countries face the question: How can a nation determine what steps to take at home? Article 6 of the Convention calls for the parties to:

develop national strategies, plans or programmes, or adapt existing plans, to address the provisions of the convention; and to integrate biodiversity work into sectoral and cross-sectoral plans, programmes and policies.

The preparation of conservation and development strategies and related action plans is not new. Already, most countries have prepared a range of such exercises, including national conservation strategies, national environmental action plans, national development plans, and more recently, national sustainable development strategies, as well as sectoral plans for biological resources. Most already contain assessments of natural resources and have proposed strategic measures to strengthen administrative capability and improve conservation and use.

Experience with planning and implementing biodiversity-related measures has been limited in both scope and complexity. Indeed, most nations have already worked in national park planning, endangered species protection and recovery, and plant and animal propagation and breeding. Some

countries have worked at larger scales to manage river basins and geographic regions, including biosphere reserves, and many have initiated rudimentary or advanced states of biotechnology. Yet, few countries have approached biodiversity planning and implementation in the comprehensive, integrated manner required by the Convention: from site and species protection, through seed and germ plasm collection, to international technological and financial cooperation, and biotechnology development.

These guidelines should help orient governments and NGOs, community and indigenous groups, and industry to how they might launch or expand biodiversity planning. The "illustrative biodiversity-planning process," offered here as a point of departure, has been drawn from the real-world experience of seventeen countries that have already taken on the challenge of Article 6. Each of these nations has pursued a unique path that reflects its particular cultural, political, ecological, and economic reality.

This study is targeted to help *biodiversity planners*—individuals who commit to collaborate with others to determine how to conserve their nation's biotic wealth, to use it sustainably, and to seek ways to share its values equitably. Such individuals will be agency personnel in forestry, agriculture, fisheries, national planning, foreign affairs, and finance; local government officials, community leaders, indigenous leaders, and NGOs; and representatives of resource management and extraction companies. These people are also *biodiversity implementors*—individuals committed to seeing that decisions made are properly acted upon, and that the proper conclusions are drawn from the experience.

Three types of biodiversity plans were called for in the Convention negotiations and the agreed articles: country studies, national strategies, and action plans. Details on the history of these important Convention decisions and the country study process are found in Annex B. All three are components of a larger and quite flexible process that can help countries build on existing institutions, programs, investments, and capabilities. This process is *cyclical*. It leads countries to periodically assess their biota and capacity, identify an evolving set of priorities and actions for responding to new opportunities, and prepare different reports to government, society, and the Convention on their findings and conclusions. It is *multi-sectoral*, involving all biodiversity-related government ministries, private resource-using industries, and civil groups that reside in, depend on, or, for other reasons, care deeply about the future of life on Earth. And finally, it is *adaptive*. It is revised and reformulated as new information arrives, and the results of previous activities and investments are continuously assessed.

Several complex and controversial aspects of biodiversity planning are being dealt with at this time through other efforts. These include establishing criteria and priorities for access to and use of the financial resources that are to be available to developing countries through the Convention funding mechanism, economic evaluation of biodiversity (UNEP, 1993; McNeely, 1988), and biodiversity and environmental impact assessment (Therivel et al., 1992; World Bank, 1991; Wilson, 1990). The Global Environment Facility (GEF) partners (The World Bank, United Nations Development Programme [UNDP] and UNEP) will soon release guidelines to help nations develop biodiversity projects. The results of ongoing deliberations are not second-guessed here. Prospective biodiversity planners are urged to obtain copies of the materials listed in Box 1, and to follow closely the continuing development of components of the Convention to obtain further guidance. Similarly, for background materials on the definitions, values, and nature of biodiversity and biological resources, readers will have to consult the various publications cited in the References section of this document.

Finally, there is no universal language or terminology in use for the various phases or steps in the biodiversity planning process. Various individual specialists and organizations attach different meanings to such words as *assessment, strategy,* and *action plan,* and to such process-oriented words as *planning, strategy development* and *implementation.* Here, the language is kept basic and simple, recognizing that (a) there is already a lexicon within the text of the Convention and (b) the native language of many readers and users of this document may be different from the language in which the report is presented. Thus, readers are urged to search for the contextual meaning of the words used and avoid bogging down in terminology issues.

BACKGROUND

The World Resources Institute (WRI), The World Conservation Union (IUCN) and the United Nations Environment Programme (UNEP) established a joint Biodiversity Program in 1989. Through an open process of technical workshops, regional dialogues, and research, the joint effort prepared and launched the *Global Biodiversity Strategy—Guidelines for Action to Save, Study, and Use Earth's Biotic Wealth Sustainably and Equitably* (WRI/IUCN/UNEP, 1992). The United Nations Food and Agriculture Organization (FAO), the United Nations Education, Scientific and Cultural Organization (UNESCO), and over 45 governmental agencies, NGOs, scientific institutes, and rural and indigenous communities contributed to formulation of the *Strategy*. Drafts of the *Strategy* were offered by the joint program to the inter-governmental negotiating process that led to the Convention on Biological Diversity. The *Strategy* has since served to inform and orient institutions and individuals worldwide and is now available in eight languages.

