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World Directory of Country Environmental Studies

An Annotated Bibliography of Natural Resource Profiles, Plans, and Strategies

Third Edition

A product of the International Environmental and Natural Resource Assessment Information Service (INTERAISE)

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This report represents a timely, scientific treatment of a subject of public concern. Its collaborating partners 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 advisory panels and expert reviewers. Unless otherwise stated, however, all the interpretations and findings set forth here are those of the authors.

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Preface and Acknowledgments

Since the last Directory was published in 1993, we have seen the signing and ratification of international treaties on biodiversity, climate change, and desertification. Whether these agreements will lead to significant changes now largely depends on national governments, which still bear the primary responsibilities for policy-making, implementation, and monitoring progress.

Most national environment and development profiles and strategies do not make it into the distribution systems of commercial publishers. It can be difficult to discover which reports exist, much less where and how to obtain copies, which are often printed and distributed in very limited quantities. By making these studies more accessible, the *World Directory of Country Environmental Studies* helps coordinate activities between national governments and their intergovernmental, non-governmental, and development-assistance partners.

To better serve global environmental cooperation, we have expanded the countries covered to include industrialized countries and those with economies in transition as well as developing countries. Given this broad coverage, the *World Directory* will not serve all users and cannot contain all relevant reports. Our focus is on multisectoral, national environmental assessments, plans, and strategies and those serving the multilateral organizations' need for information on climate change, biodiversity, land degradation, and forests. Not included are documents relating to specific projects, impact assessments, or purely legal matters, whether national or international.

The *World Directory* is a product of the International Environmental and Natural Resource Assessment Information Service (INTERAISE) project, a cooperative effort among three organizations with extensive experience developing environmental profiles and strategies: the World Resources Institute (WRI); the International Institute for Environment and Development (IIED); and the World Conservation Union (IUCN).

Since the first edition of the *Directory* was published in 1990, the project's document collections have expanded. They are now housed at 17 publicly accessible libraries (one at each of the partners headquarters and 14 at regional information centers) and are also available through a worldwide document delivery service. IIED recently published a *Directory of Impact Assessment Guidelines* and IUCN is working with organizations in Central America and Southern Africa to publish more detailed regional directories. (For more information on INTERAISE, see section V.)

The editors would like to acknowledge the contributions of many colleagues who helped support the development of the *World Directory*.

First we want to thank the LTS technical staff: James Booth, Leith Emrich, Dennis Ferrara, Clare Imholtz, Kathy Norden-Smith, Virginia Van Brunt, and Peter Yellman for producing the bibliographic citations and abstracts, building the database, and

reviewing drafts. LTS has maintained the highest standards of quality in helping us prepare three editions of the *Directory* over the past seven years.

We would also like to thank our INTERAISE collaborators Barry Dalal-Clayton and Dilys Roe (IIED) and Kevin Grose (IUCN) for their timely and detailed reviews of drafts and their suggestions on ways to continually improve the *Directory* project.

We also benefited from the careful review of the manuscript by Christian Averous, Organization for Economic Cooperation and Development; Munyaradzi Chenje, Southern African Research and Documentation Centre; Lars Hyttinen, United Nations Division of Policy Coordination and Sustainable Development; James Morant, United States Environmental Protection Agency; and John Wilson, United States Agency for International Development.

Within WRI, Tom Fox and Walt Reid provided overall program guidance, Amy Tohill-Stull assisted with administrative tasks and report preparation, and Carroll Curtis contributed abstracts and reviewed drafts. Kathleen Courrier, Samantha Fields, Hyacinth Billings, and Brooks Belford assisted in final editing, production, and marketing. Lisa Carey designed the cover. Beth Behrendt and Sam Boltik continue to provide library expertise and maintain WRI's country reports library.

The INTERAISE project has benefited from the support of the Development Assistance Committee of the Organization for Economic Cooperation and Development. Funding was provided by the Australian International Development Assistance Bureau (AusAID), the Danish Ministry of Foreign Affairs (DANIDA), the German Agency for Technical Cooperation (GTZ), the Netherlands Ministry of Foreign Affairs, the Swiss Directorate for Development Cooperation and Humanitarian Aid, the United States Agency for International Development (USAID), and the United States Environmental Protection Agency (USEPA).

Finally, we thank the many individuals and organizations that provided WRI and the INTERAISE project with reports and studies. In particular, UNEP Infoterra for helping us access their national contacts, and the Earth Council for their updating of the Directory of National Sustainable Development Councils. A number of organizations also provided exceptional help in obtaining documents, including many of the INTERAISE collaborating centers (see INTERAISE section), the Island Resources Foundation, and the UNEP Regional Office for Western Asia.

We hope that this directory will further stimulate national, regional, and subnational organizations to prepare and distribute environmental reports and boost public awareness and policy-makers' accountability. We welcome your comments on the World Directory and the INTERAISE project. Please let us know about new or overlooked reports. Please also give us your thoughts on how this *Directory* can be improved.

Sean Gordon
World Resources Institute

Dan Tunstall

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How to Use the World Directory

The World Directory of Country Environmental Studies contains bibliographic citations and abstract information on 414 reports for 181 countries. It can be used to identify, locate, and acquire these important reports.

Finding documents by country
The Directory is organized alphabetically by region and country. To find a country or region directly, use the *Country and Region Index* on the last page.

Finding documents by subject matter
The best guide to subject matter is the *Matrix of Countries and Reporting Categories.* Read the *Description of Reporting Categories* for more information.

How to obtain the full documents
Each document citation includes an address for the publisher or distributor or, if a document is part of a series, the address is given in the section called *Description of Reporting Categories.* WRI has been granted non-profit copyright permission to distribute many of the documents (those with a "WRI-XXX" order number). If the document is out of print or difficult to obtain from its original source (or if a microfiche copy is desired), a copy can be purchased from:

United States Agency for International Development
Development Information Services Clearinghouse (USAID/DISC)
1611 N Kent Street, Suite 200
Arlington VA 22209-2111
USA
Tel: +1 703 351 4006
Fax: +1 703 351 4039
E-mail:
docorder@disc.mhs.compuserve.com
Internet URL: http://www.info.usaid.gov; gopher://gopher.info.usaid.gov

How to Obtain the World Directory on Diskette

The World Directory Database Diskette, containing bibliographic citations and abstracts from the 1990, 1993, and 1996 editions, can be purchased directly from WRI. (See section V.)

How to Find the World Directory on the Internet

The World Directory Database can be found at the WRI web site (URL: http://www.wri.org).

Acronyms

AsDB	Asian Development Bank
AusAID	Australian Agency for International Development (formerly AIDAB)
CATIE	Center for Tropical Agricultural Research and Teaching (Centro Agronómico Tropical de Investigación y Enseñanza)
CEM	Country Economic Memoranda (World Bank)
CIDA	Canadian International Development Agency
DAC	Development Assistance Committee (OECD)
DANIDA	Denmark's Department of International Development Cooperation
DGIS	Netherlands' Directorate General for International Cooperation
DISC	Development Information Services Clearinghouse (USAID)
FAO	United Nations Food and Agriculture Organization
IIED	International Institute for Environment and Development
INTERAISE	International Environmental and Natural Resource Assessment Information Service (IIED, IUCN, WRI)
IPF	Intergovernmental Panel on Forests (UNCSD)
ITTO	International Tropical Timber Organization
IUCN	World Conservation Union
MPFD	Master Plans for Forestry Development (AsDB)
NCS	National Conservation Strategies
NFAP	National Forestry Action Plans
NEAP	National Environmental Action Plans
NEMS	National Environmental Management Strategies
NESDA	Network for Environment and Sustainable Development in Africa
NGO	Non-governmental Organization
NRDC	Natural Resources Defense Council
NSDS	National Sustainable Development Strategies
OECD	Organization for Economic Cooperation and Development
OECF	Overseas Economic Cooperation Fund of Japan
SARDC	Southern African Research and Documentation Centre
SOE	State-of -Environment (report)
SPREP	South Pacific Regional Environment Programme
TFAP	Tropical Forest Action Programme (FAO)
UNCED	United Nations Conference on Environment and Development
UNCSD	United Nations Commission on Sustainable Development
UNDP	United Nations Development Programme
UNDPCSD	United Nations Division of Policy Coordination and Sustainable Development
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
WCMC	World Conservation Monitoring Centre
WRI	World Resources Institute

I. Introduction: Developing the *World Directory*

Virtually every country of the world has prepared at least one report on its environment. These reports range in content from basic data on environmental conditions and trends, to an assessment of problems, to the development of strategies and plans for addressing these issues.
In the past few years, environmental reporting has become an essential policy instrument used by governments and private organizations to heighten public awareness, inform policy-makers and citizens of emerging and long-neglected problems, strengthen national and regional research and monitoring capacities, and hold institutions accountable for implementing policies and practices. Environmental reporting at its best helps countries examine the conditions of their people and their settlements, land, water, and living resources and to undertake a public dialogue on the value, use, and protection of these resources.

To keep up with the rapid changes in environmental reporting, the *World Directory of Country Environmental Studies* has expanded its coverage to all countries, included more themes and reporting categories (including global conventions and treaties and national environmental policy reviews), and extended the time period covered to late 1995.

Selection Criteria

The criteria used to select documents for this third edition resemble those used for previous editions. Reports had to be:

- concerned with environmental and natural resource issues;
- supported by numerical data and charts, tables, and maps;
- countrywide or regional in coverage;
- useful to policy-makers and others concerned with development planning;
- timely (prepared since 1990); and,
- publicly available at reasonable cost.

Furthermore, WRI staff had to be able to obtain copies of each report so that its contents could be reviewed and abstracted.

Not all documents selected meet all criteria. Some of the policy and strategy documents, such as the 1994 and 1995 national submissions to the Commission on Sustainable Development, contain synoptic reviews of national policies and practices that do not have tabular and graphical data. Also, some environmental profiles and assessments cover only a province or another subnational region. For countries at war and countries emerging from strongly authoritarian and restrictive governments, such as Somalia, Sudan,

North Korea, and Liberia, the task was to locate any report, even if it was out of date or failed to meet other criteria. For many other countries, the only report available was the national report submitted to the United Nations Conference on Environment and Development in 1992.

Not every report meeting the selection criteria was included. For some countries, such as the UK, Indonesia, the Netherlands, Canada, and India, so many reports were available that only the most recent and most useful were selected.

Because the emphasis is on reports used to develop national policies, we have omitted more narrowly focused studies on specific sectors (except biodiversity, climate change, and tropical forests), on development projects, and on compendia of laws that lack significant interpretation for policy-making. Also omitted are statistical yearbooks, indicator reports, and national atlases, all containing valuable national environmental data and information, but too numerous and general to include here.

Acquisition of Documents

Documents were acquired primarily through the partnership arrangement of the INTERAISE project. In addition to each organization's library, the INTERAISE project has also formed links to 14 regional and national institutions in developing countries, which collaborated in obtaining documents. The following international institutions and networks were also contacted:

- 165 of the designated national focal points for environmental information participating in the United Nations Environment Programme's Infoterra network;

- the 117 National Councils for Sustainable Development established by countries to help plan and implement *Agenda 21*, the international plan of action agreed to at the UN Conference on Environment and Development (UNCED) in 1992;

- many international governmental and bilateral donor institutions; and,

- environmental attachés at foreign embassies in Washington, DC.

Results and Analysis

Of 414 country and regional environmental studies included here, 402 appear for the first time. The other 12 were taken from the 1993 *Directory* so as to cover as many countries as possible. In all, the *World Directory* covers 181 countries and territories, including 168 of the 184 United Nations member countries.

Country Coverage

This edition of the *Directory* has expanded the geographic coverage from developing countries to all countries of the world. We did this in part because many want access to state-of-environment reports and green plans from OECD and other industrialized countries. The signing of global treaties for Climate Change, Biodiversity, and Desertification added further incentive.

Reports from the industrialized countries of Europe, North America, and Asia are included along with those from the Former Soviet Union and the Central and Eastern European states in transition. Reports were obtained for 37 of 44 countries in Europe (all but Andorra, Liechtenstein, Bosnia and Herzegovina, Macedonia, and Slovenia). Although the former Soviet Union has been divided here between Europe and Asia, 9 of its 15 former states have reports included (all but Armenia, Georgia, Kyrgyz Republic, Tajikistan, Turkmenistan, and Uzbekistan). Most OECD member countries have extensive reporting programs that go back 25 years. Here, only their latest assessments and strategies are included. Table 1 summarizes the number of reports obtained and abstracted in this edition.

At this point, no studies have been located for the following developing countries: Eritrea (recently split from Ethiopia: an environmental strategy is in preparation), Libya, Iran (an environmental strategy is in preparation), and United Arab Emirates.

On the other hand, a few developing countries have participated in the development of a range of environment and development reports, often with bilateral and multilateral donor support. The *Matrix of Countries and Reporting Categories* (Section II) shows that nine countries in Africa have documents from seven or more reporting categories: Botswana, Burkina Faso, Egypt, Ghana, Kenya, Mozambique, Tanzania, Uganda, and Zimbabwe. In Asia, this level of reporting was found in China, India, Indonesia, Malaysia, Pakistan, Philippines, and Sri Lanka. And in Latin America and the Caribbean, it was found in Costa Rica, Bolivia, Chile, Colombia, and Ecuador. This proliferation of reports could represent extraordinary progress or it could also mean duplication and lack of coordination.

Table 1: Regional Coverage in the 1996 *World Directory*

Region	Total Number of Countries Included in the *World Directory*	Number of Countries with New Reports	Total Number of New Reports for the Region
Africa	51	46	93
Asia	40	35	76
Caribbean	15	14	21
Europe	37	37	112
North and Central America	10	10	27
Oceania	16	16	40
South America	12	11	28

Reporting Coverage

The reports included in the *World Directory* are organized into 12 categories. (See Table 2.)

Categories new to this edition include country reports submitted to the United Nations Commission on Sustainable Development on the implementation of *Agenda 21*, the global strategy agreed to at the 1992 UN Conference on Environment and Development; country strategies and progress reports for the UN Convention on Climate Change; country studies and strategies relating to the Biodiversity Convention; and Environmental Performance Reviews carried out as part of OECD's environmental program.

Other changes within categories are important. In developing countries, donor-driven activities are increasingly giving way to plans and reports generated under national government authority. (The Environmental Strategies and Action Plans category has been expanded to include all strategies and action plans, not just those supported by donors.) The number of countries preparing state-of-environment reports is increasing. While virtually all OECD countries prepare these reports periodically, now countries such as Malaysia, Singapore, China, and Uganda are following suit.

Table 2: Categories of Reports Included in the 1996 *World Directory*

Reporting Category	Number of Reports
Agenda 21 National Reports 1994	18
Agenda 21 National Reports 1995	22
Biodiversity Assessments, Strategies, and Action Plans	25
Climate Change Assessments, Strategies, and Action Plans	18
Environmental Profiles (donor programs)	11
Environmental Strategies and Action Plans	87
Environmental Synopses	41
Forestry Assessments, Strategies, and Action Plans	12
OECD Environmental Performance Reviews	10
State-of-Environment Reports	58
UNCED National Reports	84
Other Environmental Studies	28
Total	414

The largest increase in environmental reporting activity has occurred in strategic planning. Most countries in Africa and many in Europe have environmental action plans or green plans. In *Agenda 21* each country agreed in principle to develop a "national strategy for sustainable development" to "ensure socially responsible economic development while protecting the resource base and the environment." Such "sustainable development" strategies are beginning to appear (for instance, strategies from Finland, UK, and Australia and *Agenda 21* reports from Hungary, Japan, and Sweden) but were not assigned a separate category since they are few in number and closely related to other strategies.

The *World Directory* includes abstracts for 84 national reports for UNCED. While in many cases these are not the most recent reports, for some countries they are the only statements available on environmental priorities and plans. (Sixty-six UNCED reports were abstracted in the 1993 edition.)

The biodiversity sector clearly exemplifies the evolution from donor-sponsored studies for donor-supported projects and programs to country-driven planning efforts designed to reform national policies. Previous directories documented the work of USAID's Tropical Forestry and Biodiversity Assessments, IUCN's Conservation of Forest Ecosystem Studies, and WCMC's Biodiversity Profiles. The current *Directory* includes many more national efforts to meet the goals of the international Convention on Biological Diversity.

Time Period Coverage

Almost two thirds of the reports in the current edition were published in 1993 or later, and 99 percent appeared in the past five years. (See Table 3.)

Table 3: Time Periods of Reports Included in the 1996 *World Directory*

Time Period	Number of Reports in 1996 *World Directory*
1979-1986	0
1987-1989	3
1990-1992	149
1993-1995	262
Total	414

Language Coverage

Eighty percent of the reports in the *Directory* were abstracted from English versions, 19 percent from Spanish and French, and 1 percent from others (Arabic and Russian).

The Future

In the near future, growth in reporting relating to post-UNCED activities—such as the conventions on biodiversity, climate change, and desertification—is likely to continue. More biodiversity assessments and strategies are in preparation now.

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Reporting requirements for developing countries to the Climate Convention will begin in 1997, and more studies from eastern Europe and the former Soviet Union can be expected before then. The Desertification Convention opened for signing last year, however, it recommends that countries integrate their plans into their broader sustainable development strategies and action plans. Finally, for UNCED's five-year anniversary in 1997, the Commission on Sustainable Development is planning a major review of *Agenda 21*, and countries are expected to submit summaries of progress toward these goals.

II. Matrix of Countries and Reporting Categories

The *Matrix of Countries and Reporting Categories* provides a visual overview of environmental reporting and a quick reference to documents included in this and previous editions. It focuses on the most recent report(s) available for each country and reporting category. (Space did not permit referencing all reports from previous editions.)

Each entry in the matrix reflects the status of the report in relation to this *Directory* and the *Directory Database Diskette*. The number represents the year in which a report was published. For a number of reporting categories, more than one report is listed; in all cases, the most recent reports are listed first.

■ report abstracted in this edition
[ ] report identified but not available for cataloging and abstracting
( ) report abstracted in a previous edition and in the *Directory Database Diskette*
P report pending publication

Countries are listed alphabetically by sub-region. Sub-regions are further grouped into four larger geographic areas:

- *Africa*
- *Americas*
  Caribbean
  North and Central America
  South America
- *Asia and Oceania*
  Asia
  Oceania
- *Europe*
- *Other*

Reporting categories are listed across the top of the matrix. Categories include:

- *Agenda 21* National Reports 1994
- *Agenda 21* National Reports 1995
- Biodiversity Assessments, Strategies, and Action Plans
- Climate Change Assessments, Strategies, and Action Plans
- Environmental Profiles (donor-supported)
- Environmental Strategies and Action Plans
- Environmental Synopses
- Forestry Assessments, Strategies, and Action Plans
- OECD Environmental Performance Reviews
- State-of-Environment Reports
- UNCED National Reports
- Other Environmental Studies

	Agenda 21, 1994	Agenda 21, 1995	Biodiversity Assessments, Strategies, and Action Plans	Climate Change Assessments, Strategies, and Action Plans	Environmental Synopses	Environmental Profiles (donor programs)	Environmental Strategies and Action Plans	Forestry Assessments, Strategies, and Action Plans	OECD Environmental Performance Reviews	State-of-Environment Reports	UNCED National Reports	Other Environmental Studies
AFRICA												
(Africa regional)			(91) (89) (88) (86)			(84) (82) (81) (81)				94 93		[91] (90) (89) (86)
Algeria	[94]	[95]									91	
Angola				93			P			92	91	(88)
Benin		[95]		93		P	93				(91)	
Botswana		[95]	(91) (89) (88)			(86)	(90)			(90)	92	[93] (89) (88) (86)
Burkina Faso	[94]	[95]		93		94 (82) (82) (80)	93		[91]		(91)	
Burundi			(89)	93		(81)	[94]				(91)	
Cameroon			(89)			(89) (81)	P		(89) (88)		92	(78)
Cape Verde						94 (84) (80)	P		P		(91)	
Central African Republic				93			P				(91)	
Chad						(82)	[90]		P		91	
Comoros				93			P			93		
Congo			P (90)	93			P		[92]		92	
Cote d'Ivoire			(91) (89)	93			94		[88]		(91)	
Djibouti				93			P 92				(91)	
Egypt	[94]	[95]	P P (88)			92 92 (80)	[92]				[92] (91)	92
Equatorial Guinea			(91)	93					[90]		92	
Eritrea							[95]					[94]
Ethiopia			(91) (89)	93			[94] (90)		93		(92)	(88)
Gabon		[95]	(90)	93			P				(91)	
Gambia			(89)			(81)	92				(91)	(90)
Ghana		[95]	P (88)	(92)		(85) (80)	92 (89)		(87)		(91)	(85)
Guinea			(88)			(83)	94		(88)	P	92	
Guinea-Bissau			(91) (89)				93		[92]	P	92	
Kenya		[95]	92 (88) (88)			(89)	P 94		[94] (87)	(87)	(91)	(90)
Lesotho		[95]		93		(82)	(89)				(92)	(87) (84)
Liberia			(87)	93		(80) (79)						
Libya												

92 = report for this year included (92) = included in previous directory [92] = identified but not included P = pending publication

	Agenda 21, 1994	Agenda 21, 1995	Biodiversity Assessments, Strategies, and Action Plans	Climate Change Assessments, Strategies, and Action Plans	Environmental Synopses	Environmental Profiles (donor programs)	Environmental Strategies and Action Plans	Forestry Assessments, Strategies, and Action Plans	OECD Environmental Performance Reviews	State-of-Environment Reports	UNCED National Reports	Other Environmental Studies
Madagascar			P (91) (88)				88 [84]		(87)			
Malawi			P		93	(82)	94				(91)	
Mali		[95]	(89)			(91) (89) (88) (80)	P				91	
Mauritania					93	(84) (81) (79)	P (88)				92	(82)
Mauritius					93		(90)				(91)	
Morocco	[94]	95	P (88)			(80)					(92)	
Mozambique		[95]	P		93		[94]		90		92	[94] (91) (87)
Namibia		[95]	P		93	P	92		P 95 (91)		92	(84)
Niger			91		93	(85) (80)	P	P			(91)	
Nigeria			92 (88)		93		90 (86)		(91)		(91)	[92] [91] [91] (91)
Rwanda			P		93	(87) (81)	91 (89)	[93]			(91)	
Sao Tome and Principe			(91)		93		93				(91)	
Senegal			(91) (89)			(90) (80)	P (84)	92			(91)	
Seychelles							P (90)				92	
Sierra Leone					93		94 (85)	(90)			92	
Somalia					93	(83) (79)	(90)					88
South Africa							[93] [80]		(89)		[93] 91	[94] [92] [91]
Sudan						(89) (89) (83) (82)		[86]	90		92	(84)
Swaziland					93	(80)					(91)	
Tanzania	[94]	[95]	(88)			P (89) (82)	94 94 (86) [86]	94 (90)			(91)	94 93 (87)
Togo					93		91 (85)	[92]				
Tunisia	[94]	94	(88)			(80)	94		93		[92]	
Uganda	94	[95]	(88)		(92)	P (82) (80)	94 [83]		94		(91)	(92) (88)
Zaire			(90) (88)		93	(86) (81) (80)		(90) (88)			92	
Zambia						(88) (82) (82)	94 (85)		94 (88)		92	(89)
Zimbabwe			P		(92)	(82)	P (87)		[92] 91 (88)		92 92	(91) 91 (89) (88)
CARIBBEAN												
(Caribbean regional)			(88)			(91) (88) (83)						
Anguilla									93			

92 = report for this year included (92) = included in previous directory [92] = identified but not included P = pending publication

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	Agenda 21, 1994	Agenda 21, 1995	Biodiversity Assessments, Strategies, and Action Plans	Climate Change Assessments, Strategies, and Action Plans	Environmental Synopses	Environmental Profiles (donor programs)	Environmental Strategies and Action Plans	Forestry Assessments, Strategies, and Action Plans	OECD Environmental Performance Reviews	State-of-Environment Reports	UNCED National Reports	Other Environmental Studies
Antigua and Barbuda						(91)	P				92	
Bahamas		[95]									92	
Barbados		[95]			93	(82)	P				(91)	
Cuba	94	[95]						89			(91)	92
Dominica						(91)	94					
Dominican Republic			[95] (88)		93	(84) (81)		(90)			(91)	
Grenada						(91)	94					(88)
Haiti						(85) (84) (79)					92	
Jamaica					93	(87) (86) (82)	94	(90)			92	93 [92]
Montserrat							94			93		
Saint Helena												[92]
Saint Kitts and Nevis						(91)	94	[92]			92	
Saint Lucia						(91)	94 [87]					(86)
St Vincent & Grenadines			(86)			(91)	94					
Trinidad and Tobago							P				92	
NORTH AND CENTRAL AMERICA												
(Central America regional)						(87)	P [90]	(91)				92 (88)
Belize			(88)		93	(84) (82)	P 94	(89)			(91)	
Canada	94	95	94	95			P 90			91		
Costa Rica			92			(87) (82) (81)	[90]	(90)		(88)	(91)	(88)
El Salvador			(88)			(85) (84) (82)	P 94 [92]					
Guatemala			(88)			(84) (84) (82) (81)	P 94	(91)			92	
Honduras						(89) (82) (81) (81)	93	(88)			(91)	
Mexico	[94]	95	P P (88)					94		[95] 94 [93] (90)	92	(89) (88)
Nicaragua						(81) (81)	P 94 [91]	91			(92)	
Panama						(80)		(90)			92	
United States	93	P	95	94			95		96	93	[92]	

92 = report for this year included (92) = included in previous directory [92] = identified but not included P = pending publication

	Agenda 21, 1994	Agenda 21, 1995	Biodiversity Assessments, Strategies, and Action Plans	Climate Change Assessments, Strategies, and Action Plans	Environmental Synopses	Environmental Profiles (donor programs)	Environmental Strategies and Action Plans	Forestry Assessments, Strategies, and Action Plans	OECD Environmental Performance Reviews	State-of-Environment Reports	UNCED National Reports	Other Environmental Studies
SOUTH AMERICA												
Argentina							92	(88)	94 93		(91)	(91)
Bolivia	[94]	[95]	P (88)		93	P (86) (84) (80) (79)	94 93	91 (89)			(92)	(89)
Brazil	[94]	[95]	(88)						92		(91)	(86) (84)
Chile	94	[95]	P 93 93			(87)		93	93 (90)		92	(89)
Colombia	93	[95]	P (88)		93	(90)	P P	92 (89)			92	94 (91)
Ecuador	94	[95]	95 (89) (88) (88)			(87) (83) (81) (79)	P 93	P (90)			92	[95] [94] (90) (83)
Guyana			[?]			(82)	94	(89)			(92)	
Paraguay						(85)					91	(90)
Peru		[95]	(88) (88)		93	P (88) (86) (83) (79)	P	91 (87)			92	
Suriname											92	(90)
Uruguay	[94]	[95]						[94] [87]	(92)		92	
Venezuela	[94]	[95]							(91) (90)		92	(81)
ASIA												
(Asia regional)						(84)	93		(92) (83)			(90) (90) (83)
Afghanistan						(77)					92	
Armenia												
Azerbaijan											92	93
Bahrain							P 93		(87)		92	
Bangladesh			(90) (89)			(89) (89) (83) (80)	P [91] (87)		(87)		91	(87)
Bhutan			P				P 91				(91)	(90)
Brunei Darussalam						87						
Cambodia			P						94			94
China	[94]		94				94 94 (90)	95	P 94 (82)		(91)	[93] (91) (88) (84)
Gaza						94					92	
Georgia												
Hong Kong									94			
India	94	95	94 (89)			(89) (83) (80)	P 93 92		(91) (91) (88) (85)		[92]	95 [93] (86)
Indonesia	[94]	95	[93] 93 92		94	94 (88) (88) (87) (87)		P (91)	[93] (91)		92	94 [94] [94] (91) (90)

92 = report for this year included (92) = included in previous directory [92] = identified but not included P = pending publication

	Agenda 21, 1994	Agenda 21, 1995	Biodiversity Assessments, Strategies, and Action Plans	Climate Change Assessments, Strategies, and Action Plans	Environmental Synopses	Environmental Profiles (donor programs)	Environmental Strategies and Action Plans	Forestry Assessments, Strategies, and Action Plans	OECD Environmental Performance Reviews	State-of-Environment Reports	UNCED National Reports	Other Environmental Studies
Iran							[P]					
Iraq												[94] **91**
Israel	[94]	[95]								**94**	[92]	**92**
Japan	**94**		P						**94**	[9?] **92**		
Jordan			P			(79)	**91**			(89)	(91)	
Kazakhstan											**92**	**93**
Korea, North											**92**	
Korea, South	[94]	**95**									(91)	**94** (88) (87)
Kuwait												**91**
Kyrgyz Republic												
Laos			P				P **93**	(90)		P	(92)	
Lebanon											**91**	
Malaysia	[94]	[95]	P (88) (88)		**93**	(79)	(91) (89) (88)			[94] **93 92** (91)	**92**	
Maldives							**93**			[94]	(91)	
Mongolia			P				**95**			[95] [94]	**92**	
Myanmar	[94]		(89) (87)			(82) (80)	P			[94]	**92**	
Nepal			P			(83) (79)	[93] **92** (87)	(88)			**92**	(91) (88) (88)
Oman						(81)	P				**92**	
Pakistan	[94]	[95]	(91)		(92)	**94** (92) (90) (88) (86)	**94** (91) (87)			[94] (86) (82)	(91)	[91]
Philippines	[94]	**95**	P (89) (88)			**92** (88) (80)	P **90**	**90**		(86) (82)	(91)	(91) (89) (89) (85)
Qatar										(87)	**92**	
Saudi Arabia											**92**	**91**
Singapore			**95**			(88)	**93 92** (90)			(90) (89) (86)	(91)	**94**
Sri Lanka	[94]		(91) (88)		(92)	(83) (79)	**94** (91) (88)	(86)		[94] [94] (89)	(91)	**93** (88) (85)
Syria						(81)					**92**	
Taiwan			**93 92**				[94] (85)			**94**		(89)
Tajikistan												
Thailand		[95]	P			**92** (87) (79)					(92)	(92) (90) (90) (90)
Tibet							**92**			(91)		

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	Agenda 21, 1994	Agenda 21, 1995	Biodiversity Assessments, Strategies, and Action Plans	Climate Change Assessments, Strategies, and Action Plans	Environmental Synopses	Environmental Profiles (donor programs)	Environmental Strategies and Action Plans	Forestry Assessments, Strategies, and Action Plans	OECD Environmental Performance Reviews	State-of-Environment Reports	UNCED National Reports	Other Environmental Studies
Turkey		[95]				(82) (80)				(89) (81)	(91)	**92**
Turkmenistan												[94]
United Arab Emirates												
Uzbekistan												[94]
Vietnam			**93**									
Yemen			[92] [90]			(90) (90) (90) (82)					**92**	
OCEANIA												
(Oceania regional)				[93]			P **92**				**92**	
Australia		**95**	**94**	**93**			**92**			**92**	[92]	
Cook Islands			(88)				**93**			**93**		
Fiji			(89)		**93**	(86)	P **93**			[92]	[92] (92)	
Kiribati							**93**			**94**		(89)
Marshall Islands	[94]						**93**				**92**	
Micronesia							**93**			**92**		
New Zealand	**94**	**95**					**94**				**92**	
Niue			(88)				**93**			**94**	(91)	
Palau										**94 94**		
Papua New Guinea			P **93**			**94**			(90)	(85)	(92)	
Solomon Islands					**93**		**93**			**93**	**92**	
Tokelau				[93]			**94**			**94**	(91)	
Tonga			(88)	P		(86)	**93**			(90)	**92**	
Tuvalu			(88)				P			**93**		
Vanuatu			(88)		**93**		(88)				(91)	
Western Samoa			(88)	P	**93**	(87)	**93**			**93**	(91)	
EUROPE												
(Eastern Europe regional)							**94 93**					[93] [93] [93]
(Europe regional)	[94]	**95**					**93**			**95** P	[92]	
Albania							**93**					P

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	Agenda 21, 1994	Agenda 21, 1995	Biodiversity Assessments, Strategies, and Action Plans	Climate Change Assessments, Strategies, and Action Plans	Environmental Synopses	Environmental Profiles (donor programs)	Environmental Strategies and Action Plans	Forestry Assessments, Strategies, and Action Plans	OECD Environmental Performance Reviews	State-of-Environment Reports	UNCED National Reports	Other Environmental Studies
Andorra												
Austria	94	[95]		94			P			94	[92]	
Belarus			P						P		92	
Belgium	[94]	[95]									92	
Bulgaria			94						P		92	
Croatia											92	P
Cyprus	[94]						91			(87)	(91)	93
Czech Republic	[94]		P	94			91			94 92	92	
Denmark	94	[95]					94			[94]	91	
Estonia	94									94 [93] [91]	92	93
Finland	94	95		95			[?] 95	94		93	[92]	
France	[94]	95		95			90			94 [93]	92	[92]
Germany	94	95	P P	94					93		92	
Greece											92	
Hungary	94	95		94			95			P	92	
Iceland	[94]	[95]					93		93		92	
Ireland	[94]	[95]								[95]	92	[92]
Italy	[94]	95							94	93	[92]	
Latvia				95			P				92	93
Lithuania											92	93
Luxembourg	94	[95]								94		
Macedonia												P
Malta											92	
Moldova							P			P [91]		94 [94]
Monaco											92	
Netherlands	[94]	[95]	P	94			94		95	93	[92]	P 92
Norway	[94]	95	[94] 92	94					93		[92]	
Poland	[94]		P [91]	94			93		95	93	[92]	
Portugal	94	[95]		94			95		93	[91]	92	

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Romania											92	
Russian Federation			94				P			94	92	
Slovak Republic			P				93				92 [91]	
Slovenia												P
Spain	[94]	95								94	[92]	
Sweden	[94]	95		94							[92]	
Switzerland	94	95		94						94	[92]	
Ukraine		[95]	P							94	92	92
United Kingdom	[94]	95	94 94	94			95 94		94		[92]	
Yugoslavia (former)											92	
OTHER												
Former Soviet Union										92 90	[91]	[93]
Latin America regional							P (86)			91 (82)		(91) (91) (90) (89)
Mediterranean regional												(89)
OECD Countries	[94]									91		[95]

92 = report for this year included (92) = included in previous directory [92] = identified but not included P = pending publication

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III. Annotated Bibliography

For easy searching, the bibliographic citations are organized alphabetically in three levels:

- Major geographic region (Africa, the Americas, Asia, Europe)
- Sub-region (e.g., North and Central America, South America)
- Countries

Within each region and sub-region, regional reports precede country reports. To find a country directly, use the Country and Region Index at the end of the document.

When studies are part of a time series, only the latest edition is abstracted. References to earlier editions may be included in the abstract, in the *Matrix of Countries and Reporting Categories*, or in previous editions. Full abstracts for many older reports (from developing countries only) can be found in the *1993 Directory* or the *Directory Database Diskette*.

Each citation contains information on the following:

- Country
- Document title (in its original language and English translation)
- Reporting Category
- Author(s)
- Collaborating organization(s)
- Sponsoring organization(s)
- Publication date, number of pages, collation, special features
- Language of document (Ar=Arabic, En=English, Es=Spanish, Fr=French, Pt=Portuguese, Ru=Russian, Sk=Slovakian)
- Abstract (in English)
- Availability

[ ] Information in a citation surrounded by brackets is not explicitly stated in the report.

Africa

(Africa regional)

State of the environment in Southern Africa

State-of-Environment Reports

Booth, Andrea; McCullum, John; Mpinga, James; Mukute, Mutizwa
Southern African Research and Documentation Centre, Harare, ZW;
IUCN—The World Conservation Union. Regional Office for Southern Africa, Harare, ZW;
Southern African Development Community. Environment and Land Management Sector Coordination Unit, Maseru, LS;
Canadian International Development Agency;
German Federal Ministry for Economic Cooperation;
Oxfam, UK;
John D. and Catherine T. MacArthur Foundation. Collaborative Studies Programme
1994, xx, 332 p., ill., maps, statistical tables, En

Southern Africa is one of the most ecologically rich and diverse regions of the world. This book examines the natural resources, particularly the ecological zones (ecozones) shared by member countries of the Southern African Development Community (SADC)—Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. Part One reviews the region's physical and human environment; traditional environmental management techniques; the laws, policies, and institutions that regulate southern Africa's environment today; principal ecozones, and the recurring problem of drought. Part Two details environmental issues identified by interviewees in all SADC countries as the most serious, including soils and land use, woodlands and forests, wildlife and protected areas, freshwater resources, marine ecosystems, pollution, and armed conflict (which has directly or indirectly affected all the countries in southern Africa over the past three decades). Part Three identifies the possible impacts on the region of global warming and depletion of the ozone layer, and discusses measures being taken regionally and internationally to reduce such impacts; it also presents possible scenarios for the future which were developed at a regional environmental workshop. Interspersed throughout the report are journalistic accounts that illustrate the impact of the environment on the daily lives of southern Africans. Includes a glossary of terms and an extensive index. References are appended to each of the report's 14 chapters.

Available from:
Africa Books Collective Ltd.
The Jam Factory
27 Park End Street
Oxford OX1 1HU
United Kingdom
Tel: +44 865 726 686; Fax: +44 865 793 298

The Southern African environment: profiles of the SADC countries

State-of-Environment Reports

Moyo, S.; O'Keefe, P.; Sill, M.
Earthscan Publications, London, UK;
ZERO Foundation, Harare, ZW
1993, 354 p., tables, maps, En

This report devotes a chapter to each of the ten member countries of the Southern African Development Community: Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland, Tanzania, Zambia, Zimbabwe. Each chapter covers environmental issues, the natural resource base, and legal framework. Many of the country analyses also include information on the economic context, priority problems, and strategies for sustainable development. Each profile was drafted by local environmental experts and is based on extensive fieldwork and research originally commissioned by the Dutch government.

Available from:
Earthscan Publications
120 Pentonville Road
London N1 9JN England
Tel: (+44 71) 278-0433; Fax: (+44 71) 278-1142

Algeria

Rapport national: Conférence Mondiale sur l'Environnement et le Développement (National report: World Conference on the Environment and Development)

UNCED National Reports

Jun 1991, 59 p., Fr

In Algeria, drought and irregular rainfall distribution necessitate tremendous mobilization of artificial water resources. Analyses show that between the years 2010 and 2025, Algeria will begin experiencing serious water

shortages. This report assesses Algeria's natural resource base, describes environmental protection initiatives already underway, and presents a plan to further combat environmental degradation. Major environmental problems are identified as the following. (1) The fragility of Algeria's soils (which are crucial to its agricultural and pastoral activities) necessitates protection or expensive conservation practices. (2) Extreme variability in temperature—especially very hot summers—demand extraordinarily adaptable agriculture, pastoral systems, and housing. (3) Northward expansion of the country's desert has reduced feed crops, caused difficulties in cattle breeding, and deposited sand on agricultural land, in towns, and on roads. (4) Waste management is inadequate. (5) Population growth has created shortages in housing and employment. (6) Water purification techniques are below standard (poor drinking water is a leading cause of disease and infant mortality).

Available from:
UNDP Resident Representative
B.P. 823
Algiers 16000
Algeria
Tel: +213 2 74 49 02; Fax: +213 2 74 50 82

Angola

Environmental synopsis: Angola (Resumo ambiental: Angola)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 39 p., maps, statistical tables, En/Pt

Despite malnutrition, disease, and periodic famine, Angola has much development potential due to its abundant natural resources. However, environmental problems are threatening these resources. Deforestation claims around 440 square km a year, and only small patches of natural forest remain. Poaching in woodlands and burning of trees are widespread. Water shortages are common, despite abundant rivers and wetlands. Also, many important endemic species are overhunted or receive no protection, and Angola's protected area system has almost completely disintegrated due to the civil war. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Angola's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Angola. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-377/378

Angola: environment status quo assessment report

State-of-Environment Reports

IUCN—The World Conservation Union. Regional Office for Southern Africa, Harare, ZW;
Commission of the European Community, Luanda, AO
Oct 1992, 2 v., maps, statistical tables, En

In Angola, there is great concern that the environmental damage caused by 30 years of warfare could be compounded by a new period of unchecked exploitation of those natural resources that are still intact. Although the country's resource base shows few signs of irreversible damage, the cost of pollution, degradation and widespread hunting of wildlife already amounts to millions of dollars. This report, based on primary sources and on visits to 16 of Angola's 18 provinces: (1) provides an overview of the socioeconomic and political context for environmental action in Angola; (2) reviews the ecological determinants of biodiversity (climate, hydrology, geology, soils, vegetation, major biomass/protected areas); (3) analyzes environmental issues and priorities concerning the urban environment, biodiversity, forests, agricultural, minerals and petroleum, coastal areas, and institutional aspects; and (4) sketches a framework for environmental action with strategy and program proposals. Annexes include detailed descriptive material, particularly on biodiversity and agricultural systems. A portfolio of ten draft project proposals is included.

Available from:
IUCN Regional Office for Southern Africa
P.O. Box 745
6 Lanark Road
Belgravia
Harare
Zimbabwe
Tel: +263 4 728 266/7; Fax: +263 4 720 738

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-477

National report to the United Nations Conference on Environment and Development: Angola

UNCED National Reports

People's Republic of Angola. Ministry of Planning, Luanda, AO
Jun 1991, 64 p., statistical tables, En

Angola is just emerging from years of war, during which the government gave absolute priority to defense and emergency needs, and environmental issues were neglected. The impact of this history on Angola's environment is detailed in this report. An initial section provides an overview of Angola's economy and describes the natural resources on which it depends. Next, the report details the serious environmental problems affecting Angola—food, water, and housing shortages, and the effects of these on public health; problems arising within the agriculture, mining, and energy sectors; water and air pollution; inadequate waste management; and problems in regard to hygiene and safety in the workplace. After describing Angola's efforts to develop environmental institutions, legislation, education, research, and action projects, the report concludes with a series of recommendations aimed at establishing a national environmental strategy for sustainable development. Emphasis is placed on the need to establish a firm institutional base for environmental efforts. A bibliography and a list of environmental legislation are appended.

Available from:
UNDP Resident Representative
Caixa Postal 910
Luanda
Angola
Tel: +244 2 33 11 81 or +244 2 33 11 88
Fax: +244 2 33 56 09 or +244 2 871 150 5360

Benin

Environmental synopsis: Benin (Profil environnemental: Benin)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 36 p., maps, statistical tables, En/Fr

Benin's natural resources are considerable and offer enormous potential for development. However, due to inadequate management and over-exploitation, these resources are being degraded. Specific problems include water pollution and shortages, soil erosion, overfishing, salinization of the lagoon system, deforestation, coastal erosion, pollution from wastes in urban centers, and a lack of environmental awareness. This environmental review of Benin was prepared as a briefing book for the Commission of the European Communities officials. After an introductory fact sheet and an outline of key issues, the report: (1) examines Benin 's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Benin. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-380/381

Plan d'action environnemental du Bénin: projet de document final (Environmental action plan of Benin: final document)

Environmental Strategies and Action Plans

World Bank, Washington, DC, US;
Benin. Ministère de l'Environnement de l'Habitat et de l'Urbanisme, Cotonou, BJ
May 1993, 93 p. + 3 annexes, charts, statistical tables, Fr

According to this National Environmental Action Plan, the principal environmental problems in Benin are deforestation, extensive erosion, deteriorating water quality, and unbalanced urban development. These problems stem from a variety of factors: a rapidly growing population (especially in the south); widespread poverty; consumption of natural resources (particularly traditional energy sources) more quickly than they can be renewed; and sectoral policies only marginally concerned with the environment. To combat these problems, the Plan proposes a total of 48 action interventions in seven program areas: (1) environmental education and sensitization; (2) applied research (in such areas as land availability, agricultural and alternative technologies, range management, renewable energy, brush fire control, and anti-erosion techniques); (3) ecological and biological diversity management; (4) water resources management; (5) rural development; (6) urban development; and (7) institutional and legislative reform and environmental information systems. A final section specifies action to be taken over time frames of one, five, and 15 years.

Available from:
World Bank Public Information Center
1776 G Street NW
Room GB1-300
Washington DC 20433
USA
Tel: +1 202 458 5454; Fax: +1 202 522 1500
E-mail: pic@worldbank.org
Internet: http://www.worldbank.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-457

Botswana

Botswana National Report for the United Nations Conference on Environment and Development

UNCED National Reports

Silitshena, R.; Osafo-Gyimah, K.
Botswana. Department of Town and Regional Planning, Gaborone, BW;
U.N. Development Programme, Gaborone, BW
May 1992, 145 p., statistical tables, En

Botswana's national income depends almost completely upon natural resources, and increasingly on non-renewable resources such as diamonds, copper, and nickel. The major renewable income-producing resource, beef cattle farming, places tremendous stress upon limited land and water resources, and population growth is intensifying competition for these resources. On a positive note, wildlife parks and reserves cover nearly 18 of the country, laying the foundation for a tourism industry which offers a sustainable source of income. Chapter 1 of this report introduces Botswana's economy, government policy, society, and natural resource base, and discusses the role of natural resources in economic development. Chapter 2 identifies leading environmental issues, the most critical of which is pressure on water resources, while others include degradation of rangelands, depletion of forest resources (especially fuelwood), and air, water, soil, and solid waste pollution. Chapter 3 reviews environmental laws, institutions, expenditures, impact assessments, research, specific programs and projects, and private initiatives. Chapters 4 and 5 develop a plan for sustainable development, with Chapter 4 assessing constraints and opportunities, and Chapter 5 presenting "An Agenda for Action," including a summary list of priority projects and their financing and personnel requirements.

Available from:
Department of Town and Regional Planning
Gaborone
Botswana

Burkina Faso

Environmental synopsis: Burkina Faso (Profil environnemental: Burkina Faso)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 41 p., maps, statistical tables, En/Fr

Key environmental issues in Burkina Faso are: drought and related water management problems; land degradation and the risk of encroaching desertification; inappropriate human and livestock pressures on fragile land resources; lack of timber for fuel and building; and threatened and diminishing wildlife resources. This environmental review of Burkina Faso was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Burkina Faso's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Burkina Faso. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-384/385

Plan d'action national pour l'environnement (P.A.N.E.) [Burkina Faso] (National environmental action plan [Burkina Faso])

Environmental Strategies and Action Plans

World Bank, Washington, DC, US;
Burkina Faso. Ministère de l'Environnement et du Tourisme. Comité National de Lutte Contre la Désertification, Ouagadougou, BF
Jul 1991, 3 v., maps, Fr

Although Burkina Faso has a reputation in West Africa as a leader in initiating actions to improve environmental management, results so far have been disappointing. Conscious of the need to do more, Burkinabe authorities called a National Workshop on the Environment in October 1989; this National Environmental Action Plan (NEAP) gives form to the principal conclusions and recommendations of that workshop. The NEAP groups existing and planned environmental management actions into four "Programmatic Agendas": national resource management; village-level land management; improving living standards; and developing environmental. The Programmatic Agendas are complemented by two support programs, (1) managing information on the environment, and (2) coordinating and monitoring the NEAP. Volume I of the NEAP describes the basis, context, and goals of each of the four programmatic areas, including discussions of institutional responsibilities and lines of authority. Annexes to Volume I include documentation of the development of the NEAP, a list of relevant legislation, and a directory of relevant nongovernmental organizations. Volume II lists and describes existing and future projects and actions which would be undertaken under each of the programmatic agendas and support programs, with descriptions of each project, its duration, cost in U.S. dollars, and implementing organization(s); the projects are further summarized in a concluding table. Includes lengthy executive summary in English.

Available from:
World Bank Public Information Center
1776 G Street NW
Room GB1-300
Washington DC 20433
USA
Tel: +1 202 458 5454; Fax: +1 202 522 1500
E-mail: pic@worldbank.org
Internet: http://www.worldbank.org

Also Available from:
U.S. Agency for International Development
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Profil environmental du Burkina Faso (Environmental profile of Burkina Faso)

State-of-Environment Reports

Kessler, J.J.; Geerling, C.
Université Agronomique. Département de l'Amenagement de la Nature, Wageningen, NL; Netherlands. Ministry of Foreign Affairs, Directorate General for International Cooperation, The Hague, NL
Mar 1994, 63 p., ill., maps, statistical tables, Fr

Five socioeconomic regions (north or Sahelian region, central, east, west, and southwest) in Burkina Faso are defined in terms of their ecology, demography, and natural resource utilization in this environmental profile. After a description of these five regions, the first chapter discusses the natural environment: climate, geology and geomorphology, hydrology, soil, vegetation, and fauna. The following section discusses the human environment in terms of population distribution, living conditions, ethnicity, migration, and ownership of land. The third section reviews natural resource utilization in Burkina Faso, covering agriculture, livestock, and the utilization of water and other natural resources such as forests, national parks, and fish. The fourth section discusses conditions for sustainable use of resources and natural resource management. Conclusions and recommendations are presented by region. In general, the profile recommends integrated measures to both conserve and rehabilitate natural resources. Includes bibliography, numerous photos, charts, and maps.

Available from:
Ministry of Foreign Affairs
Directorate General for International Cooperation
Technical Advisory Unit
Bezuidenhoudseweg 67, Postbus 20061
2500 EB Den Haag
The Netherlands
Tel: +31 70 348 64 42; Fax: +31 70 348 43 03

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Burundi

Environmental synopsis: Burundi (Profil environnemental: Burundi)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 40 p., maps, statistical tables, En/Fr

In addition to its turbulent political situation, Burundi faces several environmental problems. These include: high population density and growth, soil erosion, deforestation, and an inadequately enforced protected area network. On the positive side, Burundi has received support from several organizations for forest conservation, and is believed to have significant mineral resources, though currently unexploited. This environmental review of Burundi was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Burundi's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Burundi. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-386/387

Cameroon

Rapport national sur l'état de l'environnement et du développement au Cameroun (National report on the state of the environment and development in Cameroon)

UNCED National Reports

Cameroon. Ministère du Plan et de l'Aménagement du Territoire, Yaounde, CM
Mar 1992, 191 p., charts, maps, statistical tables, Fr

Prepared for the 1992 U.N. Conference on the Environment and Development (UNCED) in Rio de Janeiro, this report provides an official assessment of the state of the environment in the Republic of Cameroon and discusses the country's national development plan in terms of its positive and negative impacts on the environment. The report includes: (1) an overview of Cameroon's geography, human resources, economy, and environmental problems; (2) an assessment of the balance between development and environmental resource utilization in terms of renewable and nonrenewable resources, industry, employment, urban development, the role of women in environment and development, and institutions supporting development; (3) a discussion of the legal and institutional framework for environmental management and of conditions for sustainable development; (4) proposals for UNCED's Agenda 21; and (5) consideration of the role of international cooperation in the context of debt management, technology transfer, conservation of natural resources, and desertification. The report identifies Cameroon's environmental priorities as food security, energy security, protection of natural resources, and ecologically sound use of natural resources. A bibliography on forestry, agriculture, water resources, fisheries, mine resources, energy, industry, employment and living conditions is appended.

Available from:
UNDP Resident Representative
B.P. 836
Yaounde
République du Cameroun
Tel: +237 22 17 79; Fax: +237 22 43 69

Cape Verde

Profil intègre de Santo Antao (Cap-Vert): environnement, pauvreté, femme (Integrated profile of Santo Antao (Cape Verde): environment, poverty, women)

State-of-Environment Reports

Roggeri, Henri; Furtado, Claudio; et al.
Netherlands. Ministry of Foreign Affairs. Directorate General for International Cooperation, The Hague, NL;
Centre des Etudes de l'Environnement, Leyde, NL
Jun 1994, viii, 129 p., ill., charts, maps, statistical tables, Fr

This profile of Santo Antao, Cape Verde, focuses on the island's environmental problems, poverty, and the situation of women. The report is divided into descriptive and analytical sections. The descriptive section presents detailed information on Santo Antao's natural and human environments and on its utilization of natural resources. The analytical section begins with an examination of environmental problems, including degradation of soil and vegetation, water mismanagement, destructive fishing techniques (e.g., use of dynamite), overmining, pollution, and issues related to biological diversity. The following sections discuss: the features and extent of poverty; the status of and problems faced by Santo Antao's women (e.g., spousal violence, lack of employment opportunities, and increasingly early motherhood due to the dearth of sex education); and interventions proposed by governmental, local, and donor agencies to improve Saint Antao's human and physical environments. A concluding synthesis covers revenue generation possibilities, the population's participation in development, the integration of women in development, and revision of legislative institutions. Appendices include lists of relevant organizations and endemic floral species, and a bibliography. Also includes several maps.

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Ministry of Foreign Affairs
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Order No.: WRI-373

Central African Republic

Environmental synopsis: Central African Republic (Profil environnemental: République Centrafricaine)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 35 p., maps, statistical tables, En/Fr

The Central African Republic faces several obstacles to its development and the maintenance of its environment. Problems are exacerbated by gaps in legislation, poaching (illegal wildlife traders and armed gangs from the Sudan), agricultural practices which impoverish the soil and cause erosion, a Forestry Code which does not provide for rational forest management, and the lack of environmental legislation. On the other hand, the country has considerable agricultural potential and mineral resources (diamonds and gold), along with an extensive protected areas system and a strong potential for sustainable forest production. This environmental review of the Central African Republic was prepared for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines the Central African Republic's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in the Central African Republic. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-388/389

Chad

Chad: a country profile

Environmental Profiles and Assessments (donor programs)

Evaluation Technologies, Inc.;
U.S. Agency for International Development. Office of U.S. Foreign Disaster Assistance
Mar 1982, v, 49 p., map, statistical tables, En

Drought and civil conflict have severely reduced Chad's capacity for food self-sufficiency. This profile highlights the adverse climatic and political conditions which have plagued the country's agriculture and economy. Chad was self-sufficient in food grains such as sorghum and millet until the onset of cyclical drought in 1967. During the early 1970's, the drought was responsible for thousands of human deaths and the loss of approximately half the national cattle herd. Subsequently, drought between 1972 and 1983 severely affected food production and made Chad heavily dependent upon external food sources. According to the report, long-term hostility between the country's various political factions, religious communities, and racial groups has threatened Chad's stability and economic development. For example, in times of crop surplus in the more-fertile South, administrators from that region have refused passage of needed food supplies to the North. Civil war, along with a severely underdeveloped transportation infrastructure, also have constrained health, housing, and educational development. The profile is divided into eight sections which also cover topics such as physical geography, population, health, and government.

Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-AAT-766

Comoros

Environmental synopsis: Comoros (Profil environnemental: Comores)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 32 p., maps, statistical tables, En/Fr

The Federal Islamic Republic of the Comoros Islands, one of the world's poorest countries, has a density of 450 people per square kilometer of cultivable lands and one of the highest population growth rates in the world. The Comoros' environmental problems include inappropriate agricultural practices, particularly lack of a fallow period and crop production that requires fuelwood for processing; soil erosion; deforestation; lack of a protected areas system; and unmanaged wastes and pollution in urban areas. However, a National Committee for the Environment has been established; Anjouan, the most densely populated island, is preparing a conservation strategy; and several small environmental groups have formed. This environmental review of the Comoros Islands was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines the Comoros Islands' institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Includes maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-392/393

Diagnostic de l'état de l'environnement aux Comores (State of the environment in Comoros)

State-of-Environment Reports

Comoros. Ministère du Développement Rural, de la Pêche et de l'Environnement. Direction Générale de l'Environnement, Moroni, KM;
Projet PNUD / UNESCO / UICN COI
Nov 1993, 80 + 21 p. + 5 annexes, maps, statistical tables, Fr

The island nature of Comoros and its origin in geologically recent volcanic events give the country great potential in terms of biological diversity of fauna and flora, and as a tourist attraction. However, many species that are unique to the Comoros will soon become extinct and much of its beautiful landscape will disappear if measures to protect the environment are not quickly undertaken. This report provides a clear diagnosis of the specific environmental problems facing Comoros, as well as a basis for defining environmental policy. Individual sections discuss: (1) the country's geographic structure and the main features of its varied and fragile environment, including the biological richness of its coastal and marine areas and its limited soil, water, and energy resources; (2) the extent to which its natural and cultural heritage is unappreciated and/or threatened; (3) the characteristics of the population, their inappropriate uses of the country's limited resources, and the resulting impacts on the environment; (4) public and private institutions involved in environmental management, and the need for technical assistance in this area; (5) sectoral policies affecting the environment; and (6) legislation to address environmental exigencies. An extensive bibliography is appended.

Available from:
Direction Générale de l'Environnement
B.B. 115 c/o BIC B.P. 175
Moroni
Comoros

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-680

Congo

Environmental synopsis: Congo (Profil environnemental: Congo)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 34 p., maps, statistical tables, En/Fr

Despite being situated on the Equator, the Congo has a considerable diversity of landscapes and natural environments. These resources, not yet overly exploited, face potential threats from the country's uneven population distribution, deforestation (particularly in the south), soil erosion, and pollution from hydrocarbons in marine and coastal environments. This environmental review of the Congo was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines the Congo's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in the Congo. Includes maps and a bibliography.

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IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-394/395

Rapport national [République du Congo] (National Report [Congo])

UNCED National Reports

République du Congo. Ministère de l'Agriculture des Eaux et Forests de l'Environnement et de la Biodiversité, Brazzaville, CG
1992, 76 p., charts, statistical tables, Fr

Some of the major environmental problems facing the Congo today include chaotic urbanization, accumulation of solid wastes, lack of sanitation facilities and adequate drinking water, pollution, environmentally related sickness, deforestation, disappearance of fauna, and erosion of urban and coastal areas. This national environmental assessment was prepared for the U.N. Conference on the Environment and Development (UNCED) and is in four sections. The first section discusses socioeconomic development activities, population density, demographics, migration patterns, education and health, and profiles the ecology and natural resources of the Congo. The second section details the Congo's principal environmental problems, while the third lists environmental protection measures already taken, such as legislation, the creation of environmental institutions, and programs to counter various diseases and provide environmental education. The final section lists environmental conservation projects that are under preparation or being proposed.

Available from:
UNDP Resident Representative
B.P. 465
Brazzaville
République du Congo
Tel: +242 83 18 57; Fax: +242 83 39 87

Côte d'Ivoire

Environmental synopsis: Côte d'Ivoire (Profil environnemental: Côte d'Ivoire)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 39 p., maps, statistical tables, En/Fr

In Cote d'Ivoire, reliance on just a few agricultural commodity exports—mainly cocoa, coffee, and timber—for foreign exchange earnings is contributing to both environmental and economic instability; leading environmental concerns relate to water pollution,

deforestation, overexploitation of coastal resources, worsening urban sanitation, and threats to biological diversity. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Cote d'Ivoire's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. For efforts to reverse the current situation to be successful, Cote d'Ivoire must more fully exploit its assets—a literate and educated population, potential for diversification of agricultural exports, a nascent textile industry, excellent seaward access, and a government policy that encourages investment in infrastructure.

Available from:
IUCN—The World Conservation Union
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CH-1196 Gland
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Also Available from:
U.S. Agency for International Development
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Plan national d'action pour l'environnement: tome I—livre blanc de l'environnment de Côte d'Ivoire (National environmental action plan: volume I—white paper on the environment in Côte d'Ivoire)

Environmental Strategies and Action Plans

Côte d'Ivoire. Ministère de l'Environnement et du Tourisme, Yamoussoukro, CI
Nov 1994, xx, 179 p., charts, maps, statistical tables, Fr

Côte d'Ivoire faces a number of environmental challenges. These include soil erosion and loss of forest cover; pollution and other environmental problems posed by industry, energy, transportation, tourism, and growing urbanization; the environmental and health consequences of population growth and poverty; lack of environmental education, of a national environmental information system, and of an adequate institutional framework for environmental protection; and the effects of structural adjustment on the implementation of sustainable development policy. This report is the first volume of Côte d'Ivoire's Environmental Action Plan. The first part reviews the country's geography, people, culture, economy, and natural resources, while the second identifies environmental problems. The last part of the report provides detailed strategies and recommendations for addressing environmental problems relating to agriculture and other economic sectors, protection of natural resources, and the urban environment. Regional, international, and institutional issues are also discussed. An extensive bibliography is included.

Available from:
Ministry of the Environment and Tourism
Cite Administrative, Tour D
BP V-184
Abidjan
Côte d'Ivoire
Tel: +225 21 05 34; Fax: +225 22 93 22

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-691

Djibouti

Environmental synopsis: Djibouti (Profil environnemental: Djibouti)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 35 p., maps, statistical tables, En/Fr

Djibouti's development outlook is somewhat bleak. Its environment, harsh to begin with, suffers continuing degradation from human activity, and it is poorly endowed with natural resources. To its credit, however, the government has identified protection of the environment and natural resources as one of the aims of its economic and social development program for 1991-2000, which also includes research into and establishment of adequate water supplies, improvement of food availability, and the raising of living standards. This environmental review of Djibouti was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Djibouti's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates

the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Djibouti. Includes bibliography.

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IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-398/399

Programme d'action pour l'environnement a Djibouti: phase 1 (Environmental action plan for Djibouti: phase 1)

Environmental Strategies and Action Plans

République de Djibouti. Secrétariat Technique du Comité National pour l'Environnement. Programme National pour l'Environnement, Djibouti, DJ
May 1992, 30 p., map, Fr

An Environmental Action Program for Djibouti is presented in this report. The introductory sections of the report set the context by reviewing the main conclusions of the recently completed National Report on the Environment, and discussing the policy framework provided by pertinent legislation and by Djibouti's 1991-1995 development plan. The report then describes seven priority programs: environmental education; environmental capacity building; combating desertification; environmental assessment; quality of life initiatives, including urban programs and improved waste management and pollution control; conservation of biological resources; and other environmental initiatives (e.g., use of environmentally friendly technologies and development of private sector initiatives). Finally, 12 proposed environmental projects are outlined; their expected cost is $25 million.

Available from:
Institut Superieur d'Etudes et de
Recherches Scientifiques et Techniques (ISERST)
BP 486
Djibouti RDD
Djibouti

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-693

Egypt

Report on land resources management in Egypt

Other Environmental Studies

Samie, Ahmed Gamal Abdel
U.N. Environment Programme, Nairobi, KE
Jan 1992, vii, 196 p., maps, statistical tables, En

Egypt's agricultural lands face many serious problems, including pollution of irrigation waters and of soil, encroachment from sand drift and creep, particularly in areas subject to strong winds, and soil fatigue and infertility. This report presents data on the country's cultivated lands, their nature, use, development, and conservation. Following an introduction, Section II traces the history of agricultural land use before and after construction of the High Dam in 1967, describes efforts in agricultural research (including soil surveys and classification), identifies areas of cultivated lands from 1813-1989, and describes land management categories outlined in Egypt's Land Master Plan (1983). Section III then describes agricultural management practices, including vertical and horizontal land development, irrigation and drainage systems, mineral and organic fertilizers, soil improvement, field crop productivity for the period 1951-1985, agricultural legislation, and land distribution. Problems related to soil salinity and pollution, salinity, urbanization, sand deposits and dune encroachment, re-use of drainage water for irrigation, and desertification are discussed in Section IV, and then reiterated, along with recommendations, in Section V. The institutional aspects of agricultural and environmental management are also considered. A final section proposes future environmental policies and outlines seven environmental projects.

Available from:
United Nations Environment Programme (UNEP)
PO Box 30552
Nairobi
Kenya
Tel: +254 2 230 800 or +254 2 520 600

Also Available from:
U S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-551

Environmental profile: Fayoum Governorate, Egypt: background study

State-of-Environment Reports

van Zon, Hans C.J., ed.; Jeanes, Kevin W., ed.
Euroconsult, Arnhem, NL;
Darwish Consulting Engineers, Cairo, EG;
Netherlands. Ministry of Foreign Affairs. Directorate General for International Cooperation, The Hague, NL;
Egypt. Fayoum Environmental Affairs Department, Fayoum, EG
Jun 1992, v, 119 p., charts, maps, statistical tables, En

The Fayoum is a natural depression of about 12,000 square kilometers, with some unique environmental features: (1) every gram of water, salt or pollutant that enters the basin accumulates there; (2) Fayoum has a large and growing human population cultivating limited land resources; and (3) it includes an uninhabited sub-basin with two mostly unutilized freshwater lakes, representing development potential. This report, a background study for an environmental profile of Fayoum Governorate, is arranged in three main parts: first, a description of the Governorate's natural resources (climate, geology, landform, soil, flora, fauna, and its history, archaeological significance, and socioeconomic indicators); second, a review of the environmental impacts of ongoing and planned development activities, defining problems, trends, and interlinkages; and third, potential solutions, an introduction to an Environmental Action Plan outlining the main problems and priority lines of action. In sections two and three, particular attention is given to water resources management, agriculture, water and sanitation, health, fisheries, tourism, and conservation. Included are 48 figures and 54 tables which offer detailed data on Fayoum's resources and environmental threats. Also included is an extensive bibliography.

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Ministry of Foreign Affairs
Directorate General for International Cooperation
Technical Advisory Unit
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-374

Environmental profile: Fayoum Governorate, Egypt

State-of-Environment Reports

van Zon, Hans C.J., ed.; Jeanes, Kevin W., ed.
Euroconsult, Arnhem, NL;
Darwish Consulting Engineers, Cairo, EG;
Netherlands. Ministry of Foreign Affairs. Directorate General for International Cooperation, The Hague, NL;
Egypt. Fayoum Environmental Affairs Department, Fayoum, EG
Nov 1992, vi, 65 p., ill., charts, maps, statistical tables, En

The Fayoum Governorate, some 90 km South of Cairo, was chosen as the site for the first governorate-level environmental assessment in Egypt. Section One of this report reviews Fayoum's climate, geology, landforms, soils, hydrology, flora and fauna, history and archaeology, and educational, literacy, and employment rates. Section Two discusses the most significant threats to natural resource conservation, agricultural development, and to human health, and Section Three offers possible solutions for some of these. The report notes the need to, inter alia: stabilize water levels and salinity levels in Lake Qarun, an important tourist attraction and food resource; decrease salinity of agricultural soils; reduce the threat of pesticides (found in many crops, especially tomatoes) and water-borne disease to human health; build wastewater treatment plants to improve sanitation; and more accurately assess crop demands for water and more equitably distribute water resources. In addition, the report discusses Fayoum's potential for aquaculture activities and for tourism, and the need to secure valuable archaeological sites. Annexes map Fayoum's geological history; list flora and fauna and their habitats; describe 24 archaeological sites; identify government irrigation

agencies; and include a table illustrating Fayoum crop production parameters and livestock population numbers.

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Ministry of Foreign Affairs
Directorate General for International Cooperation
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Bezuidenhoudseweg 67, Postbus 20061
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U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-375

Equatorial Guinea

Environmental synopsis: Equatorial Guinea (Perfil ambiental: Guinea Ecuatorial)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 36 p., maps, statistical tables, En/Es

Equatorial Guinea's highly biodiverse forests are under threat from many sides. The Spanish colonial system of protected areas collapsed subsequent to independence, and hunting devastated wildlife in many regions; deforestation increased dramatically in the 1980s; and economic collapse and population growth have led to intense demand for agricultural land, putting further pressure on forests. The government has adopted proposals for a number of protected areas. However, no concrete steps have been taken to institute protection, and, as Equatorial Guinea is concentrating on timber revenues to rebuild the economy, environmental concerns are likely to receive low priority in the coming years. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Equatorial Guinea's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Includes bibliography.

Available from:
IUCN—The World Conservation Union
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-402/403

Informe nacional sobre medio ambiente y desarrollo Guinea Ecuatorial (Environment and development national report of Equatorial Guinea)

UNCED National Reports

Juste, Giver; Canter, Alicia
Republica de Guinea Ecuatorial. Comites Nacional de Protection del Media Ambience, Malabo, GQ
Sep 1991, 216 p., statistical tables, Es

Although Equatorial Guinea can still claim extensive natural rainforests and high biodiversity, its environmental outlook is not good. The economy is based almost exclusively on poorly managed, direct resource utilization (led by timber extraction), and a poor macroeconomic outlook coupled with relatively high population growth offers no relief from the pressures which underlie this economic paradigm. This report examines the environmental issues confronting Equatorial Guinea as it pursues socioeconomic development. Chapter 1 provides background on the country's economy, demography, social development, and natural resource base, including agriculture, forests, fisheries, minerals and hydrocarbons, hydroelectric potential, and biodiversity. Chapter 2 discusses the major environmental issues, led by deforestation and including loss of biodiversity, potable water shortages, contamination of water resources, the effects of environmental degradation on human health and quality of life, and inadequate solid waste disposal. Chapter 3 details policies and programs related to environmental management, covering institutional structures, legislation, special projects, and environmental education. Chapters 4 and 5 are prescriptive in nature, outline a strategy for achieving development through sustainable resource utilization, and including a summary of recommendations and a time-table for achieving policy goals in various environmental and sectoral areas. Annexes include a list of institutions and organizations contacted and a bibliography.

Available from:
UNDP Resident Representative
UNDP Malabo, Equatorial Guinea
c/o UNDP
PO Box 1608
Grand Central Station
New York NY 10163-1608
Tel: +240 9 2342; Fax: +871 150 5363 (Ext.102)

Ethiopia

Environmental synopsis: Ethiopia

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 34 p., maps, statistical tables, En

Ethiopia, one of the poorest countries in Africa, faces major environmental problems. Soil erosion, triggered by massive deforestation, has already ruined up to half the potential agricultural land in the highlands, and will likely destroy the rest unless action is taken; as Ethiopia can already feed only half of its population, which is doubling every 20-25 years, the seriousness of this trend cannot be overstated. Nevertheless, Ethiopia does have valuable environmental resources, including diverse wildlife, a large number of endemic species, and significant water resources. Increased lowland irrigation and coastal and inland fishing could sustainably render much higher food yields. This environmental review of Ethiopia was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Ethiopia's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Ethiopia. Includes bibliography.

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IUCN—The World Conservation Union
Rue Mauverney 28
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-404

Ethiopian Forestry Action Programme (EFAP): Final Report

Forest Assessments, Strategies, and Action Plans

Ethiopia. Ministry of Natural Resources Development and Environmental Protection, Addis Ababa, ET;
World Bank, Washington, DC, US;
U.N. Development Programme
1993, 4 v., charts, statistical tables, En

Ethiopia's forest resources are disappearing. Natural forests, which in the early 1950's accounted for 16 of the land area, by 1989 accounted for only 2.7. fueled demand for wood as a source of household energy as well as the clearing of forested areas for agricultural land. The action plan for Ethiopian forestry development, presented in this report, proposes a comprehensive program to promote sustainable management of forest resources. The report consists of four volumes: (1) an Executive Summary; (2) an analysis of the challenges facing forestry planners and resource managers; (3) an analysis of institutional and policy issues, together with the forestry action plan itself; and (4) highlights from the National Seminar on the Ethiopian Forestry Action Program, which was held in June 1993. The action plan includes primary programs in tree and forest production, forest resource and ecosystems management, forest industries development, and woodfuel energy efficiency development, along with supportive programs in technology development and dissemination, sectoral integration, monitoring and evaluation, and human resources development. Eight programs are presented under three major headings: objectives; strategy; and actions and investments.

Available from:
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Also Available from:
U.S. Agency for International Development
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Order No.: WRI-447

Gabon

Environmental synopsis: Gabon (Profil environnemental: Gabon)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 36 p., maps, statistical tables, En/Fr

Gabon's rich biodiversity and large tracts of untouched rain forest, together with its relatively low population density and considerable mineral reserves, offer exceptional opportunity for conservation. Thus far, exploitation of mineral reserves, particularly oil, has given its citizens the highest per capita income in sub-Saharan Africa and the environment a respite from other, more damaging activities. Recently, however, falling oil revenues have prompted expansion of the timber industry, and the threat of deforestation is increasing; estimates are that remaining primary forest will be halved by 1997 unless remedial action is undertaken. This environmental review of Gabon was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Gabon's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Gabon. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-406/407

Gambia

Gambia environmental action plan 1992-2001: Volume I—Final draft

Environmental Strategies and Action Plans

Gambia. Ministry of Natural Resources and the Environment. Environmental Unit, Banjul, GM;
World Bank, Washington, DC, US
7 May 1992, xiii, 63 p., En

The Gambia is faced with serious environmental problems. The natural resource base upon which traditional agricultural and pastoral production depend is rapidly being depleted, accelerated by the mechanized exploitation of natural resources for commercial gain and exacerbated by recurring drought. The Gambia Environmental Action Plan (GEAP) provides a framework for national environmental policy planning and natural resource management decisionmaking on a continuous basis and hence is an integral component of the government's Program for Sustained Development. This document presents part one of the GEAP, an action plan covering the period 1992-2001. Chapter 2 reviews the current state of the environment and of natural resource management, including ongoing environmental programs, the existing legal and institutional framework, and outstanding issues. Chapter 3 outlines an environmental policy framework for government action; describes a three-pronged action program focusing on natural resource management, environmental health, and energy; and details strategies for implementing these programs. An institutional and legal framework for implementation is outlined in conclusion. Annexes present lists of Gambian environmental legislation and of international environmental conventions to which the Gambia is signatory.

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Order No.: WRI-462

Ghana

Ghana environmental action plan (volume 1)

Environmental Strategies and Action Plans

Ghana. Environmental Protection Council, Accra, GH;
World Bank, Washington, DC, US
[1988], xiii, 106 p., maps, En

Although Ghana is endowed with abundant natural resources, it has not taken adequate care to avoid their depletion while meeting its own socioeconomic needs. The resulting problems include deforestation, desertification, and soil degradation, as well as industrialization-based air and water pollution. The country has reached a point where, in order to ensure sustainable economic growth, it must balance economic growth objectives with more rational usage of natural resources. This National Environmental Action Plan (NEAP) defines a set of policy actions, related investments, and institutional strengthening activities aimed at making Ghana's development strategy more environmentally sustainable. Topics discussed include: the relation between economic development and the environment; national environmental policy; legal and institutional issues; management of natural and built environments; environmental education; and environmental monitoring. A final chapter outlines a strategy for implementing the NEAP, including specific actions to be taken by the Environmental Protection Council (EPC), sectoral agencies and institutions, the National Energy Board, the Water Resources Research Institute, district assemblies, and community groups. Appendices present matrices of environmental projects and of the impacts of resource utilization.

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Order No.: WRI-463

Guinea

Plan national d'action pour l'environnement (National environmental action plan [Guinea])

Environmental Strategies and Action Plans

World Bank, Washington, DC, US;
Guinea. Ministère du Plan et de la Coopération. Comité de Pilotage du PNAE, Conakry, GN
Sep 1994, 55 p. + 4 annexes, statistical tables, Fr

The abundance of natural resources in Guinea have served the country well and provides it with the means for sustainable development. This National Environmental Action Plan (NEAP) for Guinea includes information on: (1) the state of the environment and exploitation of natural resources such as water, forests, and biodiversity; (2) urban, industrial, and rural pollution; (3) perceptions of Guinean society regarding the environment (including discussions of women and the environment, environmental legislation, and the interrelationships among civil society, the state, and the environment); (4) economic development and the environment, including the impact of macroeconomic measures on the environment, the impact of environmental legislation on economic development, the costs of environmental degradation, and public investment in the environment. The NEAP also discusses environmental strategies, including global objectives. The last section of the report provides the specifics of the action plan. It describes proposed rural, urban, and coastal programs as well and their administration. Discussions of institutions implementing the NEAP, financing, and intervention methods, as well as a "priority plan of action," are also included.

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Internet: http://www.worldbank.org

Rapport national de la République de Guinée (National report of Guinea)

UNCED National Reports

Guinea. Ministère des Ressources Naturelles et de l'Environnement. Comité National Préparatoire, Conakry, GN
Oct 1991, 122 p., statistical tables, Fr

Since 1985 the Republic of Guinea has taken several steps to protect its considerable natural resources, while promoting socioeconomic development. This report addresses: (1) the country's economy and its financial and social sectors; (2) Guinea's natural resource endowments, principal ecological regions, and the potential utilization of natural resources for development; (3) principal environmental and natural resource problems, which include general environmental degradation and deterioration in the quality of life in terms of sanitation, water quality, atmospheric pollution, climate change, and reduction of the ozone layer; and (4) a discussion of investment and financial requirements in the population, agriculture, fisheries, forests, and science and technology sectors. A final section discusses measures taken to alleviate environmental problems, such as legislative as well as institutional decrees, existing projects, and intergovernmental and international cooperation. A bibliography is appended.

Available from:
UNDP Resident Representative
B.P. 222
Conakry
République de Guinée
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Guinea-Bissau

Towards a strategic agenda for environmental management: Guinea-Bissau

Environmental Strategies and Action Plans

World Bank, Washington, DC, US
Apr 1993, vii, 39 p., En

Guinea-Bissau is a country completely dependent on its natural resources for survival, with 90% of the population depending on the agriculture, forestry, and fishery sectors for their livelihood. The country's environmental problems range from deforestation and soil degradation to lack of access to water, water contamination, coastal degradation, fisheries depletion, and losses in biodiversity and mangroves. This National Environmental Action Plan highlights some of the options that Guinea-Bissau and its donor partners might pursue in addressing the country's environmental problems. The following topics are discussed: (1) the state of the environment, including a geographical overview, a sectoral assessment, intersectoral linkages, and environmental priorities; (2) constraints to environmental management in terms of institutions, education, information, and macroeconomic policy; and (3) strategic options for long-term top-down institutional support, long-term bottom-up educational support, and near-term project and policy interventions. A bibliography is appended, along with a review of the environmental information sector and tables of natural resource indicators.

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Internet: http://www.worldbank.org

Also Available from:
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Order No.: WRI-464

Pour un développement durable: rapport national [Guinée-Bissau] (For lasting development: national report [of Guinea-Bissau])

UNCED National Reports

Guinea-Bissau. Ministère du Développement Rural et de l'Agriculture, Bissau, GW
Jan 1992, 38 p., maps, statistical tables, Fr

An inclement climate, resource usage that degrades the environment, and a development strategy that focuses exclusively on exploitation of natural resources are the most serious environmental problems confronting Guinea-Bissau. Other problems include population density, deforestation, a lack of modern agricultural technology, and overexploitation of the fishery sector. After an executive summary, Section II of this national report on Guinea-Bissau's environment provides an overview of the country's geography, demography,

political and social structure, economic policy, and key economic sectors (mining, fishing, agriculture and animal husbandry). Also included are data on the country's level of education and health problems. The third section describes Guinea-Bissau's two major ecosystems (coastal and interior), while the fourth analyzes the impact of development on the environment. Topics include exploitation of forest resources, firewood and charcoal use, the effect of brush fires, and problems affecting the fishing, agriculture, and export crop sectors. The fifth and sixth sections, respectively, outline Guinea-Bissau's environmental management policy and identify the principal areas where the government plans to intervene: natural resource planning; environmental protection, prevention, and conservation; institutional strengthening; regional and international cooperation; population and land management; training and information; and research.

Available from:
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Kenya

Costs benefits and unmet needs of biological diversity conservation in Kenya

Biodiversity Assessments, Strategies, and Action Plans

Kenya. Ministry of the Environment and Natural Resources. National Museums of Kenya. National Biodiversity Unit, Nairobi, KE;
U.N. Environment Programme, Nairobi, KE;
Metroeconomica Ltd.;
United Kingdom. Overseas Development Administration, London, GB
Jan 1992, ix, 217 p., ill., maps, statistical tables, En

Kenya, though not one of the world's key repositories of genetic material, contains some resources of international importance, and many of considerable domestic value. According to this report, however, the needs of conservation are succumbing to the imperative of economic development in ways that are incompatible with the country's long-term interests. The report describes the nature and extent of Kenya's biodiversity, examining why and how it is being changed over time, what measures need to be taken, and how much these measures cost. Individual chapters: (1) overview Kenya's natural resources and economy; (2) review the scientific state of knowledge concerning the country's biodiversity, bringing together, in some cases for the first time, data on animal, plant, and microbial biodiversity, in situ habitat conservation, and ex situ conservation of animals, plants, germplasm, micro-organisms, and tissue cultures; (3) identify economic and social policies that lead to environmental degradation and those that encourage conservation and sustainable use; (4) identify specific programs that Kenya needs to follow immediately to arrest some of the serious loss of biodiversity it is facing; (5) give the costs of biodiversity programs that are being undertaken or proposed in Kenya, as well as the costs of additional measures that should be taken; and (6) examine the benefits of biodiversity conservation. Includes references and species lists.

Available from:
National Biodiversity Unit
National Museums of Kenya
Ministry of Environment and Natural Resources
PO Box 30126
Nairobi
Kenya

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-704

Kenya national environment action plan (NEAP)

Environmental Strategies and Action Plans

Kenya. Ministry of Environment and Natural Resources, Nairobi, KE
Jun 1994, 2 v., maps, En

Over the last three decades, Kenya's population has tripled, commercial and industrial activity have mushroomed, tourism has become the largest single source of foreign exchange, and horticulture has become a major export earner. This report presents Kenya's National Environmental Action Plan, which addresses the considerable impact that these rapid changes have had on the country's environment and natural resource base. The Plan details Kenya's commitment to integrate environmental considerations into development programs and calls for increased efforts towards management and conservation of the environment. The first part of the Plan deals with environmental policy objectives and major strategies for their realization. The second part focuses on sectoral issues, covering the economy, the physical environment, water resources, biodiversity, agriculture and food security, desertification and drought, pollution

control and waste management, human settlements and urbanization, public participation and environmental education, the environmental information system, and the institutional and legal framework. For each sector the Plan identifies environmental threats, actions that can be taken immediately, priority activities requiring funding, and long-term priorities. A proposed institutional framework to enforce environmental policy and legislation is appended.

Available from:
Ministry of Environment and Natural Resources
P.O. Box 30126
Nairobi
Kenya
Tel: +254 2 229261; Fax: +254 2 338272

Lesotho

Environmental synopsis: Lesotho

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 32 p., maps, statistical tables, En

A rugged country that bears the scars of extreme erosion, Lesotho has few natural resources. A growing population, combined with inappropriate land use, have intensified the country's erosion problems, which have now put 25 of land out of production. In addition, protected areas are practically non-existent, rangelands are overstocked, and trees cover less than 1 of the land—although fuelwood and shrubs are used to provide almost 60 of the energy consumed. The government is taking steps to address these concerns, including developing a National Environmental Action Plan and establishing appropriate institutional structures. A key to Lesotho's future will be the management of its abundant water resources, which could provide self-sufficiency in electricity. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Lesotho's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Includes a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-410

Liberia

Environmental synopsis: Liberia

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 37 p., maps, statistical tables, En

Civil war has halted efforts to conserve Liberia's equatorial rain forest, which still, however, covers half of the country's territory. This environmental review of Liberia was prepared as a briefing book for Commission of the European Communities officials. After an introductory fact sheet and an outline of key issues, the report: (1) examines Liberia's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Liberia. The country will face a number of environmental concerns once civil stability has been restored, including: forest degradation, a countryside laid waste by war, uncontrolled hunting of "bushmeat," and a weak protected area system, which includes just one national park. Includes a bibliography and maps.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Tel: +41 22 999 00 01; Fax +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
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Madagascar

Madagascar environmental action plan: volume 1—general synthesis and proposed actions

Environmental Strategies and Action Plans

U.S. Agency for International Development;
World Bank;
Cooperation Suisse;
U.N. Educational, Scientific and Cultural Organization;
U.N. Development Programme;
Oman. Directorate General of Fisheries
Jul 1988, 80 p., En

The environmental action plan for Madagascar outlined in this report emphasizes the economic importance of natural resources. Currently, environmental degradation drains the country's GDP by as much as 15% or $290 million. Deforestation is the most costly problem, with 80% of the forest lands already destroyed and total denudation expected in coming decades. Madagascar's world-record erosion rate also strains the economy by reducing agricultural productivity, raising infrastructure maintenance and investment costs, and damaging coastal ecosystems. Since adoption of a national conservation strategy in 1984, environmental awareness has increased and several productive conservation schemes have been launched. However, these projects have not met expectations and are too limited to control current rates of degradation. The proposed action plan would expand these efforts with programs focusing on the following: (1) biodiversity protection and management, combined with "adventure" tourism; (2) creation of a national environmental fund for both rural and urban improvement projects; (3) land mapping and management; (4) environmental education, training, and sensitization; and (5) institutional support. Program funding requirements are provided.

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Order No.: PN-ABC-934

Malawi

Environmental synopsis: Malawi

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 33 p., maps, statistical tables, En

Malawi has abundant water resources, some of the most fertile soils in south-central Africa, and more than 50 ecological zones, but is also one of the region's smallest and most densely populated countries. This environmental review of Malawi was prepared as a briefing book for Commission of the European Communities officials. After an introductory fact sheet and an outline of key issues, the report: (1) examines Malawi's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Malawi. Although erosion is a growing problem due to inefficient farming, deforestation, and poor land use, and environmental legislation is badly in need of revision, Malawi still holds environmental promise: less than half of its fishery and agricultural areas have been used; its protected areas network is almost 100 years old, and integrated rural development programs are in operation, allowing local communities to benefit from wildlife. Includes a bibliography and maps of vegetation patterns, protected areas, communication routes, and administrative boundaries.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-412

Malawi: national environmental action plan

Environmental Strategies and Action Plans

Malawi. Department of Research and Environmental Affairs, Lilongwe, MW;
World Bank, Washington, DC, US;
Norwegian Trust Fund, Oslo, NO
Jun 1994, 3 v., maps, statistical tables, En

Malawi's natural resources include some of the most fertile agricultural soils in southern Africa, forest resources covering almost 40% of the country, abundant water resources, and remarkably diverse flora and fauna, of which the uniquely rich and diverse fish resources stand out. However, efficient use of these resources is hampered by several factors, including a rapid rate of population growth; dependence on a rainfed agricultural system of low productivity, based largely on unsustainable land use; depletion of forest resources, and of biodiversity; and degradation of water and fish resources due to soil erosion, uncontrolled industrial and domestic waste disposal, and destructive fishing practices. To address these and other environmental issues, Malawi has developed this National Environmental Action Plan (NEAP). Volume 1, the Action Plan, describes the environment and development in Malawi, identifies key issues, prescribes actions to address them, and draws up an institutional framework for their implementation. Volume 2, Initial District Environmental Action Suggestions (IDEAS), presents the conclusions from eight district workshops, highlighting environmental problems as perceived by local populations, and their recommendations for actions to be undertaken by themselves with government support, and by the government. Volume 3 provides a preliminary environmental investment program which contains project concepts that have emerged through the NEAP process. A bibliography and list of task force reports is appended.

Available from:
Department of Research and Environmental Affairs
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Lilongwe 3
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Tel: +265 781111; Fax: +265 781487
E-mail: unepmal@wn.apc.org

Mali

Conférence des Nations-Unies sur l'Environnement et le Développement: rapport national du Mali (United Nations Conference on environment and Development: national report of Mali)

UNCED National Reports

Mali. Ministry of Rural Development and Environment, Bamako, ML
Aug 1991, 228 p., statistical tables, Fr

In Mali, persistent drought and human economic activities have combined to cause severe desertification. As a result, the country has experienced a reduction of natural resources, including forests and pasture land, soil fertility, and certain plant species. This report begins with an assessment of the country's natural resources, including soil, vegetation, pasture land, forests, water, fisheries, biological diversity, minerals, energy, livestock, and fauna. The report then discusses the role of these natural resources in the country's economic development. Major environmental problems are identified as water shortages, forest and pasture degradation, poor sanitation, and pollution from industrial effluent including solid, gaseous, and toxic wastes. The social and economic impacts of these problems are discussed. The report then describes environmental legislation, government programs, educational campaigns, and private environmental initiatives. The next section identifies constraints to and opportunities for sustainable development in Mali, while the final section outlines plans for sustainable development at the national and international level.

Available from:
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Bamako
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Mauritania

Environmental synopsis: Mauritania (Profil environnemental: Mauritanie)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 37 p., maps, En/Fr

Mauritania's environmental problems include desertification, soil erosion, deforestation, urban deterioration, and a shortage of natural resources. However, the country does include a rich fishery, which it is beginning to exploit, as well as iron ore reserves, which were estimated at 200 million tons in 1990. This environmental review of Mauritania was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Mauritania's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Mauritania. Includes bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-414/415

Environnement et développement en Mauritanie: rapport de synthèse (Environment and development in Mauritania: synthesis report)

UNCED National Reports

Mauritania. Ministère du Développement Rural. Comité National de Lutte Contre la Desertification, Nouakchott, MR;
Mauritania. Commission Nationale Preparatoire de la Conference des Nations Unies pour l'Environnement et le Développement. Bureau de Coordination, Nouakchott, MR
Jul 1991, 218 p., charts, statistical tables, Fr

Some of the pressing environmental problems confronting Mauritania today include persistent drought, reduced availability of grazing land, severe wind erosion, an energy crisis, loss of traditional occupations, and pollution of irrigated lands and coastal areas. This report, presented to the U.N. Conference on the Environment in Rio de Janeiro in 1992, discusses: (1) the general physical characteristics and socioeconomic environment in the country; (2) environmental problems in Mauritania; (3) national strategies and actions to be taken, including the National Development Plan, the Multi-Sectoral Plan Against Desertification, and strategies for the animal husbandry sector; (4) the institutional framework, which includes the National Committee Against Desertification and the Ministry of Rural Development; (5) international cooperation; and (6) perspectives on sustainable environment and development. A bibliography is appended.

Available from:
UNDP Resident Representative
B.P. 620
Nouakchott
Mauritania
Tel: +222 25 24 09/11; Fax: +222 25 26 16

Mauritius

Environmental synopsis: Mauritius

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 36 p., maps, statistical tables, En

Despite the pressures of human activity, the Republic of Mauritius remains one of the jewels of the natural world,

with hundreds of endemic plants, and several endemic birds, reptiles, land snails, and mollusks. This environmental review of Mauritius was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Mauritius's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Despite its environmental concerns (e.g., the country has only 30% of its original forests, uses fertilizers and pesticides excessively, and is increasingly converting agricultural land to housing and other uses), Mauritius' environmental outlook is good, as none of these concerns are overwhelming. In addition, environmentally-based tourism is becoming important to the economy; several wildlife conservation activities have been successful; a number of local environmental awareness NGOs have emerged within the last decade; and bagasse (sugar cane waste) is being promoted as an energy source. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-416

Morocco

Gestion durable des sols: cas du Maroc (Sustainable soil management: the case of Morocco)

Agenda 21 National Reports 1995

Royaume du Maroc. Commission du Développement Durable, Rabat, MA
Apr 1995, 99 p., chart, map, Fr

Morocco has put in place a number of national plans and programs addressing technical, social, and economical issues relating to agricultural development, including a plan for sustainable soil management, presented in this report. The report describes: (1) the country's rural sector in terms of its physical, demographic, economic, and social characteristics, and the principal opportunities for and constraints to agriculture; (2) the general orientation of Morocco's agricultural policy up to the year 2020; (3) challenges involved in extending irrigation and making it more productive, sustainable, and competitive; (4) plans and projects for rainfed agriculture; (5) strategies to improve range management; and (6) forestry policy.

Available from:
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Mozambique

Environmental synopsis: Mozambique (Resumo ambiental: Mocambique)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 38 p., maps, statistical tables, En/Pt

Since its independence in 1975, Mozambique has struggled with security and financial problems and devoted minimal attention to environmental concerns. Environmental problems warranting particular attention include damage wrought by drought and flooding (which could be controlled by prudent management); deforestation, which forces villagers to walk up to 8 km daily to collect fuelwood; erosion in high-rainfall areas, on steep cultivated slopes, and in coastal areas; and a breakdown of the protected area system. This environmental review of Mozambique was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Mozambique's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is

made to provide a comprehensive survey of international organizations working in Mozambique. Includes bibliography.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-417/418

Mozambique: the present environmental situation—1990

State-of-Environment Reports

Mozambique. Environmental Working Group, Maputo, MZ;
Norwegian Agency for Cooperation for Development
1990, 132, [14] p., charts, maps, statistical tables, En

Although up-to-date information on Mozambique's environmental situation is limited, this study gathers together what is known as a preliminary step towards the definition of an environmental policy for Mozambique. The study has seven chapters. The first discusses demographic and population issues, and links these to the structure of the national economy and the country's environmental status. Chapter 2 discusses environmental problems associated with industry, focusing mainly on the mining industry and on problems arising from the location of processing industries in urban centers. Chapter 3 centers on the agricultural sector, covering the natural conditions which determine agricultural production and production capacity (e.g., climate and soils), the main agricultural systems (e.g., family farming, mechanized farming, and livestock farming), and leading environmental problems (mainly soil degradation). Chapter 4 examines water resources, their use and management; also discussed are problems stemming from the fact that many of Mozambique's sources of water are affected or controlled by neighboring countries. Chapter 5 analyzes coastal and marine resources in terms of patterns of exploitation and their observed and potential environmental impacts. Chapter 6 surveys national parks and reserves and the status of their wildlife populations, emphasizing the need for additional protected areas, especially marine reserves. A final chapter formulates a series of general conclusions and recommendations. Includes bibliography.

Available from:
Documentation and Information Centre
National Environment Commission (NEC)
Ave. Acordos de Lusaka, 2115
C.P. 2020
Maputo
Mozambique

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-684

Country report for UNCED ' 92 [Mozambique]

UNCED National Reports

Mozambique. National Planning Commission. Provisional Secretariat. Environment Division, Maputo, MZ
Oct 1991, 130 p., charts, maps, statistical tables, En

Widespread flight from Mozambique's war-ravaged interior to coastal, urban, and peri-urban zones and secure transport corridors has produced over-exploitation and degradation of the natural resource base in these areas. With little land available for cultivation, hill slopes are farmed and settled and trees are felled, resulting in erosion, a decline in soil fertility, loss of water resources, depletion of fish stocks, and destruction of mangroves and coral breeding grounds. This document presents Mozambique's national report on its environment. Individual sections provide information on: (1) the country's basic environmental and natural resource endowment; (2) economic and demographic trends and the challenge of sustainable development; (3) economic sectors such as agriculture, livestock, mining, water pollution, energy transportation, industry, education, health, fishing, tourism, urban and rural settlements, construction and water; and (4) environmental policies, legislation, institutions, and programs. The last section presents an agenda for environmental action, detailing strategies for dealing with institutional, legislative, and management issues as well as for the preservation of specific natural resources.

Available from:
UNDP Resident Representative
P.O. Box 4595
Maputo
Mozambique
Tel: +258 01 49 14 75; Fax: +258 01 49 16 91

Namibia

Environmental synopsis: Namibia

Environmental Synopses

IUCN—The World Conservation Union
1993, [ii], 35 p., maps, statistical tables, En

Namibia has a good record in wildlife protection and is making efforts toward sustainable development. This environmental review of Namibia was prepared as a briefing book for Commission of the European Communities officials. After an introductory fact sheet and an outline of key issues, the report: (1) examines Namibia's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Namibia. The country's major environmental problems center around the continued threat of desertification (a threat faced by every semi-arid country); water mismanagement; a growing population; and a protected area system that does not sufficiently protect the country's non-desert habitats. Includes a bibliography and maps of vegetation patterns, protected areas, communication routes, and administrative boundaries.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-419

Environmental profile of Namibia

State-of-Environment Reports

Brown, S.E.
Namibia. Ministry of Wildlife Conservation and Tourism, Windhoek, NA
Apr 1995, iii, 44 p., charts, maps, statistical tables, En

Before Namibia gained independence from South Africa in 1990, its environment suffered considerable damage, particularly in the agricultural sector, where blacks were forced onto overcrowded communal lands while white farmers were allowed to overgraze and degrade land in commercial farming districts, a practice supported rather than corrected by the government. Mining and marine fisheries resources were also exploited during the colonial era. Since independence, however, Namibia, despite a paucity of funds and skilled personnel, has taken large steps toward improving its environment, including enactment of legislation related to the fishing and mining industries, and a review, currently underway, of its whole framework of environmental legislation. This draft environmental profile provides an inventory of Namibia's natural resources and land use, noting that aridity is the country's key environmental characteristic. Major environmental problems, in addition to the shortage of water, include various types of land degradation (erosion, desertification, bush encroachment, deforestation), and threats to biotic diversity. A final section reviews Namibia's environmental legislation and institutions, including its 12-Point Plan for Integrated and Sustainable Environmental Management for 1990-95. Includes bibliography.

Available from:
Director of Environmental Affairs
Ministry of Wildlife Conservation and Tourism
Private Bag 13306
Windhoek
Namibia

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-655

Namibia's green plan (environment and development): Namibia's green plan to secure for present and future generations a safe and healthy environment and a prosperous economy

UNCED National Reports

Brown, C.J., ed.
Namibia. Ministry of Wildlife, Conservation and Tourism, Windhoek, NA
1992, 174 p., charts, maps, statistical tables, En

Namibia, a sparsely populated, arid country on Africa's southwest coast, with rich wildlife, mineral, and marine resources, is almost totally reliant on its natural resources, both renewable and nonrenewable. In this environmental Green Plan, Namibia sets forth an ambitious national program for sustainable development, which includes the development of policies and strategies for water conservation, sustainable agriculture (including the prevention of soil erosion, deforestation, bush encroachment and desertification, and climatic alternations within arid and semi-arid environments), land reform, marine and inland fishing, expansion of Namibia's protected areas network so that it includes samples of all vegetation and habitats, and hazardous waste management. In addition, the Plan attempts to integrate environmental conservation within development activities through methods such as land use planning, natural resource accounting, social accounting (which would considers the nutritional, health, and educational impact of development efforts on their beneficiaries), and improved coordination among Namibian, regional, and international environmental bodies.