The Biodiversity Program continued its work with the preparation of a preliminary framework on *Biodiversity Indicators for Policy-Makers* (Reid, et al. 1993), *Biodiversity Prospecting: Using Genetic Resources for Sustainable Development* (Reid, et al. 1993b), and an array of regional workshops. The Global Biodiversity Forum series in 1993 complemented the Convention process. The Forum develops a broad-based public and private sector

BOX 1

Key Documentation that Should be Made available to Support Biodiversity Planning

Carew-Reid, Jeremy, Robert Prescott-Allen, Stephen Bass, and Barry-Dalal Clayton. 1994. *Strategies for National Sustainable Development—a handbook for their planning and implementation.* IUCN and IIED, Gland, Switzerland, and London.

Glowka, Lyle, Francoise Burhenne-Guilmin, Hugh Synge, Jeffrey McNeely, and Lothar Gundling. 1994. *A Guide to the Convention on Biological Diversity.* World Conservation Union (IUCN), Cambridge, U.K.

IUCN/UNEP/WWF. 1991 *Caring for the Earth: A Strategy for Sustainable Living.* Gland, Switzerland.

McNeely, J., K. Miller, W. Reid, R. Mittermeier, and T. Weiner. 1990. *Conserving the World's Biological Diversity.* IUCN, Gland, Switzerland; WRI, CI, WWF-US, and the World Bank, Washington, DC.

Therivel, Riki, Elizabeth Wilson, Stewart Thompson, Donna Heaney and David Pritchard. 1992. *Strategic Environmental Assessment.* Earthscan Publications Ltd., London, U.K.

United Nations. 1993. *Agenda 21, Rio Declaration, Forest Principles: Final Text of Agreements.* United Nations, New York.

United Nations Environment Programme. 1993. *Guidelines for Country Studies on Biological Diversity.* UNEP, Nairobi, Kenya.

United Nations Environment Programme. 1992. *Convention on Biological Diversity.* UNEP, Nairobi, Kenya.

World Conservation Monitoring Centre. 1992. *Global Biodiversity: Status of the Earth's living resources.* Chapman & Hall, London, UK.

WRI/IUCN/UNEP. 1992. *Global Biodiversity Strategy.* WRI, Washington DC.

Additional material should include national development plans, a completed country study if available, and national legislation regulating biological resources.

constituency of stakeholders related to biodiversity and biological resources and explores and debates critical issues.

Article 6 of the Convention, Resolution 2 of the Nairobi Final Act, and Chapter 15 of *Agenda 21*, all point to the central importance of the preparation of national biodiversity plans in an effort to assist countries in assessing the gaps in their conservation and development programs, in building the capacity to address strategically their biodiversity needs and opportunities, and in formulating their priorities for action. Starting in 1992, the joint Program began working closely with partner governments to observe and support initial planning efforts and to draw the lessons being learned from this pioneering experience. This publication presents the initial results of this cooperative research, analysis, and dialogue process.

METHOD OF THIS STUDY

This work began with a worldwide survey of recent and ongoing planning efforts that sought *inter alia* to address biodiversity goals. Such plans include national conservation strategies, national environment action plans, sustainable development plans, biodiversity country studies, strategies, and action plans.

WRI specifically looked for planning efforts that (a) are directed to help policy-makers and (b) are representative of the world's regions, including countries with economies in transition and small island states (*Annex C*). Eighteen countries were invited by WRI to contribute 10-page case studies following a *pro forma* outline (*see Annex D*), along with relevant maps and supporting documentation. In all, 17 countries provided such materials. Further, WRI and IUCN project staff visited and interviewed the lead organizations and individuals from these countries (with the exception of the South Pacific Region).

An illustrative approach for biodiversity planning was drawn from the analysis of submitted case study documents, country studies, national strategies and action plans, and personal interviews. The IUCN/IIED strategic planning handbook grounded the study in principles and procedures derived from extensive work by developing countries (*see Box 2*) (Carew-Reid et al., 1994). The obstacles noted in the country case studies were addressed throughout the analysis.

Reviews of the first unedited draft of the study in June 1994, along with the analysis and synthesis of the country cases, plans, and interviews, provided grist and insights for the second draft. At a four-day workshop in Williamsburg, Virginia, in September 1994, the second draft was rigorously peer reviewed. International participants at the workshop included those that contributed country case studies and others with experience in biodiversity planning. (*See Annex E.*) A third draft was prepared after the Williamsburg workshop for final review by UNEP, IUCN and WRI.

BOX 2

Strategies for Sustainable Development Handbook Series

These guidelines can be used in conjunction with the *Strategies for Sustainable Development Handbook Series* being produced by IUCN and its partners to assist countries and communities implement *Agenda 21*, and the action program of the United Nations Conference on Environment and Development (UNCED). The series will include handbooks on national strategies for sustainable development, local strategies, assessing progress toward sustainability, biodiversity action plans, indigenous peoples' involvement, integration of population and resource-use planning, and regular companion volumes of case studies addressing the key issues of concern to strategy implementation.