Available from:
UNDP Resident Representative
Private Bag 13329
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Namibia
Tel: +264 61 229 220 or +264 61 229 223
Fax: +264 61 229 084

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-569

Niger

Biological diversity in Niger: a preliminary assessment by the United States Agency for International Development

Biodiversity Assessments, Strategies, and Action Plans

Millington, S. J.; Tiega, Anada; Newby, J. E., ed.
World Wide Fund for Nature;
U.S. Agency for International Development. USAID Mission to Niger
1991, 89 p., En

Niger contains a number of biotic zones, ranging from true desert in the Saharan zone, through Sahelian grasslands, to a relatively small area of Sudanian woodland in the extreme south. While not a biodiversity "hotspot," the country contains internationally important populations of several mammal and bird species, some endangered. This preliminary assessment of biological diversity in Niger is presented in four parts: (1) the status of biological diversity and its conservation, covering landscape patterns, biotic zones, the effects of climate and of human activity on landscape patterns, plants, mammals, birds, reptiles, and protected areas and their needs; (2) the economic value and uses of biological diversity (using plants for food, medicinal, and other household needs; forage plants; fuelwood and construction needs; agroforestry; pest species; crop genetic resources; fish and fisheries; and tourism); (3) the institutional aspects of conservation, covering legislation and policy; international conventions; national resource management plans; cultural aspects; public, private, and international organizations; training; research; and environmental education; and (4) a series of 15 recommendations to improve biological diversity conservation in Niger. Includes bibliography and a checklist of mammals. (Author abstract, modified)

Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse

Also Available from:
John Newby, Director
Africa and Madagascar Program
WWF International
Gland
Switzerland
Order No.: PN-ABL-273

Environmental synopsis: Niger (Profil environnemental: Niger)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 36 p., maps, statistical tables, En/Fr

A rapidly increasing population and severe droughts are threatening the natural resource base in Niger, West Africa's largest state. Particular problems include pressure on woodland resources, often the only source of fuel in rural areas, severe water shortages, desertification, and deteriorating urban conditions. However, Niger is making efforts to improve environmental management. In 1990, the government sponsored a seminar that inspired local NGOs and village associations to launch environmental protection and development activities. Also, a code of rural laws is being drawn up, which, if implemented, will profoundly alter social, economic, and political relations. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Niger's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Niger. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-420/421

Nigeria

Country study report for Nigeria on costs, benefits and unmet needs of biological diversity conservation

Biodiversity Assessments, Strategies, and Action Plans

Nigeria. Federal Environmental Protection Agency.
National Biodiversity Unit, Abuja, NG;
U.N. Environment Programme, Nairobi, KE
Jan 1992, xviii, 106 p., maps, statistical tables, En

Nigeria possesses more than 5,000 species of plants (0.4% of which are threatened and 8.5% endangered), 22,090 species of animals, including insects (0.14% are threatened and 0.22% endangered), and 1,489 species of micro-organisms. Since 1978, an estimated 43% of the forest ecosystem in Nigeria has been lost through human activity. This study (1) inventories Nigeria's living resources, (2) estimates the total benefits and costs of alleviating threats to biological diversity, and (3) identifies and prioritizes conservation needs. It addresses the full range of biological diversity in Nigeria, comprising plants, animals, and microbes at the intra-species, inter-species, and ecosystem levels in both terrestrial and aquatic ecosystems. The study finds that the commercial value of biological diversity in Nigeria exceeds the costs of conservation measures by more than $3 billion ($3.75 billion vs. $0.37 billion). The ratio of conservation costs to Nigeria's 1990 GDP was 4.19%, while biological diversity's contribution to the GDP for 1990 was 42.47% of GDP. Besides this, other life sustaining benefits are realized from conservation, the monetized aspect of which is estimated at over $6 billion for 1990. Even these figures, however, are exclusive of international benefits that will indirectly be returned to Nigeria. The study also finds that the burden of unmet needs on the debt service for 1990 was over 7%, indicating that the country will need external assistance to meets its biodiversity conservation needs. Cost tables for specific conservation activities, and lists of protected areas and species are included.

Available from:
Federal Environmental Protection Agency
National Biodiversity Unit
Lagos
Nigeria

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-705

Environmental synopsis: Nigeria

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 40 p., maps, statistical tables, En

Nigeria, given its abundant natural resources, is potentially one of Africa's richest states, but it faces serious environmental problems: a rapidly growing population; erosion and desertification, particularly in the north; the loss of 90% of its rain forests as a result of logging and clear-cutting; virtually uncontrolled water pollution; and erosion and flooding in coastal zones. However, Nigeria has shown some progress toward sustainable development, including policies to discourage population growth and urban migration, an increase in the number of national parks from three to five in the last 3 years, and a growing involvement of NGOs in conservation support. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Nigeria's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Nigeria. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-422

Towards the development of an environmental action plan for Nigeria

Environmental Strategies and Action Plans

Singh, Jasdip; Hewawasam, Indu; et al.
World Bank, Washington, DC, US
Dec 1990, xxiv, 126 p., maps, statistical tables, En

Linkages between the environment and economy are highlighted in this National Environmental Action Plan for Nigeria. Initial sections of the report examine the legal and institutional environment for environmental protection, provide a geo-physical review of the country by ecological zone, and list the direct and indirect causes of environmental problems. Three main environmental problems facing Nigeria (soil degradation, water contamination, and deforestation) as well as six additional problem areas (gully erosion, fishery loss, coastal erosion, wildlife and biodiversity, air pollution, and water hyacinth) are identified. The severity of these problems is then weighed in light of five criteria (impact on income, the number of people affected, the economic status of those affected, the threat posed to environmental integrity and human health, and the threat posed to renewable resources). The concluding sections examine general strategic options (e.g., new legislation, educational programs, direct projects) and specific action options for addressing these problems. Nine annexes provide additional information on various issues treated in the report. Includes bibliography.

Available from:
World Bank Public Information Center
1776 G Street NW
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Tel: +1 202 458 5454; Fax: +1 202 522 1500
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Internet: http://www.worldbank.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-469

Rwanda

Environmental synopsis: Rwanda (Profil environnemental: Rwanda)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [11], 35 p., maps, statistical tables, En/Fr

Even without its recent troubles, Rwanda faces numerous environmental problems, including a shortage of arable land, deforestation, erosion, overgrazing, and soil degradation. This environmental review of Rwanda was prepared as a briefing book for Commission of the European Communities officials. After an introductory fact sheet and an outline of key issues, the report: (1) examines Rwanda's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Rwanda. Among the assets in Rwanda's outlook for the future are a remarkable diversity in biotopes and species, along with a wide range of protected areas; climate and rainfall patterns that would allow for two harvests a year; and available hydro-electric power. Includes bibliography and maps of Rwanda's vegetation patterns, protected areas, and major communication routes.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-425/426

Stratégie nationale de l'environnement au Rwanda: plan d'action environnemental (SNER/PAE)—note de présentation (Rwanda's national environmental strategy: environmental action plan—presentation)

Environmental Strategies and Action Plans

Rwanda. Ministère du Plan. Projet Environnement et Développement, Kigali, RW;
World Bank, Washington, DC, US
Oct 1991, 56 p., statistical tables, Fr

With the establishment of a national park for mountain gorillas in 1925, Rwanda became one of the first countries in Africa to initiate environmental conservation. Its conservation efforts continued through the century, leading to the development in October 1991 of this National Environmental Action Plan. This document provides an introductory overview of the plan, covering its genesis and socioeconomic context and briefly summarizing the status of and proposed interventions relating to the following headings: population, land management, water, and health; agriculture, livestock, fish, and forestry; ecosystems, tourism, climate, and natural disasters; energy, industry, and transportation; environmental education, information, and research; women and the environment; the legal and institutional framework for environmental management; international cooperation; and the effects of the war of October 1990. An extensive annex presents profiles of proposed projects on these themes.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-472

São Tomé and Príncipe

Environmental synopsis: São Tomé and Príncipe (Resumo ambiental: São Tomé e Príncipe)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 35 p., maps, statistical tables, En/Pt

Despite the magnificence of its bird and plant life, São Tomé and Príncipe has no protected areas, and environmental issues have in general been neglected. Other problems include the heavy demand placed on native woodlands for construction timber and fuel, and the encroachment of farming on vulnerable land. Nonetheless, São Tomé and Príncipe is making some progress, including the identification of areas for protection, and a review of its forest policy. An NGO has been formed to promote environmental awareness. In addition, there is a hope that oil can be found in commercial quantities, reducing the need for wood, currently the country's main energy source. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines São Tomé and Príncipe's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Includes detailed maps and a bibliography.

Available from:
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-427/428

Country economic memorandum and key elements of an environmental strategy [São Tomé and Príncipe]

Environmental Strategies and Action Plans

World Bank, Washington, DC, US
Jun 1993, 2 v., maps, statistical tables, En

The links between economic development and environmental conservation in São Tomé and Príncipe are examined in this two-volume National Environmental Action Plan. Volume I reviews the country's economic performance and domestic policy environment since the 1980s, while Volume II presents key elements of the country's environmental strategy. Following an introduction, this volume discusses: (1) the state of the environment (identifying major problems and priorities and discussing local conditions and impacts by sector); (2) potential constraints to environmental management (related to institutions, human resources, information, and cultural considerations); and (3) economy-environment linkages (issues relating environmental quality to trade policy, land distribution, interest rates, credit, privatization, fiscal policy, and health concerns). A concluding section makes recommendations in the areas of policy, institutional and legislative reform, environmental screening of public investment projects, education and awareness building, and sectoral initiatives. Annexes compare the environmental concerns and infrastructures of comparable island nations, and contain case studies of links between São Tomé and Príncipe's environment and its economy. Includes bibliography.

Available from:
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E-mail: pic@worldbank.org
Internet: http://www.worldbank.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-475

Senegal

Plan d'action forestier [Sénégal] (Forestry action plan [Senegal])

Forest Assessments, Strategies, and Action Plans

Senegal. Ministry of Rural Development and Hydraulics;
U.S. Agency for International Development. USAID Mission to Senegal
Oct 1992, 3 v., charts, statistical tables, Fr

In 1981, Senegal initiated its Directive Plan of Forestry Development (PDDF), designed to analyze the development potential of the country's forest resources and identify constraints, necessary areas of research, and the potential for restoration and management. Subsequently, Senegal defined the present document, its Forestry Action Plan. The plan is divided in two components, national and subnational. At the national level, the program addresses the need to: (1) improve the institutional capacity; (2) manage natural forests and promote rational exploitation of forest resources; (3) undertake soil conservation/restoration activities and promote agroforestry; (4) conserve ecosystems and fauna; (5) develop the fisheries sector and aquaculture; (6) conduct research; and (7) develop urban forestry plantations and protected areas. At the subnational level, the plan presents specific goals for Senegal's different geographic zones. This document comprises three volumes. The first volume is an executive summary. The second and principal volume synthesizes the sectoral studies, defines forestry policy and strategy, and presents the action program itself. The third and last section provides profiles of 48 individual projects proposed under the plan.

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U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABU-556

Seychelles

Seychelles strategy for sustainable development 1990-2000: National report of Seychelles for the United Nations Conference on Environment and Development

UNCED National Reports

Seychelles, Mahe, SC
[1991], [81 p.], En

Seychelles has a long history of concern and action on environmental conservation. National parks and reserves already constitute over 40% of Seychelles' limited land area and include two World Natural Heritage Sites. Seychelles has also been active in the international environmental arena, having, inter alia, played a leading role in establishing the East African Regional Seas Convention. Nonetheless, the country still faces some critical environment and development problems, ranging from immediate threats such as declining soil fertility and accelerating coastal erosion, to long-term concerns, such as the likely loss of substantial amounts of arable land if there is a significant rise in sea levels due to global warming. This report, after reviewing the country's development trends, environmental problems, and environmental priorities for action, presents Seychelles' National Development Plan for 1990-1994 and its more detailed Environmental Management Plan for 1990-2000, which together constitute an integrated national strategy for achieving sustainable development by the end of the century. The report also describes specific steps Seychelles will take to implement its sustainable development strategy, and outlines the country's priorities for the 1992 U.N. Conference on the Environment and Development.

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U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-572

86

Sierra Leone

Environmental synopsis: Sierra Leone

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 38 p., maps, statistical tables, En

Despite its mineral wealth (bauxite and diamonds), Sierra Leone faces an environmental crisis, was reclassified by the United Nations as a least developed country in 1983, and ranks lowest on the U.N.'s Human Development Index. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Sierra Leone's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Principal environmental problems include: deforestation threatening rain forest life and the West African forest elephant (Sierra Leone retains less than 3% of its original forest); dry season water shortages; increased water pollution from mining, fertilizer run-off, and inadequate waste disposal; soil erosion from inappropriate agricultural practices; and, in the coastal zone, pollution, uncontrolled development, and overfishing. To its credit, the country has endorsed an elephant conservation program, including establishment of protected areas. However, the extent to which Sierra Leone can progress with a civil war raging in the mineral-rich south remains open to doubt. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-429

Initial assessment of environmental problems: Sierra Leone

Environmental Strategies and Action Plans

Bojo, Jan; Swayze, Townsend; et al.
World Bank, Washington, DC, US
Feb 1994, vi, [85 p.], maps, En

Despite abundant rainfall, substantial mineral resources, fertile soils, and extensive marine fisheries, Sierra Leone is classified as one of the poorest and least developed countries in the world. The country's natural resources have not been effectively managed and serious environmental problems exist. This report, prepared as background for preparation of a National Environmental Action Plan, provides an analytical framework for discussing these problems. Following an introduction, Chapter 2 describes the primary environmental issues facing Sierra Leone in regard to water supply and sanitation, land degradation, forest degradation and deforestation, mining, fisheries, manufacturing, and tourism. Chapter 3 examines the root causes of these problems in terms of the failure of markets and government policies, while Chapter 4 discusses their relative priority in light of Sierra Leone's severely limited human and financial resources. Government policy, legislation, and institutions pertinent to the environment are detailed in Chapter 5. Annexes focus on strategies for preserving biological diversity and improving the availability of environmental information. Includes 8-page bibliography.

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Internet: http://www.worldbank.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-473

National report of Sierra Leone for the United Nations Conference on Environment and Development

UNCED National Reports

Sierra Leone. [Ministry of Lands, Housing and the Environment, Freetown, SL]
15 Mar 1992, 122 p., statistical tables, En

Although Sierra Leone possesses an abundant diversity of natural resources, including diamonds, gold, and iron ore, rich soil, and beautiful beaches, it is ranked as one of the least developed countries in the world. Past development activities were undertaken without cognizance of their potential impact on the environment. As a result, the country faces major environmental needs today, including: arresting destruction of the forest and its related resources, reducing soil erosion, avoiding overexploitation of natural resources such as minerals and fisheries, arresting damage from mining, preventing air and water pollution, and managing toxic, industrial, and domestic waste. Sierra Leone does not lack the policy and institutional capability to address these issues, but has suffered instead from a lack of political commitment by the government to manage its resources well. This report, prepared for the U.N. Conference on Environment and Development in Rio de Janeiro, includes six chapters covering: (1) the challenge of sustainable economic development; (2) natural resource and environmental issues; (3) population and human resources in sustainable development; (4) responding to the challenge, current policies, programs, and practices; (5) planning for sustainable development; and (6) an agenda for action, strategies, and recommendations. Includes references.

Available from:
UNDP Resident Representative
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Somalia

Environmental synopsis: Somalia

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 40 p., maps, statistical tables, En

Somalia is important biologically, with 518 species of endemic plants, many wild mammals, and over 600 bird species, many of them threatened. Even before the onset of civil war in 1991, however, Somalia's capacities for environmental management were minimal, and its environment under tremendous stress from unsustainable harvesting of fuelwood, livestock grazing, and other human activities. This environmental review of Somalia was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Somalia's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Somalia. In the event of a reconstruction effort, some bright spots exist: there is evidence of potential oil or gas reserves, which could reduce the pressure on woodlands, and coastal fishing could sustainably support much higher yields. Includes detailed maps and bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-431

National plan of action to combat desertification in Somalia

National Plans to Combat Desertification—CILSS

Democratic Republic of Somalia. National Range Agency, Mogadishu, SO;
U.N. Sudano-Sahelian Office
1988, iv, 140 p., map, statistical tables, En

Although Somalia is an arid to semiarid country, the dominance of pastoralism, which is often the most appropriate form of land use in such ecosystems, has allowed many areas to retain relatively good vegetation cover. More recently, however, rising concentrations of people and livestock around settlements and water holes

have intensified destructive activities—overgrazing, unsustainable farming, and clearing of woodlands—to the point where desertification now threatens almost all land and water resources. The first three chapters of this action plan for combating desertification in Somalia ("the Plan") present general background on Somalia and the development of the Plan. Chapter 4 describes Somalia's geophysiology and assesses its range, forestry, farming, and wildlife resources. Chapter 5 examines in more depth the causes of desertification and the processes involved. Chapter 6 is a region-by-region assessment of desertification in northern, central, southern, and coastal Somalia. Chapter 7 discusses past and present desertification control measures in Somalia. Chapter 8 presents the Plan itself, which has three major aims: (1) strengthening national capabilities to combat desertification (including projects to establish a National Environmental Authority and a National Monitoring and Data Base Center, and strengthen environmental education); (2) practical measures to combat desertification (including projects in soil erosion control, water spreading, sand dune management, and agroforestry); and (3) baseline studies to guide the formulation of new projects. Includes references.

Available from:
National Range Agency
c/o United Nations Development Programme
P.O. Box 24
Mogadishu
Somalia

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-697

South Africa

Building the foundation for sustainable development in South Africa: national report to the United Nations Conference on Environment and Development (UNCED) to be held in Rio de Janeiro, June 1992

UNCED National Reports

South Africa. Department of Environment Affairs, ZA
Oct 1991, 193 p. + attachment, maps, statistical tables, En

South Africa is poised on the brink of the most far-reaching constitutional reforms in its history. As a part of this process, many national goals will be re-examined, especially those that relate to the management of South Africa's splendid natural assets. Chapter 1 of this report on development and the environment provides descriptive background on people, culture, climate, and mineral, freshwater, terrestrial, coastal and marine, and biological resources. Chapter 2 analyzes human activity and its impacts on the environment; included are sections on urbanization, health concerns, cultural preservation, and degradation of the atmosphere and the resource base. Chapter 3 describes current responses to these challenges in terms of policies, programs, and practices, and identifies major governmental and non-governmental agencies and organizations associated with environmental management. Chapter 4 first discusses some of the underlying causes of environmental problems—poverty, population growth, economic stagnation, and misguided agricultural, economic, and social policies—and then suggests a series of actions. Chapter 5 underscores the need for a unified strategy for sustainable development and environmental conservation, and offers a broad agenda for achieving this goal. Includes bibliography.

Available from:
Department of Environmental Affairs
Private Bag X447
Pretoria 0001
South Africa

Sudan

Environmental problems in Sudan: a reader

State-of-Environment Reports

de Jong-Boon, Caroline, ed.
Sudan. University of Khartoum. Development Studies and Research Centre, Khartoum, SD;
Institute of Social Studies, The Hague, NL
Aug 1990, 2 v., charts, maps, statistical tables, En

Designed as a reader for participants in a postgraduate course at the University of Khartoum, this text draws together material on interrelations between people and the environment in Sudan. The first eight chapters survey environmental problems: Chapters 1-4 focus on the natural environment (forests, wildlife, water, and energy); Chapters 5-6, on the rural environment (traditional and modern agriculture); and Chapter 7-8 on the urban environment (services and industry). Interrelated problems which are discussed include desertification, the impacts of major water control projects (especially dams), rural to urban migration, and pollution. Chapters

9 and 10 address human and societal issues. The first focuses on women and the environment, because women often bear the brunt of coping with environmental degradation, while the second reviews Sudanese institutions of importance to the environment, i.e., organizations, laws, and education, and evaluates possibilities of integrating environmental concerns into development, e.g., by introducing environmental impact assessments. Each chapter begins with an introduction, explaining the choice of texts, summarizing the main issues, and discussing references for further reading, followed by selected texts. Appendices present articles of a general nature, including an essay on the relevance of environmental problems in developing countries, a history of the discussion of environment and development in international fora, a discussion of population growth as a factor in environmental problems, and an outline of concepts and issues in ecology.

Available from:
Institute of Social Studies (ISS)
PO Box 90733
2509 LS the Hague
Netherlands

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-656

Republic of Sudan national report

UNCED National Reports

Khalifa, M.D. El, ed.; Nour, H.O. Abdel, ed.
Republic of Sudan. [Ministry of Finance and Economic Planning, Khartoum, SD]
Jun 1991, 194 p., charts, maps, statistical tables, En

Desertification and other forms of land degradation are by far the most serious environmental problems in Sudan, affecting more than 60% of the country, and causing decreased land productivity, food shortages, shifting sand dunes, and fuelwood shortages. Other major problems include deforestation, wildlife depletion, use of agrochemicals, the increase of water-related diseases due to irrigated agriculture, marine and coastal pollution around Port Sudan town, and environmental health problems stemming from uncontrolled urban growth and poor planning. This national environmental report describes Sudan's natural resource endowments, and then documents the above problems, along with the various strategies, policies, and laws developed to address them. Specific programs in environmental rehabilitation and rural development, education and public awareness, and international cooperation are discussed. Unfortunately, Sudan's environmental efforts to date remain fragmentary and have not been guided by the principles of resource management and conservation. However, a recent proposal to establish a national council to coordinate and supervise environmental activities appears to be a step in the right direction. A bibliography is included after each section.

Available from:
UNDP Resident Representative
P.O. Box 913
Khartoum
Sudan
Tel: +249 11 73121; Fax: +873 161 0441

Swaziland

Environmental synopsis: Swaziland

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 35 p., maps, statistical tables, En

While Swaziland's use of its natural resources have made it an economic success compared to other African states, severe environmental problems remain. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Swaziland's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. According to the report, while Swaziland's most productive land is maintaining its fertility, other arable land and pastures are suffering from erosion and degradation. Forests are being steadily reduced by burning, agriculture, mineral development, fuelwood collection, and urban growth. A population growth rate high even by African standards further undermines conservation efforts. To counter these problems, the government has taken steps to strengthen environmental institutions and is promoting environmental education in the school system. In addition, several NGOs have undertaken programs linking environmental protection to development. Includes bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-432

Tanzania

National Environmental Action Plan: A First Step

Environmental Strategies and Action Plans

Ministry of Tourism, Natural Resources and the Environment
June 1994, 60 p., tables, map, En

The National Environmental Action Plan (NEAP) is Tanzania's first step towards incorporating environmental concerns into national planning and development. The current state of the environment, a major concern as most Tanzanians depend on the environment for their livelihood and future generations will need the same resources for their well-being, is described. Six major problems are identified: land degradation; lack of accessible, good quality water for both urban and rural inhabitants; pollution; loss of wildlife habitats; deterioration of marine and freshwater systems; and deforestation. The reasons for the current state of the environment are outlined: inadequate land and water management; lack of financial and personnel resources; inequitable terms of international trade; ecological vulnerability; rapid growth of rural and urban population; past distortionary policies; lack of data and information; inadequate capacity to deal with environmental concerns and implement programs; inadequate involvement of major stakeholders in natural resource management; and inadequate integration of conservation principles and approaches in national planning and development programs. To address these issues, a national environmental policy was formulated. Key aspects of the policy (sustainable use of natural resources; involvement of all segments of the country in responding to environmental problems; environmental education and awareness at all levels of society; and information centers on environmental issues) and key policy instruments (environmental impact assessment, environmental legislation, economic instruments, environmental indicators and standards, and public participation) are described. The NEAP also outlines measures needed to ensure government involvement in creating sustainable development, strategies for dealing with environmental problems, including several cross-sectoral initiatives, institutional arrangements for implementing the plan, six priority actions needed to implement the plan, and financial and budgetary requirements. The near-term agenda calls for government approval of fifteen specific actions and a clear assignment of responsibilities and resources among ministries. The coordinating role of the Ministry of Tourism, Natural Resources and Environment is highlighted.

Available from:
Ministry of Tourism, Natural Resources & Environment
P.O. Box 9132
Dar-es-Salaam, Tanzania
Tel: +255 51/21241; Fax: +255 51/23244

National conservation strategy for sustainable development

Environmental Strategies and Action Plans

Tanzania. National Environmental Management Council, Dar es Salaam, TZ
Jan 1994, 85 p. + appendices, En

Environmental problems and resource use conflicts are on the increase in Tanzania. Land degradation, pollution, and degradation of the marine environment are examples of environmental problems that adversely affect the socio-economic well-being of the Tanzanian people. The economic development of the country is dependent upon the sustainable use of natural resources. So begins this report by the National Environment Management Council presenting a proposed National Conservation Strategy for Sustainable Development (NCSSD). The first four chapters of the NCSSD provide a comprehensive overview of environmental problems in Tanzania and the measures necessary to alleviate them. Tanzania's role in international environmental issues are also discussed. Chapter 4 discusses the cross-sectoral measures which are necessary in order to correct some of the distortions in the general planning, institutional, legal, educational and research framework which have created or exacerbated environmental problems. Also included in Chapter 4 is an extensive list of sector-specific measures covering lands, agriculture, livestock, fisheries, forestry and beekeeping, wildlife, water, wetlands, energy, mining, transportation and communications, and tourism. Chapter 5 of the NCSSD contains the Environmental Action Plan (EAP) which builds upon the analysis of environmental

problems presented in Chapter 2. Included in Chapter 5 is a priority listing of those problems in a number of program areas, recommendations as to the actions required to solve the problems, and identification of lead agencies for each action. The program areas discussed in the EAP highlight the problems which present the most immediate threat to sustainable development for the majority of Tanzanians. The priority program areas are preceded by a short synopsis of those cross-sectoral measures which are vital in creating an enabling environment for the implementation of the EAP. The time span for implementing the activities listed in the action plan is not expected to exceed five years after project preparation. Appended to the report are two annexes: (1) a list of similarities between NCSSD text and recommendations made in Agenda 21; and (2) a list of existing legislation related to environmental management.

Available from:
National Environment Management Council
PO Box 63154
Dar Es Salaam
Tanzania
Tel: +255 51 34603; Fax: +255 51 34603

Land use planning and resource assessment in Tanzania: a case study

Other Environmental Studies

Kauzeni, A.S.; Kikula, I.S.; Mohamed, S.A.; et al.
International Institute for Environment and Development. Environmental Planning Group, London, GB;
Tanzania. University of Dar es Salaam. Institute of Resource Assessment, Dar es Salaam, TZ;
United Kingdom. Overseas Development Administration. Natural Resources Institute, [London, GB]
Dec 1993, vi, 128 p., charts, maps, statistical tables, En

Land use planning has typically been a centralized and top-down process, with little input from potential beneficiaries and utilizing inefficient survey methodologies. The primary objective of this case study is to examine the status, procedures, and shortfalls of various aspects of land use planning and resource assessment methodologies in Tanzania, so that possible solutions might be found. The study was conducted in three regions—Tanga, Tabora, and Mbeya—for which major integrated regional development plans had already been prepared. Following an executive summary, which includes recommendations, Chapter 2 profiles Tanzania's geophysical and socioeconomic features, land and natural resource utilization, and land tenure and planning structures. Chapter 3 examines the history of land use planning and resource assessment in Tanzania, from early colonial influences to the approaches adopted in the post-independence era under successive five-year plans and the evolution of institutional structures for administering and conserving wildlife, forest, land, and other resources. Chapter 4 examines Tanzania's land use planning process at the village, district, regional, and national levels, and identifies a number of constraints, many of which relate to lack of legal clarity vis-a-vis land tenure and ownership, inadequate institutions, and poor enforcement. Includes an 18-page bibliography, profiles of survey and planning institutions, and case studies of land use planning projects in the three study regions.

Available from:
International Institute for Environment and Development
3 Endsleigh Street
London WC1H 0DD
United Kingdom
Tel: +44 071 388 2117; Fax: +44 071 388 2826

Also Available from:
Institute of Resource Assessment
P.O. Box 35097
Dar es Salaam
Tanzania
Tel: +255 51 49039; Fax: +255 51 49039

Togo

Environmental synopsis: Togo (Profil environnemental: Togo)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 38 p., maps, statistical tables, En/Fr

Togo suffers from major environmental concerns, including coastal and soil erosion, water pollution, silting of dams, and most serious, loss of dense forest, which has declined from 4,500 square kilometers in 1970 to 1,360 as of 1993. Management of natural forests in almost nonexistent, as official policy discourages individual or community responsibility for forest resources. These problems are aggravated by the country's declining economic status, heavy dependence on export revenues, massive indebtedness, high population growth rate, and rapid urbanization. This environmental review of Togo was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Togo's institutional infrastructure, especially as

related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Includes maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-433/434

Problèmes environnementaux: diagnostic et approches de solutions dans le cadre du plan d'action environnemental (Environmental problems: diagnosis and solutions in the framework of the environmental action plan)

Other Environmental Studies

Oni, K.M.
Togo. Ministère de l'Environnement et du Tourisme, Lome, TG;
World Bank, Washington, DC, US
Mar 1991, 55 p. + 3 annexes, maps, statistical tables, Fr

Togo's environment has been seriously degraded. Irreversible destruction of natural resources is widespread, as are deforestation, soil erosion, and the depletion of arable land. This report documents Togo's principal environmental problems and presents strategies for addressing them within the context of the country's Environmental Action Plan. The first part of the report identifies the country's environmental problems, classifying individual regions according to the seriousness of the problems they face, and weighing environmental policy issues as they relate to the public and private sector. The second part presents four plans to safeguard Togo's environment: an institutional plan for action by the government, the private sector, and nongovernmental organizations; a plan of legal and technical measures; a socioeconomic plan identifying promising investments and possibilities for resource substitution, especially in regard to energy; and a socio-educational plan to upgrade the environmental knowledge and abilities of technicians, nongovernmental organizations, and village groups. Includes a bibliography, a list of personnel interviewed, and a chart which characterizes environmental problems and identifies both actions and studies needed.

Available from:
Ministère de Développement Rural, l'Environnement et du Tourisme
Avenue de Sarawaka
Lome
Togo
Tel: +228 21 5671

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-702

Tunisia

Rapport de la Tunisie a la Commission du Développement Durable des Nations Unies (Tunisia's report to the United Nations Commission on Sustainable Development)

Agenda 21 National Reports 1995

République Tunisienne. Ministère de l'Environnement et de l'Aménagement du Territoire, Tunis, TN
May 1994, 26 p., Fr

This report, which was prepared by Tunisia's Commission on Sustainable Development, discusses: (1) institutions for sustainable development, including the National Office of Sanitation, the National Agency for the Protection of the Environment, the Ministry of the Environment and Territorial Management, and the National Commission on Sustainable Development; (2) partnerships for sustainable development with NGOs, municipalities, industries, and universities; (3) measures for sustainable development at the national level, including the Eighth Plan for Economic and Social Development, Tunisia's national Agenda 21, environmental protection policy, and the promotion of human resources; (4) measures for sustainable development at the international level, including ratification of the Rio agreements, support for the agreement to combat desertification, and organization of a "Mediterranean 21" conference, planned for 11/94; and (5) cooperation in international sustainable development efforts in the areas of financing and technology transfer.

Available from:
Unité de la Documentation
Ministère de l'Environnement
et de l'Aménagement du Territoire
Centre Urbain Nord
1004 El Menza, Tunis
Tunisia
Tel: +216 1 703 075; Fax: +216 1 702 431

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-648

Environment and sustainable development: a review of the Tunisian strategy

Environmental Strategies and Action Plans

Tunisia. Ministry of Environment and Regional Planning, Tunis, TN
Nov 1994, 40 p., statistical table, En

Tunisia's environment is threatened on two fronts. First, its natural resources are fragile. Although half the land is suitable for agriculture, soils are generally of poor fertility and 60% of the land is affected by desertification. Water resources are undependable and inconsistent, and forests and natural plant formations have regressed considerably since the 19th century due to excessive land clearing, overgrazing, and fire. Exacerbating these problems are the various forms of pollution that have attended the country's rapid urbanization and industrial development. A Tunisian strategy for protecting the environment in the context of sustainable development is outlined in this report. The first part of the report covers environmental protection policy, including the institutional and legal frameworks, the strategy for environmental protection, and the programs implemented thus far in such areas as urban and rural sanitation, sea and coast protection, solid waste management, desertification and pollution control, biodiversity protection, etc. The second part examines Tunisia's sustainable development policy, covering its institutions and official agenda, as well as its goals of protecting and advancing the human resources on which the country principally depends and government partnership with various segments of Tunisian society. A final section examines Tunisia's role in the international environmental movement, with emphasis on Tunisian follow-up to the Rio Conference, its participation in protection of the Mediterranean, and its proposals for financing sustainable development and technology transfer.

Available from:
Unite de la Documentation
Ministère de l'Environnement
et de l'Amenagement du Territoire
Centre Urbain Nord
1004 El Menza, Tunis
Tunisia
Tel: +216 1 703 075; Fax: +216 1 702 431

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-545

Rapport national: l'état de l'environnement 1993

State-of-Environment Reports

Tunisia. Ministry of Environment and Regional Planning, Ariana, TN
1993, 138 p., ill., charts, maps, statistical tables, Fr

Since gaining independence some 40 years ago, Tunisia has expended considerable effort in laying a solid infrastructural basis for industrial- and agricultural-led development. More recently, the government has become convinced that its development goals are unsustainable without a major effort to protect the environment. This first national report on the state of the country's environment demonstrates this new awareness. The report includes the following sections: (1) natural resources, covering water and coastal resources, soil, fauna and flora, the atmosphere, and environmental hazards; (2) the environmental effects of activities in agriculture, industry, energy, transportation, and tourism sectors; (3) environmental problems related to urbanization, urban sanitation, solid waste management, and their consequences for public health; and (4) sustainable development, including discussion of the U. N. Conference on the Environment and Development (UNCED), the integration of sustainable development into national policy, and international cooperation for sustainable development. The final section outlines action programs in three priority areas: land management, environmental education of the public, and development of an institutional and legal framework for environmental action. Numerous environmental maps are appended.

Available from:
Ministère de l'Environnement et de l'Amenagement du Territoire
Centre Urbain Nord—Immeuble ICF
2080 Ariana
Tunisie
Tel: +216 704 000

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-539

Uganda

Uganda national report on the implementation of Agenda 21 presented to the second session of the Commission on Sustainable Development

Agenda 21 National Reports 1994

Uganda. Permanent Mission to the United Nations, New York, NY, US
May 1994, 23 p., statistical table, En

Uganda, with financial and technical assistance from the World Bank and the U.S. Agency for International Development, has initiated a National Environmental Action Plan process; among other steps, a national environmental management plan has been approved and a draft environmental investment program has been finalized. Uganda has also developed a National Water Resources Master Plan, a National Wetland Management Program, and a National Tropical Forest Action Program. These and other actions, while only initial steps, demonstrate the country's commitment to achieving sustainable development. This report, although it does not follow the Chapter format of Agenda 21, provides a brief narrative discussion of actions, such as those above, which Uganda has undertaken in the following areas: sustainable development; consumption patterns; financial resources; technology cooperation and transfer; capacity building and institutions; legal instruments; role of major groups; health; human settlements; freshwater resources; and strategies for managing natural resources and the environment.

Available from:
Permanent Mission of Uganda to the United Nations
Uganda House
336 East 45th Street
New York NY 10017
USA

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-737

Uganda country study on costs, benefits and unmet needs of biological diversity conservation

Biodiversity Assessments, Strategies, and Action Plans

Uganda. Ministry of Water, Energy, Minerals and Environment Protection. Department of Environment Protection. National Biodiversity Unit, Kampala, UG;
U.N. Environment Programme, [Nairobi, KE];
Swedish International Development Authority
Jan 1992, xvii, 85 p. + appendices, maps, statistical tables, En

In Uganda, widespread poverty often forces people into environmentally destructive practices, especially in agriculture, yet it has been difficult to quantify the extent of damage done to the country's rich store of biological diversity. This document reports the findings of a 3-month preliminary survey of Uganda's biodiversity. Following an introductory review, the study presents a comprehensive overview of the species found in Uganda, covering microorganisms, mosses, ferns, higher plants, protozoa, rotifers, platyhelminthes, nematodes, annelids, molluscs, insects, crustaceans, spiders and scorpions, ticks and mites, fishes, amphibians, reptiles, birds, and mammals. Next, it examines the ecological status of Uganda's plants (domesticated, wild, and edible) and animals, both in the wild (including invertebrates, fishes, herpetofauna, birds, mammals) and domesticated (cattle, goats, sheep, fowl, pigs, equines, Indian buffalo, cats, and dogs). Discussion is also given to: habitat and ecosystem diversity; ecosystem status and change patterns; areas of high species endemism; significant changes in important plant and animal species over the past 10 years; nature reserves (including biotic communities not protected therein); ex situ conservation; genetic diversity in terms of genomes and genes; and sites and species of particular significance. Detailed lists of and statistical data on these species and sites are presented in 12 annexes. A final section documents the costs of biodiversity conservation

measures, including measures already underway, and proposes a comprehensive range of new measures costing $503.7 million.

Available from:
National Biodiversity Unit
Ministry of Natural Resources
PO Box 9629
Kampala
Uganda
Tel: +256 41 243 613; Fax: +256 41 232 680
E-mail: neic@mukla.gn.apc.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-706

Draft national environment action plan for Uganda

Environmental Strategies and Action Plans

Uganda. Ministry of Natural Resources. National Environment Action Plan Secretariat;
U.S. Agency for International Development. USAID Mission to Uganda
Jul 1995, xvi, 179 p., En

Despite Uganda's high natural resource potential, factors such as poverty, population growth, and economic development pressures are putting severe strain on its environment. This draft National Environmental Action Plan (NEAP) begins with an overview of Uganda's history and physical, socioeconomic, and macroeconomic situation. Chapter 2 summarizes the state of Uganda's natural resources, analyzing its most serious environmental problems: soil erosion and land degradation, due mainly to rapid, widespread deforestation; uncontrolled harvesting of plant and animal species; draining of wetlands for dairy farming, cropping, and industry; overfishing of lakes and streams and invasion by the water hyacinth; overgrazing of rangelands; fuelwood shortages; moderate levels of pollution; high levels of environmentally related diseases; and limited institutional capacity for environmental management. Chapter 3 presents a strategy for addressing Uganda's environmental needs in a coordinated cross-sectoral manner and proposes a framework for environmental institutional reforms, legislation, enforcement strategies, and participation in international agreements. Finally, Chapter 4 presents a prioritized investment program to support the NEAP, defines an implementation and a monitoring strategy, and spells out the responsibilities of all involved government agencies and the private sector. The investment program has five foci: environmental management capacity building; enhancement of resource productivity; biodiversity conservation; environmental health and pollution management; and environmental education and public awareness.

Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABW-415

State of the environment: report for Uganda, 1994

State-of-Environment Reports

Uganda. Ministry of Natural Resources;
World Resources Institute;
Denmark. Ministry of Foreign Affairs. Danish International Development Agency;
U.S. Agency for International Development. USAID Mission to Uganda
1994, xxvi, 238 p., charts, statistical tables, En

Uganda's natural resource base is increasingly threatened by deforestation, land degradation, overfishing, poor animal husbandry methods, and industrial pollution. This report, the first to provide a comprehensive examination of Uganda's environment, was prepared to support the National Environmental Action Plan process. Sections cover: agriculture; forests and wildlife resources; aquatic and wetlands resources; energy resources, and industry and mining; detailed information is provided on the utilization, status, and problems of each of these sectors. The linkages between environmental management and economic development are highlighted. In addition, the report examines the impact of Uganda's population growth, poverty, poor health, and deteriorating transport and communications systems on sustainable development; and the country's institutional and legislative framework for ensuring sustainable development. The need to expand environmental education and public awareness, as well as environmental information, research, and monitoring is noted. Includes references, and numerous maps, figures, and charts.

Available from:
National Environmental Information Center
PO Box 9629
Kampala
Uganda
Tel: +256 41 243613; Fax: +256 41 232680
E-mail: neic@mukla.gn.apc.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABU-630

Zaire

Environmental synopsis: Zaire (Profil environnemental: Zaïre)

Environmental Synopses

IUCN—The World Conservation Union
1993, [ii], 35 p., maps, statistical tables, En/Fr

As Zaire's weakening economy forces the country to rely more and more on agriculture and forestry, environmental concerns, including deforestation, loss of biological diversity, and habitat degradation, are assuming increasing importance. This environmental review of Zaire was prepared as a briefing book for Commission of the European Communities officials. After an introductory fact sheet and an outline of key issues, the report: (1) examines Zaire's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Zaire. While Zaire's economic situation is severe, and includes an unprecedented financial crisis resulting from the loss of much of its working infrastructure, the disappearance of government authority, the departure of expatriates, and a halt to development assistance programs, the country retains the building blocks necessary for recovery: it is the third largest country in the continent, has a low population relative to its size, and has considerable energy, mineral, forest, and human resources. Includes a bibliography and maps of vegetation patterns, protected areas, communication routes, and administrative boundaries.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-437/438

Rapport national pour la conference des Nations Unies sur l'Environnement et le Développement (Rio de Janeiro 1992) [du Zaire] (National report for the United Nations Conference on Environment and Development)

UNCED National Reports

Zaire. Ministry of Environment and Nature Conservation, Kinshasa, ZR
1992, 90 p., maps, statistical tables, Fr

The national report of Zaire on environment and sustainable development was presented to the United Nations Conference on Environment and Development in Rio de Janeiro in 1992. The reports provides a description of various sectors and identifies principal problems as well as approaches needed to resolve them. It includes: (1) the geography and climate; (2) political and administrative organization; (3) population characteristics; (4) natural resources and performances in various sectors such as agriculture, fisheries, forests and natural reserves, mines, energy, industry, services industry, transportation, and communications; (5) social sector issues such as health, education, science and technology, natural disasters, sanitation, the role of NGOs and women in development, media, and employment; (6) conservation of nature; (6) performance in the global economy; and (7) the position of Zaire in relation to the UN Conference on the Environment.

Available from:
UNDP Resident Representative
B.P. 7248
Kinshasa
Zaire
Tel: +243 12 334 24 and 334 25; Fax: +871 150 32 61

Zambia

National environmental action plan

Environmental Strategies and Action Plans

Ministry of Environment and Natural Resources
June 1994, 168 p., statistical tables, En

Zambia is endowed with a rich natural resource base and an environment that is relatively unspoiled. However, rapid demographic changes, caused by a population growth rate of 3.5%, urbanization, industrialization, increasing agricultural demands and a general economic decline, pose a threat to sustainable use of the natural resources which, in turn, threatens economic, social, and environmental sustainability over the long run. Recognizing the need to promote and maintain the welfare of the people by adopting sustainable policies, the government has prepared the National Environmental Action Plan (NEAP) whose overall objective is to integrate environmental concerns into the social and economic development planning process of the country. The NEAP updates the National Conservation Strategy adopted by the Government of Zambia in 1985. It begins with an overview of Zambia's biophysical environment, human population, economy and property rights issues and then provides a sector-by-sector overview of the country's environmental problems and issues, analyses of their causes, and recommended actions required to resolve those issues and improve environmental quality. In the NEAP, this is done for the following sectors: agriculture, mining, industry, energy, tourism, natural resources (water, forests, wildlife, and fisheries), population, human settlements, government (institutions and environmental legislation), economic development, environmental education, and environmental issues in the Provinces. Some recommendations cut across several sectors. From the recommendations, an implementation strategy is developed for each sector and it is presented in a table listing proposed actions, priority ranking of each action, time frame for implementation, and the responsible agency for the implementation of each action. The time frame for implementation varies from on-going (implementation in progress) to immediate (implementation to start as soon as conditions permit) to future [implementation to be completed in 1-2 years (short term), 3-5 years (medium term), or over 5 years (long term)]. The recommendations are further discussed in an action plan for each sector which will support the implementation of the NEAP through an Environmental Investment Plan.

Available from:
Ministry of Environment and Natural Resources
PO Box 50042
Lusaka
Zambia
Tel: +260 1 222 117

State of environment: Zambia

State-of-Environment Reports

Chipungu, PM; Kunda, DM
Zambia. Environmental Council of Zambia, Lusaka, ZM
1994, 115 p., ill., statistical tables, maps, charts, En

This report provides an overview of environmental quality in Zambia and an indication of possible trends. Chapter 1 describes Zambia's geophysical setting, aquatic and vegetative systems, agrochemical zones, population, land use, and socio-economic characteristics. It concludes with a synopsis of Zambia's political structure, major economic sectors, and development strategies and objectives. Chapter 2 focuses on land use, primarily agriculture and its effects on environmental quality. Chapter 3 first describes the Zambian vegetation miombo savannah and then the conservation of the country's biodiversity and wild ecosystems. Statistics are provided on national parks, animal species, and game ranches. Chapter 4 covers Zambia's forests and forestry programs, and Chapter 5 discusses Zambia's fishing industry and production. Chapter 6 looks at energy resources and utilization in Zambia; first, petroleum products which are imported, then electricity and alternative sources of energy, coal and fuelwood, and finally new and renewable sources of energy which could be used or are being used, such as wind and solar energy. Chapter 7 covers the major economic activities of the country (mining of copper, cobalt, zinc, lead, and other metals) and their environmental consequences. Chapter 8 examines water resources, uses, quality, and management, while Chapter 9 describes the status of managing domestic, hazardous, and industrial wastes and looks at ways of handling clinical waste and expired drugs. Chapter 10 covers air quality, pointing out that status is not known and very little research is being done. Chapter 11 looks at chemical use and its consequences and offers several mitigation measures on the subject. Chapter 12 examines the existing legal framework relating to environmental protection, institutional jurisdictions, and the role and importance of the public in environmental protection. The chapter also provides detailed case studies of environmental laws in Zambia and lists international and regional conventions and agreements to which Zambia is party. Chapter 13 stresses the need for Environmental

Impact Assessment, citing variations in how it is carried out, examples of past mistakes, and problems to proper implementation. The final chapter suggests that education may help to enhance environmental awareness among Zambians.

Available from:
Environmental Council of Zambia
Lusaka
Zambia
Tel: +260 1 286 435; Fax: +260 1 223 123

Zambia's national report to UNCED 1992

UNCED National Reports

Zambia. Ministry of Environment and Natural Resources, Lusaka, ZM
1992, 58 p., charts, En

With a land area equal to Great Britain, Germany, Switzerland, the Netherlands, and Belgium combined, Zambia is endowed with a wide range of natural resources which are yet to be exploited. Recognizing the perils of focusing its economy on one activity (copper mining), Zambia has changed its emphasis from mining to agriculture and other renewable natural resources. Zambia also recognizes that its serious problems of diminishing food supplies in the face of a rapidly expanding population, poverty, disease, and inadequate housing stem partly from inadequate management of the environment and natural resources, and it has taken steps to address the growing problems of deforestation, poaching, overfishing, soil erosion, destructive bush fires, and pollution. The report reviews Zambia's experience in development and environmental protection, highlighting policies and issues which Zambia would like to see considered at the Earth Summit. The report reviews: (1) the country's physical features, vegetation, drainage, climate, and population; (2) development trends (the economic context, development plans, population and human settlement trends); (3) the natural resource base (agricultural land, and mineral, forest, fish, wildlife, water, and energy resources; and (4) environmental policies and programs, including institutional development, environmental education, extension, public participation, information and research, training, women in environment, and religious and non-governmental organizations. A final section lists priorities for environmental action and outlines recommendations for 17 sectors. Includes references.

Available from:
UNDP Resident Representative
P.O. Box 31966
Lusaka
Zambia
Tel: +260 1 260 440/1; Fax: +260 1 262 261

Zimbabwe

Zimbabwe's environmental dilemma: balancing resource inequities

Other Environmental Studies

Moyo, Sam; Robinson, Peter; Katerere, Yemi; Stevenson, Stuart; Gumbo, Davison
Zimbabwe Environmental Research Organisation, Harare, ZW
1991, vii, 165 p., maps, statistical tables, En

Zimbabwe faces two major environmental management issues, according to this monograph: (1) a policy approach, inherited from colonial days, which favors the elite and limits access by the poor to natural resources, and (2) the failure of the "Northern-based environmental modeling" favored by most donors to address the economic needs of the poor. The monograph details the extent of Zimbabwe's environmental problems, and suggests a culturally appropriate strategy for overcoming them. Chapter 1 critiques contemporary concepts of sustainable development and provides an overview of pre- and post-independence land-use patterns in Zimbabwe. Chapter 2 surveys Zimbabwe's natural resources and utilization patterns, while Chapter 3 focuses on human settlements and land tenure and use issues, including the gender dimension of natural resource management. Chapter 4 surveys Zimbabwe's major environmental problems, such as soil erosion, water pollution, deforestation, and overgrazing, and relates them to inequitable resource access; also discussed are the issues of pollution, waste disposal, and pest management in Zimbabwe, where there is a major industry that both manufactures and imports pesticides. Chapter 5 surveys legal and institutional instruments for natural resource management and environmental conservation; also discussed are government policies in regard to land reform, resettlement, land use planning, and various sectoral programs. Chapter 6 presents strategic options for sustainable development which range from the macro-level to the micro-level. Includes bibliography.

Available from:
Zimbabwe Environmental Research Organisation (ZERO)
PO Box 5338
Harare
Zimbabwe
Tel: +263 4 791 333; Fax: +263 4 732 858

Zimbabwe: an environmental profile

State-of-Environment Reports

Katerere, Yemi; Moyo, Sam; Ngobese, Peter
Zimbabwe Environmental Research Organization, Harare, ZW
1991, vii, 66 p., statistical tables, En

Imbalances in resource allocation, and the resource-use conflicts to which they lead, have precipitated many of Zimbabwe's environmental problems. Understanding of these imbalances should provide the starting point for reforms in environmental policy. So concludes this report, which finds that the following three factors are the major constraints on Zimbabwe's pursuit of environmentally sustainable development: (1) insufficient awareness of differences in access to natural resources by different social groups; (2) polarization of attitudes toward natural resources, e.g., between ecological and socioeconomic approaches, or between groups concerned with the survival of endangered species and groups, in environmentally degraded areas, more concerned with their own survival; and (3) a tendency of international agencies to include environmental conditionality in their aid programs, without fully understanding the practical implications. The report reviews the theoretical basis for the "sustainable development" approach to environmental management; the historical context of Zimbabwe's environmental status; the country's national resources and their utilization; pertinent legislation; demographic and land use issues; and environmental problems related to soil, water, forestry, pastoral land, wildlife and biogenetic resources, and pollution, waste disposal, and pest management. Strategies for environmental sustainability and rural transformation are explored in conclusion. Includes bibliography.

Available from:
Zimbabwe Environmental Research Organisation (ZERO)
PO Box 5338
Harare
Zimbabwe
Tel: +263 4 791 333; Fax: +263 4 732 858

Government of the Republic of Zimbabwe national report to the United Nations Conference on Environment and Development

UNCED National Reports

Republic of Zimbabwe. Ministry of Environment and Tourism, Harare, ZW
Jun 1992, 132 p., maps, statistical tables, En

Zimbabwe faces an array of environmental problems. The country's indigenous woodland has already been reduced by about half, while the productivity of its grazing lands has been severely depleted. In addition, more than 3 million ha of soil have been classified as being severely eroded, and their continued utilization is leading to siltation of most of Zimbabwe's major river systems, particularly the Save River System. Chapter I of this report describes Zimbabwe's environment, its rich natural resource endowments, and population characteristics. Chapter II covers resource exploitation and the resulting environmental problems, which have been worsened by a recent spate of droughts. Chapter III delineates the institutional context for environmental policy formulation and implementation in the country, while Chapter IV covers the government's many environmental programs, which include land reclamation projects, conservation awareness campaigns, and a program of afforestation and reforestation. International economic and environmental issues are examined in Chapter V, while Chapter VI defines Zimbabwe's commitments to the environment as well as its recommendations to the U.N. Conference on the Environment and Development. Includes references.

Available from:
UNDP Resident Representative
P.O. Box 4775
Harare
Zimbabwe
Tel: +263 4 792681; Fax: +263 4 728695

Case for sustainable development in Zimbabwe: conceptual problems, conflicts, and contradictions—a report prepared for the United Nations Conference on Environment and Development (UNCED)

UNCED National Reports

Gore, Charles; Katerere, Yemi; Moyo, Sam
Environment and Development Activities (ENDA—ZIMBABWE), [Harare, ZW];
Regional Network of Environmental Experts (ZERO), [Harare, ZW]
[1992], xx, 155 p. + 4 maps, ill., statistical tables, En

Traditionally, the southern NGO perspective on the environment has been marginalized. However, this report, written by two Zimbabwean NGOs, allows that previously unheard voice to be heard. The report highlights salient environmental issues in Zimbabwe. Following an introduction, Chapter 2 discusses environmental policy in Zimbabwe, covering pre-colonial, colonial, and post-independence periods, as it relates to land, population, labor, and institutions, and describes how the cycle of environmental degradation and poverty is rooted in Zimbabwe's economic history. Chapter 3 discusses human resources and population pressures, particularly in communal areas, analyzes environmental resources and their use, and describes issues related to resource conflicts, drought, deforestation, soil erosion, siltation, overgrazing, environmental legislation that marginalizes the interests of the black majority, agrochemical pollution, and mining and industrial pollution. Chapter 4 argues that incapacities within Zimbabwe's public and private institutions underlie its inability to manage its environment. Proposals are offered for institution building. Chapter 5 describes the link between entitlement failures and environmental degradation in communal areas, where inability to gain command of physical and monetary resources drives residents to environmentally destructive behavior. Chapter 6 provides recommendations. The potential of the recently initiated Economic Structural Adjustment Program to cause further environmental degradation and further impoverishment of Zimbabwe's black majority is stressed in conclusion.

Available from:
Regional Network of Environmental Experts (ZERO)
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Harare
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-636

Americas

Americas: Caribbean

Anguilla

Anguilla environmental profile: Part 1—a resource management framework: an assessment of the critical environmental issues facing Anguilla

State-of-Environment Reports

Island Resources Foundation, St. Thomas, VI;
Government of Anguilla;
Anguilla Archaeological and Historical Society, AI;
U.N. Development Programme, Bridgetown, BB
1993, vi, 141 p., charts, maps, statistical tables, En

The environment of Anguilla is very fragile, requiring that any economic development be carefully controlled. Specific pressures on natural resources include: increased numbers of tourists using beaches and the coastal environment; conflicting uses of marine resources; inadequate solid waste disposal practices; lack of control over livestock grazing; overfishing of inshore waters; and the need for better management of the marine environment. In 1992, the Government of Anguilla and the UNDP initiated a project for "Management of Natural Resources and the Environment," of which this environmental profile is a product. The report discusses and provides specific recommendations for the following seven sectors where environment and development issues interface: (1) the institutional dimensions of environmental management (including education); (2) land use planning and growth management; (3) the relationship between plants, animals, the land, and Anguillians; (4) Anguilla and its marine/coastal environment; (5) water quality, waste management, pollution control; (6) tourism; and (7) Anguilla's historical and cultural heritage. A number of maps as well as an extensive bibliography are attached.

Available from:
Island Resources Foundation Publications
1718 P Street NW, Suite T-4
Washington DC 20036
USA
Tel: +1 202 265 9712; Fax: +1 202 232 0748
E-mail: irf@irf.org
Internet: http://www.irf.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-478

Antigua and Barbuda

Antigua and Barbuda's national report to the United Nations Conference on Environment and Development

UNCED National Reports

Antigua and Barbuda. Ministry of Economic Development, Tourism and Industry, St. John's, AG
Dec 1991, 61 p., map, statistical tables, En

Antigua and Barbuda has a relatively large marine resource base which has been subject to disproportionate levels of use and a limited terrestrial resource base that is meeting increased demands. In this report to the U.N. Conference on Environment and Development (UNCED), the key environmental and development issues facing this small island country are analyzed. Major resource issues identified by the report include, at the national level, land management, utilization, and planning, solid and liquid waste disposal, and coastal and marine degradation; and, at the regional level, the transboundary movement of hazardous wastes and the effects of global warming at the regional level. National efforts to address these problems have often been pursued in an ad hoc rather than systematic manner and have been hampered by the country's stressed economy. In this regard, a number of areas have been targeted for international assistance, including the development of a framework for environmental management, a coastal zone management plan, a parks and protected areas system, a solid and liquid waste management program, and a local science and technology capability. The report concludes by recommending strategies for sustainable development at the international level. These include provisions for new financial resources needed to implement the programs of UNCED's Agenda 21 and other environmental conventions, and the transfer of environmentally sound technologies to developing countries on preferential terms.

Available from:
UNDP Resident Representative
P.O. Box 625 C
Bridgetown
Barbados
Tel: +1 809 4292521; Fax: +1 809 4292448

Bahamas

Report of the Commonwealth of the Bahamas to the United [Nations] Conference on Environment and Development (UNCED) June 1992

UNCED National Reports

Commonwealth of the Bahamas, Nassau, BS
1992, 70 p., En

The Bahamas has long recognized the need to conserve its natural heritage. In 1959, for example, more than a decade before the first Earth Day, the country established a national preserve for the flamingo and the first marine nursery park in the world. However, the government's recognition of the need to conserve and protect its natural resources is tempered by the need to provide employment, housing, and an improved standard of living for its growing population. This report reviews patterns of economic growth in the Bahamas, and then describes the state of the environment, natural resource utilization and its impacts, and environmentally related constraints to sustainable development. According to the report, while the Environmental Act (1987) and the Water and Sewerage Act (1976), complemented by numerous laws to protect flora, fauna, and marine life, provide a basis for environmental protection, economic incentives to promote the industrial, manufacturing, agricultural, and fisheries sectors create pressures in all these areas. The final section outlines initiatives and specific planned actions to protect the Bahamas' resources and to cooperate with international environmental efforts, concluding that it remains critical that the Bahamas continues its aggressive policy begun in 1959 to expand environmental protection areas.

Available from:
UNDP Resident Representative in Jamaica
P.O. Box 280
Kingston
Jamaica
Tel: +1 809 978 2390; Fax: +1 809 926 8654

Barbados

Environmental synopsis: Barbados

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 35 p., maps, statistical tables, En

Barbados, one of the world's most densely populated countries, is encountering serious environmental problems. Erosion has reached critical proportions in some areas, and coastal erosion is particularly severe around resorts and built-up areas. Other problems include inadequate waste disposal, oil pollution, and lack of an overall environmental agency and comprehensive legislation. This environmental review of Barbados was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Barbados's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. In the past 10 years the government has taken measures to improve management of the environment. These include establishment of a Coastal Conservation Project Unit, efforts towards a National Environmental Protection Act and a National Conservation Strategy, and assumption of a major role in the Alliance of Small Island States concerned about the impact of climate change. Includes bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-379

Cuba

Comisión de desarrollo sostenible: informe de Cuba 1994 (Commission on sustainable development: report from Cuba 1994)

Agenda 21 National Reports 1994

Cuba. Ministerio de Ciencia, Tecnología y Medio Ambiente, Havana, CU
1993, [ii], 36 p. + annexes, statistical tables, Es

This document represents Cuba's national report for 1994 on its progress in meeting the objectives of Agenda 21. After a general introduction, Part II reviews progress in the cross-cutting issues of international cooperation to accelerate sustainable development, national consumption patterns, financial assistance to Third World environmental efforts, and technology cooperation and transfer. Part III documents Cuba's progress in the sectoral areas of human health and settlements, protection of freshwater resources, and management of toxic chemicals and hazardous and radioactive wastes. Since Rio, Cuba has elaborated a National Program for the Environment and Development for implementing Agenda 21. The plan details actions not only in the sectors noted above, but in other areas such as agriculture, energy, reforestation, highland area development, biotechnology, etc. According to the report, implementation of the plan will require not only the participation of numerous governmental and nongovernmental organizations, but also new financial resources, which, however, will be difficult for Cuba to obtain given the long-standing and recently intensified U.S. economic blockade.

Available from:
Ministerio de Ciencia, Tecnología y Medio Ambiente
Ciudad de la Habana
Cuba
Tel: +53 7 223594 or 628631; Fax: +53 7 338654

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-717

Plan de acción forestal en los trópicos (Tropical forestry action plan)

Forest Assessments, Strategies, and Action Plans

República de Cuba
1989, 81 p., statistical tables, Es

The state of Cuba's forests is poor and 85% of the controlled forests are young trees. This action plan to protect Cuba's forestry sector is in three parts. Part 1 provides a general overview of the country and its agrarian economy, while Part 2 reviews the forestry sector, including silviculture treatments, agrosilviculture, forest conservation and protection, forest exploitation and utilization, forest products for export, forestry research and education, and the role of forestry within the country's overall development plan. Part 3 presents profiles of projects to: (1) develop forestry research capacity; (2) integrate mangrove management; (3) increase the production of sawn wood in the Province of Guantanamo; (4) utilize forest products for energy; (5) promote integrated development of the Zapata swamp; (6) improve the technical processes of wood collection and processing, and of storing seedlings; (7) upgrade Cuba's capacity for forestry protection; (8) promote integrated development of the Sierra Maestra; and (9) develop the technical activities of the Forestry School. Some projects contain a number of subprojects.

Available from:
Sr. Marcos Nieto Lara
Coordinador Nacional PAFT
Dirección de Relaciones Internationales, Area Forestal
Ministerio de Agricultura
Avenida Rancho Boyeros y Conill
Municipio Plaza de la Revolución
La Habana
Cuba

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-446

Poisoning of paradise: environmental pollution in the Republic of Cuba

Other Environmental Studies

Oro, Jose R.
Cuban American National Foundation. Endowment for Cuban American Studies, [Miami], FL, US
Jun 1992, xiv, 134 p., ill., maps, En

Contrary to the illusion created by the official statements of the Cuban government, Cuba today faces enormous environmental pollution problems, according to this book. Part I describes Cuba's geological setting, hydrosphere (i.e., groundwater, surface water, swamps, and the Cuban Insular Shelf), atmosphere, and climate. This section also describes COMARNA, Cuba's environmental protection organization. Part II discusses the ecological impact of Cuba's nuclear program, including the Nuclear Research Center at "La Quebrada," and the IV and IX Workshops, which are code names for, respectively, the experimental lab for nuclear material recycling and the nuclear and highly toxic wastes depository; both are secret installations. Part III notes the high level of pollution which has arisen from mining, the cement industry, electrochemistry and electrometallurgy, the ferrous and nonferrous alloy industries, the production of domestic and industrial gases, and sugar cane industry derivatives. Part IV identifies industries that pose high ecological risks. These include harbors that receive shipments of special oils, petroleum, and ammonia; oil refineries and nitrate fertilizer production; and petroleum and oil fields. The use of peat as an alternative fuel is discussed. Part V, which comprises about half the volume, identifies specific environmental problems by province and municipality, names responsible organizations, and suggests control measures.

Available from:
Open Road Press
2230 South West 8th Street
Miami FL 33135
USA
Tel: +1 305 643 6893

Dominica

Dominica: national environmental action plan

Environmental Strategies and Action Plans

Dominica. Ministry of Agriculture, Lands, Fisheries and Forestry. Forestry and Wildlife Division, DM
Apr 1994, iv, 44 p., map, statistical tables, En

Dominica, known as the "Nature Island of the Caribbean", has high volcanic peaks, extensive rain forests, numerous rivers and waterfalls, and a great diversity of plant and animal species, including two tropical Amazon parrot species, the Red-Necked and Imperial, which are unique to the island. Realizing that these natural resources are the basis not only of agriculture, the island's economic mainstay, but also of its future as an eco-tourist attraction, the Government of Dominica prepared this National Environmental Action Plan (NEAP) to identify the island's major environmental problems and formulate appropriate policies to address them. The NEAP includes: (1) an overview of the state of Dominica's environment, as well as a description of its economy, economic policies, and private sector participation; (2) environmental priorities, which include solid waste management, land use management, coastal zone management, water pollution, forestry, protected terrestrial areas, and natural hazards; (3) legal instruments and institutions, environmental policy, and institutions; and (4) a summary of environmental actions planned for the next 3 years. Selected project profiles are appended.

Available from:
Forestry and Wildlife Division
Ministry of Agriculture
Botanical Gardens
Roseau
Dominica

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-660

Dominican Republic

Environmental synopsis: Dominican Republic (Perfil ambiental: Republica Domicana)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 40 p., maps, statistical tables, En/Es

Environmental problems in the Dominican Republic have reached crisis proportions. They include deforestation (mainly for fuelwood), erosion (due to deforestation and slash and burn agriculture), declining soil productivity, damage to coastal reefs and mangroves from human activity, and a lack of capable environmental institutions or environmental awareness. On the positive side, the government is taking steps to diversify energy supplies, a large number of NGOs have sprung up to help protect and manage natural resources, and several international agencies are committed to helping with conservation and environmental training efforts. This environmental review of the Dominican Republic was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines the Dominican Republic's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in the Dominican Republic. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-400/401

Grenada

Grenada: national environmental action plan

Environmental Strategies and Action Plans

Grenada. Ministry of Health, Housing and Environment, St. George's, GD
[1994], vi, 48 p., maps, En

Possessing all the characteristics of an island developing nation, Grenada is particularly susceptible to certain environmental stresses: limited land space, the impacts of environmental disasters, and limited or non-existent institutional capacities. Although about 30% of the country still comprises natural forests, increases in tourism-induced economic activities and in banana cultivation on marginal lands and steep slopes have led to sizable increases in soil and beach erosion, sedimentation of rivers and coastal areas, loss of habitat, and water pollution. Other important areas for environmental policy action include: solid and liquid waste management, water supply, land use, coastal zone management, forestry and protected areas, and management of environmental hazards. A review of these areas and actions to address them during the next 3 years constitute the core of this National Environmental Action Plan. The Plan also reviews Grenada's environment status and related economic and population policies and makes recommendations for improving environmental institutions and legislation; currently, environmental management responsibilities are dispersed among 15 government agencies and the institutional capacity for enforcement of environmental legislation is lacking. Includes a matrix of the government's 3-year action plan; brief profiles of projects to improve land use, watershed, and forest management, strengthen forestry institutions, develop national parks, and improve landfill sanitation; and lists of environmental laws and agencies.

Available from:
Ministry of Health, Housing and Environment
Carenageoad
St. Georges's
Grenada
Tel: +1 809 440 2269

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-661

Haiti

Rapport national sur l'environnement et le développement [d'Haiti] (National report on environment and development [of Haiti])

UNCED National Reports

Republique d'Haiti
May 1992, 100 p., statistical tables, Fr

Haiti's socioeconomic and environmental outlook are bleak, according to this report, with agricultural and other economic activities dwindling in the face of political unrest and environmental degradation. Forest cover now represents only 3%-4% of the Haiti's land area, and it is estimated that 37 million tons of top soil are lost into the seas every year. In the cities, shantytowns have multiplied and mountains of garbage remain untreated. Chapter I describes Haiti's diverse, though limited natural resource base; fauna and flora, forests, water, energy, mining resources, and soil are reviewed, as well as the country's built environment, potential for natural disasters, public institutions, environmental legislation, and efforts toward international cooperation. Chapter II cites Haiti's primary objectives: to win the war on poverty, reform environmental institutions, and make investments in human resources. Finally, Chapter III presents Haiti's positions and recommendations on international issues, including Agenda 21, the Conventions on Rain Forests, Biodiversity, and Climatic Variations, and programs to assess international polluters' fees and facilitate technology transfer to developing countries. A brief bibliography is included.

Available from:
UNDP Resident Representative
Boite Postale 557
Port-au-Prince
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Tel: +509 23 14 00; Fax: +509 23 93 40 or +509 23 90 05

Jamaica

Environmental synopsis: Jamaica

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 37 p., maps, statistical tables, En

Jamaica ranks fifth among the world's islands for endemic plant life. However, it still suffers from the effects of widespread plantation agriculture and patterns of development dating from colonial times. Leading environmental concerns include deforestation, soil erosion, population pressures, and lack of public awareness concerning conservation. Fortunately, with the growth of tourism as a revenue earner (earning 30% of Jamaica's foreign exchange), the environment has moved to the forefront of concerns. The government has decided to develop a series of national parks, has established a national natural resource and environmental authority, and is pursuing industrial decentralization and rural development. This environmental review of Jamaica was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Jamaica's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Jamaica. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-409

Jamaica: national environmental action plan 1994

Environmental Strategies and Action Plans

Jamaica. Natural Resources Conservation Authority, Kingston, JM;
Jamaica. Planning Institute of Jamaica, Kingston, JM;
World Bank, Washington, DC, US
Jun 1994, 42 p., En

Although Jamaica has been described as the land of wood and water, its humid and subhumid tropical forests are disappearing at a rapid rate, while pollution of sea, surface, and ground water has become a tremendous concern. Land degradation in watershed areas, due mainly to hillside farming, is lowering agricultural productivity and causing marine siltation and coral reef destruction. Urban sprawl and blight are persistent problems in lowland areas, where competition for land has led to overcrowded unserviced squatter settlements. This National Environmental Action Plan documents the major environmental problems facing the country and presents a strategy to mitigate them. Section I reviews environmental and economic policies and the role of nongovernmental organizations in raising environmental awareness. Section II discusses existing conditions and actions planned for the next 3 years in the areas of land use; human settlements; forestry, agriculture, and watershed management; waste management; air, land, and water pollution; coastal and marine resources management; national parks and protected areas; and public awareness. Plans to improve the institutional framework and legislation are discussed in Section III, which notes that piecemeal fabrication of environmental legislation over the years has resulted in overlapping institutional responsibilities. Section IV provides a matrix of proposed environmental actions. Finally, profiles of proposed projects to develop a land resource database, improve fuelwood production on public lands, and develop a coastal zone management plan are appended.

Available from:
Natural Resources Conservation Authority (NRCA)
53 1/2 Molynes Road
P.O. Box 305
Kingston 10
Jamaica
Tel: +1 809 923 5155; Fax: +1 809 923 5070

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-662

Jamaica: economic issues for environmental management

Other Environmental Studies

World Bank, Washington, DC, US
1993, viii, 27, map, En

With institutional structures for environmental management already in place and a National Environmental Action Plan to be completed shortly, the Government of Jamaica has made a promising start in addressing environmental problems, but is constrained by lack of financial resources. This paper was prepared to help the Government to analyze crucial economic and institutional issues affecting the environment and identify areas needing external assistance. According to the paper, maximum mileage from Jamaica's scarce resources can be attained by identifying areas where economic tools such as taxes, subsidies, and prices can be brought to bear. Areas for early attention include: issuance of general policies for land and water use; adjustments in the water rates regime to allow some discrimination for services used; and increases in the sale price of public resources. Areas for longer-term research and application include: charging efficient rates for water consumption, sewerage, and irrigation services; taxing water polluters; taxing inputs and outputs of highly polluting small-scale industries; improving the land tenure regime and property tax system; improving agricultural research and extension services; and improving technical support to industry, especially small-scale industry. Initial efforts should focus on land use and water pollution. Further recommendations are to: concentrate investment in critical areas, especially water infrastructure and watershed protection; tap private sector resources; and strengthen the long-term capacities of key Jamaican agencies in economic planning and environmental management.

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Jamaica national report

UNCED National Reports

Jamaica. Ministry of Finance, Planning and Development, Kingston, JM;
Planning Institute of Jamaica, Kingston, JM
1992, 103 p., charts, map, statistical tables, En

Jamaica's main economic sectors of tourism, bauxite and alumina production, and agriculture are strongly dependent on natural resources. Although Jamaica has not neglected environmental concerns during the past two decades, the quality of its environment has declined due to the necessity to pursue economic development as well. Nonetheless, new trends in policy, institutional characteristics, involvement of nongovernmental organizations, and growing sensitivity of the private sector, all reflect aspirations for an environmentally sustainable mode of development. This national report discusses: (1) environmental impacts of development trends, such as trade, debt, and demographics; (2) the resource base, including minerals, coastal and forest resources, watersheds, wildlife, biodiversity, and protected areas; (3) social considerations, such as women's role, living conditions, education, health, and cultural attitudes toward natural resources; (4) the relation between natural resources and economic development, covering economic sectors (agriculture, forestry, minerals, tourism, fisheries, energy, manufacturing) and key issues (human resources, waste management, environmental hazards, transboundary movement of hazardous materials, and biodiversity); (5) Jamaica's response to these issues, including its policies, institutions, and investment programs; (6) international cooperation; (7) Jamaica's specific objectives for integrating economic and environmental policies; (8) financing sustainable development; and (9) Jamaica's expectations for the U.N. Conference on the Environment and Development. Includes bibliography.

Available from:
UNDP Resident Representative
P.O. Box 280
Kingston
Jamaica
Tel: +1 809 978 2390; Fax: +1 809 926 8654

Montserrat

Montserrat: national environmental action plan

Environmental Strategies and Action Plans

Monserrat. Ministry of Agriculture, Trade and the Environment, MS;
U.N. Development Programme;
World Bank, Washington, DC, US
May 1994, 41 p., map, En

Montserrat is a small, mountainous volcanic island whose lush, green beauty has earned it the title of "Emerald Isle" of the Caribbean. Its idyllic image is reinforced by a low, stable population, a relatively prosperous economy based mainly on tourism and light industry, and good environmental conditions. There are potentially serious environmental problems, however, including loss of vegetative cover, soil depletion, and overmining of beach sand, but above all a lack of effective development planning and control functions. This National Environmental Action Plan begins with a review of Montserrat's environment and economy, which, like those of most small islands, are particularly vulnerable to over-intense utilization of natural resources and to natural disasters such as typhoons. Section II discusses environmental priorities, which include land use planning, watershed management, water management, coastal resource protection, and conservation of the island's natural and historical heritage. Section III reviews environmental policy, legislation, institutions, and public awareness; although Montserrat lacks umbrella legislation covering environmental management, there is a basis for developing an effective, comprehensive program, including various pieces of legislation and a particularly active NGO, the Montserrat National Trust. Section IV presents, in matrix form, a summary action agenda covering the priority environmental and institutional areas; appended are short profiles of seven proposed projects.

Available from:
Ministry of Agriculture, Trade and the Environment
Monserrat

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-664

Montserrat environmental profile: an assessment of the critical environmental issues facing Montserrat with an action agenda for the future

State-of-Environment Reports

Island Resources Foundation, St. Thomas, VI;
Government of Montserrat;
Montserrat National Trust, MS;
U.N. Development Programme, Bridgetown, BB
1993, x, 124 p., maps, statistical tables, En

Despite its small size and rugged terrain, Montserrat has successfully transformed itself from an agriculturally based economy to a largely service-oriented, export-driven economy which has thus far not placed excessive demands on its natural resources. This environmental profile of Montserrat begins with a descriptive overview of the country's environmental setting, demographics, history, economy, and culture. The core of the report provides extended profiles of eight major sectors: the institutional framework for environmental management; planning and growth management; rural land use and watershed management; biodiversity; coastal and marine resources; energy planning, waste management, and pollution control; historical heritage; and tourism. Priority environmental issues or problems are highlighted in each chapter and recommendations are provided. A final chapter prioritizes and integrates key environmental issues and recommendations; these will be expanded as an action plan under the U.N. Development Program's Management of Natural Resources and the Environment project. A bibliography is included.

Available from:
Island Resources Foundation Publications
1718 P Street NW, Suite T-4
Washington DC 20036
USA
Tel: +1 202 265 9712; Fax: +1 202 232 0748
E-mail: irf@irf.org
Internet: http://www.irf.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-480

Saint Kitts and Nevis

St. Kitts and Nevis: national environmental action plan

Environmental Strategies and Action Plans

Saint Kitts and Nevis. Ministry of Natural Resources and Environment, Charlestown, KN
Apr 1994, vi, 36 p., En

Because of its small size and population, fragile ecosystems, and vulnerability to natural hazards, the Federation of St. Kitts and Nevis faces serious constraints in the optimal development of its human and natural resources. Using a comprehensive, multi-sectoral framework, this National Environmental Action Plan (NEAP) examines the country's environmental status and the economic and institutional factors affecting resource management, and sets forth a long-term strategy for maintaining both the natural environment and the health and safety of the human population. The core of the document identifies problems and strategies in the following priority areas: human resource development, legal and institutional development, solid waste management (the country's most serious environmental problem), coastal and marine pollution, beach erosion, biodiversity and wildlife habitats, forestry, land use, national parks and cultural heritage, natural and environmental hazards, and public awareness. Descriptions of planned environmental actions, programs, and projects are included.

Available from:
Ministry of Natural Resources and Environment
Administration Building
Charlestown
Nevis
St. Kitts and Nevis
Tel: +1 809 469 5374

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-665

Saint Kitts and Nevis country position paper prepared for UNCED

UNCED National Reports

St. Kitts and Nevis
May 1992, 13 p., En

While endorsing the view that environmental protection and sustainable development are mutually dependent, St. Kitts-Nevis' report to the U.N. Conference on Environment and Development (UNCED) points out that to achieve these goals, St. Kitts-Nevis and other developing nations will require easy access to environmentally sound technologies and international financing. Following an introduction, Section 2 of this report identifies the leading environmental issues facing St. Kitts-Nevis, both those which are shared by all Eastern Caribbean nations—natural resource management, environmental quality, public education, human resource development, and institutional and legal development—as well as specific issues of concern in St. Kitts-Nevis—deforestation and soil erosion, reef destruction, beach erosion, and disposal of sewage and solid wastes. Section 3 briefly describes St. Kitts-Nevis' economic development policy, while Section 4 outlines the country's environmental management strategies. Section 5 presents St. Kitts-Nevis' position on the major issues of the Conference— climate change, biodiversity, protection of oceans, seas, and coasts, toxic and hazardous waste management, protection of forests, soils, and other land resources and of freshwater quality and supply, and poverty. The final section reiterates the hope that the Conference will generate a strong commitment by developed nations to providing assistance to the less developed world.

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UNDP Resident Representative
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Bridgetown
Barbados
Tel: +1 809 429 2521; Fax: +1 809 429 2448

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-606

Saint Lucia

Saint Lucia: national environmental action plan

Environmental Strategies and Action Plans

Saint Lucia. Ministry of Planning and Development. Environmental Health Section, Castries, LC
May 1994, iii, 42 p., En

While St. Lucia has made substantial economic gains over the past decade, its magnificent landscapes are being destroyed by the increasing industrial and agricultural activity. This National Environmental Action Plan begins with a short summary of St. Lucia's leading environmental problems and planned responses. The first four sections of the body of the report give an overview of the island, its economy, environmental status, and recent efforts to integrate environmental and economic policy. Section 5 is a more in-depth review of St. Lucia's environmental problems. Heading the list are inadequate solid and liquid waste management, followed by coastal zone degradation, including illegal sand mining, coastal pollution, and siltation; inadequate protection of forest reserves and water catchment areas; land use conflicts; deforestation; and habitat loss. Natural disasters, air and noise pollution, agrochemical use, and energy consumption are discussed more briefly. For each problem, specific government actions are suggested. Section 6 describes St. Lucia's environmental policy, legal and regulatory instruments, and institutional arrangements; again, suggested actions are included. Section 7 focuses briefly on environmental education and public awareness, the lack of which is a major contributing factor to environmental destruction. Finally, Section 8 profiles six planned projects in the areas of coastal conservation, solid waste management, water supply, sewage collection and treatment, public

environmental education, and protected areas development.

Available from:
Environmental Health Section
Ministry of Planning and Development
Castries
Saint Lucia
Tel: +1 809 452 2262

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-666

Saint Vincent and the Grenadines

Saint Vincent and the Grenadines: national environmental action plan

Environmental Strategies and Action Plans

Saint Vincent and the Grenadines. Ministry of Health and the Environment, Kingstown, VC;
World Bank, Washington, DC, US;
U.N. Development Programme
Jun 1994, v, 31 p., En

St. Vincent and the Grenadines offer an interesting contrast. St. Vincent is mountainous and fertile, with significant stands of primary forest, while the Grenadines consist of low dry hills, sandy beaches, and clear blue waters with extensive coral reefs. At present, tourism provides the country with its best opportunity to increase foreign exchange earnings, and could help to reduce pressures on marginal agricultural land, but tourism will only be sustainable if environmental criteria are met. Activities associated with tourism, such as building too close to the high water mark, inadequate attention to waste disposal, and inadequate management of major attractions (especially the Tobago Cays) are having serious negative impacts on the environment. This draft National Environmental Action Plan (NEAP) identifies the status of and planned activities in six priority areas: solid waste; land use planning; coastal and marine resources: water pollution; noise pollution; and national parks and protected areas. The NEAP discusses the government's plans to develop a national environmental strategy, improve the legislative framework (which is weak in the areas of pollution control and cost recovery), strengthen the institutional framework (which lacks coordinating mechanisms and clear assignments of authority), and increase environmental awareness. Specific actions planned for the next 3 years are listed. Finally, it is noted that the NEAP will be implemented through the cooperative efforts of government and NGOs.

Available from:
Ministry of Health and the Environment
Kingstown
St. Vincent
Tel: +1 809 456 1111

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-667

Trinidad and Tobago

[Trinidad and Tobago] national report on environment and development: United Nations Conference on Environment and Development, Brazil, 1992

UNCED National Reports

Government of Trinidad and Tobago, Port of Spain, TT
[1992], [43] p., statistical tables, En

Trinidad and Tobago has a relatively diversified natural resource endowment which, if properly managed, can provide a substantial base for sustainable development. Hydrocarbon resources promise to provide a continuing platform for viable industrial activity. With investment in efficient agricultural and agro-industrial activities, the country could supply much of its food needs and generate additional income and employment. Additionally, the fisheries sector has the capability to fulfill some of the country's food and employment needs. This report provides background information on Trinidad and Tobago, identifies challenges in sustainable development, and surveys the natural resource base—flora, fauna, wetlands, forests, marine and coastal resources, energy resources, and minerals. The report then identifies major environmental issues and describes responses in terms of institutions, legislation, and policies. At the national level, environmental issues pertain to land use, pollution, solid waste management, and environmental standards. Regional issues relate mostly to the Caribbean Sea and include transboundary transport of hazardous chemicals and wastes, pollution (including oil pollution), and the management of transboundary fish stocks. And at the

global level, the major issues include climate change and sea level rise.

Available from:
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Also Available from:
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P.O. Box 812
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Order No.: WRI-271

Americas: North and Central America

(Central America regional)

Central America's coasts: profiles and an agenda for action

Other Environmental Studies

Foer, Gordon, ed.; Olsen, Stephen, ed.
University of Rhode Island. Coastal Resources Center;
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources;
U.S. Agency for International Development. Bur. for Latin America and the Caribbean. Regional Ofc. for Central American Programs
1992, iv, 278 p. + 2 appendices, charts, maps, statistical tables, En

In September 1991, representatives from Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama convened for a workshop aimed at developing an agenda for improving management of Central America's coastal ecosystems. In preparation for the workshop, the Coastal Resources Center of the University of Rhode Island had worked with the seven countries to develop profiles of their coastal resources. These profiles, each some 30 pages long, and including maps, tables, and references, are presented in this document. Also included are recommendations regarding the workshop's four major themes: watersheds and estuaries, mariculture, fisheries and habitats, and coastal tourism. An opening section presents an agenda for action developed by the Coastal Resources Center on the basis of the profiles and workshop discussions. This agenda describes a coastal ecosystem management strategy which would link national government efforts with community-level Special Area Management (SAM) planning; it is noted that the SAM approach is being used successfully by the U.S. Environmental Protection Agency for estuary management. The strategy would include two foci: extensive training of environmental specialists, and development of a network of SAM sites as proving grounds for participatory, integrated coastal management. Within this context, priority should be given to improving coastal tourism, mariculture, and estuarine and coral dependent fisheries.

Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABN-396

Belize

Environmental synopsis: Belize

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 37 p., maps, statistical tables, En

Belize has a generally well-preserved environment, which makes it a popular destination for ecotourists: there is abundant habitat for animals that are scarce in other parts of Central America, the coast has the second longest barrier reef in the world, and agricultural development was discouraged for most of Belize's history. Nevertheless, the country faces some severe environmental problems: (1) water pollution, especially in Belize City; (2) marijuana-eradication efforts, which have included pesticide spraying and created conflicts between growers and conservation agents; (3) slash-and-burn techniques, particularly by refugee farmers; (4) lack of scientific data and trained staff to apply environmental standards; and (5) an environmentally uninformed public. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Belize's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. No attempt is made to provide a comprehensive survey of international organizations working in Belize. Includes bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-439

Belize: national environmental report

Environmental Strategies and Action Plans

Belize. Ministry of Tourism and the Environment, Belmopan, BZ
Jun 1994, iv, 30 p., statistical tables, En

Although Belize has been able to preserve most of its environmental resources to a much greater extent than other Central American and Caribbean countries, its economy has been and will remain highly dependent on environmentally-based industries. The country faces several environmental problems: an increasing solid and liquid waste problem; overfishing of certain species; loss of mangroves due to increased dredging operations and land reclamation in coastal zones; an increasing deforestation rate; use of shifting cultivation and other unsustainable agricultural practices; outbreaks of environmentally-related diseases, such as gastrointestinal illness, malaria, and cholera; and, compounding all of the above, serious weaknesses in environmental institutions. This report was prepared as background for the development of a National Environmental Action Plan. Following an introduction, Chapter II reviews the physical setting in Belize and the relationship between its environment and economic development. Chapter III describes more specifically issues related to waste management; natural resource degradation; coastal management; sand mining and land reclamation; national parks; pricing of public services and land privatization; rural poverty; water, sanitation, and health; and environmental institutions and the legal framework. Chapter IV provides the main policy and management recommendations.

Available from:
Ministry of Tourism and the Environment
Belmopan
Belize
Tel: +501 8 23393; Fax: +501 8 22862

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-659

Canada

Canadian choices for transitions to sustainability

Agenda 21 National Reports 1995

Canada. Projet de Societe: Planning for a Sustainable Future, Ottawa, CA
Jan 1995, 153 p., statistical tables, En

"Projet de societe," created to review and facilitate Canadian progress in meeting the goals of the 1992 Earth Summit, presents its program for sustainable development in this report. Part I outlines Projet de societe's understanding of sustainable development and goes on to describe Canadian environmental initiatives currently being undertaken at the local, provincial, territorial, regional, and national levels, as well as by aboriginal groups and corporations. Canada's international commitments, including Agenda 21, the Convention on Biological Diversity, and the Framework Convention on Climate Change, are also reviewed. Part II presents options for managing Canada's climate, water resources, food supply, habitats, health, and education, employment, and transportation sectors. It also describes cross-sectoral tools needed to successfully implement environmental initiatives: accountability, environmental indicators, economic instruments, integrated decision making, environmental education, policy making at the federal level, environmental regulation, and public awareness of research and development decisions. A final section argues the need to forge new partnerships in implementing sustainable development and shows that to meet its sustainable development goals Canada will not need additional funding, but only to reallocate the resources it already has. An annex contains an extensive list of environmental contacts both public and private at the local, provincial, national, and regional levels. Includes bibliography.

Available from:
Projet de Societe: Planning for a Sustainable Future
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Canada K1N 7B7
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E-mail: admin-nrtee@nrtee-trnee.ca
Internet: http://www.doe.ca/agenda21/uneng.html

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-625

Report of Canada to the United Nations Commission on Sustainable Development (Rapport du Canada a la Commission du Développement Durable des Nations Unies)

Agenda 21 National Reports 1994

Government of Canada
1994, 62 p., 72 p., map, En, Fr

This first report of Canada to the U.N. Commission on Sustainable Development summarizes the country's progress, along with lessons learned and challenges, in achieving the goals of Agenda 21. The report covers (1) four cross-sectoral issues: international cooperation, national consumption patterns, financial resources and mechanisms, and technology transfer, cooperation, and capacity building; and (2) four sectoral issues: human health, human settlements, freshwater quality and supply, and waste management (including toxic chemicals, hazardous wastes, solid wastes, sewage issues, and radioactive wastes). Specific achievements include: participation in sustainable development planning by all levels of government; technical aid to other countries through the International Model Forests Program; creation of an information system to track Agenda 21-related activities; improvement of consumption patterns through recycling efforts, a national packaging protocol, development of provincial waste strategies, and environmental and energy labeling programs; national participation in the Global Environment Facility and the Montreal Protocol Multilateral Fund; sponsorship of the biennial GLOBE conference in Vancouver, the world's largest exposition of environmental goods and services; and regulatory reform aimed at improving environmental health.

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Also Available from:
Department of Environment
Informatech
Place Vincent Masse, Lobby
351 St. Joseph Blvd
Hull, PQ K1A 0H3
Canada
Tel: +1 819 997 2800

Canadian biodiversity strategy

Biodiversity Assessments, Strategies, and Action Plans

Canada. Federal—Provisional—Territorial Biodiversity Working Group
Jun 1994, 69 p., En

This document puts forward for discussion a national perspective on conserving biodiversity in Canada. Introductory sections examine biodiversity—its value and importance, its decline, the role of governments and citizens, and the special contribution Canada can and should make by virtue of its unique characteristics and international commitments. Specific actions are then proposed under five headings: (1) enhancing efforts to conserve biodiversity in situ and to use biological resources sustainably, especially in resource-based sectors such as agriculture, forestry, and fisheries; (2) developing an ecological approach to management built on a better understanding of how ecosystems function, comprehensive and reliable biological inventories, information sharing, greater recognition and use of traditional knowledge and practices, and integrated planning and monitoring systems; (3) improving Canadians' understanding of the value of biodiversity and providing them opportunities to help to develop and implement land and resource use policies, plans, and programs; (4) ensuring an appropriate mix of legislation and incentives to encourage biodiversity-sensitive behavior; and (5) contributing to biodiversity conservation and sustainable use efforts worldwide. Finally, the document proposes mechanisms for overseeing implementation of the strategy. (Author abstract, modified)

Available from:
Biodiversity Convention Office
351 St. Joseph Blvd., 5th Floor
Hull, Quebec K1A0H3
Canada
Tel: +1 819 953 4374; Fax: +1 819 953 1765

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-703

Canada's national action program on climate change

Climate Change Assessments, Strategies, and Action Plans

Environment Canada, Ottawa, CA
1995, 42 p., En/Fr

Canada's National Action Program pursues the goal of meeting its Convention commitments in the areas of climate change mitigation, adaptation, research and education, and international cooperation in a sustainable manner. In a review of opportunities and ongoing activities by governments, the program emphasizes leadership by example, creating the conditions for actions by others, and reducing barriers that may impede implementation of sustainable practices. Economic sectors (transportation, industry, residentail and commerical) are encouraged to develop and implement energy-efficient processes, appliances and buildings, lower-emitting technologies, and competitive renewable energy. Opportunities to reduce emissions and enhance carbon sinks in agriculture and forestry are also described. Other broad-based measures include: (1) a voluntary climate challenge and registry program to encourage all sectors to explore cost-effective actions to reduce or offset emissions; (2) a national communication program to encourage individuals to help reduce Canada's greenhouse gas emissions; (3) a joint implementation pilot initiative to encourage voluntary partnerships between Canadian and foreign entities and enhance the transfer energy efficiency technologies to other countries; and (4) continued international cooperation. Climate change science in Canada will work to better understand climate and related ecological processes through improved research networks involving academic, private, and public sector scientists; improved evaluation and coordination of systematic observations of climate change parameters; and enhanced statistical and analytical tools. Strategic directions for adaptation activities include: enhancing communications and information networks among all sectors; identifying regions and economic sectors most sensitive and vulnerable to the impacts of climate change and determining appropriate adaptation responses; incorporating climate change and variability impacts into planning and decision-making; and identifying where new or modified technology would be required. This report concludes with a plan for reviewing Canada's progress in meeting current commitments and evaluating actions for the future, a list indicators of progress, and a vision for moving beyond 2000.

Available from:
Enquiry Centre
Environment Canada
Ottawa, Ontario
Canada K1A OH3
Tel: (819) 997-2800; Fax: (819) 953-2225

Canada's national report on climate change: Actions to meet commitments under the United Nations Framework Convention on Climate Change

Climate Change Assessments, Strategies, and Action Plans

Environment Canada, Ottawa, CA
1994, 144 p., tables, maps, En

This report assesses the impacts of policies and measures to limit greenhouse gas emissions in Canada, provides an updated inventory of these emissions, and projects their future trends. It provides a snapshot of what is currently being done by governments, communities, and the private sector in the areas of climate change mitigation, adaptation, research and education, and international co-operation, permits an evaluation of Canada's efforts to meet its commitments under the Convention, and gives a basis for planning future action. Projections of climate change impacts point to wider variation in temperature, northward shift of climate zones, lower water levels in the Great Lakes-St. Lawrence basin, rising sea levels along Canada's coasts, and melting permafrost. Measures to limit greenhouse gas emissions deal with transportation, electricity generation, lighting, space heating and cooling, use of equipment, machinery and household appliances, resources and manufacturing, and management of solid waste. Because most emissions are energy-related, many of the limitation measures focus on reducing fuel use through increased efficiency and conservation and greater use of alternative, less carbon-intensive or non-carbon sources of energy. Other actions taken to address climate change include enhancing greenhouse gas sinks and reservoirs, improving public awareness of climate change issues, researching and monitoring climate change processes, and expanding Canada's options to mitigate climate change. Canada's 1990 greenhouse gas emissions inventory provides national data for carbon dioxide,

methane, and nitrous oxides by source, information on emissions of halogenated species (CFCs and others), and information on biogenic sources and sinks of greenhouse gases. Carbon dioxide emissions are also disaggregated and presented for Canadian provinces and territories by fuel use and industrial source. Projected energy-related emissions for the year 2000, within the existing framework of limitation measures, are 11% higher than the 1990 level, indicating that additional measures are needed if Canada is to meet Convention objectives. The report concludes with notation that a national action program designed to meet Canada's climate change goals has been initiated.

Available from:
Enquiry Centre
Environment Canada
Ottawa, Ontario
Canada K1A OH3
Tel: (819) 997-2800; Fax: (819) 953-2225

Canada's green plan: Canada's green plan for a healthy environment

Environmental Strategies and Action Plans

Canada. Ministry of the Environment, Ottawa, CA
1990, ix, 174 p., ill., charts, maps, En

The Canadian government has allocated $4.3 billion for its Green Plan, which sets out an ambitious national program for improving environmental management over a 5-year period. This report presents definite targets and schedules for the implementation of over 100 specific Green Plan initiatives. The Plan's overall targets, and some of its most important initiatives, are to: (1) ensure that Canada has clean air, water, and land (by, inter alia, virtually eliminating the discharge of persistent toxic substances, cutting waste generation 50% by the year 2000, and reducing smog levels significantly); (2) support sustainable use of renewable resources, including forests, agricultural lands, and fisheries; (3) protect threatened species and unique ecological areas, particularly wetlands (by, inter alia, setting aside 12% of the country as protected space, completing the national park system, and preserving historic sites); (4) preserve the integrity, biodiversity, and productivity of Canada's Arctic ecosystems; (5) promote global environmental security (by, inter alia, stabilizing greenhouse gas emissions at 1990 levels, phasing out CFCs by 1997 and other major ozone-depleting substances by 2000, and capping acid rain-related emissions); (6) encourage environmentally responsible decision making at all governmental levels and social strata (by, inter alia, developing scientific and educational programs, laws, and market incentives to protect the environment, and ensuring that the federal government exceeds targets and schedules for environmental protection actions); and (7) minimize the impacts of environmental emergencies.

Available from:
Canada Communication Group
Ottawa
Canada, K1A 0S9
Tel: +1 819 956 4802; Fax: +1 819 994 1498

State of Canada's environment—1991

State-of-Environment Reports

Canada. Ministry of the Environment, Ottawa, CA
1991, v.p., ill., charts, maps, statistical tables, En

mhis volume, Canada's second national state of the environment report, assesses the environmental status of the country as of 1991 and the impact of efforts to curb environmental degradation. Part I discusses perceptions of the environment, particularly the risk posed by looking at the environment in terms of economic models. Part II explores the state of environmental components (air, water, land, wildlife, protected areas) and examines the major sectors of human activity (e.g., fisheries, agriculture, forestry, mining, urbanization) that influence or exploit them. Part III consists of six regional case studies, which reflect the range of environmental problems across of the country—the Arctic, Lower Fraser River basin, prairie grasslands, Great Lakes basin, the St. Lawrence River, and the Upper Bay of Fundy dikelands. Part IV addresses six environmental issues that are of particular concern to Canadians today: toxic chemicals, global warming, stratospheric ozone depletion, acidic deposition, solid waste, and alterations in natural habitats. Finally, Section V concludes that while Canada has made some progress through the reduction, reuse, and recycling of some materials, development of the National Green Plan, and industrial efforts to curb waste, Canadians, in comparison to other groups, remain profligate consumers. To make significant headway towards sustainable development Canada must first improve public awareness of environmental issues, expand informational resources, and improve environmental monitoring systems. Includes chapter references. Canada's third state of the environment report will be completed in 1996 (see the Internet address below for more information).

Available from:
Canada Communication Group
Ottawa
Canada K1A 0S9
Tel: +1 819 956 4802; Fax: +1 819 994 1498
E-mail: enviroinfo@cpgsv1.am.doe.ca
Internet: http://www.doe.ca/

Costa Rica

Estudio nacional de biodiversidad: costos, beneficios y necesidades de financiamiento de la conservación de la diversidad biológica en Costa Rica (National biodiversity study: costs, benefits and financial requirements of the conservation of biological diversity in Costa Rica)

Biodiversity Assessments, Strategies, and Action Plans

Gobierno de Costa Rica. Ministerio de Recursos Naturales, Energía y Minas, CR;
Museo Nacional de Costa Rica;
Instituto Nacional de Biodiversidad, [CR]
1992, viii, 264 p., maps, statistical tables, Es

Although 22 of Costa Rica's territory is protected to differing degrees by the National System of Conservation Areas (SINAC), the country has suffered a serious loss of biodiversity. This study, which evaluates the state of biodiversity in Costa Rica and the costs and benefits of conservation, was elaborated in response to the commitment of the U.N. Environment Program (UNEP) to gain a better understanding of the financial needs of sustainable development in tropical countries; it will also significantly contribute to available educational, technical, and scientific knowledge about national biodiversity. It is estimated that Costa Rica has 505,660 species, about 6% of the earth's biodiversity. Very little is known about most of the species, especially microorganisms and insects. Between 1,300-1,500 plant species are threatened due to overexploitation, and 6,500 species are vulnerable as a result of severe deforestation by timber exploitation and illegal extraction. Between 1973-1989, total forest cover fell from 58.5% to 42.9% of Costa Rican territory, with remaining dense forest covering only 28.9% in 1989. Fish populations have also been depleted. Most of the remaining biodiversity was found to be in legally protected areas, suggesting that this is an effective conservation policy. The final chapter presents a detailed financial analysis of various costs (land purchases, education, research) and benefits (hydroelectric power, tourism, air and water quality) of protecting biodiversity, as well as priorities.

Available from:
Director
Instituto Nacional de Biodiversidad
3100 Santo Domingo de Heredia
San Jose
Costa Rica
Internet: http://www.inbio.ac.cr/

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-368

El Salvador

Estrategia nacional del medio ambiente [El Salvador] (National environmental strategy [El Salvador])

Environmental Strategies and Action Plans

El Salvador. National Council on the Environment. Executive Secretariat on the Environment.;
World Bank;
U.N. Development Programme;
Inter-American Development Bank;
U.S. Agency for International Development. USAID Mission to El Salvador
Sep 1994, 112 p., Es

Due in part to El Salvador's high population density, the country's environment is severely degraded. Almost two-thirds of the soil is eroded, more than 90% of the rivers are contaminated with industrial waste, and less than 2% of the original forest remains intact. This National Environmental Strategy is put forth as probably the last opportunity at restoration before environmental damage is irreversible. Chapter I lays out the economic, social, and institutional context in which the Strategy was elaborated. Chapter II identifies El Salvador's principal environmental problems and examines their causes and economic, social, and environmental impacts. Problems include deforestation, soil degradation, loss of biodiversity, water basin degradation, coastal and marine degradation, and air pollution. A succinct but comprehensive plan for solving these issues is provided. In Chapter III, mechanisms for implementing the Strategy are proposed, including legal and institutional reforms; improvements in monitoring and evaluation, information

needs, planning, and financing; and the promotion of community participation and the role of women. Specific projects, technical assistance, investment priorities, etc. will be detailed in a separate volume. Includes bibliography.

Available from:
Secretaria Ejecutiva del Medio Ambiente (SEMA)
Ministerio de Planificacion y Coordinacion
del Desarrollo Economic y Social
Final de la 91 Av. Norte entre 11 y 13
Calle Poniente, Colonia Escalon
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABU-555

Agenda ambiental y plan de acción: [El Salvador] (Environmental agenda and action plan: [El Salvador])

UNCED National Reports

Gobierno de El Salvador. Consejo Nacional del Medio Ambiente, [San Salvador], SV
30 May 1992, 264 p., statistical tables, Es

Most observers agree that if current trends in El Salvador continue for another decade, the country's environment will be irreversibly damaged, resulting in the likely collapse of its agricultural and natural resource-based economy. This document presents an Environmental Agenda for El Salvador, along with an Emergency Environmental Plan of Action. Chapter 1 of the Agenda analyzes past models of development and their environmental impacts. Chapter 2 outlines policies which the Salvadoran government has adopted under a new strategy of sustainable development, within the context of the Program for Economic and Social Development for 1989-1994 and the National Plan for Postwar Reconstruction. Chapter 3 describes circumstances and/or presents recommended strategies and policies in the areas of population, rural/urban development, cultural preservation, agriculture, soils, forests, freshwater, marine resources, biodiversity and protected areas, pollution and human health, natural and other disasters, environmental education, women and sustainable development, and research and technology transfer. Chapter 4 analyzes El Salvador's legal and institutional basis for environmental and natural resource management and proposes a program of priority reforms. Part II, the Emergency Environmental Plan, is structured in 6 action areas: environmental degradation; natural resources; water resources; rural/urban development; environmental education; and institutional strengthening. Profiles of recommended projects are presented, including objectives, implementing organization, geographic scope, and estimated cost.

Available from:
UNDP Resident Representative
P.O. Box 1114
San Salvador
El Salvador
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Guatemala

Situación ambiental de la República de Guatemala (Environmental situation in Guatemala)

UNCED National Reports

República de Guatemala. Comisión Nacional del Medio Ambiente, GT
1992, xiii, 138 p. + 3 annexes, ill., maps, statistical tables, Es

Guatemala is located in one of the five most biologically diverse areas of the world, and has an ancient cultural heritage. This interdisciplinary report on Guatemala's environment serves as a basis for the nation's forthcoming National Environmental Action Plan. Chapter I is a general profile examining Guatemala's biological, demographic, socioeconomic, political, and cultural background. Chapter II describes development models that have shaped Guatemalan society, while Chapter III specifically addresses, by sector, economic activities and their effects on the environment. Chapter IV provides a panorama of the state of renewable natural resources, covering soils, forests, water resources, and biodiversity. Chapter V documents how public sector activities over the past 20 years have affected the environment, while Chapter VI reviews current institutional initiatives and actions, and concludes that these efforts lack coordination. Finally, a lengthy Chapter VII examines themes of special interest, including forestry, urban development, poverty, women, population, health, and the environment. Recommendations are provided. Annexes

provide profiles of short-, medium-, and long-term institutional proposals and descriptions of the emergency program for protecting tropical areas and of the Mayan Biosphere Reserve.

Available from:
Comisión Nacional del Medio Ambiente (CONAMA)
Avenida Petapa 25-59 Zona 12
Guatemala City
Guatemala
Tel: +502 2 760055; Fax: +502 2 761026

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-455

Honduras

Plan de acción ambiente y desarrollo [Honduras] (Environment and development action plan [Honduras])

Environmental Strategies and Action Plans

República de Honduras. Secretaria de Estado en el Despacho del Ambiente (SEDA), Tegucigalpa, HN; World Bank, Washington, DC, US
Jun 1993, 192, [23] p., charts, statistical tables, Es

Honduras is characterized by a low level of economic development and a high level of environmental degradation. This document outlines Honduras' National Environmental Action Plan (NEAP), and is divided into two parts. The first part, on development and the environment, includes three chapters, covering: the economic and social context, including development strategies and the interrelationships among population, poverty, and sustainable development; the legal and institutional framework for environmental management; and existing uses forest, water, soil, wildlife, marine and coastal, and cultural resources. The second part outlines the NEAP, and includes four chapters. The first describes the main lines of the strategy, while the second prioritizes various problems and describes actions needed in the areas of deforestation, soil degradation, floods and droughts, water and soil pollution, disposal of solid wastes, loss of biodiversity, and degradation of marine resources. The third chapter discusses such issues as political consensus, social organization and participation, legal and institutional development, environmental education, sustainable agriculture, and urban development. Finally, the fourth chapter provides basic information on planned NEAP projects—their costs, implementing agencies, period of execution, and donors. A bibliography and lists of environmental laws/institutions are appended, along with information on projects already underway.

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World Bank Public Information Center
1776 G Street NW
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Tel: +1 202 458 5454; Fax: +1 202 522 1500
E-mail: pic@worldbank.org
Internet: http://www.worldbank.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-465

Mexico

Comisión desarrollo sustentable

Agenda 21 National Reports 1995

Mexico. Secretaria de Medio Ambiente, Recursos Naturales y Pesca, Mexico City, MX
1995, 62 p., tables, Es

The pursuit of sectoral objectives without an overall strategy has allowed the deterioration in Mexico's natural resource base. To address this problem and to promote a transition to sustainable development, Mexico created a new Ministry of Environment, Natural Resources, and Fishing in December 1994, incorporating the National Water Commission, National Institute of Ecology, Ministry of Fishing, and the Forestry Department and increase the combined budget for these activities 300 percent. The Ministry is now fixing goals for short, medium and long term. Priority areas are urban development, over exploitation of aquifers, and forestry. This report describes policies and progress in the conservation and management in the following natural resource areas: air, land use, deforestation, desertification, agriculture, oceans, fresh water, chemicals, hazardous wastes, and solid wastes. Processes and capacities as well as examples of data are given.

94

Available from:
Instituto Nacional de Ecología
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Mexico, DF 06500
Mexico
Tel: +52 5 553 9601; Fax: +52 5 286 6625

Tropical forest action plan of México

Forest Assessments, Strategies, and Action Plans

Mexico. Ministry of Agriculture and Hydraulic Resources. Subministry of Forestry and Wild Fauna, Mexico City, MX
Jun 1994, 4 v., charts, statistical tables, En, Es

This Tropical Forest Action Plan (TFAP) for Mexico has the twin goals of slowing deforestation and encouraging integrated environmental conservation by promoting alternatives to existing patterns of forest use. The plan is in four volumes. Volume one presents a synthesis of the TFAP and its lines of action; tables in this volume include information on specific project proposals and their costs. Volume two, the basic document, describes the process of formulating the TFAP, the environmental challenges and priorities it addresses, its conceptual framework (policies, strategies, and objectives), and its ten program areas: (1) participatory ecological planning; (2) stabilization of agriculture and animal husbandry; (3) forestry industry development; (4) sustainable forest production and commercialization of ecological tropical products; (5) research, higher education, and extension services in tropical area conservation and management; (6) revaluation and enrichment of traditional knowledge on the conservation and management of tropical areas; (7) ecological restoration; (8) conservation of biological and ecological diversity; (9) improvements in living standards and the role of women among indigenous people; and (10) informal community education and dissemination of information about TFAP activities. A bibliography is included for each program area. Volume three presents profiles of the specific projects planned under each program (in Spanish), while volume four contains annexes (e.g., actual legislation, policy and technical recommendations, diagnostic studies, and lists of organizations and possible collaborators).

Available from:
Dra. Silvia del Amo
Coordinador Nacional
Grupo Tecnico Programa de Accion Forestal
Subsecretaria Forestal
Secretaria de Agricultura y Recursos Hidraulicos
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-448

México: informe de la situación general en materia de equilibrio ecológico y protección al ambiente 1993-1994 (Mexico: report on the general situation as regards ecological balance and environmental protection 1993-1994)

State-of-Environment Reports

Mexico. Secretaria de Desarrollo Social. Instituto Nacional de Ecología, Mexico, MX
1994, 376 p., ill., charts, maps, statistical tables, Es

This is the fifth edition of a report first published in 1986. It is designed to describe the state of the Mexican environment and the results of Mexico's environmental policies. In this edition a special emphasis is given to defining sustainable development and Mexico's new roles as a member of the Organization for Economic Cooperation and Development and the North American Free Trade Agreement. Part I provides the national context in physical, social and economic terms. Part II assesses the natural resource base, including soils, biodiversity and protected areas, water, and ocean and islands resources. Part III discusses the major industrial sectors of mining, petroleum, electricity and transport, and opportunities for sustainable production. Part IV focusses on environmental management issues, including environmental health, air, wastes, impact and risk assessment, education and capacity building, and science and technology. Part V discusses environmental cooperation with an emphasis on OECD and NAFTA. Part VI describes federal environmental management structures and efforts to decentralize authority. Part VII is

an annex devoted to the topic of climate change and Mexico's response. Includes bibliography.

Available from:
Secretaria de Desarrollo Social
Av. Constituyentes 947
01110 Mexico, DF
Mexico

Informe nacional del ambiente (1989-1991) para la Conferencia de las Naciones Unidas sobre Medio Ambiente y Desarrollo [México] (Mexico: national report on Environment (1989-1991) for the United Nations Conference on Environment and Development)

UNCED National Reports

Mexico. Comisión Nacional de Ecología, Mexic, MX;
Mexico. Secretaria de Desarrollo Urbano y Ecología, Mexico, MX
Jun 1992, 2 v., charts, maps, statistical tables, Es, En

About 50 years of unrestrained development in Mexico have resulted in significant environmental degradation. Recently, however, policy makers have begun to explore development policies that are sustainable and environmentally friendly. This report discusses progress made toward this end, including sections on (1) national environmental policy, (2) an inventory of Mexico's natural resources (e.g., land, water, flora, fauna, forests, nonrenewable resources, and protected natural resources), (3) an assessment of the current quality of Mexico's environment (air and water quality, hazardous and solid wastes, noise, health and safety, environmental impacts, environmental emergencies), (4) efforts to raise public consciousness about the environment, and (5) international agreements and financing. A final section discusses scientific and technological initiatives which promote ecological balance. Includes glossary, annexes, and bibliography.

Available from:
UNDP Resident Representative
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Nicaragua

Plan de acción ambiental [de Nicaragua] (Environmental action plan [of Nicaragua])

Environmental Strategies and Action Plans

República de Nicaragua. Ministerio de Economia y Desarrollo, Managua, NI;
Instituto Nicaraguense de Recursos Naturales y del Ambiente, Managua, NI;
Sweden. Autoridad Sueca para el Desarrollo Internacional;
Denmark. Agencia Danesa para el Desarrollo Internacional;
Banco Mundial, Washington, DC, US;
ECOT—PAF
May 1994, ix, 143 p., Es

Due to its extremely low level of industrialization and undiversified economy, Nicaragua must utilize its natural resources more intensely and efficiently. This document outlines the country's National Environmental Action Plan. Chapter I, a brief introduction, identifies the Plan's objectives. Chapter II reviews the current situation in Nicaragua, covering the political economy, natural resources, institutional and legal aspects, socio-environmental issues affecting key sectors and groups, and environmentally critical geographical areas, The chapter also documents the results of a municipal consultation on environmental problems facing the country. Chapter III describes the Action Plan itself. The first two sections describe the overall structure and intersectoral nature of proposed programs, while the third prioritizes water, forest, and soil resources as the focus of the plan. Next, programs in agriculture, pesticides, fish and aquatic resources, biodiversity, energy, tourism, urbanization and solid wastes, cultural heritage, and ethnic groups are described, and geographic priorities are defined. A final section presents recommendations for implementation of the plan, with the suggestion that it be flexible and open to adjustment. Includes a detailed planning matrix.

Available from:
Instituto Nicaraguense de Recursos Naturales y del Ambiente (IRENA)
Managua
Nicaragua

96

Plan de acción forestal [Nicaragua] (Forestry action plan [Nicaragua])

Forest Assessments, Strategies, and Action Plans

República de Nicaragua, Managua, NI
1991, 7 v., charts, maps, statistical tables, Es

Nicaragua's forest cover is decreasing at an alarming rate of 100,000 ha yearly and unless urgent measures are taken, most of Nicaragua's rain forests, which account for over 80% of this cover, will disappear in the next 10-15 years. This action plan proposes programs in five areas to promote sustainable development of the country's forestry sector: (1) forestry activities related to land use, (2) management of natural forests and industrial development, (3) fuelwood and energy, (4) conservation of forest ecosystems and biodiversity, and (5) institutional strengthening, including research, legislation, and education. The programs' costs are expected to total US $272 million, of which $194 million would come from external sources. The plan recommends that seven funds be created as financial and incentive mechanisms to promote the various programs. A description of the economic, social, and environmental benefits expected of the program and a list of priority projects, broken down by program category, conclude the plan. Included is a volume which describes 46 specific proposed projects—their objectives, implementing agencies, planned activities, and costs. Also includes a glossary and a bibliography.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-449

Panama

Eco '92: report of the Republic of Panama to the United Nations Conference on the Environment and Development

UNCED National Reports

Panama. Ministry of Planning and Economic Policy, Panama, PA;
Panama. Interinstitutional Committee on Water, Sanitation, and Environment, Panama, PA
Nov 1991, 75 p., maps, En

Panama has made some significant advances in protecting its environment since the 1970s, but much needs to be done. For example, potable water supply has been greatly extended, yet about 400,000 Panamanians still do not have adequate access to drinking water. Air quality in urban regions is affected by exhaust and industrial emissions, and in rural areas by smoke produced by slash and burn agriculture. The countryside continues to be deforested at a high rate, with land degradation and erosion as the result. Significant gains have been made in establishing national parks and preserves, but there are only 50 park rangers to serve the entire country. The Bay of Panama has been the site of many oil spills, and 40 million tons of untreated sewage are pumped into it each year. These problems, detailed in this national report on the state of the environment, are made more difficult by the poverty that afflicts almost half of the Panamanian population, as well as by the fact that the country is sharply divided into traditional Latin American and more westernized cultural worlds. Although Panama has yet to formulate a comprehensive and integrated environmental policy, valuable elements of such a policy have been proposed in official documents such as the "Guidelines for the Development and Modernization of the Economy" and the "Tropical Forestry Action Plan". This report includes detailed information on the country's resources and institutional environmental framework. Recommendations for establishing environmental priorities are presented in conclusion. Includes bibliography.

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UNDP Resident Representative
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United States

United States submission of information to the Commission on Sustainable Development

Agenda 21 National Reports 1994

United States of America. Department of State, Washington, DC, US
Nov 1993, v.p., charts, map, statistical tables, En

U.S. efforts to implement Agenda 21 are detailed in this report, which addresses ten of the Agenda's Chapters: Chapter 2, on cooperation to accelerate sustainable development; Chapter 3, changing consumption patterns; Chapter 6, human health; Chapter 18, freshwater resources; Chapters 19-22, toxic chemicals, hazardous wastes, solid wastes and sewage, and radioactive wastes; and Chapter 34, technology cooperation. The report notes that the U.S. President's Council on Sustainable Development has identified four central issues for consideration (sustainable communities, energy, natural resource management and protection, and eco-efficiency) as well as three cross-cutting issues to be examined (population and consumption; education; and tools to stimulate sustainable development). Among the other U.S. achievements cited in the report are: progress in health promotion (including the areas of rural health care, communicable disease control, protection of vulnerable groups, and reduction of environmental health risks); proposals by the Department of Energy for managing greater than Class C wastes; development of standards for managing radioactive wastes; and a wide range of environmental technology development and transfer activities. The introduction notes that the United States has no mandatory national or regional land use planning or industrial development policies, thus leaving most economic development activities to the private sector and subjecting efforts to resolve environmental problems to a complicated process of consensus-building, the results of which remain subject to legal challenge and possible invalidation.

Available from:
Deputy Assistant Secretary for Environment and Development
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-739

Our living resources: a report to the nation on the distribution, abundance, and health of U.S. plants, animals, and ecosystems

Biodiversity Assessments, Strategies, and Action Plans

U.S. Department of the Interior, National Biological Service, Washington, DC, USA
1995, 530 p., ill., statistical tables, maps, charts, En

This report, published by the National Biological Service of the United States Department of the Interior, includes nearly 200 peer-reviewed articles. It represent the country's first effort to pull together information on the status and trends of different groups of biota, ecosystems, and ecoregions as well as related issues. Part 1 serves as an Introduction to the report. It provides an overview of the report and its organization and contains articles on the importance of biodiversity and the history of biological study in the federal government. Part 2 of the report contains articles on the distribution, abundance, and health of species in various taxonomic groups (birds, mammals, fishes, reptiles, amphibians, plants, and invertebrates), ecosystems (organized under the general headings of terrestrial, aquatic, coastal, marine, and riparian), and selected ecoregions (The Great Plains, Interior West, Alaska, and Hawaii). Each of the major sections includes an overview which summarizes the conclusions of individual articles therein. The articles identify factors that cause biological changes, when known, including causes for the decline of some species and habitats and successful management strategies that have helped recover some declining species. Many of the articles include population data, trend graphics, distribution maps, and color photographs. Each article includes bibliographic references and the address of the author(s) for additional information. Part 3 discusses issues related to the status and trends of animals and plants, ecosystems and ecoregions: global climate change, human influences, non-native species, and methods of habitat assessment. The report includes a glossary of terms and index. A second report, to be released, will use the information contained in this report and data from other sources to provide a synthesized account of the status and trends of the nation's biodiversity, discussing the factors that influence biodiversity from a historical perspective and providing an integrated description of the

status and trends of biological resources on a regional basis.

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Internet: http://www.access.gpo.gov/

Climate action report

Climate Change Assessments, Strategies, and Action Plans

United States. Department of State, Washington, DC, US
1994, 200 p., statistical tables, figures, maps, En

This report describes U.S. efforts to address climate change and establishes a basis for considering future actions. It includes information on: national circumstances (i.e., climate, population, natural resources, economy, energy, government, and existing policies related to climate change); inventories of U.S. greenhouse gases, halocarbons and perfluorocarbons, and precursor pollutant emissions; mitigation programs; research and education programs; international activities; and the future direction of the U.S. effort. The United States is the world's largest producer of greenhouse gases (1,348 million metric tons of carbon equivalent in 1990), and these emissions are increasing. To meet the challenges of the Convention Framework, the United States proposes to reduce net emissions, covering greenhouse gases in all sectors, through various mitigation measures involving partnerships between government and the private sector. These measures were published in an earlier document, The Climate Change Action Plan, and many are currently being implemented. Regarding expected impacts of climate change from greenhouse gases emitted over the last century, the United States suggests that, on the basis of scientific models, loss of soil moisture from higher evaporation rates at warmer temperatures is likely to be the greatest threat to natural systems. Potential vulnerabilities of key U.S. resources and ecological systems (water, coastal areas, agricultural land, forests, and lightly managed ecosystems) to climate change are highlighted as are strategies being developed to facilitate adaptation of these resources and systems to a changed climate. The U.S. Global Change Research Program, a nationally integrated effort to better understand and model climate change processes, and various programs for general education, communication, and dissemination of climate change information are also described. The report further describes U.S. bilateral and international activities, such as providing technical and financial assistance to developing countries and countries with economies in transition to help them understand and address climate changes, facilitating the transfer of energy-efficient technologies to these countries, and promoting cooperative efforts with other countries to reduce or sequester carbon through a U.S. Initiative on Joint Implementation.

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Internet: http://www.access.gpo.gov/

Sustaining the American Dream: Steps toward a sustainable future. Report of the President's Council on Sustainable Development

Environmental Strategies and Action Plans

United States. President's Council on Sustainable Development, Washington, DC, US
1996, vi, 186 p., ill., charts, En

This report outlines goals and measurable steps to put the United States on a path toward sustainable development. Section 1 (Building a New Framework For a New Century) calls for: environmental management based on performance, flexibility, and accountability; extended product responsibility; market forces to improve performance; environmental technologies; and intergovernmental partnerships to promote place-based sustainable development. Section 2, Information and Education, calls for: better information management; improved access to information; enhanced awareness of sustainable development benefits; indicators of progress toward sustainable development goals; integrated measures of the economy, the environment, and the natural resources base; accounting practices to link environmental costs with the products, processes, and activities that generate them; formal education reform; and lifelong learning opportunities. Section 3 recommends actions to strengthen communities: community visioning and implementation of sustainable

development practices; collaborative planning mechanisms to deal with issues on the scale at which they occur; safeguarding public health and the environment; siting and containing growth to conserve open space, respect nature's carrying capacity, and be resilient to natural hazards; building and rehabilitating to conserve energy and natural resources, enhance public health and the environment, preserve history and natural settings, and contribute to a sense of community identity; full and environmentally responsible employment opportunities; and revitalizing contaminated, abandoned, or underutilized land. Section 4 (Natural Resources Stewardship) discusses collaborative and ecosystem approaches to natural resource management; stewardship; sustainable agriculture and forestry; fisheries restoration; natural resources information base; and biodiversity conservation. Section 5 (U.S. Population and Sustainability) recommends: greater access, availability of family planning and reproductive health services; expanded opportunities for women; and improved immigration policies. Section 6 (International Leadership) encourages democracy, scientific research, and economic development that preserves the environment and protects human health as a way to promote economic and national security.

Available from:
President's Council on Sustainable Development
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Internet:
http://www.whitehouse.gov/WH/EOP/pcsd/index.html

OECD environmental performance review

OECD Environmental Performance Reviews

Organisation for Economic Co-Operation and Development, Paris, FR
1996, 274 p., statistical tables, map, charts, En

This report is part of the recent OECD Environmental Performance Review Programme which conducts peer reviews of environmental conditions and progress in each OECD member country. It scrutinizes the United States' efforts to meet domestic objectives and international commitments. In addition, it evaluates U.S. progress in reducing the pollution burden, improving natural resources management, integrating environmental and economic policies, and in strengthening international cooperation. A broad range of environmental and economic data supports the analyses. After an introductory chapter which describes the United States in terms of physical, human, economic and institutional context and discusses the development of U.S. environmental policies, the assessment is divided into three parts. Part I, Ecosystem Management and Pollution Control, contains chapters on ecosystem, water, waste and air management. Related issues are described: current situation and trends; responses (e.g., policies, standards, expenditures); and environmental performance. Part II examines the integration of policies related to the U.S. economy and environment, the transportation sector, and the chemical industry. Described are the environmental impacts of economic development, transportation, and chemical industry activities, government and non-governmental responses to the impacts, and the environmental significance (=performance) of the responses. The third part, Cooperation with the International Community, examines issues related to the United States and its neighbors and the United States and the world. The latter examines issues such as ozone-depleting substances, climate change, protection of the marine environment, biodiversity, trade and the environment, and development assistance and environmental aid, and ends with an assessment of environmental performance related to these issues. The main body of the report concludes with recommendations on environmental policies, integration of environmental concerns and economic development, and international cooperation. Annexes provide selected environmental and economic data, selected multilateral and regional agreements, and a chronology of selected environmental events for 1990-1995.

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Internet: http://www.oecd.fr

Environmental Quality: the twenty-fourth annual report of the Council on Environmental Quality [United States]

State-of-Environment Reports

United States of America. Executive Office of the President. Council on Environmental Quality, Washington, DC, US
1995, xi, 518 p., ill., charts, statistical tables, En

This 24th annual report of the U.S. Council on Environmental Quality discusses the status and trends in environmental quality in the United States using data through 1993. Section 1 discusses conditions of, trends in, and legislative and policy initiatives taken to improve air quality and climate, water quantity and quality, wetlands and coastal waters, conservation farming and forestry, energy and transportation management, environmental justice (some studies suggest that low-income racial and ethnic minorities face greater environmental risks), and the relation between the environment and the economy. Section 1 also discusses federal agencies with jurisdiction over protected public lands; federal forestry, fish and wildlife, recreation and cultural resource management programs; mineral resource management on federal lands; and key 1993 achievements in the above areas. Finally, Section 1 covers the National Environmental Policy Act and implementation of a 1993 Presidential directive to promote an ecosystem approach to biodiversity management through an interagency planning system that also involves state, local, and tribal governments. Section 2 presents 100 statistical tables which illustrate trends in population, economy and the environment, energy, water, air quality, land agriculture and forestry, protected lands, wildlife and fisheries, transportation, and environmental hazards and human health risks.

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Americas: South America

102

Argentina

Utopias del medio ambiente: desarrollo sustentable en la Argentina (Utopia of the environment: sustainable development in Argentina)

Other Environmental Studies

Di Pace, Maria
Instituto Internacional de Medio Ambiente y Desarrollo—America Latina, Buenos Aires, AR;
Bibliotecas Universitarias. Centro Editor de America Latina, Buenos Aires, AR;
Universidad de Buenos Aires. Centro de Estudios Avanzados, Buenos Aires, AR;
Grupo de Analisis de Sistemas Ecologicos, Rio Negro, AR
1992, 204 p., charts, maps, statistical tables, Es

A holistic approach to sustainable development in Argentina is explored in this environmental review. The study, which blends philosophy, economics, sociology, and the hard sciences, is divided into six parts. Chapter I classifies the country's various geographical regions. Chapter II is a country profile which documents Argentina's basic resources (climate, soils, minerals, energy), renewable resources (including genetic resources, protected areas, natural forests, fish, and other fauna), natural resource utilization (agriculture, cattle, forest plantations), and the principal relationships that exist between nature and society in the country. In Chapter III, Argentina's development model and its impacts on the environment are examined, including international and economic influences and institutional and legislative factors. Chapter IV analyses Argentina's national environmental problems and places them in their regional and global context. Chapter V employs a simulation model to assess the economic and environmental sustainability of various land use practices. The final chapter offers reflections on the possibilities for sustainable development in Argentina and provides recommendations. Includes an extensive bibliography and numerous charts, maps, and statistical tables.

Available from:
Centro Editor de America Latina
Tucuman 1736
Buenos Aires
Argentina

Perfil ambiental de la Argentina: cuidar la tierra y sus habitantes (Environmental profile of Argentina: look after the land and its inhabitants)

State-of-Environment Reports

Barbaro, Nestor Omar
UICN—Union Mundial para la Naturaleza. Oficina Regional para America del Sur. Comite de Miembros Argentinos de la UICN, Buenos Aires, AR
1994, 49 p. + 4 p. Summary, statistical tables, Es

This environmental profile begins with a very brief profile of Argentina's environment, noting the country's abundant biodiversity, which includes 300 mammal species, 970 birds, 80 reptiles, 70 amphibians, and about 10,000 plant species. Subsequent sections describe Argentina's biogeographic regions, including the Missionary tropical rain forest, the Yungas, and Transition Forest, the Chaco, the humid savanna and the Espinal, the Monte, the Patagonian steppe and Sub-Andean grazing lands, the Sub-Antarctic forests, the Atlantic littoral, and the Antarctic and Oceanic Islands. Further sections cover Argentina's natural resource base, including animal, freshwater and marine fish, agricultural, forest, livestock, soil, and surface and ground water resources; the country's population; public services infrastructures, including potable water networks, and sewage systems; and the institutional framework for environmental protection. It is noted that although several provinces have included environmental concern in their constitutions, the country has still not formed a national environmental policy, and existing environmental laws are often not enforced because of a lack of adequate control mechanisms. Finally, the report addresses the inadequacy of Argentina's protected areas system.

Available from:
IUCN—The World Conservation Union
UICN Bibliotheque
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-534

Situación ambiental de la Argentina: recomendaciones y prioridades de acción (Environmental situation in Argentina: recommendations and priorities for action)

State-of-Environment Reports

Vila, Alejandro Ruben; Bertonatti, Claudio
Fundación Vida Silvestre Argentina, Buenos Aires, AR
1993, 74 p., ill., maps, statistical tables, Es

Argentina's exceptional diversity of ecosystems and of plant and animal life—the origin of up to 18% of the world' cultivated crop species and 43% of its ornamental plants—constitutes a genebank of global significance. In the face of the mounting degradation of this natural bounty, this report prioritizes ecosystems, plants, and animals for protective action. Part 1 assesses the status of Argentina's ecosystems and land resources, forests, biodiversity, and marine and aquatic resources, and discusses issues in energy use and air and water contamination. Part 2 briefly surveys governmental, nongovernmental, research, and educational organizations involved in environmental activities in Argentina, and lists major environmental legislation. Part 3 presents recomendations in the areas of: (1) general economic and development policy; (2) biodiversity protection; and (3) sustainable resource use. Part 4 is the core of the document. First, it prioritizes each of Argentina's 11 major ecosystems into three categories: seriously threatened; vulnerable; and selectively endangered. Next, it identifies within each of these 11 ecosystems specific plants and animals which are either commercially useful, threatened, or problems (i.e., crop pests or health threats). The report includes a bibliography and annexes listing national and provincial government organizations with environmental responsibilities, as well as NGOs, research organizations, and environmental training centers.

Available from:
Fundacion Vida Silvestre Argentina
Defensa 245-251, piso 6K
1065 Buenos Aires (CF)
Argentina

Bolivia

Environmental synopsis: Bolivia (Perfil ambiental: Bolivia)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 37 p., maps, statistical tables, En/Es

Despite being landlocked and one of South America's poorest countries, Bolivia possesses a rich endowment of natural resources. However, these resources are threatened by deficiencies in land and water management as well as increasing human encroachment on and destruction of biodiversity. This environmental review of Bolivia was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Bolivia's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Bolivia. Among the major problems cited in this report are erosion caused by overgrazing and poor soil conservation; wildlife smuggling; critical water shortages; and contamination on the Altiplano (home to 80% of the population). The government recognizes many of the problems and has signed a pioneering "debt-for-nature" swap with Conservation International. Includes maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-382/383

Planificación y gestion del medio ambiente políticas e instrumentos [Bolivia] (National environmental action plan [Bolivia])

Environmental Strategies and Action Plans

World Bank, Washington, DC, US;
Bolivia. Secretaria Nacional del Medio Ambiente. Dirección de Políticas Ambientales. Plan de Acción Ambiental de Bolivia, La Paz, BO
1993, xxxvii, 413 p., Es

Bolivia's environmental problems include deforestation, loss of biodiversity, air and water pollution, and soil contamination and erosion. This National Environmental Action Plan for Bolivia describes policies and mechanisms helpful in developing the concerted, realistic, and gradual approach necessary to solve these problems. The first section addresses general elements of environmental policy, covering its theoretical framework, component parts, and key actors, which include women's organizations, indigenous groups, NGOs, and universities. The next section outlines general environmental policies in terms of the justification for such policies, sustainable development as a goal, the institutional/political/legal framework, information systems, planning instruments, market incentives, regulations and enforcement, financing, and international dimensions. The third section details specific environmental policies affecting the industrial, service, social, urban/municipal, and environmental sectors. The final section assesses the relationship between environmental policies and other national policies on education, science and technology, and the economy, and outlines a national system for environmental planning and management. A lengthy series of sector-specific recommendations is appended. Includes bibliography.

Available from:
World Bank Public Information Center
1776 G Street NW
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Washington DC 20433
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E-mail: pic@worldbank.org
Internet: http://www.worldbank.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-459

Bolivia: general plan for social and economic development: the change for everybody—summary

Environmental Strategies and Action Plans

Republic of Bolivia. Ministerio de Desarrollo Sostenible y Medio Ambiente. Secretaria Nacional de Planificacion. Subsecretaria de Estrategias de Desarrollo. Dirección de Estrategias, La Paz, BO
Oct 1994, 22 p., En

Rational use of natural resources is one of the four mutually supportive pillars of the sustainable development strategy articulated in Bolivia's new General Plan for Social and Economic Development (PGDES), which is summarized in this document. The summary first provides background on economic policy and socioeconomic development planning in Brazil, and then discusses the PGDES as a strategy for participatory, sustainable development. The summary also describes: promising factors to be explored in pursuing PGDES goals; the four pillars of sustainable development (besides rational use of natural resources, these include economic growth, social equity, and governability); objectives and policies of the PGDES in regard to international relations; the need to transform production methods and rationalize the exploitation of natural resources; human resource development; and sustainable use and preservation of natural resources. Socioeconomic benefits expected to result from the PGDES are detailed in conclusion.

Available from:
Ministerio de Desarrollo Sostenible y Medio Ambiente
Secretaria Nacional de Planificacion
Subsecretaria de Estrategias de Desarrollo
Dirección de Estrategias
Av. Arce 2147, Casilla 11868
La Paz
Bolivia
Tel: +591 2 378628; Fax: +591 2 391805

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-744

Plan de acción forestal—Bolivia: 1991-1996 (Forestry action plan—Bolivia: 1991-1996)

Forest Assessments, Strategies, and Action Plans

Bolivia. Ministerio de Asuntos Campesinos y Agropecuarios, BO;
Bolivia. Centro de Desarrollo Forestal, BO;
Bolivia. Secretaria General del Medio Ambiente, BO;
Organización de las Naciones Unidas para la Agricultura y la Alimentacion, Rome, IT
1991, [x], 46, [86] p., maps, statistical tables, Es

Bolivia has developed this National Forest Action Plan (1991-96) to encourage forestry's role in conserving biodiversity, protecting against soil erosion, stabilizing water tables, utilizing forest products, and supporting recreation and tourism. Chapter I of the Plan outlines Bolivia's principal social and economic indicators. The rate of annual population growth is 2.8%, 50% of the population is rural, and Bolivia is undergoing rapid urbanization. Geographically, Bolivia is divided into altiplano, valleys, and tropics, with forest covering 51% of the land. Chapter II reviews the current state of the forestry sector, which is characterized by great disequilibrium. In areas of high population density, there is almost a complete lack of timber resources, while in the less populated areas, these resources are abundant, but subject to large-scale exploitation. Deforestation for farming and grazing purposes has been a main cause of environmental degradation, yet forest product industries such as sawmills are scarce and operate well below capacity. Chapter III covers the development objectives of the Plan, including incorporating the forestry sector into the national economy. Chapter IV describes various strategies to achieve these objectives, including strategies for institutional development, forest utilization, attraction of investment, ecosystem conservation, human resource development, community participation, and investment. Chapter V presents action programs for technical assistance and investment. Forty-three project profiles are provided.

Available from:
Secretario de Recursos Naturales
Ministerio de Desarollo Sostenible y Medio Ambiente
Avenida Arce 2147, Casilla 3116
La Paz
Bolivia
Tel: +591 2 359920; Fax: +591 2 354522

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-443

Brazil

Brazil 92 environmental profile and strategies (Abridged edition)

Environmental Strategies and Action Plans

Brazilian Association of Environmental Agencies;
Government of the State of Espirito Santo;
Government of Sao Paulo, Secretariat for the Environment, BR
1992, 45 p., En

This is an abridged edition, in English, of the book Brasil 92: Perfil ambiental e estraegias which is a more detailed volume on the environmental framework and issues of all the country's regions. It highlights the gravity and diversity of the environmental problems faced by the Brazilian population throughout the country. Chapters on the adopted Methodology, Environmental Policy: Implementation Proposals, and the Conclusion were translated to facilitate an overview of the national environmental profile and strategies in Brazil. The process of drafting Brasil 92: Perfil ambiental e estraegias adhered to the following goals: the report would analyze the main Brazilian ecosystems, highlighting their appropriation by productive activities and the environmental impacts resulting therefrom, including social and economic aspects; the process would be open to the broadest possible participation by all segments of society; and a national structure for administrative coordination to be created to provide support for coordinators of each state. In practice, drafting proceeded in four stages: preliminary, state, regional, and national.

The Environmental Policy Proposals, which represent a consolidation of the national recommendations formulated in state and regional reports, are organized under the following headings: Environmental Policy and Management; Energy Matrix and Quality of Life; Urban Development, Industry and Sanitation; Agricultural Development and Land Tenure; Water Resources and Environmental Quality; and Ecosystems, Biodiversity and Biotechnology. Each proposal is preceded by comments taken from state and regional documents and discussions. The Conclusions point to the need for realistic environmental policies backed up mechanisms and resources which guarantee their implementation. The proposals lead toward the formulation of new models for environmental planning and management, with the following key characteristics: integration between public policies in general and environmental policy in particular; public participation; and coordination of actions taken by all their tiers of government. Also included in the abridged edition is a bibliography and list of preparers and contributors.

Available from:
Secretariat for the Environment
Centro de Editoracao
Rua Tabapua, 81; 15o andar
04533 Sao Paulo, SP
Brazil
Tel: +55 11 883 0766; Fax: +55 11 280 5468

Chile

Propuesta de plan de acción nacional para la biodiversidad en Chile (Proposal for a national action plan for biodiversity in Chile)

Biodiversity Assessments, Strategies, and Action Plans

Chile. National Commission on the Environment. Technical and Administrative Secretariat;
U.S. Agency for International Development. USAID Mission to Chile
1993, v, 50 p., Es

Chile's environmental efforts are seriously hampered by a lack of baseline information on the rich biodiversity of the country, as well as by a high incidence of extractive processes that exploit certain natural species in high demand for short-term economic gain. Prepared in anticipation of the signing by the President of Chile of the Convention on Biological Diversity which arose out of the U.N. Conference on Environment and Development (UNCED), the National Plan of Action for the Preservation of Biodiversity presented herein describes a number of programs to relieve these constraints. Introductory sections of the report provide a reference framework of the government's environmental attitudes and policies, a broader conceptual framework for examining biodiversity, and an overview of Chile's biodiversity (which includes a variety of ecosystems and a number of species unique to Chile), as well as threats and conservation efforts. The plan itself details interventions to: (1) improve environmental management through institution building, environmental education, and environmental legislation; (2) assist the National System of State-Protected Areas in inventorying Chile's biotic resources and developing a plan for their use; and (3) broaden the scientific knowledge of biodiversity in Chile through systematic assessment and a national program to examine and develop indigenous genetic resources. Includes a table on the contribution of biodiversity to humanity.

Available from:
Consuelo Munoz
Director, Program in Biodiversity
National Commission on Environment (CONAMA)
Alameda 949 Piso 13
Santiago
Chile

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABU-373

Síntesis del diagnostico y plan de acción nacional para la biodiversidad en Chile: segunda versión (Synthesis of the diagnosis and national action plan for biodiversity in Chile)

Biodiversity Assessments, Strategies, and Action Plans

Chile. Comisión Nacional del Medio Ambiente. Dirección Ejecutiva, Santiago, CL;
Chile. Comisión Nacional del Medio Ambiente. Secretaria Tecnica y Administrativa, Santiago, CL
Apr 1993, [vii], 62 p., Es

Chile's action plan for integrating conservation of biological diversity into the nation's policies and institutions is presented in this report. Chapter 1 reviews

the status of environmental policy, with emphasis on a major environmental bill currently before the national legislature and the work of the Technical and Administrative Secretariat of the National Commission on the Environment (CONAMA), the country's lead environmental agency. Chapter 2 distinguishes three categories of biological diversity—diversity of ecosystems, diversity of species, and genetic diversity—while Chapter 3 assesses Chile's biological diversity under these three categories and discusses current resource utilization patterns and some of the major causes of biodiversity loss. Chapter 4 presents the action plan itself. Initial sections of the chapter address organizational structure, coordination, environmental monitoring, evaluation, information dissemination, and financing, while the final section comprises profiles of programs in eight priority areas: institutional strengthening; legislative development; public education; technical information; sustainable biological resource use (with subprograms for marine areas, freshwater resources, forests, and agricultural lands); preserving Chile's often pristine island ecosystems; biodiversity research; and tapping the economic potential of indigenous genetic resources.

Available from:
Consuelo Munoz
Director, Program in Biodiversity
National Commission on Environment (CONAMA)
Alamenda 949, Piso 13
Santiago
Chile

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-677

Plan de acción forestal para Chile (Forestry action plan for Chile)

Forest Assessments, Strategies, and Action Plans

Chile. Ministerio de Agricultura, CL;
Organización de las Naciones Unidas para la Agricultura y la Alimentacion, Rome, IT
1993, 81 p., ill., charts, statistical tables, Es

Chile's National Forestry Action Plan aims at promoting development of the forestry sector in a way that improves forestry's contribution to economic growth, environmental conservation, and rural development. The Plan is divided into four sections. The first section describes the Plan's overall character and the process of its preparation, while the second analyzes the forestry sector with respect to its history, its role in the economy, the forestry industry, conservation efforts, rural development, and supporting institutions. In the third section, the objectives, strategies, and proposals of the Plan are discussed with regard to exports, small and medium-sized enterprises, preservation of ecosystems, forestry institutions, and national and regional priorities. Within this context, proposals for forestry development place great emphasis on the improvement of labor conditions, training and education, employment opportunities and income distribution in general, the diversification of the sector's economy, and environmental protection. The fourth part describes the anticipated impact of the Plan on Chile, including costs and benefits.

Available from:
Sr. Patricio Hurtado
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Avda. Bulnes 241, piso 7
Santiago
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Tel: +56 2 6981486; Fax: +56 2 6972273

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-444

Perfil ambiental de Chile (Environmental profile of Chile)

State-of-Environment Reports

Espinoza, Guillermo, ed.; Pisani, Pablo, ed.; et al.
Chile. National Commission on the Environment. Technical and Administrative Secretariat;
U.S. Agency for International Development. USAID Mission to Chile
1994, 569 p., charts, statistical tables, Es

Each of the 24 chapters in this environmental profile is written by a different Chilean author and describes a unique aspect of Chile's environment. Initial chapters focus on the state of natural resources, while later chapters discuss their uses and management; many include data tables and maps. The first four chapters describe Chile's climate, geology, vegetation, flora, and fauna. Chapter V examines population characteristics, while Chapter VI reviews economic activities by region. Chapters VII and VIII examine the effect of global

environmental problems on Chile. In Chapters IX-XII, air, water, and soil quality are examined, along with solid waste management. Human health and quality of life are analyzed in Chapters XIII and XIV. Chapters XV-XVII investigate the conservation of soil, fauna, and protected areas, while Chapter XVIII is devoted to mining, one of Chile's most important economic sectors. Chapters XIX-XXII describe the environmental effects of the use of water, forest, marine, and energy resources. Finally, Chapters XXIII and XXIV discuss environmental information and education. The emphasis of the report is on creating a profile, so only a few of the chapters include general policy or management recommendations. Nor is there any attempt to set priorities among sectors.

Available from:
Comisión Nacional del Medio Ambiente (CONAMA)
Alameda 280
Piso 22
Santiago
Chile
Tel: +56 2 233 8925; Fax: +56 2 233 8925

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABU-557

Informe nacional a la conferencia de las naciones unidas sobre medio ambiente y desarrollo: Chile (National report to the United Nations Conference on Environment and Development: Chile)

UNCED National Reports

Chile. Comisión Nacional del Medio Ambiente, Santiago, CL
May 1992, 91 p., statistical tables, Es

In recent years, awareness of the value of Chile's extraordinary geography and natural riches has grown among all segments of Chilean society; in 1989, for the first time, presidential candidates incorporated environmental themes into their political platforms. This national report on Chile's environment is in three parts. Part A, an environmental assessment, (1) describes Chile's general geophysical, demographic, and economic characteristics; (2) surveys the nation's natural resource base and resource utilization sectors (agriculture, fisheries, forestry, mining, urban industry, and tourism), as well as its protected areas; (3) examines Chile's economic development model during the years of military rule (1973-1990), characterized by emphasis on export development and disregard for the environment, and its impact upon Chile's society and environment; and (4) describes in detail Chile's leading environmental problems and their origins. Part B focuses on Chile's environmental protection responses between 1973 and 1989, including legislative and institutional development, both governmental and nongovernmental. Part C presents a policy agenda for greater government involvement in environmental matters, covering institutional and legislative revision and development, research and analysis priorities, and international and bilateral cooperation.

Available from:
UNDP Resident Representative
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Tel: +56 2 232 4183; Fax: +56 2 232 5804

Colombia

Environmental synopsis: Colombia (Perfil ambiental: Colombia)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 43 p., maps, statistical tables, En/Es

With both Caribbean and Pacific coasts and extreme variations in altitude, Colombia is one of the world's most important examples of biological diversity. Environmental problems in Colombia include: deforestation, soil erosion (affecting most of the high Andes), water pollution (particularly from wastes), and a deteriorating urban environment (particularly due to air pollution). On the positive side, however, a comprehensive environmental plan was published in August 1991, and a Tropical Forestry Action Program has been in operation since 1989. This environmental review of Colombia was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Colombia's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's

natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Colombia. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-390/391

Plan de acción forestal para Colombia 1989-1992 (Forestry action plan for Colombia 1989-1992)

Forest Assessments, Strategies, and Action Plans

República de Colombia. Departamento Nacional de Planeación, Bogota, CO;
Gobierno de Holanda, The Hague, NL;
U.N. Food and Agriculture Organization, Rome, IT
Feb 1992, [2 v.], ill., maps, Es

As a result of one of the highest deforestation rates in the world (mostly due to new agricultural settlements), Colombia has experienced soil loss, the destruction of ecosystems, the disappearance of flora and fauna, and watershed imbalances. This document is an update of Colombia's 1989 Forestry Action Plan (PAFC) and consists of four main parts. The first part examines the state of the forestry sector. Topics addressed include the imbalance between current use and forestry potential, loss of biodiversity, the slow development of the forestry industry, and the low institutional capacity of the State. Objectives and strategies of the PAFC are also identified. Chapter II cites nine environmentally relevant articles from Colombia's new 1991 constitution and examines the environmental policy of the President's "Pacific Revolution" policy as well as the orientation of private investment and the restructuring of environmental institutions. Chapter III is devoted to the financing of the PAFC, including external credits and technical assistance. The last chapter describes specific PAFC programs in territorial planning, industrial and social forestry, restoration and protection of forestry ecosystems, forestry sector support, and research and technology transfer. A detailed table describing the status of environmental projects is included. An additional lengthy volume describes in detail PAFC projects and programs from 1989 to 1992.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-445

Contaminación industrial en Colombia (Industrial contamination in Colombia)

Other Environmental Studies

Triana, Ernesto Sanchez, comp.; Botero, Eduardo Uribe, comp.
Programa de Naciones Unidas para el Desarrollo;
Colombia. Departamento Nacional de Planeación, CO
Nov 1994, ix, 294 p., charts, maps, statistical tables, Es

Industrial pollution has increased significantly in recent decades in Colombia. The types, extent, and causes of such pollution are detailed in this survey. Chapter I reviews the state of Colombia's environment, including air, water, and noise pollution, while Chapter II examines the history of the country's manufacturing sector and the effects of liberalization and free trade agreements on industry. Chapters III-V analyze, respectively, industrial water pollution by sector and region, the generation and disposal of solid waste, and the quantity and geographic distribution of atmospheric emissions. In Chapter VI, the financial and institutional aspects of controlling industrial pollution are detailed, while Chapter VII reviews juridical aspects. Chapter VIII discusses the application of and compliance to environmental legislation, and includes case studies. A summary Chapter IX identifies increased industrial production, inefficient use of natural resources, and ineffective government regulations waste as the main contributors to Colombia's industrial pollution problem. Includes bibliography.

Available from:
Tercer Mundo Editores
Division Grafica
Santafe de Bogota
Colombia
Apartado Aereo 4817

Colombia National report for UNCED 1992

UNCED National Reports

Colombia. National Preparatory Commission for UNCED, [Bogota], CO;
Canada. [International Development Agency], CA
Dec 1991, 43 p., statistical tables, En

The environmental tone of Colombia's newly promulgated constitution (July 1991) results from the inclusion of over 40 articles aimed at sustainable development. The introduction of this report on environmental reform in Colombia notes environmental trends, using statistical tables to demonstrate that the types of rapid socioeconomic developments made within the last 50 years are not sustainable over the long term. Chapter I reviews Colombia's environmental policies and legislation, with particular emphasis on the 1973 Natural Resources and Environment Code (which for the first time in Latin America established private sector rights to environmental information and established pollution emissions standards), public and private environmental agencies, and education and research programs. Chapter II discusses the country's national parks systems, the environmental impact of coffee production, which occurs mainly on the slopes of the Andes and in semi-humid temperate climates, and the environmental management behaviors and territorial rights of indigenous peoples and black communities. Chapter III focuses on the constitution's environmental principles, the future Ministry of the Environment, the Programme for International Cooperation, and the Economic and Social Development Plan for 1990-94, while Chapter IV discusses multilateral, regional, and bilateral cooperation. Chapter V reaffirms Colombia's commitment to the objectives of the U.N. Conference on Environment and Development on issues such as biotechnology and climatic and forest preservation.

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Ecuador

Cumplimiento de la Agenda 21: informe del Ecuador (Fulfillment of Agenda 21: report of Ecuador)

Agenda 21 National Reports 1994

Ecuador. Ministry of Foreign Affairs, Quito, EC
1994, v.p., charts, statistical tables, Es

Though committed to the spirit of Agenda 21, Ecuador faces many hurdles, both economic and sociocultural, as it seeks to implement the Agenda's demands. Efforts to date, which are documented in this report, include articulation of a National Development Plan for 1993-1996, developed under direction of the Council on National Development (CONADE), which, while not corresponding precisely to a National Program of Sustainable Development as defined by Agenda 21, does meet many of its criteria. In 1993 a presidential advisory commission on the environment (CAAM) was formed, composed of high-level representatives from the office of the Secretary General for Planning, the Ministries of Agriculture and Livestock, Energy and Mines, Defense, and Foreign Relations, and key commercial and NGO representatives. Ecuador has also concluded agreements with the InterAmerican Development Bank to finance a program to strengthen Ecuador's institutional capabilities for environmental planning, and with Canada and the International Bank for Reconstruction and Development for technical assistance in environmental policy making and planning. Some specific actions in the environmental sphere which have been taken have included a presidential ban on the importation of hazardous substances, rejection of a proposal for exploratory oil drilling in the Cuyaben reserve, initiation of a new national reforestation program, and creation of an Institute and Fund for Ecodevelopment in the Amazon. Other measures are under consideration in the National Assembly.

Available from:
Director General of Humanitarian Affairs and the Environment
Ministry of Foreign Affairs
Quito
Ecuador

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-719

Lineamientos para la estrategia de conservación y uso de la biodiversidad en el Ecuador (Features of the strategy of conservation and use of biodiversity in Ecuador)

Biodiversity Assessments, Strategies, and Action Plans

Ecuador. Comisión Asesora Ambiental de la Presidencia de la República del Ecuador, Quito, EC;
Grupo de Trabajo Nacional Sobre Biodiversidad, EC
1995, 52 p., Es

Due to the variety of its ecosystems and species, Ecuador is one of the few countries on earth labeled "megadiverse." However, population growth, overconsumption, unequal distribution of land, insufficient information, and the prevalence of exploitative institutional and legal systems have resulted in environmental degradation. This document outlines a plan for utilizing Ecuador's natural resources in a sustainable manner. After an introductory chapter on the plan's genesis and legal basis, Chapter II justifies the need for the plan by describing the extent, value, and deterioration of Ecuador's rich biodiversity, while Chapters III-V identify, respectively, the plan's objectives, premises, and priorities. A lengthy Chapter VI details the plan's component parts, which include: (1) developing public policies for the conservation and sustainable use of biodiversity, (2) conducting a national study on biodiversity, (3) strengthening conservation strategies for the National System of Protected Areas, (4) reformulating forestry policy, (5) harmonizing the various laws governing biodiversity and genetic resources, and (6) strengthening the national basis for biodiversity research. Chapter VII outlines actions to be undertaken in the short, medium, and long term. Includes bibliography.

Available from:
Comisión Asesora Ambiental (CAAM)
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-440

Gestión ambiental en el Ecuador (Environmental action in Ecuador)

Other Environmental Studies

Ecuador. Ministerio de Relaciones Exteriores, Quito, EC
Apr 1993, 265 p., maps, statistical tables, Es

This document develops an environmental management strategy for Ecuador. Part I outlines a conceptual framework for environment management, while Part II develops its rationale, details the characteristics and environmental problems of Ecuador's major geographical regions, describes existing environmental policies and structures, and presents short- and medium-term proposals to protect air and water quality, soil resources, biological diversity, coastal and marine areas, mountain regions, Ecuador's Amazon region, the Galapagos Islands, and others. Part III, the core of the document, analyzes 28 strategic areas of both environmental and developmental concern in Ecuador, ranging from strictly environmental issues such as deforestation, protected environmental areas, and atmospheric contamination, to more general issues such as nuclear power, population, poverty, health, drug use, education, science and technology, quality of life, and economic infrastructure. A concluding section offers strategic directions on the interaction of development and the environment in Ecuador, with particular attention to soil and water resources, two of the main foci of sustainable development. Includes a bibliography and annexes comparing the document's strategic recommendations with Agenda 21, a key product of UNCED.

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Diagnostico de la situación medio—ambiental en el Ecuador: informe nacional (Diagnosis of the environment situation in Ecuador: national report)

UNCED National Reports

Ecuador. [Comite Interinstitutional de la Protección del Ambiente, Quito, EC]
1992, 225 p., statistical tables, Es

Some of the world's most ecologically important ecosystems are located in Ecuador, making environmental protection there an issue of international concern. Although constrained in the scope of its response by economic realities, Ecuador has recognized the link between environmental protection and sustainable development, as in a recent executive order declaring the 1990s "the decade of ecodevelopment." This assessment takes stock of Ecuador's environmental situation; a companion document presenting policy recommendations is mentioned. The main sections examine: (1) Ecuador's four major ecological regions (coastal, Andean/Sierra, Amazonian, and the Galapagos Islands); (2) economic development and the environment; (3) agriculture; (4) the energy sector (where oil production is a leading cause of environmental damage); (5) forestry; (6) leading environmental concerns—loss of biodiversity, soil erosion, deforestation, freshwater degradation, coastal degradation, and special concerns about the Amazonian and Galapagos Islands regions; (8) protected areas; (9) the legislative and institutional bases, both governmental and nongovernmental, for environmental protection; (10) aspects of rural and urban environments (e.g., housing and population, public services, rural to urban migration, air pollution, liquid, solid, and industrial wastes, etc.); and (11) the Ecuadorian perspective on a range of global issues, including endangered species, transfrontier pollution, human rights, environmental rights, etc.

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Guyana

Guyana: national environmental action plan

Environmental Strategies and Action Plans

Guyan, Georgetown, GY
May 1994, 48 p., map, En

The most serious environmental problems facing Guyana are concentrated within the coastal zone, which, though relatively small, harbors 90% of the country's population and the majority of its productive assets. Chapter II of this National Environmental Action Plan describes the origin and goals of Guyana's environmental policy, while Chapter III examines the impact of poverty on the environment, reviews the capacity of Guyana's economic policy to guard the country's environmental resources, and discusses the increasing role of the private sector in environmental management. Chapter IV presents the socioeconomic and environmental rationale for environmental action, while Chapter V reviews major environmental problems and proposes actions to resolve them. Besides those affecting the coastal zone, these problems concern the mining sector, waste management, the impacts of logging on watersheds and forest ecosystems, wildlife protection and biodiversity, and public environmental awareness. Chapter VI discusses the government's intention to protect the rights of the indigenous Amerindian peoples, who comprise some 43,000 persons or 5% of the national population. Chapter VII discusses the need to reform environmental law enforcement and strengthen environmental institutions and international cooperation. Chapter VIII presents a matrix summarizing Guyana's environmental plans for the next three years.

Available from:
UNDP Resident Representative
P.O. Box 10960
Georgetown
Guyana

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Paraguay

Informe de pais [Paraguay]: Conferencia de la Naciones Unidas sobre Medio Ambiente y Desarrollo, 1992 (Country report [Paraguay]: United Nations Conference on Environment and Development, 1992)

UNCED National Reports

Paraguay. Ministry of Agriculture and Livestock. Under-Secretary of Natural Resources and the Environment. Directorate of Environmental Regulation, Asuncion, PY
Oct 1991, 120 p., Es

Like many other Latin American countries, Paraguay's development paradigm is based upon intensive, unplanned exploitation of its natural resources. Such a model, while producing economic growth according to standard indicators, is causing irreversible damage to the environment. For example, in the past two years deforestation has doubled from 200,000 to 400,000 ha/yr. This report provides a framework for a more rational approach, emphasizing nine programmatic areas: (1) regulating the exploitation of natural forests; (2) encouraging the growth of secondary and tertiary industries (versus the export of raw materials, especially lumber); (3) reforesting degraded areas; (4) consolidating and enlarging protected wildlife areas; (5) developing legislation pertaining to environmental protection; (6) applying environmental impact criteria to public, and eventually private, development activities; (7) developing a national land use classification system; (8) introducing environmental programs into integrated rural development planning, especially to mitigate the effects of agricultural colonization; and (9) emphasizing environmental education.The first three chapters describe Paraguay's natural resources (flora, fauna, climate, protected areas, soils, minerals, etc.) and socioeconomic aspects (e.g., demographic and health factors, infrastructure, agricultural and other economic activities, etc.). The following three chapters explore problems and possible solutions in the areas of resource utilization, education, agriculture, industry, tourism, legal and institutional development, etc. The last chapter outlines ten urgent issues for the 1992 U.N. Conference on Environment and Development, emphasizing the importance of international cooperation and Paraguay's need for technical and financial support from the developed countries.

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Peru

Environmental synopsis: Perú (Perfil ambiental: Peru)

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 38 p., maps, statistical tables, En/Es

Peru is one of the world's richest countries in terms of biodiversity. This environmental review of Peru was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Peru's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Peru. According to the report, Peru's environmental problems include landslides, floods, and erosion due to logging and clearing of forests, as well as widespread smuggling of wildlife and wildlife products. However, Peru has made progress environmentally through its successful program to preserve the vicuna, a wild ruminant related to the domesticated llama and alpaca. In addition, conservation has a high level of public support. Includes bibliography and detailed maps.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
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Also Available from:
U.S. Agency for International Development
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Plan nacional de acción forestal del Perú (National forestry action plan of Peru)

Forest Assessments, Strategies, and Action Plans

República del Peru. Ministerio de Agricultura. Dirección General de Forestal y Fauna. Programa Nacional de Acción Forestal, Lima, PE
1991, [xvi], 114 p., maps, statistical tables, Es

Peru is currently implementing this National Forestry Action Plan 1988-2000. The plan has been updated and improved to accommodate the dramatic changes instituted by the government in 1990 to improve living standards and modernize the economy, primarily through liberalization, attraction of foreign investment, and privatization. The Plan reviews the extent, use, and management of Peru's forestry sector and proposes policies and strategies under six major programs: forestry in integrated rural development; production and rational use of bioenergy; sustainable forest management and processing and marketing of forest products; biodiversity conservation and management; forest education, research, and technology transfer; and institutional development. Under these programs, a total of 66 projects with a combined cost of $179.9 million are proposed to be undertaken between 1992-1996. Each project is described with respect to its objectives, expected results, activities, justification, implementing agency, beneficiaries, and costs.

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Informe nacional [del Perú] (National report [of Peru])

UNCED National Reports

República del Peru. Comisión Nacional, Lima, PE
Feb 1992, [85 p.], Es

The rise of global environmental awareness has brought Peru, with its extensive rainforests and high level of biodiversity, to the forefront of the environmental movement. This report, prepared for the 1992 United Nations Conference on Environment and Development (UNCED), assesses Peru's environmental status, discusses past development models and their environmental impacts, and presents a plan for sustainable development. Chapter 1 describes Peru's diverse geography, ecology, culture, and natural resource base, and discusses the development opportunities and challenges it faces. Chapter 2 examines the three development models which have been followed in Peru—agro-ecological, in the pre-Hispanic period; raw materials exporter, up to World War II; and import substitution, in the postwar era— while Chapter 3 examines the negative effects of the last two models; included is an assessment of Peru's environment by biome (e.g., coasts, forests, mountain, etc.) and by region. Chapter 4 presents the plan for sustainable development, describing planned legislation, the overall strategy and its implementation, and profiles of proposed programs and projects in of environmental education, watershed protection, sanitation, biodiversity protection, indigenous cultures, clean technologies, population, energy production and conservation, etc. Chapter 5 present's Peru's perspective on the UNCED agenda, including financing of environmental protection, technology transfer, institution building, climate change, and biological diversity.

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Suriname

National report [to the] United Nations Conference on Environment and Development: Republic of Suriname

UNCED National Reports

Republic of Suriname, Paramaribo, SR
Jan 1992, 38 p., statistical tables, En

Suriname is richly endowed with natural resources, most of which, due to the country's low population density, are still intact. The country possess great potential for ecotourism, both in the coastal zone and the forested interior, which is untouched by modern civilization, and includes virgin tropical rain forests in the mountains, broad rivers, waterfalls and rapids, interesting geological formations, approximately 700 species of birds and a range of other wildlife typical of the Amazon region, and indigenous peoples leading their traditional lives in the jungle. Urban poverty, problems with water supply, and improper disposal of household waste are perhaps Suriname's major environmentally relevant problems. This report first discusses the status of social and economic development in Suriname, and then describes the condition of its resources (natural, human, infrastructural, financial, and institutional); environmental legislation and international conventions in which Suriname participates are described. National and international obstacles to sound environmental management are then outlined, and a strategy to overcoming these obstacles is put forward. Finally, specific actions needed to meet the requirements of this strategy are identified.

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Uruguay

National report for the United Nations Conference on Environment and Development [Uruguay]

UNCED National Reports

Uruguay. Ministry of Housing, Land Planning and Environment, Montevideo, UY
[1991], 154 p., maps, statistical tables, En

This report is based on a National Environmental Study of Uruguay, conducted from 1/90-11/91, an intensive effort by the Uruguayan government to investigate the state of the environment and determine its needs with respect to preservation and improvement. Part I notes the country's environmental consciousness, approach to environmental problems, and general characteristics. Part II discusses more thoroughly trends in population distribution, health status, level of education, employment status, need for basic services, Uruguay's economy, and environmental education systems. Part II also reviews the status of land, livestock, agriculture, forestry, pesticide use, fishery resources, mining, energy, transportation, housing, industry, and tourism. Section III provides detailed information on the status of Uruguay's soil, surface hydrological resources, groundwater, air, flora and fauna, ecosystems, phytogeography, and zoogeography, and it reviews the country's potential for natural disasters, institutional framework for environmental management, and environmental policy strategy. The latter aims, in general, to integrate environmental and development policy, improve urban planning, increase awareness of the economic benefits of environmental conservation, strengthen international environmental cooperation, maintain biodiversity and the gene pool, and strengthen the national capacity for environmental management. Strategies for implementing these policy objectives are also discussed.

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Venezuela

Informe nacional de Venezuela (National report of Venezuela)

UNCED National Reports

Venezuela. Ministerio del Ambiente y de los Recursos Naturales Renovables, Caracas, VE
Mar 1992, 205 p., Es

Venezuela's current development paradigm, based heavily on petroleum extraction, is not sustainable. In addition, the impoverishment of much of the country's populace due to economic stagnation and uneven distribution of the benefits of the country's natural riches represents a long-term threat to the environment. If addressed carefully, however, the country's environmental problems are still manageable, and there are many factors working in Venezuela's favor as it pursues sustainable development—huge tracts of territory undisturbed by human activity, a stable democracy, a good history of environmental awareness (Venezuela has pioneered environmental management in Latin America), and a population growth rate which appears to be leveling off. Chapters in this report to the U.N. Conference on Environment and Development (UNCED) cover: (1) an overview of Venezuela's territory, society, and economy; (2) an assessment of its soil, forest, biological (floral and faunal), water, mineral, and energy resources; (3) the principal environmental problems facing Venezuela, their causes, and their origins in colonial and post-independence policies; (4) environmental policies and institutions; (5) a plan for sustainable development encompassing eradication of poverty, increased political participation (especially empowerment of disenfranchised groups), environmental education, sustainable resource extraction, urban planning, development of environmentally appropriate technologies, human resource development, and policy reform; and (6) Venezuela's views on the agenda of the UNCED conference.

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Asia and Oceania

Asia and Oceania: Asia

(Asia regional)

Toward an environmental strategy for Asia

Environmental Strategies and Action Plans

Brandon, Carter; Ramankutty, Ramesh
World Bank, Washington, DC, US
1993, xi, 210 p., charts, statistical tables, En

Economic growth and population densities have had severe negative impacts on Asia's environment, leading to serious problems with industrial pollution, atmospheric emissions, land and water resource degradation, deforestation, and loss of natural habitat. This paper proposes a five-component framework developed by the World Bank for improving environmental management in Asia. The first component is to set priorities, an obvious but difficult step imposed by shortages of financial and administrative resources. The remaining four components are essential parts of national environmental strategies: to design cost-effective policy instruments, improve institutional capacity, increase public and private sector investment, and improve technology, even when not fully supported by the market. This framework is then applied to specific issues in the urban, industry, energy, agriculture, forestry, biodiversity, and water sectors. Emphasis is placed on the need to continually update the strategy as institutional and resource constraints that affect the various sectors evolve. Finally, the report outlines the World Bank's role in helping Asian countries to address environmental constraints; the environmental focus of the Bank's lending program and analytical work has grown and is expected to continue to do so. Appendices include a statistical profile of key environmental issues, an analysis of the World Bank Project Pipeline (FYs 1993-95), and a brief discussion of donors' environmental activities. Includes bibliography. (Author abstract, modified)

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Afghanistan

Afghanistan: the transition from war to rehabilitation and development—the national report of the Government of the Republic of Afghanistan for the United Nations Conference on Environment and Development (UNCED), Brazil, 1992

UNCED National Reports

Afghanistan. Ministry of Planning, Kabul, AF
Feb 1992, ii, 131 p., ill, maps, statistical tables, En

Afghanistan's 13-year-long war has had severe economic, physical, and social effects. The war devastated the country's physical and social infrastructure, halted most productive economic and natural resource-based activities, and created the world's largest refugee population. All of these outcomes have exacerbated the country's environmental problems. This report therefore begins by assessing the impact of war on the Afghan people, natural resource base, macroeconomy, and major economic sectors. The report then identifies key environmental and development issues, as follows. (1) Deforestation is worsening because fuel for heating is scarce and Afghans are forced to cut remaining forests in order to survive harsh winters. (2) Desertification and erosion continue unabated. (3) Water pollution increases as inadequate water and sanitation infrastructure fails to meet the needs of growing urban populations resulting from immigration from the countryside. (4) Millions of land mines have destroyed essential irrigation systems, causing loss of productive agricultural land as well as significant suffering to human and animal populations. (5) Use of banned agrochemicals to increase food supply raises ethical dilemmas. (6) Centuries-old archaeological and cultural sites and artifacts have been damaged or lost through warfare. The report concludes by examining Afghanistan's response to these problems and outlining plans for the future.

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Azerbaijan

Azerbaijan: from crisis to sustained growth

Other Environmental Studies

World Bank, Washington, DC, US
1993, xxii, 223 p., charts, map, statistical tables, En

Azerbaijan has inherited from the Soviet era an economic structure and obsolete technologies which are polluting and resource-inefficient, and faces severe environmental problems, including pollution of the Caspian Sea, water pollution (especially contamination of the capital Baku's water supply), and poor air quality in industrial cities. The chapter on the environment in this country study blames current environmental problems on pricing polices under which natural resources were undervalued and the environment as a whole was treated as a free good by both the productive sectors and consumers. Though greater economic efficiency in Azerbaijan's evolving market-based economy will reduce the burden imposed by the economy on the environment, economic reforms must be accompanied by appropriate environmental institutions, regulatory instruments, and economic incentives that account fully for the "real" costs of production. First the Committee for Ecology needs to be strengthened to effectively perform its functions of policy formulation and compliance monitoring. Second, environmental legislation and regulations should be made transparent and easily enforceable. Third, the Committee should adopt more realistic and enforceable environmental standards for industry (the existing standards are overly stringent and beyond industry's capacity to comply). Fourth, pollution charges should be introduced at rates that would deter the current behavior of polluters. The chapter discusses the requirements and implementation of these actions within the context of economic liberalization and industrial privatization.

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Government report on the state of environment and environmental protection activities in the Republic of Azerbaijan

UNCED National Reports

Azerbaijan. State Committee on the Protection of Nature, Baku, AZ
1992, 124 p., Ru

Though public awareness of environmental values in Azerbaijan has grown over the last few years, the general level of environmental education at both the grassroots and policymaking levels remains low. This fact is disconcerting because, according to this report, the country's environmental problems span a gamut that includes serious air and water pollution; accumulation of human, industrial, and even radioactive wastes; deforestation and coastal erosion; significant loss of biodiversity; a growing incidence of environmentally related diseases; and an economy based on "dirty" industries. Perhaps most seriously, the Caspian Sea is on the verge of ecological disaster as a result of years of environmentally unsound industrial and agricultural practices. On the positive side, the report notes several efforts to improve environmental management; these include a draft environmental protection law (now under Parliamentary review) which incorporates environmental user fees and the "polluter pays" principle; a unified environmental accounting and reporting system; measures to protect endangered species, combat land erosion and deforestation, ensure water quality, and monitor agrochemical use; the existence of 14 national parks and 50 special territories as of 1991; identification of priority regions and areas; and the development of recycling technologies. Recommendations are included.

Available from:
State Committee on the Protection of Nature
370001 Istiglaliat Street, No. 31
Baku
Azerbaijan

Bahrain

Environmental management in Bahrain (an action plan)

Environmental Strategies and Action Plans

Kholy, O.A.
U.N. Environment Programme. Regional Office for West Asia, Manama, BH
Jan 1993, ii, 21 p., En

Shortcomings in environmental management efforts in Bahrain prompted the U.N. Development Program and the Government of Bahrain to request a consultancy from the U.N. Environment Program to assess the capacity of Bahrain's Environment Protection Committee (EPC). The consultant's findings and recommendations are presented in this document. The report begins with an assessment of the situation, based on previous studies and reports, as well as the discussions with EPC staff and other Bahrainian officials. It then reviews environmental management by the EPC, finding that the Committee has been plagued by inadequate personnel and resources, the need to fulfill both technical and policy responsibilities, and an emphasis on monitoring to the detriment of its other assigned activities, particularly those relating to coordination among ministries, framing legislation, monitoring adherence to legislation, carrying out impact assessments, and approving development projects. The report ends by elaborating the main elements of an environmental action plan for both the short and the long term: restructuring the EPC; upgrading its professional capacity; improving its environmental monitoring and environmental management practices; and strengthening environmental awareness among decision makers.

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Order No.: WRI-618

Environment and development in Bahrain

UNCED National Reports

Bahrain. Environmental Protection Committee, Manama, BH
Feb 1992, 28 p., statistical tables, En

Bahrain has no legislation that deals specifically with ways to control pollution, but it has issued various decrees protecting the environment and has signed and ratified a number of international conventions concerning international issues. Bahrain's natural resources are not without problems. Rapid industrialization during the 1970s and 1980s brought stress on the environment and on natural resources. Oil production is expected to deplete reserves soon, groundwater is deteriorating in quality and quantity, agriculture is suffering from the country's arid climate and saline soil, and solid waste is a major problem, given Bahrain's small land area (694 sq km). Part I of this report covers physical geography, the country's infrastructure and social and economic sectors, and the impacts of development on the environment. Part II covers the government's responses to environment and development issues (policies, decrees, programs, organizational responsibilities), and Part III describes Bahrain's environmental problems (which are due mostly to its position in the Persian Gulf and limited land area), listing them under five headings: air quality, fresh water quality, marine water quality, solid waste, and public awareness.

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Bangladesh

Bangladesh country report for United Nations Conference on Environment and Development (UNCED) (Brazil, 1-12 June 1992)

UNCED National Reports

Bangladesh. Ministry of Environment and Forest, Dhaka, BD
Oct 1991, 114 p., En

In Bangladesh, high population density and inadequate environmental planning have caused a high degree of environmental degradation, as illustrated by deforestation, destruction of wetlands and inland fisheries, soil depletion, and inland salinity intrusion. Floods and storms also inflict severe socioeconomic and environmental damage on the country. The major root of human-made problems is lack of understanding of ecological principles and lack of institutional capacity in integrated planning and environmental management. Part I of this report briefly describes major socioeconomic and environmental trends affecting development in Bangladesh. Part II discusses the areas where environmental considerations interact with the development process, focusing on the major factors impeding development and the protection of the environment. Issues discussed include: climate change, upstream water regulation and pollution of the Bay of Bengal, natural disasters, fertility, poverty, women and health linkages, lack of water, inadequate land use planning, resource development conflicts, loss of biodiversity, industrial pollution, and urbanization. Part III describes the response of the Bangladeshi Government, which focuses on three core areas: disaster management, population stabilization/poverty alleviation, and environmental management for sustainable development. Finally, Part IV highlights initiatives of both the Government and of donor agencies, and identifies opportunities for international assistance. (Author abstract, modified)

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Bhutan

Environment and sustainable development [Bhutan]

Environmental Strategies and Action Plans

World Bank, Washington, DC, US;
Royal Government of Bhutan. Planning Commission, BT
Dec 1991, p. 27 - 30.1, map, En

Bhutan's success in preserving its natural resources has been possible because of the country's recent entry into the economic development process, as well as the Buddhist faith, an important factor in all aspects of Bhutanese life. However, increased population growth may pose new threats to the country's environment, according to this document, a chapter from Bhutan's National Environmental Action Plan. The chapter deals with the relation between the environment and sustainable development in Bhutan. While noting the lack of research data, the report predicts that future environmental threats could include agricultural development of marginal areas, which could lead to soil erosion; increased use of chemical fertilizers; deterioration of grazing resources; expansion of a road network which has already caused severe erosion; mining and industrial developments that could lead to pollution; and urban growth without sufficient planning or waste disposal facilities. To address these threats, Bhutan is in the process of developing a National Environment Secretariat and an Environmental Trust Fund, as well as new legislation and policies to ensure sustainable utilization of resources, promote community involvement in environmental activities, improve land use planning, and integrate traditional with modern natural resource use practices. Additionally, Bhutan will attempt to base economic growth on environmentally sound technologies, expand environmental education, and develop a family

planning policy. A map of the country's protected areas is included.

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Brunei Darussalam

Coastal environmental profile of Brunei Darussalam: resource assessment and management issues

Environmental Profiles and Assessments (donor programs)

Thia-Eng, Chua; Ming, Chou Loke; et al.
Brunei Darussalam. Ministry of Development. Fisheries Department;
International Center for Living Aquatic Resources Management;
Association of Southeast Asian Nations;
U.S. Agency for International Development. Bureau for Asia and Near East;
U.S. Agency for International Development. Bureau for Science and Technology. Office of Agriculture
1987, xviii, 193 p., maps, statistical tables, En

The high development potential of Brunei Darussalam's coastal resources, along with the government's declared interest in economic diversification, call for an integrated, multisectoral development strategy which will prevent degradation or overexploitation of coastal ecosystems. This environmental profile is presented as a first step in the development of such a strategy. Considered in turn are: (1) the physical environment of Brunei Darussalam's coastal areas in terms of geography, drainage, soils, seedbed configuration, climate, the hydrological characteristics of coastal waters, the estuarine environment, and the features of Seresa Bay; (2) the coastal resources themselves (mangroves, coral reefs, algae, seagrasses, beaches, artificial habitats, and mineral resources); (3) the characteristics of the coastal area population in terms of demography, tradition and culture, employment, health, and education; (4) land use, development, and tenure; (5) coastal area economic activities in capture fisheries, aquaculture, agriculture, forestry, tourism and recreation, and industry; (6) sources of pollution, baseline studies of its extent, and pollution criteria and institutional capabilities; (7) public and private organizations involved in coastal resource management; and (8) coastal resource management issues and the steps taken so far to develop a resource management plan. Includes 60 tables, 55 figures, and a list of references.

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Order No.: PN-ABB-292

Cambodia

Annual report of 1994: Section I

Other Environmental Studies

Kingdom of Cambodia. Ministry of Environment, Phnom Penh, KH
25 Nov 1994, [18 p.], En

Cambodia's State Secretariat for Environment (SSE) was established in 1993 as the central agency responsible for restoring a national environment which had been seriously damaged during two decades of war. This document is SSE's annual report for 1994 and identifies, largely in bulletin form, achievements in the following areas: environmental planning, water management, and land use; nature conservation and protection; control, prevention, and reduction of environmental pollution; environmental law and legislation; environmental education and information dissemination; environmental impact assessment; scientific research; leadership, management, and training; and international cooperation. A concluding summary notes the continuous improvement of the Cambodian environment that has resulted from SSE's activities. A list of routine activities engaged in by SSE during the past year and an action plan for 1995 conclude the report.

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Cambodia: first state of the environment report 1994—summary

State-of-Environment Reports

Cambodia. Ministry of Environment, Phnom Penh, KH;
U.N. Development Programme. Cambodia
Environmental Advisory Team, Phnom Penh, KH
1994, ii, 44 p., ill., charts, En

Although Cambodia is one of only a few countries that still have a major portion of their natural environment intact, its resource base has been significantly degraded over the past 20 years and is coming under increasing pressures. Moreover, only limited quantitative environmental data are available on which to base decisions about protection and utilization of the country's resources. This first State of the Environment Report for Cambodia compiles data from both documentary sources and first-hand observations. Sections I and II overview Cambodia's land and water resources, biodiversity, climate, and demographic situation. Section III provides more detailed information on agricultural, forest, fishery, and freshwater management, and on the country's mineral, energy, transport, tourist, urban, and industrial sectors. Section IV reviews problems concerning noise and water pollution, solid and toxic waste management, and land mines. Socioeconomic aspects of environmental management, including threats to human health, the need for environmental education, integration of environmental and economic development, environmental impact assessment, and disaster management are explored in Section V. Section VI reviews environmental legislation, highlighting laws passed and proposed since 1993, when the new Government was formed, while Section VII identifies Cambodia's environmental priorities: protecting watersheds, soils, inland/marine fishery habitats, other sensitive habitats, and coasts; improving urban sanitation and hazardous waste management; and strengthening environmental capacity.

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China

China: biodiversity action plan

Biodiversity Assessments, Strategies, and Action Plans

China. National Environmental Protection Agency,
Beijing, CN;
World Bank, Washington, DC, US
May 1994, v, 106 p., maps, statistical tables, En

An action plan for conserving China's biodiversity in face of the harsh demands placed on it by the country's enormous population and developing economy is presented. The first chapter documents China's rich biodiversity, its present utilization, the extent to which it is threatened, and the urgent need to strengthen conservation. Chapter two presents a systematic evaluation of current conservation measures, in-situ and ex-situ conservation facilities, laws and regulations, institutional capacity, scientific research, education and training, and international cooperative activities. The third chapter proposes specific activities for direct protection of species and ecosystems. Seven areas are stressed: basic nature reserves; conservation of significant wild species; conservation of the genetic resources of crops and domestic livestock; in-situ conservation of wild species outside reserve areas; environmental information and monitoring systems; and coordinating conservation and sustainable utilization of biological resources. Chapter four presents the actions needed to support direct conservation efforts, such as legislation, education, and training. Includes tables, maps, lists of priority ecosystems and species, and profiles of selected environmental projects.

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Susan Shen
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Environmental action plan of China 1991-2000

Environmental Strategies and Action Plans

China. National Environmental Protection Agency, CN;
China. State Planning Commission, CN;
World Bank, Washington, DC, US
Mar 1994, xv, 106 p., statistical tables, En

Some environmental problems in China, such as eutrophication of lakes, exist widely, but are not yet outstanding. However, in the long term, these are most threatening and difficult to control and are therefore selected as priorities in China's National Environmental Action Plan. The Plan focuses on: (1) concrete environmental objectives to be reached by the year 2000 in several areas ranging from industry and urban environments, to forests and grasslands, to energy (primarily coal), to soil, water, and wildlife conservation; (2) policies and measures needed to realize these objectives; (3) environmental problems, priorities, and major proposed projects in each sector (as well as the institutions responsible for implementation, institution building, training, and education); (4) total funding requirements and possible funding sources; (5) priorities among China's environmental concerns—water and urban air pollution, industrial toxic and hazardous solid wastes and urban pollution, surface water shortages, soil erosion, deforestation, grassland degradation, and reduction of ecosystems and species; and (6) a survey of areas in which China is seeking international cooperation in environmental protection.

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Order No.: WRI-461

Forestry action plan for China's Agenda 21 (abridged edition)

Forest Assessments, Strategies, and Action Plans

Ministry of Forestry, Beijing, CN
May 1995, 32 p., En

Even though total forest area and forest stocking volume in China are increasing (China's cumulative area of established plantations ranks first in the world), they are still insufficient to prevent environmental problems such as soil erosion, desertification, flooding, and water shortages. This report, an abridged version of China's Forestry Action Plan, consists of 14 chapters, presented in three parts. Part I, consisting of Chapters 1 and 2, identifies opportunities and challenges facing China's forestry sector and outlines strategic guidelines and numerical goals through the year 2010. Part II, Chapters 3-10, sets out the key areas in the development of China's forestry sector. These include expanding and managing forested areas; establishing ecological shelters; controlling desertification; conserving biodiversity; combining forestry development and poverty alleviation in mountain areas; utilizing forest resources and developing forest-related industries; increasing public participation in forestry; and establishing forestry support systems, e.g., for seedling production, fire prevention, pest and disease control, law enforcement, and information gathering and monitoring. Part III, encompassing Chapters 11-14, deals with the supporting conditions necessary for the implementation of the Action Plan— structural reform and legislative development, scientific and technological development and education, financing of forestry development and establishment of market mechanisms in the sector, and international cooperation. A total of 36 specific activities in the above areas are proposed.

Available from:
China Environmental Science Press
8 Beigangzi Street
Chongwen District
Beijing
PR China

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-696

China's Agenda 21: white paper on China's population, environment, and development in the 21st century

Other Environmental Studies

China. State Science and Technology Commission. Department of Science and Technology for Social Development, [Beijing], CN;
China. State Planning Commission. Department of Spatial Planning and Regional Economy, [Beijing], CN;
Administrative Centre for China's Agenda 21, Beijing, CN
1994, 244 p., En

China has made significant efforts to integrate environmental concerns within its economic development plans. These include improved legal and institutional infrastructures such as the development of an interministerial coordination agency; clean-up of urban areas; control of industrial pollution; extensive environmental education and promotion of environmental research and technologies; a large-scale soil improvement campaign, which has included construction of the Northern Shelterbelt, a 4,480 km "green Great Wall" against sandstorms; and the establishment of more than 600 nature preserves. China has also signed several international conventions or agreements, hosted the Ministerial Conference of Developing Countries on Environment and Development, and established the China Environment and Development International Cooperation Committee. This report presents China's "Agenda 21" for the next century and identifies specific objectives and planned activities in the following areas: legislation, education, and capacity building; financial resources and mechanisms; population, consumption, and social services; poverty; health and sanitation; human settlements; agricultural and rural development; the industrial, transportation, communication, and energy sectors; natural resource and biodiversity conservation; desertification; disaster mitigation; protection of the atmosphere; solid waste management; and public participation in sustainable development.

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Report on the state of the environment in China 1994

State-of-Environment Reports

China. National Environmental Protection Agency, Beijing, CN
23 May 1995, 19 p., En

Part I of this official report on the state of China's environment during 1994 describes environmental pollution during the year and the state of the ecological environment. Topics include: gaseous waste, wastewater, and industrial solid waste; air and water quality; noise pollution; and pollution accidents (including 3,001 industrial accidents and 333 fisheries accidents). A discussion of the impacts of environmental pollution on human health reveals that lung cancer and respiratory diseases are major killers. Part I also discusses the status of forests and grasslands (forest resources continue to increase and grasslands to degrade), land (1994 saw a reduction in the area of cultivated land), and climate and natural disasters. Part II explores pollution prevention efforts and protection of the ecological environment, noting that in 1994 urban sanitation improved somewhat, plans were made to establish 13 new nature reserves and 14 forest parks, and more than 490 million people took part in a national voluntary afforestation campaign, planting more than 2.52 billion trees. Environmental legislation, regulation, and law enforcement are also discussed, along with monitoring and research activities and China's participation in international environmental efforts.

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Development Information Services Clearinghouse
Order No.: WRI-652

Gaza

Gaza environmental profile: Part one—Inventory of resources

State-of-Environment Reports

Netherlands. Ministry of Foreign Affairs. Directorate General for International Cooperation, The Hague, NL;
Palestinian Environmental Protection Authority, Gaza;
Euroconsult, Arnhem, NL;
IWACO, Rotterdam, NL
Jun 1994, viii, 60 p., ill., charts, maps, statistical tables, En

One of the highest population densities in the world, coupled with 27 years of occupation, have led to significant degradation of the natural and human environment in the Gaza Strip, a 40 km long, 6-12 km wide coastal area along the Mediterranean Sea. This report, Part 1 of a 2-part environmental profile of Gaza, describes its climate, geology, coastal, land, and water resources, flora and fauna, history and archaeology, land use, and population. Environmental problems discussed include indiscriminate and uncontrolled use of pesticides and fumigants, inadequate water supply, uncontrolled wastewater disposal, poor solid waste collection, over-exploitation of groundwater, and salinization of agricultural soils, as well as trapping and poisoning of small birds and mammals. The situation is exacerbated by the absence of an adequate legal and administrative framework for land use and environmental management, and by widespread public apathy to environmental issues. Part 2 of the profile will present a detailed inventory and analysis of these problems, along with initial steps towards a sustainable Palestinian environmental action plan. Includes numerous illustrations and photographs, and a bibliography.

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Environment in the Occupied Palestinian Territories: Palestine national report to the United Nations Conference on Environment and Development

UNCED National Reports

Palestine Liberation Organization. Department of Economic Affairs and Planning
[Jun 1992], 15 p., En

Excessive emphasis on the historically and politically conflicting claims to Palestine has overshadowed understanding of what has happened to the environment there, according to this report, which was prepared by the Palestine Liberation Organization for the June 1992 U.N. Conference on the Environment and Development. The report states that the environment of the Occupied Palestine Territories is deteriorating every day, due in no small part to the effects of Israel occupation. Problems and potential problems concerning land confiscation, water and water supply, the marine environment, agriculture, deforestation, air pollution, industrial pollution, and toxic waste are described. Attention is also given to lack of adequate sewage and waste services, public health problems, population displacement, and economic hardship. The report concludes with recommendations for actions by the international community to help protect the environment in the Occupied Palestinian Territories.

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Hong Kong

Environment: Hong Kong 1994—a review of 1993

State-of-Environment Reports

Hong Kong. Environmental Protection Department, Wanchai, HK
Jun 1994, 201 p., ill., chart, maps, statistical tables, En

Hong Kong has the highest residential population density in the world (about 1,000 people per hectare), more than twice that of Lagos, which is ranked second. As a result, pollution is the most serious environmental problem facing Hong Kong today. Emissions from vehicles, especially those powered by diesel engines, are of particular concern, as are the noise and dust from construction and transportation, water pollution blackspots in typhoon shelters, and the clogging of streams by pig and other livestock wastes. This report describes the pollution situation in Hong Kong and details measures to combat it. Separate sections discuss air, noise, solid waste, and water pollution. Other chapters deal with the establishment of local pollution control offices, efforts to increase community awareness of the danger of pollution, and Hong Kong's successful cooperation with China to solve environmental problems. Includes extensive resource materials, e.g., list of laws, environmental groups, and publications.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-616

India

India: Commission on Sustainable Development, third session 1995—voluntary exchange of information

Agenda 21 National Reports 1995

India. Ministry of External Affairs, New Delhi, IN
21 Mar 1995, 59 p., statistical tables, En

India's progress in implementing Agenda 21 is documented in this report. Part I reviews the cross-sectoral elements of the Agenda: access to resources, capacity building, decision making, the role of major groups (particularly voluntary organizations and programs to promote popular participation), science and technology (including biotechnology), and information management. Part II highlights the range and extent of the Government's interventions in the crucial sectors of land, forests, and biological diversity, including subsections on sustainable agriculture, desertification and drought, and sustainable mountain development. A recurring theme of the present volume, which is intended to be read in conjunction with India's 1994 Agenda 21 report, is India's need to eradicate poverty if it is to develop an integrated approach to environmental planning and management. The document also emphasizes the role of women as users and managers of resources and as partners in the process of development and democracy. A table of government expenditures by sector is appended.

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India information on issues before the second session of the Commission on Sustainable Development

Agenda 21 National Reports 1994

India. Ministry of Environment and Forests, New Delhi, IN
May 1994, 64 p., En

India faces tension between the claims of environment and those of development. This document highlights the country's progress in fulfilling the objectives of Agenda 21. Part I describes the evolution of India's sustainable development strategy, and identifies priorities for action and assistance. Part II reviews cross-sectoral issues: international cooperation, financing, consumption patterns, environmental technology and capacity building, and decision making structures. Part III discusses India's progress in the sectoral areas chosen by the U.N. Commission on Sustainable Development for review in 1994: health, human settlements, freshwater resources, and toxic and hazardous waste management. Notably, India has passed the Public Liability Insurance Act, which ensures accountability for hazardous waste pollution; implemented a major campaign to ensure that 17 heavily polluting industries comply with environmental standards; introduced Ecomark, a labeling scheme for consumer products; strengthened the Environment (Protection) Act; and standardized Environmental Impact Assessment procedures. In addition, reforestation efforts have resulted in a net annual increase in forest cover in the past three years, and a National Environmental Council was recently established, made up of the Environmental Ministers from all 25 Indian states. Finally, India is in process of developing a national resource accounting system, environment tribunals, and an environmental audit. Two recurring themes of the report are the importance of drinking water and sanitation and the role of women as users and managers of resources.

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Order No.: WRI-725

Conservation of biological diversity in India: an approach

Biodiversity Assessments, Strategies, and Action Plans

Raghunathan, Meena, comp.
India. Ministry of Environment and Forests, New Delhi, IN
1994, 48 p., ill., En

With over 45,000 plant species and 81,000 animal species, India is one of the world's 12 mega-biodiversity centers. However, although the ethos of conservation is ingrained in India's cultural heritage, development activity is increasingly threatening this rich biodiversity. Approximately 20 wildlife species are categorized as "possibly extinct," 1,500 plant species are considered vulnerable and endangered, and some domesticated breeds have suffered genetic erosion. This report on India's environment: (1) describes India's physical features, along with its biological diversity and the threats posed to it by rapid industrialization and agriculture, urbanization, large development projects such as dams, highways, and mining, poaching, and the introduction of high-yielding crop and livestock varieties; (2) examines India's efforts to formulate a National Biodiversity Action Plan to maintain ecosystem, species, and genetic diversity through a series of in-situ and ex-situ measures; (3) discusses the legal and policy reforms needed to implement and enforce the Plan, as well as the need to improve India's technical and institutional capacity for conservation, and to promote participatory management of natural resources; and (4) discusses plans to comply with the Convention on Biological Diversity, which India ratified in February 1994.

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Environment action programme: India

Environmental Strategies and Action Plans

India. Ministry of Environment and Forests, IN;
U.N. Development Programme;
World Bank, Washington, DC, US
Dec 1993, v, 220 p., ill., charts, statistical tables, En

Air and water pollution from industrial plants are among India's most critical environmental problems, with air pollution occurring at serious levels in the cities of Delhi, Bombay, Calcutta, and Madras, while water pollution is the most pressing problem facing small towns. This National Environmental Action Plan addresses the following topics: (1) air and water quality; (2) the status of the country's natural resources; (3) the legal and organizational framework for environmental management; (4) existing environmental programs; (5) key environmental problems; (6) priority intervention areas identified in the Eighth Five-Year Plan; (7) development of an integrated environmental strategy; and (8) priority action programs in the areas of energy, the urban environment, conservation and sustainable development of biodiversity in selected ecosystems (forests, mangroves, wetlands, coral reefs, and mountains), control of industrial and related pollution, access to clean technologies, environmental impact assessment, environmental research and training, and conservation of soil and water resources. More detailed information on various sectors is presented in the appendices. Includes bibliography.

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Order No.: WRI-466

National conservation strategy and policy statement on environment and development

Environmental Strategies and Action Plans

India. Ministry of Environment and Forests, New Delhi, IN
Jun 1992, 36 p., En

Of India's total area of 329 million hectares, more than half, or 175 million hectares, require special treatment to restore the land to productive uses, due to degradation from water and wind erosion (150 million ha), salinity and alkalinity (8 million ha), and river action and other factors (7 million ha). Moreover, the nation's forest wealth has dwindled to 19.5% of total geographical area (vs. a goal of 33% for plains and 66% for hilly regions); coastal and wetland areas are under severe stress; and more than 1,500 plant and animal species are endangered. In the face of these and other environmental problems, this report presents the Government of India's guidelines for incorporating environmental considerations into development planning. The report also: identifies actions taken over the last 20 years and institutions established; outlines priorities and strategies in the areas of population control and conservation of natural resources (including land, water, atmosphere, biodiversity, and biomass); lists specific actions to be taken in the sectors of agriculture and irrigation, animal husbandry, forestry, energy, industry, mining, tourism, transportation, and human settlements; and describes support policies and systems needed.

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Annual report 1994-95 [India]

Other Environmental Studies

India. Ministry of Environment and Forests, New Delhi, IN
[1995], 136 p., ill., charts, statistical tables, En

The Ministry of Environment and Forests is the Government of India's nodal agency for planning, promoting, and coordinating environmental and forestry programs. The main activities of the Ministry are: conservation and survey of flora, fauna, forests, and wildlife; prevention and control of pollution; afforestation and regeneration of degraded areas; and protection of the environment. These tasks are fulfilled through environmental impact assessments, eco-regeneration, assistance to organizations implementing environmental and forestry programs, promotion of environmental and forestry research, extension, education, and training, dissemination of environmental information, international cooperation, and the creation of environmental awareness among all sectors of the Indian population. This document presents the Ministry's report on activities for FY 1994-95 in the above-mentioned areas. Includes an introductory overview of key achievements and an appendix detailing the Ministry's organizational structure. (Author abstract, modified)

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Indonesia

Indonesian country report on implementation of Agenda 21: 1995

Agenda 21 National Reports 1995

Indonesia. State Ministry of Environment, Jakarta, ID; National Consortium for Forest and Nature Conservation in Indonesia, [Jakarta, ID]
Apr 1995, 52 p., map, En

This report is divided into three parts. Part I looks at overall progress towards implementing Agenda 21 in Indonesia covering national concepts, strategies, policies, institutions, financial mechanisms, and constraints. Highlights include Indonesia's ten national steps towards environmental management and sustainable development and its strategies for national environmental management coordination. Part II looks at cross-sectorial issues involving poverty alleviation, changing consumption patterns, education, science, technology transfer, financial mechanisms, and role of major groups. Highlights include the Indonesia's Rural Poverty Alleviation Programme, Environment and Population Study Centers, Sustainable Development Network, recycling, waste reduction, and pollution prevention programs, and the role of non-governmental organizations. Part III covers issues related to land, forestry, agriculture, and biodiversity as contained in Chapters 10-15 of Agenda 21. It contains: overview of the resource (status, threats and problems, and institutions involved in management); progress achieved (policies, strategies and main objectives); activities undertaken and planned (programs conducted and future strategies to achieve as yet unattained objectives or to strengthen present actions); experiences (lessons learned, both positive and negative); specific problems and constraints; assessment of capacity building (policy, institution, human resources, and future needs); and expectations (international technical assistance and funding). Highlights include: a Spatial Use Management Act for the identification of environmentally sensitive areas and a National Spatial Plan to guide national planning and use of natural resources (Chapter 10); afforestation, establishment of totally protected forest areas, national parks, and timber estates, and a national strategy for tropical rainforest management (Chapter 11), combating land degradation, developing drought preparedness and drought relief schemes, and conducting education on the effects of drought (Chapter 12); experiences in mountain ecosystem management (Chapter 13); progress in integrated pest management (Chapter 14); and traditional and modern practices of sustainable use of biological diversity and an

action plan for biological diversity management (Chapter 15).

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Order No.: WRI-644

Biodiversity action plan for Indonesia

Biodiversity Assessments, Strategies, and Action Plans

Indonesia. Ministry of National Development Planning. National Development Planning Agency, Jakarta, ID;

World Bank, Washington, DC, USA
1993, 2 v., ill., maps, statistical tables, En

Acceleration of economic development in Indonesia is beginning to erode the country's rich natural resource base. This document presents an action plan to conserve Indonesia's remarkable biodiversity. Volume I reviews: the status of Indonesia's biological resources and resource use trends (e.g., logging, shifting and pioneer agriculture, and forest clearing); environmental legislation, programs, and information sources; and objectives of the national Biodiversity Action Plan. The Plan identifies priority interventions in: in-situ conservation in terrestrial parks and protected areas; in situ conservation outside of protected areas (in production forests, wetlands, agricultural lands, and coastal and marine areas); ex-situ conservation; community participation in conservation; and information, research, and educational programs. The concluding sections of the volume sketch a supporting program of legal, institutional, and policy reform; detail a strategy for implementing the Action Plan; and provide suggestions for further study. Over half of Volume I is comprised of maps, tables of species, habitats, and conservation sites, and lists of environmental institutions (including NGOs) and proposed government projects. Volume II contains 2-page profiles of 31 priority projects proposed in the areas of regional conservation, in-situ conservation outside protected areas, marine conservation, training and research, forest sustainability, and information, education, and awareness.

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Ministry of National Development Planning
National Development Planning Agency
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Order No.: WRI-441

Indonesian country study on biological diversity

Biodiversity Assessments, Strategies, and Action Plans

Indonesia. Ministry of State for Population and Environment, Jakarta, ID;
U.N. Environment Programme;
Kingdom of Norway
1992, xii, 209 p., maps, statistical tables, En

Maintaining biodiversity is fundamental to the integrity of Indonesia's environment and to the continued economic output and prosperity of the Indonesian people. This study on biological diversity in Indonesia covers the following topics: (1) the Indonesian context, including geography and climate, population, and the economy; (2) the status of biodiversity in Indonesia, including discussions of biogeography, ecosystem diversity, species richness, genetic diversity, and threats to biodiversity; (3) the economic benefits of biodiversity management in forestry, wildlife management, watershed management, agriculture and agroforestry, coastal systems and wetlands, and tourism; (4) the recurrent costs of biodiversity management; and (5) unmet needs for conserving and using biodiversity, including discussions of integrated conservation and development projects, routine area management and protection, in-situ and ex-situ measures, and technology transfer and development. The last part of the study describes action priorities for the next 5 years and reviews needs not addressed by present plans as well as strategic investment options. Appendices include an extensive bibliography and detailed information on representative high-priority conservation areas.

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Order No.: WRI-530

Environmental synopsis of Indonesia

Environmental Synopses

United Kingdom. Overseas Development Administration, London, GB;
International Institute for Environment and Development, London, GB
Mar 1994, [ii], 41 p., maps, En

Although Indonesia's transmigration program (which promotes relocation from densely populated areas such as Java to the Outer Islands) has been reduced in scope since 1986, it continues to cause environmental damage, including loss of forest ecosystems, waste of biomass, and disruption of traditional land use practices. Transmigration is one of the several environmental problems highlighted in this report. After an introductory fact sheet, the report: (1) examines Indonesia's environmental institutions, together with national and international legislation, training opportunities, and the cultural aspects of resource utilization; (2) reviews the country's natural resource endowments, industrial sectors, and demographic characteristics; and (3) analyzes leading issues including energy, industrial byproducts, water pollution, deforestation, soil erosion, urban environmental quality, and threats to Indonesia's remarkable biodiversity and marine environments. Appendices identify principal government agencies with environmental responsibility, and list selected environmental legislation, regulations, and statutes. Includes bibliography.

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Indonesia: environment and development

Other Environmental Studies

World Bank, Washington, DC, US
1994, xl, 294 p., charts, maps, statistical tables, En

Indonesia has achieved remarkable success over the past 25 years in stimulating growth while reducing poverty, but the pace and pattern of development have led to increasing environmental and health concerns. This report explores these issues and their implications for Indonesia's development strategy for the next 25 years. The report covers: (1) an overview of the environment and development; (2) challenges in managing natural resources; (3) the growing threat of pollution; (4) policies and instruments for influencing environmental outcomes; (5) the costs and financing of environmental protection; and (6) implementation issues. The report concludes that in the medium-term growth and development will depend increasingly on Indonesia's key natural resources and ecosystems, and the care and efficiency with which they are managed. The growing volume of urban and industrial pollution poses an immediate threat to the improvements in health and human welfare that are central to long-term development. Increasing competition for scarce natural resources, together with growing levels of pollution, will make the environment-related issues of equity and burden-sharing significantly more important in the years to come. An environmental agenda for the medium-term is presented which identifies priority issues such as water supply and sanitation, solid waste management and vehicle emissions in urban centers, industrial pollution control on Java, and the management of forest concessions in the outer islands. Appendices include economic, demographic, and pollution projects, along with an extensive bibliography.

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Country environmental profile of Indonesia

State-of-Environment Reports

Australian International Development Assistance Bureau, Canberra, AU
1994, xviii, 123 p., ill., maps, statistical tables, En

Australia, because of its proximity to and ecological affinity with Indonesia, has a strong interest in cooperating with Indonesia to advance ecologically sustainable development, particularly in eastern Indonesia, which shares marine habitats and migratory species with Australia. This report includes an environmental profile of Indonesia and considers Australia's present and potential role in helping Indonesia to preserve its natural resource base. Section I, by way of social and economic background, considers Indonesia's population growth, urbanization, educational level, health and life expectancy, the role of women, economic growth, and governmental structure. Section II reviews natural resources, the threats posed to them, and issues in waste management; the need for coordination among Indonesia's ministries and between Indonesia and its neighbors is noted. Section III reviews Indonesia's domestic environmental policy, guidelines, standards, and legislation, while Section IV discusses environmental assistance provided to Indonesia by the Australian International Development Assistance Bureau (AIDAB) and other donors. Key environmental issues are summarized in Section V, and Section VI outlines Australia's capabilities in these same key areas, naming specific organizations and their areas of expertise. Appendices describe environmental projects by AIDAB and by the Australian Centre for International Agricultural Research (ACIAR). Includes bibliography.

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Environmental quality of Indonesia 1992: 20 years after Stockholm

UNCED National Reports

Djajadiningrat, Surna T., ed.; Amir, Harry Harsono, ed.
Indonesia. State Ministry for Population and Environment, Jakarta, ID
1992, 168 p., statistical tables, En

Just as Indonesia's 20-year drive to development, which has relied heavily on industrialization, is beginning to pay off economically, the environmental costs of the underlying policies are also manifesting themselves. Indonesia's report to the 1992 U.N. Conference on Environment and Development opens with a discussion of the globalization of environmental issues, including examinations of leading problems (e.g., global climate change and ozone depletion) and a look at the evolution of international environmental structures and agreements, beginning with the Stockholm Conference in 1972. Subsequent chapters focus on: (1) Indonesia's institutional and legal structures for environmental management; (2) the interaction between population growth, the environment, and development, and the challenge of raising the standard of living and ensuring environmental health; (3) settlement patterns, urban sprawl, and rural development; (4) land use patterns for agriculture, forestry, urban settlements, industry, and mining; (5) air and water quality issues and programs; (6) forest resources, exploitation patterns, and management issues; (7) biodiversity protection needs; (8) Indonesia's unrivaled coastal regions, marine degradation, protection needs, and opportunities for development; and (9) the energy sector, including Indonesia's considerable fossil fuel resources, and the need for conservation and diversification of energy sources. A final chapter presents environmental profiles of each of Indonesia 17 regions. The report includes a list of environmental laws and legislation, an extensive bibliography, and numerous tables.

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Also Available from:
State Ministry for Population and Environment
Jl. Medan Merdeka Barat 15
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Indonesia

Iraq

Rapid assessment of the impacts of the Iraq-Kuwait conflict on terrestrial ecosystems: Part one—The Republic of Iraq

Other Environmental Studies

Karrar, Gaafar; Batanouny, Kamal H.; Mian, Muhammad A.; El-Din, M. Nabil Alaa
U.N. Environment Programme. Regional Office for West Asia, Manama, BH
Sep 1991, xi, 77 p. + appendices, maps, statistical tables, En

This document is part of a 3-volume report by a U.N. field mission on the damage inflicted upon terrestrial ecosystems in Iraq, Kuwait, and Saudi Arabia during the course of the Gulf War (1990-91) Each volume describes the pre- and post-war state of the country's physical environment and biota, identifies the environmental impacts of the conflict, and presents a proposal for an international environmental rehabilitation program, similar to the Marshall Plan. References are included in each volume. In Iraq, the subject of this volume, the effects of the War were devastating. The two main consequences were (1) the release of enormous volumes of smoke and other pollutants to the atmosphere and the contamination of the soil due to destruction of oil wells, oil storage facilities, refineries, petrochemical industries, and electric power stations; and (2) large-scale disturbance of the soil, especially in southern Iraq, by off-road military vehicles, digging of bunkers and trenches, and construction of earthen embankments, in addition to the intensive bombing and shelling. Both crops and livestock were very adversely affected, while climatic effects were limited to southern areas. Measures proposed for urgent action include removal of mines and ordnance; initiation of a long-term program to neutralize the effects of pollutants and toxic agents; removal of litter; and restoration of essential services (e.g., water treatment) and construction of needed infrastructure.

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Israel

Environmental quality in Israel 2000-2025

Other Environmental Studies

Pruginin, Amram; Glass, Jonathan
Jerusalem Institute for Israel Studies;
Israel. Ministry of the Environment, Jerusalem, IL
1992, xi, 237 p., charts, statistical tables, En

As part of its participation in the regional Blue Plan for managing the environment in the Mediterranean region, Israel prepared a set of scenarios predicting trends in economic development as well as in environmental administration/policy and environmental quality for the years 2000 to 2025. This report presents development scenarios for demography, employment, the macroeconomy, technological progress, water resources and supply systems, agriculture, industry and raw materials, tourism and recreation, electricity production, transportation, human settlements, and defense. The next section discusses environmental administration in Israel, including laws and legislation, policy tools, and national and local administrative structures, with an eye to future needs. The final section develops scenarios for the natural environment (landscapes and nature reserves) and environmental quality (air quality, noise, drinking water quality, sewage systems, hazardous wastes and toxic substances, and solid wastes). The report includes a section of updates and supplements, which summarizes major developments since the scenarios were originally completed.

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U.S. Agency for International Development
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Order No.: WRI-508

Environment in Israel

State-of-Environment Reports

Gabbay, Shoshana
Israel. Ministry of the Environment, Jerusalem, IL
1994, xiii, 255 p., charts, maps, statistical tables, En

Israel's success in overcoming difficult climatic conditions, water scarcity, and limited arable land has made it a model for developing countries around the world. More recently, and driven in part by a rapidly rising population density, Israel has embraced environmentally appropriate development and has undertaken an environmental education and action campaign encompassing government ministries, municipalities, public and private organizations, and the entire educational system. The first section of this report introduces Israel's environment, geography, people, and economy, and gives a short overview of the history and structure of the legal and institutional foundations for environmental administration in Israel. A second section focuses on environmental degradation, covering freshwater resources, air pollution, solid wastes, hazardous substances, marine water and coasts, noise pollution, radiation, agricultural residues, pest control, and natural reserves and desertification; for each of these areas, the legal framework for their management is described. A third section gives a more in-depth description of Israel's framework for environmental management; topics include planning, legislation and enforcement, research efforts and laboratory facilities, environmental economics, education, and regional and international cooperation. A final chapter surveys Israel's nongovernmental (NGO) environmental organizations, whose numbers have increased dramatically in recent years. Appendices list Israel's environmental laws, international environmental conventions and agreements ratified by Israel, and environmental NGOs.

Available from:
Ministry of the Environment
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Jerusalem
Israel 91061

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-515

Japan

National action plan for Agenda 21 [Japan]

Agenda 21 National Reports 1994

Japan. Environment Agency. Planning and Coordination Bureau, Tokyo, JP
[1994], 161 p., En

Japan's action plan for implementing Agenda 21 is presented. Following the structure of the Agenda, the plan includes 40 chapters divided among four major areas. Section 1, on social and economic dimensions, contains chapters on international cooperation in promoting sustainable development, combatting poverty, changing consumption patterns, promoting sustainable population programs, protecting human health and promoting sustainable human settlements, and integrating environmental issues into development decision making. Section 2, on conservation and management of natural resources, has chapters devoted to protecting the atmosphere; managing land resources; combatting deforestation, desertification, and drought; promoting sustainable agriculture and rural development; conserving biological diversity; promoting environmentally sound management of biotechnology, toxic chemicals, and hazardous, solid, liquid, and radioactive wastes; and protecting oceans, seas, and freshwater resources. Section 3 concerns strengthening the environmental role of major groups, including women, children and youth, indigenous people and communities, NGOs, local authorities, workers and trade unions, business and industry, the scientific and technological community, and farmers. Finally, Section 4 deals with implementation issues, including financial resources and mechanisms; technology transfer, and capacity building; the contribution of science; environmental awareness, education, and training; international cooperation and capacity building in developing countries; legal instruments and mechanisms; and environmental data collection.

Available from:
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OECD environmental performance reviews: Japan

OECD Environmental Performance Reviews

Organisation for Economic Co-Operation and Development, Paris, FR
1994, 210 p., charts, statistical tables, En

Over the past two decades Japan has reduced emissions of a number of pollutants and contained the growth of solid waste generation while experiencing the fastest economic growth of the G7 countries. This decoupling of economic growth and pollution was achieved through economic structural change, increased energy efficiency, and effective environmental policies. However, significant concerns remain. This report examines Japan's efforts to (1) reduce air, waste, and water pollution; (2) enhance the quality of life by increasing urban amenities such as green areas, quietness, pedestrian access, and access to peri-urban natural areas; (3) protect remaining natural habitats; (4) integrate environmental concerns into economic and transport policies; and (5) expand international cooperation on issues such as global climate change, marine pollution, fisheries, and exports of hazardous wastes and substances. Leading concerns include water quality (water sewage and treatment infrastructure are far less extensive in Japan than in other industrialized countries); nature conservation (natural forest area has decreased by 14% over the past 13 years); and the impacts of rising personal consumption. Annexes present selected environmental and economic data, lists of multilateral environmental agreements, with Japan's participation highlighted, and a chronology of environmental events affecting Japan from 1988-1993.

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Internet: http://www.oecd.fr

Quality of the environment in Japan: 1992

State-of-Environment Reports

Japan. Environment Agency, Tokyo, JP
1992, xi, 658 p., ill., charts, statistical tables, En

A comprehensive review of the environment and environmental management in Japan is presented in this two-part monograph. Part 1 describes: major environmental problems affecting Japan and the current state of its natural environment; Japan's experience, both positive and negative, in building a sustainable society; recent socioeconomic trends in Japan and in developing countries that bode ill for environmental sustainability; and new approaches to environmental conservation and environmentally sustainable development. Part 2 details Japan's response to its environmental problems. An initial section presents an overall view of environmental administration in Japan in terms of budgeting, environmental impact assessments, community-oriented environmental conservation, pollution prevention, environmental conservation for high-tech industries, chemical substance safety, environmental conservation in land utilization, and environmental information. Succeeding sections examine the present state of and current measures in the following areas: air pollution, noise, vibration, and offensive odors; water and other pollution; environmental health; pollution disputes and offenses; and conservation of the natural environment. Concluding sections of the study discuss global environmental issues and international environmental cooperation, surveys and research on environmental protection, and other public and private expressions of environmental management.

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Jordan

National environment strategy for Jordan: a resource book of information and guidelines for action

Environmental Strategies and Action Plans

McEachern, John D., comp.
IUCN—The World Conservation Union;
Jordan. Ministry of Municipal and Rural Affairs and the Environment;
U.S. Agency for International Development. USAID Mission to Jordan
Aug 1991, xv, 226 p., statistical tables, En

Jordan was one of 30 original supporters, in March 1980, of the World Conservation Strategy, which encouraged countries to prepare a national environmental strategy and provided a framework for doing so. Jordan is now the first country in the Middle East to complete a national strategy, which is presented here. The document includes recommendations for strengthening environmental protection in four strategic areas: establishing a legal framework for environmental management; strengthening two key institutions, the Department of Environment and the Royal Society for the Conservation of Nature; creating new and upgrading existing protected areas; and instilling environmental awareness among the public. Chapter 1 is a brief overview of Jordan's geography and landscapes, which, though limited in size, display great diversity. Chapters 2-11 cover the following: agriculture and lands; surface and groundwater; wildlife and habitats; coasts and marine areas; energy and mineral resources; population; housing and settlements; environmental health; the atmosphere and air quality; and antiquities and cultural resources. In general, each chapter presents a detailed status report, identifies outstanding issues, and suggests policies and/or actions for the future; each includes annexes which present additional statistics and information, along with information on the sectoral working group that prepared the chapter. Finally, Chapter 12, after noting Jordan's lack of an integrated environmental law, reviews existing legislation and then presents legislative recommendations developed by the ten contributing sectoral working groups.

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IUCN—The World Conservation Union
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Order No.: PN-ABW-521

Kazakhstan

Kazakhstan: the transition to a market economy

Other Environmental Studies

World Bank, Washington, DC, US
1993, x, 234 p., charts, map, statistical tables, En

The degradation of Kazakhstan's environment can be attributed mainly to an inefficient centrally planned economy while under Soviet rule, which favored heavy industry over less polluting services and consumer goods. The obsolete technologies used in Kazakhstan factories, often dating to the 1950's, used resources extensively and generated high amounts of waste. The Republic's resulting environmental problems are detailed in a chapter of this monograph on Kazakhstan's efforts to move to a market-based economy. These problems include: (1) inadequate water resources, compounded by localized heavy metal contamination of surface water due to industrial effluents, mining slurries, and insufficient wastewater treatment; (2) very high localized air pollution, aging metallurgical facilities, and the use of very low octane automobile fuel; (3) some 17 billion tons of hazardous waste stored in landfills, with an annual generation rate of 800 million tons; (4) high levels of oncology and genetic abnormalities among people living near Semipalatinsk nuclear testing range, where the Soviet Union detonated some 470 nuclear devices between 1949 and 1989 (115 above ground); and (5) acute mismanagement of the Aral Sea, where freshwater inflows have been reduced by 90% and surface area by 40%, and a once rich fishing industry has virtually disappeared. The remainder of the chapter briefly describes the impacts of these problems on human health, details the emergence of new institutional and legal mechanisms to manage the environment, and provides recommendations within the context of the country's overall economic reform program.

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National report on the state of nature in the Republic of Kazakhstan

UNCED National Reports

Kazakhstan. Ministry of Ecology and Bioresources, Alma-Ata, KZ;
Kazakhstan. Academy of Sciences, Alma-Ata, KZ
20 May 1992, 90 p., Ru

While Kazakhstan is one of the richest countries in the world in terms of natural, mineral, and energy resources, this report reveals that Kazakhstan also has some of the worst cases of modern agro-industrial environmental contamination and degradation, including a full-blown ecological disaster in the Aral Sea, serious radioactive contamination resulting from 40 years of intensive nuclear testing (until 1963) in the region of Semipalatinsk, and levels of air and freshwater pollution far exceeding acceptable limits. Environmentally unsound technologies, monopolistic macroeconomic policies, and lack of state control over the use and protection of natural resources are at the core of Kazakhstan's extreme environmental degradation. The report lays out a long list of moderately to critically serious problems with regard to air quality, freshwater resources, industrial and radioactive wastes, deforestation, land and soil degradation, loss of biodiversity, health, and energy; data clearly indicate that the country's growing health problems are attributable to environmental deterioration. In the midst of a rocky transition to a market economy, the government has included environmental considerations and capacity building in its restructuring efforts. A number of recommendations on environment and development are highlighted, and badly needed environmentally sound technologies, such as water-saving industrial and agricultural processes, are identified. Foreign investment and assistance will be critical to Kazakhstan's efforts to modernize industrial capacities and reverse the effects of decades of destructive practices.

Available from:
Ministry of Ecology and Bioresources
106 Panfilov Street
Alma-Ata, 480091
Republic of Kazakhstan

Korea, North

National report of the Democratic People's Republic of Korea to UNCED 1992

UNCED National Reports

Democratic People's Republic of Korea. General Bureau of Environment Protection and Land Administration, Pyongyang, KP
1992, 31 p., charts, maps, statistical tables, En

This report describes the efforts of the Government of the Democratic People's Republic of Korea (DPRK) to rehabilitate the environment after 36 years of Japanese colonial rule and the Korean War of the 1950's. Separate sections discuss the DPRK's natural resource base (climate, water, land, forest, mineral, energy, and wildlife resources), environmental and economic trends, sectoral information (mining, energy, transportation, industry, infrastructure, health and social services, education, and agriculture), and key environmental management issues (water, land, and atmospheric quality). A final section outlines official responses to these issues in terms of environmental policies, legislation, institutions, and projects. The DPRK's cooperation in international environmental efforts is also addressed.

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Korea, South

Report of the Republic of Korea to the United Nations Commission on Sustainable Development

Agenda 21 National Reports 1995

Republic of Korea. Ministry of the Environment. Global Environment Division, Kwacheon, KR
Feb 1995, v.p., En

The Republic of Korea reports that two committees provide the national level coordination structure of Agenda 21 actions. The roles of major non-governmental groups are cross-referenced with specific Agenda 21 chapters. Statistics on overseas development assistance (ODA) provided are reported; statistics on ODA received are expected to be available, classified by chapter, in the near future. Regarding environmentally sound technology (Chapter 34), Korea refers to a list of technologies that the country wishes to have transferred from advanced countries and a list of those which it can transfer to developing countries. Among activities initiated since Rio to change consumption patterns are a 10-day rotational system for motor vehicles, volume-based collection fee system for domestic waste, and a water-saving campaign. For Chapter 16 (Environmentally Sound Management of Biotechnology) and Chapter 35 (Science for Sustainable Development), Korea identifies main institutions, manpower, investment, and programs involved. For Chapter 40 (Information for Decision-Making), Korea identifies responsible ministries and institutions and foreign sources of information on sustainable development and describes work towards developing national indicators of sustainable development and the Korean Environmental Information Network System. For Chapter 11 (Combating Deforestation), the report follows the established guidelines in providing information on major achievements, intended future action, and important implementation issues regarding forests. There are no deserts or areas in danger of becoming desert in Korea nor mountain areas of significance so Chapters 12 and 13 are not addressed. Sustainable agriculture and rural development (Chapter 14), areas of high national priority in Korea, are described in terms of relevant national legislation, a national plan, and actions taken to reach objectives. Biodiversity conservation (Chapter 15), also an area of high national priority, is described in terms of relevant national legislation, suspected reasons for loss of biodiversity, national strategy to conserve biodiversity, and actions taken for protection of ecosystems and for enhancement of ecosystem functions.

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Environmental protection in Korea: 1994

State-of-Environment Reports

Republic of Korea. Ministry of Environment, Kwacheon, KR
Dec 1994, ix, 292 p., charts, statistical tables, En

Although the Republic of Korea began paying closer attention to the environment in the late 1980s, problems have arisen so quickly and in so many areas the country has not been able to manage all of them. Korea is still grappling with domestic environmental issues such as waste management, and air and water pollution, while advanced countries have long since moved on to global climatic change and ozone depletion issues. This report assesses the status of environmental protection in Korea. Part I reviews current environmental conditions, and Part II, main body of the report, describes environmental protection measures enacted or planned in 1993. Topics covered include environmental protection in general; air quality preservation; odor, noise and vibration control; water quality; waste management; soil conservation and toxic chemical control; marine preservation; preservation of the natural environment; environmental science and technology; public fund raising for environmental preservation; strengthening of environmental pollution prevention functions; compensation for damage caused by environmental pollution; environmental research; public awareness; and laws and regulations. A brief Part III addresses global issues such as international environmental cooperation. A list of Korea's environmental laws is appended.

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Kuwait

Rapid assessment of the impacts of the Iraq-Kuwait conflict on terrestrial ecosystems: Part two—The State of Kuwait

Other Environmental Studies

Karrar, Gaafar; Batanouny, Kamal H.; Mian, Muhammad A.; El-Din, M. Nabil Alaa
U.N. Environment Programme. Regional Office for West Asia, Manama, BH
Sep 1991, ix, 87 p. + appendices, charts, maps, statistical tables, En

This document is part of a 3-volume report by a U.N. field mission on the damage inflicted on terrestrial ecosystems in Iraq, Kuwait, and Saudi Arabia during the course of the Gulf War (1990-91). Each volume describes the pre- and post-war state of the country's physical environment and biota, identifies the environmental impacts of the conflict, and presents a proposal for an international environmental rehabilitation program, similar to the Marshall Plan. References are included in each volume. In Kuwait, the subject of this volume, the war had serious effects on native vegetation, chiefly due to the soot and oil mist coming out of burning oil wells. Oil spills near the burning wells will inevitably eradicate all living organisms within in a wide surrounding area. Some unburnt oil has escaped from the exploded wells and has accumulated in a number of oil lakes, penetrating the soil underneath. In addition, war activities such as bombing, shelling, placing of mines, and digging of bunkers and ditches have had considerable effects on animal life as well as causing extensive soil disturbances. The long-term environmental effects of the War are tremendous and may persist for decades in changes in biodiversity mix and the seed bank. Measures proposed for urgent action include clearing mines and live munitions, capping burning oil wells, draining oil lakes, restoring irrigation of afforested areas and farms, and restoring and expanding meteorological facilities.

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Laos

Environmental action plan [Laos]

Environmental Strategies and Action Plans

Lao People's Democratic Republic. Prime Minister's Office. Organisation for Science, Technology and Environment, LA;
World Bank, Washington, DC, US
5 Nov 1993, xiv, 80 p. + 5 annexes, statistical tables, En

The Government of Laos is currently undertaking an ambitious program to transform and diversify its largely resource-based economy while maintaining macroeconomic stability and pursuing economic growth. Following an introduction and an overview of the country's geographic and environmental setting, Chapter 3 of this National Environmental Action Plan defines key issues in forestry, biodiversity conservation, land, water, industry, mining, and transportation in the context of their impacts on natural resource degradation and public health. Chapter 4 addresses institutional, legal, and regulatory issues, the need for a national environmental assessment and data base systems, as well as for a major program of environmental awareness building and training. Both chapters use the same format, treating their material in terms of its current status, key issues, and actions either ongoing or needed. Chapter 5 specifies short- and medium-term programs for the actions deemed necessary in the previous chapters. Resource requirements for implementing the plan are detailed in conclusion. Appendices provide additional information on environmental laws, institutions, and databases, including a description of a proposed environmental assessment system.

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Lebanon

National report on the environment and development in Lebanon

UNCED National Reports

Lebanon. Ministry of State for the Environment, Beirut, LB
1991, 137 p., statistical tables, En

Over the past 20 years, Lebanon's environment has been ravaged by an almost continuous state of civil war. The war has numbered the following among its effects: destruction of numerous buildings and sometimes entire neighborhoods; displacement of a large number of people; abuses by citizens in natural resource use (particularly beach sand extraction and degradation of agricultural land), illegal construction, and the cutting down of state forests; and delays in the preparation and adoption of environmental protection plans. The war also exacerbated pollution problems. Solid waste management is primitive, and untreated waste waters are frequently dumped into rivers or the sea. Fertile lands now cover only 12% of Lebanon's surface, and they are quickly disappearing due to urbanization. Also among the negative consequences of the war is the fact that accumulated delays in collecting statistics makes it impossible for this report to give a fully representative picture of Lebanon's environmental and economic status. The report first examines environmental issues within the context of the country's social and economic evolution and activities. It then assesses responses to development and environmental problems in terms of policies, institutions, legislation, action programs, and international cooperation. Final sections discuss Lebanon's expectations for the U.N. Conference on the Environment and Development.

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Malaysia

Environmental synopsis: Malaysia

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 40 p., maps, statistical tables, En

Malaysia's long history of exploiting its natural resources for export earnings, combined with a growing population, threaten the sustainability of resources. Among the country's most serious environmental problems are water pollution and inadequate solid waste management in urban areas, where nearly half the population resides; water pollution and sedimentation in some rural areas, resulting in reduced fish catches and incomes; and overexploitation of timber extraction, which is increasing the ecological threats both in mountainous areas and wetlands. However, Malaysia has managed to retain a large portion of its natural heritage and is preparing a National Conservation Strategy. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Malaysia's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Malaysia. Includes numerous maps and a bibliography.

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IUCN—The World Conservation Union
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Environmental quality report 1993

Environmental Strategies and Action Plans

Malaysia. Ministry of Science, Technology and the Environment. Department of Environment, [Kuala Lumpur], MY
30th Sep 1994, 79 p., En

Pursuant to the Environmental Quality Act of 1974, this report assesses the state of Malaysia's environment and reviews activities of the Department of Environment (DOE), particularly the effectiveness of environmental protection, control, and prevention for the year 1993. The report includes sections on: (1) activities of the Environmental Quality Council; (2) assessment of air quality, noise, river water quality, and marine environmental quality; (3) pollution abatement and control; (4) environmental impact assessment (EIA); (5) environmental program management; (6) environmental education and information; and (7) environmental affairs, including international and regional aspects of environmental cooperation. Among the state-of-the-environment findings for 1993: airborne lead concentrations continued to decrease as sales of unleaded fuels increased; particulates, particularly in urban areas, continued to increase largely due to excessive emissions from diesel-powered vehicles; river water quality continued to deteriorate, particularly from silt and suspended sediments caused by soil erosion; and coastal waters were further deteriorated by silt-ladened river discharge and the prevalence of E.coli from partially treated or untreated domestic sewerage and animal wastes. Regarding DOE activities for the year 1993, increasingly more emphasis was placed on pollution prevention than on curative measures and environmental enforcement was further strengthened, particularly against repeat offenders. Enforcement focus shifted to mobile sources of pollution, as water pollution and air emissions from industry have been reduced by as much as 90 percent. Yet the need to improve compliance with other sources of pollution still remains. Progress was made in pollution prevention as the number of projects screened under EIA procedure, evaluated for suitable siting, checked for proper installation for fuel burning equipment, and approved by waste water treatment increased. In some areas, the EIA review and approval was decentralized, thus increasing efficiency. Environmental education, as a tool for enhancing environmental awareness and preventing pollution, was given higher priority as reflected in the increase in environmental exhibits, lectures, seminars, workshops, media coverage, and DOE library use.

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Environmental quality report: 1992

State-of-Environment Reports

Malaysia. Ministry of Science, Technology and the Environment. Department of Environment, [Kuala Lumpur], MY
30 Sep 1993, 75 p., ill., charts, En

The state of Malaysia's environment and of its environmental monitoring during 1992 are recounted in this report. Problems included high atmospheric particulate concentration in urban centers, increases in river pollution, the presence of heavy metals in the waterways of industrial areas, and contamination of coastal waters with heavy metals, oils, grease, suspended solids, and E. coli. After surveying the country's air quality, noise level, river water quality, and marine environment (including oil spill incidents), the report reviews environmental monitoring and enforcement activities for 1992, covering: (1) pollution abatement, covering agricultural and industrial pollution, waste management, mobile sources, public complaints, and legal action; (2) implementation of the Environmental Impact Assessment procedure; (3) programs in the areas of law review, management of chemicals, environmental research and development, and inventories of polluting sources; (4) environmental education and information; and (5) national, bilateral, multilateral, and international cooperation.

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Order No.: WRI-498

Country report: Malaysia

UNCED National Reports

Malaysia. Ministry of Foreign Affairs. National Steering Committee on Environment and Development, Kuala Lumpur, MY
1992, 71 p., statistical tables, En

Environmental stress from development activities is discernible in Malaysia, as rivers, coastal areas, the urban ecology, and the atmosphere in industrial areas have begun to exhibit initial signs of deterioration. Following an introduction, Part II of this report describes the Malaysian context for sustainable development, beginning with the country's colonial history, early independence (1957-1969), the new economic policy (1970-1990), and the challenges of the 1990s. Part 3 outlines the country's environmental problems (siltation, pollution of water and marine resources, air pollution, toxic and hazardous wastes, solid wastes, heavy metals, and global warming and ozone depletion) and the state of its natural resources (forests, land, water, energy, fisheries). Part 4 deals with Malaysian environmental policy, laws, and institutions, public participation, and environmental education. A concluding Part 5 discusses Malaysia's position on international environmental issues, including transboundary pollution, population growth, climate change, biodiversity and biotechnology, forestry, toxic and hazardous wastes, and funding. Appendices include the texts of the Langkawi Declaration on the Environment and of the Kuala Lumpur Declaration on Environment and Development.

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Maldives

National environmental action plan [Maldives]

Environmental Strategies and Action Plans

Republic of Maldives. Ministry of Planning and Environment, Male, MV;
World Bank, Washington, DC, US
Feb 1993, v.p., statistical tables, En

The Maldives, a fragile chain of 1,190 coral atolls in the Indian Ocean, relies almost entirely on its natural resources to support the health and well-being of its people. The traditional lifestyle of the people had almost negligible effects on the environment, but recent socioeconomic developments have led to a marked deterioration. This National Environmental Action Plan outlines a program of environmental management aimed at protecting the Maldives' marine and terrestrial resources from the threat of population pressure and global warming. Initial sections present background information, list the aims and principles of the Action Plan, and discuss the development of national capabilities and training goals. The next section identifies priority areas: coral mining; sewage contamination of coastal water; rising sea level; solid waste management; dredging; freshwater management; migration to Male; population growth; solid waste disposal; sewage contamination of groundwater; and deforestation. A work plan follows. The last section identifies and describes 19 specific projects. The Maldives' National Report to the U.N. Conference on Environment and Development (UNCED) is included among the appendices.

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Also Available from:
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Order No.: WRI-468

Mongolia

Mongolian environmental action plan—towards Mongolia's environmentally sound, sustainable development

Environmental Strategies and Action Plans

Mongolia. Ministry for Nature and the Environment, Ulaanbaatar, MN;
World Bank, Washington, DC, US
Feb 1995, 75 p., En

The 1992 Mongolian Constitution included several key environmental provisions and established the institutional structures and legislation needed to enforce them. However, the extreme financial constraints facing the new country, as well as a widespread perception that economic development should be given priority, severely hinder the possibilities for implementing the new policies and laws. The principal environmental problems facing the country are: (1) urban air and water pollution, putting over half of Mongolia's population at risk; (2) inadequate urban solid waste disposal; (3) overgrazing, soil erosion, desertification, and other forms of land degradation; (4) an urgent need to improve water management and conservation; (5) need to strengthen the institutional environmental framework and build staff capacity; and (6) localized degradation from mining and petroleum extraction. Other issues, though of less urgency, include natural disasters, public awareness and education, and the preservation of forest resources and biodiversity. The full range of these problems, as well as measures to address them are detailed in this National Environmental Action Plan (NEAP). Annexes include a list of specific environmental actions holding the highest priority, as well as a list of Mongolian environmental laws enacted both before and after the 1992 Constitution.

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National report: Mongolia

UNCED National Reports

Palmer, Walter A.; Batjargal, Zambyn; Adyasuren, Tsokhiogiin
Mongolian People's Republic. State Committee for Environmental Control. UNCED National Report Task Force, Ulaanbaatar, MN
Jun 1991, 204 p., statistical tables, En

Mongolia is a relatively large, arid country with few renewable natural resources, but its population growth rate is one of the highest in Asia (2.6% in 1989). These factors, together with an aggressive economic development policy and an unusually harsh climate, have caused rapid depletion of natural resources. Sustainable rates of use or loss of surface water, ground water, forests, soil, fisheries, and rangeland resources have already been exceeded in some areas. Air, water, and soil contamination is locally quite significant, and in many cases a hazard to public health. Other problems include: desertification (in the south of the country); threats to the numerous endangered species that are found in Mongolia; substandard housing, waste management, and transport infrastructure; and limited access to modern technology for environmental protection. This report outlines the factors that have contributed to the degradation of the Mongolian environment, and includes detailed reviews of Mongolia's natural resource base, development trends, sectoral information (e.g., mining, energy, transportation, housing, agriculture, etc.), key environmental issues, and an overview of Mongolian environmental legislation and governmental and nongovernmental institutions. In conclusion, a national environmental strategy is outlined.

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Myanmar

National report on environment and development of the Union of Myanmar

UNCED National Reports

Union of Myanmar. National Commission for Environmental Affairs, Yangon, MM
Jun 1992, 38 p., statistical tables, En

Myanmar possesses a rich diversity of habitat types arising from its unusual ecological diversity—its topography, for example, ranges from flat land and river valleys to snow-capped peaks and deep ravines. Even before environmental concerns moved onto the world agenda, the Myanmar Government has been sensitive to the effects of development efforts on the environment. The Government has drawn up strict regulations to protect its biological resources, has undertaken an extensive afforestation program, and has introduced several programs to eliminate or neutralize the harmful effects of industrial effluents and agrochemicals on the environment. This report details Myanmar's efforts to maintain a balance between development and environmental protection, including discussions of development trends in several sectors (including, inter alia, mining, agriculture, forestry, and tourism), government responses to environmental issues, Myanmar's environmental policies, legislation, and institutions, and its recommendations for international action.

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Nepal

Nepal: economic policies for sustainable development

Other Environmental Studies

International Centre for Integrated Mountain Development, Kathmandu, NP;
Asian Development Bank, Manila, PH
1992, xvii, 186 p., maps, statistical tables, En

This study examines the extent to which Nepal's development policies have resulted in environmental degradation, including loss of topsoil, deforestation, water shortages, flash floods, and land degradation. The study, which was completed in May 1990, first describes the relation between environment and the economy in Nepal and the general dimensions of the country's sustainability problem. Subsequent chapters address key sectors—population, agriculture, forestry, energy, tourism, industry, and urbanization. The study shows that Nepal's poor economic performance and deteriorating environmental conditions can to a significant extent be attributed to misplaced government policies, including: (1) a wavering population policy which has made only a dent in the country's rapid population growth; (2) unsound agricultural pricing and incentive policies, which have encouraged inefficient resource use; (3) energy development and pricing policies that have not reflected the country's resource endowments; and (4) policies that have resulted in a depletion of the forest resources, which are vital for sustaining Nepal's fragile mountain environments. In general, Nepal has made the mistake of increasing the number of programs, which has overloaded already overworked agencies and technical personnel, while failing to identify locally sustainable development options. The study urges Nepal to work towards sustainable development by improving its management of renewable natural resources, developing human resources, using clean energy, promoting environmentally sustainable tourism, and mobilizing local community organizations.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-493

National report on United Nations Conference on Environment and Development: Nepal

UNCED National Reports

Nepal, Kathmandu, NP
[1992], 93 p., charts, maps, statistical tables, En

Nepal, as a mountainous, land-locked country, faces a number of unique development constraints. The major environmental problems in Nepal—land degradation, deforestation, and pollution —are caused by poverty, yet the topography of the country makes providing the basic infrastructure necessary for economic development difficult and expensive. With over 90 percent of the population employed in the agriculture sector, tremendous pressure is placed on land resources, while other resources—particularly water—are underutilized. This report describes Nepal's natural resources and its policy, legislative, and institutional framework for

environmental management, provides a detailed overview of the obstacles to sustainable development in Nepal, and outlines government and world policies that are required to preserve Nepal's rich biological and cultural heritage. These include provisions for poverty alleviation, population control, market access, and development of hydroelectric and irrigation resources. The report concludes that the global development community needs to make a special effort to understand the fragile nature of mountain ecosystems if Nepal's biological diversity is to survive.

Available from:
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Oman

Sultanate of Oman regional report to the United Nations Conference on Environment and Development

UNCED National Reports

Sultanate of Oman. Ministry of Regional Municipalities and Environment, [Muscat], OM
Jan 1992, ca. 50 p., En

Oman's geography and climate impose particular environmental pressures, especially on the water supply. With industrialization, the country is also experiencing problems with liquid and solid toxic wastes, which lead to water and air pollution. This report begins by describing basic geographical features and the historical background of Oman, followed by a summary of general development trends and development activities by sector (commodity production, services, social structures, and infrastructure). The report then assesses the country's natural resource base, looking at population distribution and land use, wildlife resources, rangelands and pastures, and coastal resources. Key environmental and natural resource issues are identified in relation to protection of the atmosphere, the freshwater supply, oceans and coastal areas, land resources, biological diversity, biotechnology, hazardous wastes and toxic chemicals, and public health. The next section summarizes the response to environment/development issues in the form of policies, legislation, institutions, programs and projects, and international activities. The country's major goals and targets are also cited. These relate to: the interlinkage of development and environmental goals, accelerating economic growth, diversification of national income sources, reducing economic disparities, human resource development, health facilities, environmental health conditions, food security, and protection of the natural resource base.

Available from:
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Pakistan

Pakistan national conservation strategy: where we are, where we should be, and how to get there

Environmental Strategies and Action Plans

Pakistan. Environment and Urban Affairs Division, Karachi, PK;
IUCN—The World Conservation Union, Gland, CH;
Canada. Canadian International Development Agency, Ottawa, CA;
U.N. Development Programme;
World Bank, Washington, DC, US
Jul 1994, xxviii, 378 p., ill., charts, statistical tables, En

Pakistan is a densely settled land, highly dependent on natural resources, yet with severe physical capital scarcities and limited skill development. As such it is likely to suffer heavily from global environmental problems—to which, however, it has made only a negligible contribution. This National Conservation Strategy (NCS) provides a detailed framework for protecting Pakistan's environment. Section I describes the present state of the environment, resource use and impacts, and institutions, policies, and programs. Section II presents the elements of the NCS, covering: objectives, issues in the primary, secondary, and tertiary sectors; and supporting programs in population, education, research and technology, women in development, training, and information systems. Section III recommends 14 program areas for immediate implementation: maintaining soils in croplands; increasing irrigation efficiency; protecting watersheds; supporting forestry and plantations; restoring rangelands and improving livestock; protecting water bodies and sustaining fisheries; conserving biodiversity; increasing energy efficiency; developing/deploying renewables; controlling pollution; managing urban wastes; supporting institutions for common resources; integrating population

and environmental programs; and preserving the cultural heritage. Sixty-eight specific programs are proposed. Section III also describes the NCS's institutional development goals, and ways of financing the NCS. Includes cost estimates for existing and proposed programs.

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Order No.: WRI-470

Environmental profile of North-West Frontier Province Pakistan

State-of-Environment Reports

van Dijk, Albert, ed.; Hussein, Maliha H., ed.
DVH Consultants BV, Amersfoort, NL;
EDC (Pvt.) Limited, Enterprise & Development Consulting, Islamabad, PK;
Netherlands. Ministry of Foreign Affairs. Directorate General for International Cooperation, The Hague, NL
May 1994, 80 p., ill., charts, maps, statistical tables, En

Insufficient attention to sustainable resource use in Pakistan's North West Frontier Province (NWFP) has led to deforestation of mountains and hillsides, overgrazing of rangelands, overwatering of crops, overtapping of groundwater, and inadequate drainage, with the resulting problems of severe soil erosion, silting of reservoirs, degradation of natural pastures, lowering groundwater table, waterlogging, and soil salinity. These problems, according to this environmental profile, stem from a variety of causes, including, inter alia, population pressures, poverty, the poor quality of the natural resource base, and a breakdown in traditional institutions, including common property regimes. A major problem in urban areas is the virtual lack of sewage treatment facilities, and the widespread dumping of untreated industrial effluent in rivers and on open land, to the detriment of both human and animal health. The Government of Pakistan has committed itself to sustainable development through the adoption of a National Conservation Strategy (NCS). To implement the NCS, the NWFP has created the Sarhad Provincial Conservation Strategy (SPCS), which has identified 12 priority action areas. Long- and short-term goals of the strategy are identified in the report, which includes charts, maps, statistical tables, and numerous photographs.

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Ministry of Foreign Affairs
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Also Available from:
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Development Information Services Clearinghouse
Order No.: WRI-376

Philippines

Philippine initiatives in sustainable development: three years after Rio

Agenda 21 National Reports 1995

Philippines. National Economic and Development Authority. Council for Sustainable Development, Manila, PH
Apr 1995, i, 30 p., En

The Philippine's first step toward fulfilling its commitment to Agenda 21 was the establishment of the Philippine Council for Sustainable Development (PCSD), which grants nongovernmental and people's organizations counterpart status with government agencies in determining compliance to Agenda 21. This report reviews the accomplishments of the PCSD, including: the Social Reform Agenda, which aims to reduce poverty and improve social equity; a population management program and a national urbanization study; the integration of sustainable development principles into development efforts (e.g., the Integrated Social Forestry Program); the Environment Code, which includes economic incentives to improve air and water quality; development of Multisectoral Forest Protection Committees throughout the country; and development of a draft National Land Use Code. Additionally, the country has prepared a Strategy for Biodiversity Conservation, developed mountain reserves and a Medium-term Agricultural Development Plan (1993-98), as well as an "external

debt reduction" facility (granted by the Government of Switzerland) to finance sustainable development projects. The report also describes efforts to strengthen the roles of local governments, youth, and the private sector, as well as implementation modes (environmental finance, research, education and public awareness, institution building, and international agreements). Finally, PCSD priority actions for the future are enumerated. Annexes depict the Council's organizational structure and contain excerpts from speeches of President Fidel V. Ramos.

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Also Available from:
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Order No.: WRI-741

Philippine strategy for sustainable development—part 1: conceptual framework

Environmental Strategies and Action Plans

Philippines. Department of Environment and Natural Resources, PH;
World Bank, Washington, DC, US
Jan 1990, [iii], 34 p. + appendix, ill., charts, En

With the limits of the country's natural carrying capacity already being exceeded, the Government of the Philippines is designing a national strategy for sustainable development that assigns environmental protection a major role. This National Environmental Action Plan presents the conceptual framework for this strategy; the Plan is in two parts. Part I lists the strategy's goals and guiding principles and details ten general strategies for achieving these goals: (1) integration of environmental concerns in decisionmaking; (2) proper pricing of natural resources; (3) property rights reform; (4) establishment of an integrated protected areas system; (5) rehabilitation of degraded ecosystems; (6) strengthening of industrial pollution control; (7) integration of population concerns and social welfare in development planning; (8) inducing growth in rural areas; (9) promoting environmental education; and (10) strengthening citizen participation. Part II provides a preliminary assessment (covering the current situation, key issues, and key measures needed) of the following major sectors: population, environment and natural resources (forests, protected areas and biodiversity, urban and freshwater ecosystems, and coastal, land, and mineral resources), agriculture, industry, and energy.

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Also Available from:
U.S. Agency for International Development
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Order No.: WRI-471

Master plan for forestry development: main report

Forest Assessments, Strategies, and Action Plans

Republic of the Philippines. Department of Environment and Natural Resources, Quezon City, PH;
Asian Development Bank, [Manila, PH];
Finland. Finnish International Development Agency, Helsinki, FI
30 Jun 1990, xxv, 477 p. + appendices, charts, statistical tables, En

The average annual deforestation rate in the Philippines, once as high as 300,000 ha, is still close to 100,000 ha and has resulted in heavy soil erosion, sedimentation of rivers and reservoirs, flash floods, and drought. This document represents a 25-year Master Plan for the development of the Philippine forestry sector and is divided into five parts. The first part provides a historical perspective of Philippine forestry as well as three scenarios depicting what could happen on the basis of current trends or as envisaged under the Master Plan. Parts II and III present the Plan's primary development programs: (1) People Oriented Forestry, (2) Soil Conservation and Watershed Management, (3) Integrated Protected Area System and Biodiversity Conservation, (4) Urban Forestry, (5) Forest Protection, (6) Dipterocarp Forests, (7) Mangrove and Beneguet Pine Forests, (8) Forest Plantations and Tree Farms, (9) Wood-Based Industries, and (10) Non-Wood Forest Based Industries. For each program, there is a chapter condensing its status,

issues, directions, goals, objectives, strategies, components, targets, and impacts. Part IV presents five institutional development programs, covering policy and legislation, institutional and personnel resources, research, training and extension, monitoring and evaluation. Part V summarizes the Master Plan as well as its financing and projected socioeconomic and environmental impacts. Contains references, numerous tables, and technical appendices.

Available from:
Mr. Lopez D. Reyes
Director, Forest Management Bureau
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-451

Philippine environmental profile

State-of-Environment Reports

Japan. Overseas Economic Cooperation Fund, Tokyo, JP; Dames and Moore International
18 May 1992, 2 v., charts, maps, statistical tables, En

This environmental profile describes conditions and problems pertaining to the environment and natural resource management in the Philippines, as well as environmental legislation and protection measures. The report is in two volumes. Volume I profiles the situation in regard to (1) air, water, solid waste, and other forms of pollution; (2) the state of and extent of damage to natural environments, including forests, coastal habitats, wetlands, and soils, and protected areas; (3) other natural environmental issues, e.g., soil erosion, salinization, cyclones, and seismicity; (4) human and social environmental issues, focusing on the government's right of way and land acquisition policies and the issue of squatters and their resettlement; and (5) official Environmental Impact Assessment (EIA) requirements for proposed development projects. Volume II examines environmental laws and regulations by sector or activity: roads and railroads; airports; ports and harbors; water supply; sewerage; thermal power; hydropower; electric power transmission; general industry; water diversion; forestry; and irrigation. Annexes to the two volumes present, inter alia, official water and air quality standards tables; the text of various presidential decrees, proclamations, regulations, and administrative orders pertaining to environmental issues; and the outline of a model EIA.

Available from:
Overseas Economic Cooperation Fund
Technical Appraisal Department
Takebashi Godo Building
4-1 Ohtemachi 1-Chrome
Chiyoda-ku
Tokyo 100
Japan

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-482

Qatar

Report of the State of Qatar

UNCED National Reports

Qatar. Environment Protection Committee, Doha, QA
1991, 76 p. + 7 annexes, Ar

Qatar's environmental problems include: air pollution resulting from smog, acid rains, and burning of nearby oil fields during the Gulf War; marine pollution due to oil leakage and waste dumping in the Gulf; salinity of groundwater; unregulated hunting; flora; soil degradation due to excessive pesticide and agrochemical use; weak environmental legislation and institutions; imported agricultural and industrial methods unsuitable for the country's environment; and lack of qualified environmental personnel and research. Past and current environmental initiatives have included: a topographical survey of agricultural lands, a research program aimed at choosing environmentally friendly crops, an integrated water and land use survey, and efforts to form international environmental legislation in cooperation with the Gulf Cooperation Council. It is recommended that Qatar allocate more funds for environmental programs and less for military programs, integrate environmental concerns into curricula and mass media, and immediately tackle environmental priorities. The report describes the country's natural resources and habitats, human resources, economic development, the environmental impact of international politics and domestic development activities, and environmental policies, legislation, and international cooperation.

Saudi Arabia

Rapid assessment of the impacts of the Iraq-Kuwait conflict on terrestrial ecosystems: Part three—The Kingdom of Saudi Arabia

Other Environmental Studies

Karrar, Gaafar; Batanouny, Kamal H.; Mian, Muhammad A.; El-Din, M. Nabil Alaa
U.N. Environment Programme. Regional Office for West Asia, Manama, BH
Sep 1991, xi, 67 p. + appendices, charts, maps, statistical tables, En

This document is part of a 3-volume report by a U.N. field mission on the damage inflicted on terrestrial ecosystems in Iraq, Kuwait, and Saudi Arabia during the course of the Gulf War (1990-91). Each volume describes the pre- and post-war state of the country's physical environment and biota, identifies the environmental impacts of the conflict, and presents a proposal for an international environmental rehabilitation program, similar to the Marshall Plan. References are included in each volume. In Saudi Arabia, the chief environmental impacts of the war were: (1) pollution of soil and biota by the soot and oil mist coming from the exploded and burning oil wells in Kuwait, damaging terrestrial ecosystems; and (2) soil disturbances in large areas of the coastal belt and the northern parts of the eastern region from off-road vehicles, digging of bunkers and trenches, and raising of earthen embankments. Animal populations in the areas close to Kuwait's borders are expected to change as regards kinds, species, numbers, and activities. Changes in biodiversity mix and a reduction in the seed bank are also likely. In addition to mitigation measures already initiated by Saudi Arabia, immediate additional actions should include: (1) establishing 10-15 enclosures in the war-affected areas, one in each soil unit, to improve the seed bank; (2) encouraging herders to transfer sizeable numbers of their animals to other areas or dispose of them; and (3) monitoring the impact of soot and war activities on desert ecosystems and establishment of enclosures in soot-affected areas and in areas where soils were drastically disturbed.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-747

National report of the Kingdom of Saudi Arabia

UNCED National Reports

Saudi Arabia. Ministry of Planning, Riyadh, SA;
Saudi Arabia. Meteorology and Environmental Protection Administration, Riyadh, SA
1992, 212 p. + 2 annexes, Ar

Saudi Arabia's report to the U.N. Conference on the Environment and Development reveals that many of the nation's environmental problems are associated with urbanization and industrial activity along the coasts. These include worsening air pollution in cities, coastal destabilization, destruction of reefs and mangroves, and marine pollution from industrial effluents, urban sewage, and agricultural runoff. Other concerns include pollution of ground and surface waters by fertilizers; desertification; dwindling numbers of wild species due to natural disasters, overgrazing, and unregulated hunting; inadequate sewage systems and treatment facilities; and the destructive effects of mining. Last but not least are the persistent environmental effects of the Gulf War, during which 5 to 6 billion barrels of oil were spilled into the Arabian Gulf (resulting in the deaths of 20,000-30,000 birds and many marine mammals), and 616 Kuwaiti oil wells set ablaze, threatening the northeast of Saudi Arabia. The country has taken a number of steps to address these issues, including establishment in 1986 of a National Commission for Wildlife Conservation and Development (NCWCD), enactment of regulations and decrees governing water and land use, creation of oil spill response and wildlife rescue centers, creation of national parks, water control projects, reforestation and soil stabilization programs, and programs to reuse treated sewage waters for agricultural purposes. The report concludes with recommendations for environmental action and a review of Saudi Arabia's involvement in international environmental efforts.

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Singapore

First look at biodiversity in Singapore

Biodiversity Assessments, Strategies, and Action Plans

Singapore. National Council on the Environment, Singapore, SG
Nov 1994, 163 p., ill., charts, maps, statistical tables, En

Although virtually all of its primary natural forest was cleared by the mid-1800s, and large mammals hunted to extinction, and the years since have seen rapid and intense urbanization, Singapore is committed to reestablishing natural areas by adding mangrove areas and coral flats to its already protected forests, increasing the percentage of land set aside as reserves from 3% to 5%. This inventory of biodiversity in Singapore, compiled mainly from previously published lists of specific plant and animal groups, serves as an approximation of what species exist or existed in Singapore. The inventory first discusses Singapore's remaining natural habitats, which are few; once covered with a thick blanket of forests—lowland rainforests, mangrove forests, and freshwater swamp forest—Singapore now possesses barely 200 ha of primary rainforest, and practically no undisturbed mangrove or freshwater swamp forests. Nevertheless, multitudes of small plant, animal, and insect species survive in what is left, as well as in areas where forest have been allowed to regenerate. These are catalogued in the primary annex, which lists all plants and animals found in Singapore, grouped by kingdom—prokaryotae (blue-green algae), protoctista (algae, molds, etc.), fungi, animalia, and plantae. Nearly 8,000 species are listed, though the document estimates that the true total is above 20,000. The second annex is an extensive bibliography of the publications from which the inventory is derived.

Available from:
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Singapore green plan: towards a model green city

Environmental Strategies and Action Plans

Singapore. Ministry of the Environment, Singapore, SG
1992, 49 p., ill., charts, maps, statistical tables, En

Singapore's ambitious strategy for becoming a "model Green City" by the year 2000 is described in this document, which describes specific initiatives in the areas of environmental infrastructure and management, monitoring, and education. The government plans to expand its solid waste management facilities, upgrade wastewater management systems with compact and covered designs, automate pollution monitoring equipment, raise emission standards for industrial plants and motor vehicles, phase out controlled CFCs and halons, and develop plans for handling industrial accidents. In addition, the nation will attempt to reduce vehicular emissions by expanding the mass rapid transport system and building long-distance cycling tracks; automate food manufacturing to reduce waste; convert open drains and canals into recreational waterways; phase out squatter settlements; and reserve 5% of its land as protected environmental areas. The Green Plan also proposes to reduce the incidence of indigenous diseases such as dengue hemorrhagic fever, develop an epidemiological research and training center on environmental health, and establish an Institute of Environmental Technology. Finally, Singapore aims to use schools, grassroots organizations, and the media to promote environmental activism; to develop a public environmental information network; and to establish a labeling system to help consumers identify "green products." Singapore will also continue to be active in the international environmental arena.

Available from:
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Singapore green plan: action programmes

Environmental Strategies and Action Plans

Moiz, Azra
Singapore. Ministry of the Environment, Singapore, SG
1993, 80 p., ill., charts, maps, statistical tables, En

Singapore's environmental record has been exemplary. Over the past 30 years, the country has responded to the challenges of fast-paced industrial development and rapid urbanization and has built a Garden City with a well-designed land-use plan and a comprehensive and sophisticated environmental infrastructure. However, concern that an increasing population with higher expectations may lead to excesses in resource consumption and waste generation has led to the development of a fresh approach to environmental management, expressed in the Singapore Green Plan. The Plan, which was presented at the Earth Summit in 1992, includes action programs in the areas of environmental education, corporate responsibility, resource conservation, environmental health, nature conservation, clean technologies, environmental technologies, and international and regional cooperation. Numerous photographs are included.

Available from:
Ministry of the Environment
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Annual report 1993 [Singapore]

Other Environmental Studies

Singapore. Ministry of the Environment, Singapore, SG
[1994], 51 p., ill., charts, maps, statistical tables, En

The vision of turning Singapore into a model green city within the next decade sustains the environmental management efforts of the Singapore Ministry of the Environment, detailed in this annual report for the year 1993. The report begins with a list of highlights from the year, including: prohibition of controlled chlorofluorocarbons (CFC-11 and CFC-12) in new air conditioning and refrigeration equipment; initiation of a $140 million scheme to develop the Singapore River area into an aesthetic waterfront; and organization of a "Green Bazaar" to commemorate World Environment Day (June 5th). Next, the report describes the Ministry's activities in environmental infrastructure (e.g., operation of sewage treatment plants, incinerators, etc.), pollution control, public health (including vector control and food hygiene), environmental legislation, and environmental education. Also included are discussions of the Ministry's efforts in the areas of training, international and regional cooperation, computerization, and finances. Includes numerous photographs.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-613

Sri Lanka

National environmental action plan, 1995-1998 [Sri Lanka]

Environmental Strategies and Action Plans

Sri Lanka. Ministry of Environment and Parliamentary Affairs;
U.S. Agency for International Development. USAID Mission to Sri Lanka
Jun 1994, xii, [108] p. + appendices, charts, maps, statistical tables, En

The most significant environmental problems facing Sri Lanka are deforestation, land degradation, inadequate fresh water management, coastal zone degradation, urban and industrial pollution and to a lesser extent, the environmental consequences of energy use. Factors contributing to the country's environmental challenges include resource demands of a growing, largely agrarian population lacking employment opportunities, long-standing civil conflicts, sectoral and macroeconomic

development policies that conflict with environmental sustainability, and inadequate infrastructure. This National Environmental Action Plan (NEAP) for the period 1995-1998 has the aim of translating many concepts developed in a previous plan (NEAP 1992-1996) into clearly defined project activities. The first part of the plan discusses the integration of environment and economic planning. The second part recommends action programs in land and water resources, forests and biodiversity, urban and industrial pollution, coastal and marine resources, and energy and mineral resources. The last part reviews the policy and institutional framework for environmental action and the relation between environmental education and culture. Appended is a chart summarizing ongoing activities under the 1992-1996 NEAP.

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Resource assessment and land use planning in Sri Lanka: a case study

Other Environmental Studies

Dent, D.L.; Goonewardene, L.K.P.A.
International Institute for Environment and Development. Environmental Planning Group, London, GB
Dec 1993, vi, 140 p., charts, maps, statistical tables, En

Sri Lanka's present land use pattern is not sustainable, yet systematic information on land resources is scarcely used at any level of decision making. This document describes the evolution of land use policies in Sri Lanka, highlighting actual contributions made to policy by the availability of systematic information about land resources. The report includes (1) a brief profile of Sri Lanka's environment as well as of current trends in agricultural intensification and their adverse effects on the environment; (2) an overview of land use planning in Sri Lanka, in terms of goals and benchmarks, constraints on sustainable development, and possible responses to recent policy initiatives favoring decentralized government and privatization of the estate sector; and (3) case studies of the Sri Lanka Tree Crop Diversification and the Accelerated Mahaweli Projects. Recommendations are included. More than half the volume consists of appendices summarizing existing environmental legislation and institutional arrangements in Sri Lanka, and an extensive bibliography covering land use planning and policy, renewable natural resources, and socioeconomic studies. The bibliography includes abstracts of representative publications.

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Development Information Services Clearinghouse
Order No.: WRI-494

Syria

Syrian Arab Republic national report for the United Nations Conference on Environment and Development

UNCED National Reports

Syrian Arab Republic, Damascus, SY
[1992], 11 p., En

The Syrian Arab Republic's most important natural resources are water, soil, and petroleum. About 55% of the country's land area is pastures, and about 3% is forests; rivers exist in the interior of the country, though not along the Mediterranean. This report discusses efforts of the Syrian Arab Republic to integrate environmental concerns into development planning in accordance with United Nations recommendations. The report briefly documents: (1) current development trends (especially, heavy dependence on petroleum), constraints (desertification and a high population growth rate), and objectives (raising environmental awareness and reducing poverty); (2) aims of the Syrian government in regard to protecting, managing, and/or improving air quality, water/ocean and land resources, biological diversity, toxic wastes, and human health; (3) the activities of nongovernmental or quasi-governmental organizations (e.g., professional unions and local organizations) in the area of environment/development responses; and (4) environmental education efforts of the Ministries of Culture and Education, the role of the media, and international cooperation.

Available from:
UNDP Resident Representative
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Syrian Arab Republic
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Taiwan

Island of diversity: nature conservation in Taiwan, R.O.C.

Biodiversity Assessments, Strategies, and Action Plans

Simpson, Steven; Tsai, Huei-Min; Chen, Chau-Jen
Council of Agriculture. Executive Yuan, Taipei, TW;
Taiwan. Ministry of Interior. Construction and Planning Administration. Department of National Parks, [Taipei], TW
May 1992, 35 p., ill., maps, statistical tables, En

Taiwan's rich natural resources and its efforts to protect them are documented and displayed in this report. After a brief overview of Taiwan's natural resource base, Section 2 depicts the hierarchial relationships among environmental agencies (headed by the Council of Agriculture and the Ministry of Interior's Department of National Parks, Construction, and Planning and Administration) responsible for implementing Taiwan's environmental legislation on forest management, soil conservation, environmental protection, and regional planning. Section 3 reviews wildlife and forest protection policies, which address habitat preservation, forest resource conservation, endangered species protection, and participation in international species protection efforts. Section 4 profiles each of Taiwan's five national parks, while Section 5 describes its 15 nature preserves and one wildlife sanctuary. Examples of environmental education programs, including visitors' centers, nature centers, interpretative facilities, and school, community, and seasonal programs, are provided in Section 6. Includes a map of protected areas, tables delineating the major features of parks and preserves, and numerous color photographs.

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Council of Agriculture
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-476

Nature conservation in Taiwan, R.O.C.

Biodiversity Assessments, Strategies, and Action Plans

Yang, Hui-Liang; Lee, Fen-Lan
Taiwan. Council of Agriculture, Executive Yuan, Taipei, TW;
Taiwan. Ministry of Interior. Construction and Planning Administration. Department of National Parks, Taipei, TW
Jun 1993, 48 p., ill., maps, statistical table, En

Economic prosperity has not dulled Taiwan's environmental conscience, according to this report, which summarizes the country's nature conservation efforts. A small island with a broad range of environments, Taiwan is dominated by forested mountains, and supports more than 4,000 vascular plant species and a rich assortment of fauna. Its rugged high central mountain area still maintains much of its environmental integrity, but even there economic pressures threaten remaining pockets of wildlife habitat. Inhabitants of the slope include the Formosan macaque, sambar deer, muntjac, Chinese pangolin, and several species of endemic babbler. The report covers: (1) Taiwan's topographical features, wildlife habitats, flora, and fauna; (2) institutions responsible for nature conservation; (3) recent improvements to Taiwan's Wildlife Conservation Law; (4) efforts in habitat preservation, forest conservation, species protection, and international cooperation; (4) examples of wildlife conservation efforts (laws to protect the rhinoceros, public burning of confiscated wildlife products, repatriation to Indonesia of orangutans that had been smuggled into Taiwan, banning of rhino horn and tiger bone from medical use, and suspension of large-scale driftnet fishing); (5) profiles of Taiwan's 5 national parks, 15 nature reserves, and 2 wildlife refuges; and (6) environmental education. An appendix lists major nature conservation events for the period 7/88-6/92. Includes organizational chart and map of protected areas.

Available from:
Department of National Parks
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-650

1993 State of the environment: Taiwan, R.O.C.

State-of-Environment Reports

Taiwan. Environmental Protection Administration, [Taipei], TW
[1994], 494 p., charts, maps, statistical tables, En

Although environmental quality in Taiwan has improved since establishment of the Environmental Protection Administration in 1989, deterioration of the natural environment remains a serious problem, according to this report. Following a brief introduction, Chapter II describes Taiwan in terms of location, geology and topography, weather, soil, and hydrology, while Chapter III estimates pollution emissions and describes Taiwan's system for automatic monitoring of air quality. Chapter IV reviews noise pollution related to traffic, industry, construction, and aviation, and reviews control measures, including a noise monitoring network. Chapter V concentrates on water quality, particularly of drinking water, and measures for controlling water pollution. Chapter VI, on the marine environment, describes the status of territorial waters, and pollution sources, impacts, and prevention measures. Chapter VII discusses measures for controlling industrial wastes, including hazardous waste, and the transport and disposal of urban refuse. Chapter VIII considers the sources and impact of agricultural pollution and prevention measures, including those to protect soil quality. Chapter IX describes efforts to control industrial chemical accidents, while Chapter X reviews energy policy and the environmental impacts of the energy industry. Environmental legislation and institutions are reviewed in Chapter XI. Finally, Chapter XII considers the handling of the growing number of disputes which involve claims for compensation for pollution damage; in many cases, damage victims have resorted to aggressive, even violent, behavior.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-657

Thailand

Thailand environmental profile

State-of-Environment Reports

Japan. Overseas Economic Cooperation Fund, Tokyo, JP;

Soil and Water Ltd., Helsinki, FI
Mar 1992, 2 v., charts, maps, statistical tables, En

The National Environmental Quality Act of 1975 allows Thailand's Ministry of Science, Technology, and Energy to define which of the country's development activities must have an Environmental Impact Assessment (EIA). This report reviews Thailand's environmental status and legislation and offers EIA guidelines for selected development activities. Volume I discusses Thailand's struggle with air, water, solid waste, and noise pollution, soil contamination, and land subsidence; reviews the status of its forests, mangroves, and coral and freshwater ecosystems; and discusses wildlife protection initiatives, and national parks and nature reserves. The volume also reviews Thailand's history, culture, social structure, and ethnic minorities, particularly the hill tribes of northern Thailand, and slum and squatter settlements; reviews EIA implementation procedures; and considers the role of NGOs in environmental issues. Extensive appendices summarize legislation and regulations governing air and water quality, solid waste management, noise pollution, forestry, the use of mangrove ecosystems, mining, and wildlife management, and profile environmental NGOs in Thailand. Volume II contains EIA guidelines for the implementation of activities involving roads, railroads, airports, ports and harbors, water supply, sewerage systems, thermal power and hydropower plants, electric power transmission lines, oil and gas pipelines, cement and fertilizer plants, and mining, irrigation, and forestry activities.

Available from:
Overseas Economic Cooperation Fund
Technical Appraisal Department
Takebashi Godo Building
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Tokyo 100
Japan

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-483

Tibet

Tibet: environment and development issues 1992

State-of-Environment Reports

Central Tibetan Administration. Department of Information and International Relations. Environment Desk, Dharamsala, IN
Apr 1992, 124 p., ill., charts, maps, statistical tables, En

Due to its military occupation by Chinese Communists since 1949, the once pristine state of Tibet, the "roof of the world", today is one of the world's most endangered environments, according to this report. The report depicts the effect of Chinese occupation on Tibet's economy, people, forests, grassland, croplands, water, energy, and mineral resources, and biodiversity. The most significant degradation is on the Tibetan plateau, where large areas are undergoing rapid erosion and desertification, a process which, in the view of some environmental scientists, will have impacts on global climatic patterns extending beyond Asia. In addition, the large influx of Chinese settlers has placed new demands on Tibet's food production system, resulting in degradation of farmland and pastures. More than 40% of Tibet's forests have been cut since 1949, mainly old growth coniferous forests, creating substantial increases in erosion. Thirty Tibetan animals are on the 1990 Red List of Endangered Species, and millions of wild animals and birds have vanished through habitat destruction, uncontrolled hunting, and the wildlife trade. Deforestation and landslides are contributing to extensive siltation of Tibet's great rivers—four of the five most heavily silted rivers in the world are in Tibet. The report presents an action agenda to arrest damage to Tibet's environment, and concludes with a democratic vision of Tibet's future, comprising a decentralized government, an environmental protection agency, and participative decisionmaking involving local communities, U.N. experts, and private organizations. Includes references.

Available from:
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District Kangra, HP
India

Turkey

Environmental policies in Turkey

Other Environmental Studies

Organisation for Economic Co-operation and Development, Paris, FR
1992, 173 p., charts, maps, statistical tables, En

Turkey is undergoing rapid and dynamic change and its economic growth of past few years has placed severe pressure on natural resources and the environment. This review of Turkey's environmental policies first examines the context—physical, human, economic, energy, institutional, and natural resource—within which Turkey's policies must be developed. The next three sections address, in turn, water resource management, urban pollution, and coastal zone management. Each section discusses the current environmental status, evaluates existing policies, and then makes recommendations for policy improvements. A final section draws two general conclusions. First, Turkey should integrate environmental concerns within all economic sectors and government policies, primarily through the development of a high-level policy document (i.e., a "White Paper on Environmental Strategy"). Second, Turkey should make the institutional and financial reforms necessary to implement its new environmental strategy.

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Viet Nam

Biodiversity action plan for Vietnam (Draft)

Biodiversity Assessments, Strategies, and Action Plans

Global Environmental Facility;
World Wide Fund for Nature;
IUCN—The World Conservation Union, Gland, CH;
Vietnam. Biodiversity Action Planning Team, Hanoi, VN
Dec 1993, v.p., ill., charts, maps, statistical tables, En

Vietnam's rich biological resource base includes the world's most recently discovered large mammal, the Vu Quang Ox. However, while the Vietnamese government is aware of the value of the country's living resources, it has so far been unable to ensure their conservation. Following an introduction, Part 2 of this biodiversity action plan evaluates Vietnam's biological resource base, emphasizing declining fish production, timber yields, and forest cover; the increasing scarcity of medicinal plants and wildlife; the extinction of some species; increased soil and coastal erosion; lowering water tables; and pollution. Part 3 reviews priority program areas, including management of the country's nature reserve system, treatment of transfrontier issues, marine and wetlands and ex situ conservation, development of national genebanks, control of trade in endangered species, reforestation and control of forest fires, stabilization of upland farms and Mekong delta mangrove resources, biodiversity monitoring, and research. Part 4 discusses mechanisms for improving biodiversity conservation: improved intersectoral coordination, legislative reform, improved law enforcement, environmental impact assessment, development of pollution control standards, review of forestry policy and practice, and promotion of public participation. Two tables indicating proposed conservation actions are presented in Part 5. Part 6 contains over 50 priority project profiles, with a total cost of $876 million. Lists of endangered and threatened species, as well as protected areas are appended, along with a bibliography.

Available from:
IUCN—The World Conservation Union
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Yemen

National report presented to the United Nations Conference on Environment and Development [Yemen]

UNCED National Reports

Republic of Yemen. Prime Minister's Office.
Environment Protection Council, Sana'a, YE
[1991], 117 p., statistical tables, En

Arguing the moral responsibility of industrialized countries to bear the financial costs of environmental problems, this report describes the state of the Yemeni environment and sets out the conditions under which sustainable development can be achieved in the context, at the time the report was prepared, of the recent unification of North and South Yemen. The major environmental problems facing Yemen are outlined. These include, inter alia, ground water contamination, coastal and ocean pollution, soil erosion and degradation, creeping desertification, and industrial pollution. Discussed next are policies and programs to protect biological diversity, monitor the use and quality of groundwater, combat desertification, promote sustainable agricultural and rural development, protect the marine environment, develop the institutional capacity of the fisheries sector, support environmental research and training, and cooperate in international environmental efforts. An outline of an overall plan for sustainable development leads to a final section devoted to special concerns, with a focus on demographic issues in general and the role of women in Yemeni development in particular.

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Asia and Oceania: Oceania

(Oceania regional)

1991-1995 Action plan for managing the environment of the South Pacific region

Environmental Strategies and Action Plans

South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
Mar 1993, [ii], 30 p., En

The more than 2,000 ecosystems in the Pacific region contain flora and fauna found nowhere else in the world. Unfortunately, most of these ecosystems are threatened by factors ranging from economic development and overharvesting of preferred food and commercial species to collector depletion of rare species and exogenous factors such as climate change and transboundary movement of wastes. Particularly under threat are the region's tropical rainforests, coral reefs, and wetlands, which are of global conservation significance. In response, the South Pacific Regional Environment Programme (SPREP), the region's leading environmental agency, has produced this 1991-95 action plan for managing the South Pacific environment. Part One lists the SPREP's 27 member countries and the key environmental problems faced by the region. Part Two outlines the plan's overall objectives and implementation guidelines, while Part Three outlines specific programs to conserve biological diversity, prevent global warming, integrate environmental and economic planning, improve coastal management and planning, control pollution, respond to pollution emergencies, improve environmental education and training, expand environmental information, and address regional and global environmental concerns. Part Four reviews plan implementation, including responsibilities of the SPREP Secretariat (the implementing agency), the Intergovernmental Meeting, and participating organizations.

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Also Available from:
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Order No.: WRI-695

Environment and development: a Pacific island perspective

UNCED National Reports

Asian Development Bank, Manila, PH;
U.N. Development Programme;
South Pacific Regional Environment Programme, Apia, WS
1992, xvi, 334 p., charts, maps, statistical tables, En

This report synthesizes national reports that were prepared for the United Nations Conference on Environment and Development (UNCED) and relevant additional information concerning sustainable development in the South Pacific region. It is an outgrowth of a process initiated by the South Pacific Regional Environmental Program (SPREP) and assisted by the Asian Development Bank and the United Nations Development Programme which enabled SPREP's 27 members, as a region, and in particular the island countries, to prepare for UNCED. The underlying purpose of this report is to provide detailed information and analysis in support of the official submission to UNCED, The Pacific Way: Pacific Island Developing Countries' Report to UNCED. Part I of this report consists of summaries of 14 SPREP member reports (Cook Islands, Republic of Fiji, Republic of Kiribati, Republic of Marshall Islands, Federated States of Micronesia, Niue, Republic of Palau, Papua New Guinea, Solomon Islands, Tokelu, Kingdom of Tonga, Tuvalu, Republic of Vanuatu, and Western Samoa). Each chapter describes the country's geophysical setting, climate, economic and demographic trends, environmental issues, responses, and tools, and opportunities for sustainable development. Many of the chapters also contain a matrix of issues, constraints and opportunities concerning sustainable development. Part II contains a synthesis of information on the regional setting, economic structure, population growth and structure, and urban and coastal environments, and discusses the changing rural economy, managing the development process, and prospects for sustainable development. Part III contains recommendations and priorities for further action. It provides an overview of the action priorities described in the UNCED report, The Pacific Way, and elaborates on two overall development priorities—education and

environmental management. The latter addresses the need for environmental education and environmental impact assessment. Also in Part III are discussions on the need for land use planning, agroforestry research, regional centers for water management and energy conservation, jobs for young people, and financial aid. Appendices offer supporting statistical data, additional background information, and selected references.

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Australia

Australia's report to the UNCSD on the implementation of Agenda 21: 1995

Agenda 21 National Reports 1995

Australia. Department of the Environment, Sport and Territories, Canberra, AU
1995, vi, 82 p., ill., En

During the past 2 years, Australia has undertaken substantial measures to promote ecologically sustainable development (ESD), both domestically and internationally. Its revised policy statement on ESD, released in October 1994, focuses on the key themes of Agenda 21: the economic and social dimensions of development; conservation and management of resources; and strengthening the roles of major groups. This 1995 report addresses Australia's experience in implementing the following 23 chapters of Agenda 21: combatting poverty; population; integrated decisionmaking; land resources; forests; desertification and drought; mountains; agriculture; biodiversity; biotechnology; women; youth; indigenous peoples; nongovernmental organizations; local government; workers and unions; industry; scientists and the technological community; farmers; finance; technology transfer; science; and information. Included under several of these headings are one or more brief "case studies," highlighting specific activities. For example, under biotechnology there are case studies of the "gene shears" technology and of the use of nematodes to control apple moths; under agriculture are case studies of the wheat and dairy industries and of drought policy. Other case studies include: poverty among indigenous peoples; integrated local area planning; the National Landcare Program; the Land for Wildlife scheme, which involves private landholders in protecting biodiversity; the Environmental Resources Information Network; and grants to voluntary conservation organizations.

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National strategy for the conservation of Australia's biological diversity

Biodiversity Assessments, Strategies, and Action Plans

Australia. Federal Department of the Environment, Sport and Territories, Canberra, AU
[Jun 1994], vi, 80 p., ill., En

Due to its isolation from other continents, a high percentage of Australian species, including 92% of mammals and 85% of flowering plants, occur nowhere else. Australia is also very rich in some groups of species, such as the eucalypts. This National Biodiversity Strategy presents an approach for preserving Australia's diversity at the genetic, species, and ecosystem levels. Initial sections address the following issues: (1) Australia's conservation objectives, e.g., concerning in situ and ex situ conservation, wildlife conservation, and the ethnobotanical knowledge of indigenous peoples; (2) integrating biodiversity conservation and natural resource management in the various economic sectors such as agriculture, pastoralism, fisheries, forests, water, tourism, and recreation; and (3) managing environmental threats, including exogenous species and genetically modified organisms, pollution, fire, and climate change. The remaining sections deal with improving scientific knowledge of the environment, educating the community, Australia's international role, and implementation issues such as priorities and time frames, coordination and review, legislation, and funding. A technical description of Australia's biological diversity and a glossary of terms are appended.

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Department of the Arts, Sport, Environment and Territories
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Order No.: WRI-520

Summary report on the implementation of the national greenhouse response strategy

Climate Change Assessments, Strategies, and Action Plans

National Greenhouse Steering Committee
1993, 63 p., En

This is the first of two reports which will contribute Australia's national communication under the Framework Convention on Climate Change. This report, which is required by Australia's National Greenhouse Response Strategy (NGRS), is a progress report on the implementation of first phase response measures. It contains four parts: an introduction; an overview of progress in areas identified as high priority and a brief summary of progress in other areas; conclusions; and an annex organized along sectoral lines containing a detailed assessment of progress with implementing response measures. Priority areas for action include: preparation of a National Greenhouse Gas Inventory; involving the community in strategy implementation and development; establishing a National Greenhouse Advisory Panel and the National Greenhouse Gas Inventory Committee; and developing measures to address greenhouse gas emissions in the production and use of energy (with initial emphasis on integrated low-cost approaches to energy planning, energy pricing to better reflect economic, social, and environmental costs, greater use of cogeneration schemes in energy supply, minimum energy performance standards for appliances and equipment in the household, industrial, and commercial sectors, fuel efficiency improvement in motor vehicles, and information for energy users). The report also notes actions in the areas of urban and transport planning, agriculture, natural environment, adaptation, research into climate change and impacts of response actions, community education and information, and implementation, monitoring, evaluation and review of the NGRS. The report concludes that considerable progress has been made in implementing first phase measures, particularly in the energy sector. Among these are progress towards the following: a competitive electricity market (this involves structural changes to encourage third-party generation and delivery of electricity); removing impediments and barriers to free and fair trade in natural gas, within and between jurisdictions of Australia and New Zealand; examining yardstick performance in energy utilities and possible performance indicators; and requiring public utilities to account for their performance against agreed indicators (including greenhouse indicators) and benchmarks.

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National strategy for ecologically sustainable development [Australia]

Environmental Strategies and Action Plans

Commonwealth of Australia, Canberra, AU
1992, 128 p., En

Ecologically Sustainable Development (ESD) represents one of the greatest challenges that will face Australia's governments, industry, business, and communities in the coming years. In December 1992, the Council of Australian Governments endorsed this National Strategy for ESD. After an introduction and an overview of the Strategy's goals and guiding principles, Part 2 examines sectoral objectives in agriculture, fisheries, forestry, management, manufacturing, mining, urban transport planning, tourism, and energy. Part 3 discusses intersectoral issues such as biological diversity, environmental protection, gender issues, employment, coastal management, water management, etc. The final part examines the future development of ESD in Australia in terms of conflict management; community awareness, education, and participation; and monitoring and evaluation. Appendices include a summary of the Intergovernmental Agreement on the Environment, the Rio Declaration on Environment and Development, and a guide to Agenda 21, a comprehensive international action plan for environment and development.

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Australia's environment: issues and facts

State-of-Environment Reports

Castles, Ian
Commonwealth of Australia. Bureau of Statistics. Industry Division. Environment and Natural Resource Statistics Unit, Belconnen, AU
1992, xi, 354 p., charts, maps, statistical tables, En

Compared with other countries of the Organization for Economic Cooperation and Development (OECD), Australia is one of the higher emitters of greenhouse gases per capita and has one of the faster growing populations. This report, the first in a planned biennial series, presents a great number of statistics on Australia's environmental status, with chapters covering flora and fauna, atmosphere, water, land and soil resources, and human settlements. The data, which are drawn from a variety of sources, are presented according to a framework for environmental statistics developed by the U.N. Statistical Office (UNSO), and describe each resource sector in terms of background, status, the impact of human activities affecting it, and conservation and other policy responses. While data and maps predominate (the chapter on flora and fauna alone containing 31 tables and 13 maps), narrative text provides the context within which to view the statistical data. A final chapter discusses the workplan used in preparing the reports and identifies key areas for future study: the environmental goods and services industry; the activities of the Waste Minimization Taskforce; energy; and geographically delineated environmental statistics. Each chapter includes a bibliography.

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Internet: http://www.statistics.gov.au/

Cook Islands

Cook Islands: national environmental management strategy

Environmental Strategies and Action Plans

U.N. Development Programme;
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
1993, xxii, 126 p., ill., statistical tables, En

The Cook Islands is made up of 15 small islands scattered across 1.8 million square km of the South Pacific Ocean, of which 12 are inhabited. This report describes the Islands' National Environmental Management Strategy. Part I provides a brief overview of the Cook Islands' physical features, flora, wildlife, marine life, cultural heritage, people, and economy. Part II reviews the goals of the NEMS, which are to integrate environmental considerations in economic development, improve environmental awareness and education, manage and protect natural resources, and manage waste and control pollution—as well as the strategies and programs that should be pursued during the next 5 years. Part III reviews aspects of NEMS implementation, including implementing agencies, staff resources required, and estimated program costs. Appendices contain profiles of some of the programs identified in Part II, and a brief discussion of the country's environmental policies. In all, 26 fundable programs are identified, at a total cost of $7.795 million; the two largest (which may be attractive for loan funding) are the Atoll Water Catchment and Storage Program, and the Northern Island Solar Electrification Program.

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Cook Islands: state of the environment report

State-of-Environment Reports

Rongo, Teariki
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
1993, xxi, 90 p., map, statistical tables, En

The environmental health of the Cook Islands, made up of 15 small islands scattered over some 1.8 million sq km of the South Pacific Ocean, has suffered over the last 50 years from agricultural activities and from tourism and tourist-related activities. This report describes the Islands' physical, biologic, cultural, demographic, and economic features; identifies key environmental issues; and examines public and private responses to those issues, as well as the effectiveness of those responses. Specific problems identified in the report include inadequate waste management (a growing problem felt by each of the islands through contaminated coasts and marine resources), an insufficient amount of land (a total of 240 sq km) for developmental purposes; overfishing and destructive fishing practices; and overdredging of lagoons and coral rubble beds. Despite extensive efforts in environmental policy and legislation, institutional development, financial investments, education, and environmental projects, these problems are still not under control. While the failure of these efforts may be related tc their recent initiation, it can also be traced to their fragmentary approach and to the lack of sufficient environmental data. Recommendations are made regarding environmental policy, law enforcement reform, institutional arrangements (including the roles of nongovernmental organizations), and the implementation of specific environmental programs and projects. A summary of topography, reef systems, and main environmental features of each island is appended. Includes bibliography.

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Fiji

Environmental synopsis: Fiji

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 41 p., maps, statistical tables, En

Fiji's 300 islands represent one of Oceania's most important centers of biodiversity. However, its environment is threatened by a high population to arable land ratio, severe pollution around towns, inadequate environmental administration, land tenure systems that discourage conservation, and few effectively managed protected areas. The government is taking steps to promote sustainable development, including encouraging multisectoral development and family planning, and has prepared a policy document for a national environmental strategy. Fiji also has legislation for wildlife protection that in many respects is 70 years ahead of its time. This environmental review of Fiji was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Fiji's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in Fiji. Includes detailed maps and a bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-405

National environment strategy: Fiji

Environmental Strategies and Action Plans

Watling, Dick, comp.; Chape, Stuart, comp.
Fiji. Ministry of Housing and Urban Development. Environment Unit, Suva, FJ;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
1993, xiii, 102 p., statistical tables, En

Although Fiji has many positive physical and cultural attributes upon which it can draw, it faces significant environmental constraints which are compounded by inadequate environmental policies, legislation, and administration. However, Fiji is fortunate in still having the opportunity to concentrate its National Environmental Strategy on addressing the sources of the environmental problems rather than the effects. After an introduction, this paper discusses the state of Fiji's environment, including (1) population and demography; (2) natural resources; (3) land use; (4) forestry; (5) fisheries; (6) urban development; (7) water supply; (8) tourism; (9) mining; (10) energy; (11) economic development; (12) waste management; (13) environmental management; and (14) protected area management. The next section presents a strategy framework for sustainable national development. The fourth section presents the Action Plan. Issues include environmental policies, strengthening the Department of Environment, environmental legislation, protection of Fiji's natural and cultural heritage, land use planning, and control of land degradation. Section five discusses implementation, including outlines of fifteen projects. A list of National Environmental Management Project reports and a register of sites of national significance are appended. Includes references.

Available from:
Environment Unit
Ministry of Housing and Urban Development
Government Buildings
Suva
Fiji

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-485

Kiribati

National Environmental Management Strategy

Environmental Strategies and Action Plans

South Pacific Regional Environment Programme;
U.N. Development Program
1993, 80 p., ill, maps, tables, En

For many generations, traditional management of the resources of this small Central Pacific island nation ensured a plentiful supply of marine life for the Kiribati people. Today, changes in Kiribati lifestyle, brought about by high rates of population growth, imbalance of population distribution, and a movement towards western-oriented materialism, among other factors, are placing increasing and intensifiying demands on the environment and natural resources. The government of Kiribati, endeavoring to keep pace with that change, has committed itself through its National Development Plan to the development and implementation of ecologically sustainable development practices. This report proposes a National Environmental Management Strategy (NEMS) as an aid in fulfilling this commitment. The report identifies Kiribati's major environmental issues and the priority environmental programs required to address them. The first chapter describes the purpose and scope of the NEMS and the second provides a brief overview of the Republic of Kiribati in terms of its location, size, climate, land and sea resources, culture, history, people, government, resource ownership, and economic development. Strategies for attaining sustainable development are presented in five chapters: Integrating Environmental Considerations into Economic Development; Improving Environmental Awareness and Education; Development and Protection of the Resource Base; Improving Waste Management and Pollution Control; and Balanced Development, Planned

Urbanization, and Lower Population Growth Rates. Among the elements requiring immediate attention are the introduction of environmental impact assessment, the development of national environmental legislation, and the conservation of Kiribati's precious marine resources. The Kiribati Task Force on the Environment (KTFE), which was originally set up to oversee the preparation of the Kiribati national report for UNCED and has since been formally established to consider policy guidelines on environment aspects, is proposed as the most appropriate body to oversee the implementation of NEMS. The report concludes with a range of program profiles which specify requirements (including funding and manpower) necessary to address the range of environmental issues identified in the report.

Available from:
South Pacific Regional Environment Programme
PO Box 240
APIA, Western Samoa
Tel: +685 21 929; Fax: +685 20 231
E-mail: sprep@pactok.apc.org

Kiribati: state of the environment report 1994

State-of-Environment Reports

Wilson, Craig
Kiribati. Ministry of Environment and Natural Resources Development. Environment Unit, Tarawa, KI;
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1994, xvi, 46 p., ill., charts, map, statistical tables, En

Kiribati's environmental problems are concentrated in burgeoning urban areas such as South Tarawa, where changing lifestyles have resulted in unmanaged waste disposal, inefficient sewage services leading to contaminated groundwater and lagoons, the emergence of land-poor squatter areas, and the loss of terrestrial and coastal vegetation. Chapters II-IV of this report describe Kiribati's physical (geography, climate, hydrology, geological development of coral atolls, soils, and mineral and energy resources), terrestrial (vegetation types, flora, and fauna), and marine environments, including trends in the fishing industry. Chapter V describes Kiribati's cultural heritage, which includes traditional fish conservation practices now threatened by the introduction of Western technologies; the current challenge is to reintroduce traditional conservation practices as integral elements of a sustainable development plan, especially in South Tarawa. Chapter VI reviews the country's social and economic environment, while Chapter VII addresses issues related to water quality, solid and hazardous waste disposal, coastal erosion, causeway and boat channel construction, vegetation clearance, environmental awareness and education, oil pollution, population and urbanization, wildlife, and plant and animal quarantine; international issues of global warming and sea-level rise, radiation testing and transport, and toxic waste dumping are also examined. Chapter VIII discusses public and private environmental initiatives, legislation, land use planning and management, and international conventions and fora. Includes references.

Available from:
South Pacific Regional Environment Programme
PO Box 240
Apia
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Tel: +685 21929; Fax: +685 20231
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-682

Marshall Islands

Republic of the Marshall Islands: national environmental management strategy

Environmental Strategies and Action Plans

Crawford, Martha J.
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH;
Republic of the Marshall Islands. National Task Force on Environmental Management and Sustainable Development, MH
U.N. Development Programme
1993, 2 v., ill., charts, statistical tables, En

The Marshall Islands, an important sanctuary to several endangered mammals, birds, and turtles, faces many environmental problems: a rising sea level, solid and hazardous waste accumulation, contamination of fresh water supplies, destruction of coral reefs, eutrophication and pollution of coastal waters, coastal erosion, and the potential for the overexploitation of renewable resources.

This two-volume report identifies and describes the major environmental challenges currently facing the Marshall Islands. The national context is developed in the first two chapters, Chapter 1 providing a brief review of the nation's natural environment and Chapter 2 describing development trends. Major environmental challenges and their root causes are identified and described in Chapter 3. Chapter 4 then presents a discussion of institutional and legal responses to these problems. A concluding Chapter 5 defines five program areas for future action directed toward strengthening the nation's environmental management capabilities. Profiles of proposed action programs that follow from Chapter 5 are detailed in Volume 2. Appendixes 1 and 2 contain supplementary information on the nation's natural and political history, while the state of the cultural environment is contained in Appendix 3. Includes bibliography. (Author abstract, modified)

Available from:
South Pacific Regional Environment Program
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Tel: +685 21929; Fax: +685 20231
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-486

National report: Republic of the Marshall Islands

UNCED National Reports

Republic of the Marshall Islands. Presidential Task Force on Environmental Management and Sustainable Development, Majuro, MH
Jul 1991, 42 p., map, statistical tables, En

The natural environment in the Marshall Islands has always had a profound influence on the people and their culture. Marine resources include fisheries (pelagic, reef, and lagoon), pristine reefs, and unspoiled coastal areas, all of which provide opportunities for sustainable economic development (through commercial fisheries, mariculture, and low-impact ecotourism). Land resources are limited, but they too offer considerable contributions to the Islands' economic base. The Marshall Islands' major environmental issues center around high population densities in urban areas and include problems relating to unsafe drinking water, marine water quality, and waste disposal. Constraints to addressing these issues include a complicated land tenure system, overemphasis on capital development and "modernization," a lack of public awareness of resource issues, and poor coordination among agencies, public and private. Fortunately, the Marshall Islands has a well-developed infrastructure to address these problems: its Environmental Protection Authority, for example, has broad powers to protect the environment. This report describes (1) development trends in the country and their environmental impacts; (2) responses to development/environmental issues (policies, legislation, institutions, specific programs and projects, training and educational efforts, and private sector initiatives); and (3) the government's plans for sustainable development. Includes references.

Available from:
UNDP Resident Representative
3rd Floor ANZ Building
Victoria Parade
Suva
Fiji
Tel: +679 312500; Fax: +679 301718

Micronesia

Federated States of Micronesia: nationwide environmental management strategies

Environmental Strategies and Action Plans

U.N. Development Programme;
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
1993, xxii, 154 p., ill., statistical tables, En

The Federated States of Micronesia (FSM), a recently independent nation created in 1986, has only 271 square miles of land area (including several relatively large and mountainous islands and more than 200 islets and atolls), yet over 1 million square miles of marine area. The 18 FSM national environmental strategies and 39 proposed programs described in this report were selected by participants at the first FSM National Environmental Management Seminar to be initiated over the nation's 5-year Second National Development Plan period (1992-1996). Suggested actions are in four categories: (1) integrating environmental considerations in economic

development (the major recommendation is to create a Nationwide Board on Environment and Sustainable Development): (2) improving environmental awareness and education; (3) managing and protecting natural resources; and (4) improving waste management and pollution control. A fifth section focuses on implementation issues, particularly on engaging political support from the Government and financial support from the donor community. While the main report is designed for policy planners and decisionmakers, appendices present detailed program information and profiles of particular interest to multilateral and bilateral donors; of the 39 proposed programs, 31 would require significant external funding support, at a combined cost of $11.445 million over the period 1992-98. Includes references.

Available from:
South Pacific Regional Environment Program
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-487

Federated States of Micronesia: state of the environment report

State-of-Environment Reports

Gawel, Michael J.
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
1993, ix, 52 p., map, statistical tables, En

In recent years, economic and population pressures in the Federated States of Micronesia (FSM), combined with changes in residents' lifestyles, have induced accelerated environmental change. This report represents a key background and reference document for the preparation of a National Environmental Management Strategy for the FSM. It summarizes the current state of knowledge about the environment in areas such as geology, vegetation, fauna, and marine resources. The natural resources of the FSM are similar to those of other Pacific islands, but have not been well assessed: identifiable ecological zones include, on land, beach strand, swamp forest, secondary forest, marsh, grassland, primary forest, rain forest, and crest forest, and in marine areas, deep ocean, reef flat, reef slope and lagoon, and mangrove forest—coral reefs in particular have high diversity and pristine conditions, although they have been modified locally by human activity. Chapter 2 examines development trends and their environmental impacts, and identifies leading constraints to environmentally sustainable development, which revolve around a lack of infrastructure, skilled persons, institutional capacity, or planning capabilities. Chapter 3 discusses existing responses to environmental issues, including national and state policies, regulations, institutions, programs and projects, the activities of nongovernmental organizations and FSM's participation in regional environmental activities. Chapter 4 identifies priority needs and suggests actions in four areas: institution building; policy making; program development; and training.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-683

New Zealand

New Zealand report to the Commission on Sustainable Development, 1994

Agenda 21 National Reports 1994

New Zealand. Ministry for the Environment, Wellington, NZ
Mar 1994, 28 p., En

New Zealand's 1994 Agenda 21 report contains an overview of the country's strategy in following up on the U.N. Conference on Environment and Development; reports on an analysis carried out by 30 government departments of the significance of Agenda 21 for New Zealand's domestic policy; and describes legislative and institutional changes made. To promote public participation in the Agenda 21 process, New Zealand has prepared a "Guide to Agenda 21" for use by local

governments and communities, initiated a "Youth Response to Agenda 21," and is helping to prepare a Maori response. This report also details New Zealand's actions with respect to the Agenda focus issues for 1995, both (1) cross-sectoral (trade, changing consumption patterns, and financial resources and mechanisms); and (2) sectoral (human health, human settlements, freshwater, toxic chemicals, and hazardous and solid wastes).

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Environment Division
Ministry of Foreign Affairs and Trade
Private Bag 18901
Wellington
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Internet: http://www.mft.govt.nz/

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-731

New Zealand report to the Commission on Sustainable Development 1995

Agenda 21 National Reports 1995

New Zealand. Ministry for the Environment, Wellington, NZ;
New Zealand. Ministry of Foreign Affairs and Trade, Wellington, NZ;
New Zealand. UNCED Implementation Officials Group, Wellington, NZ
Mar 1995, 89 p., statistical tables, En

New Zealand's 1995 report to the U.N. Commission on Sustainable Development details the country's progress in implementing Agenda 21. Some key achievements include: (1) establishment in May 1993 of an Implementation Officials Group, comprising representatives from a wide selection of government agencies, to coordinate New Zealand's responses to the June 1992 U.N. Conference on the Environment and Development (UNCED); (2) release in October 1994 of a draft environmental strategy, entitled Environment 2010, for public review; and (3) community-level development of local Agenda 21 plans. The report is divided into two parts, covering (1) cross-sectoral issues, including environmentally sound management of biotechnology, science for sustainable development, and information for decision making; and (2) sectoral issues, including land management, deforestation, desertification and drought, mountain ecosystems, agriculture and rural development, and biological diversity. The overall framework for New Zealand's sectoral activities is provided by the Resource Management Act of 1991, which is still the key piece of environmental legislation in the country. Appendix 1 identifies the national-level coordination structure for Agenda 21, and Appendix 2 lists titles of legislation relevant to biodiversity conservation.

Available from:
Infoterra NFP
Ministry of Environment
P.O. Box 10362
84 Boulcott Street
Wellington
New Zealand
Tel: +64 4 471 4090; Fax: +64 4 471 0195

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-740

Environment 2010 strategy: a statement of the government's strategy on the environment

Environmental Strategies and Action Plans

New Zealand. Ministry for the Environment, Wellington, NZ
Oct 1994, 55 p., charts, En

Environment 2010 Strategy provides a strategic overview of New Zealand's environmental policies and legislation and a framework of the government's strategy for the environment within which the private sector and local government can carry out their strategic and operational planning. Chapter 1 sets out the government's vision for the New Zealand environment to the year 2010; this vision is holistic, recognizing the interdependence and interaction of people and the natural and physical environment. Chapter 2 discusses environmental values in a market economy and the need to minimize or resolve conflicts between objectives of economic growth and environmental quality. Chapter 3 outlines 12 principles for integrating environment and economy: sustainable management; environmental bottom lines; internalization of environmental costs; environmental compensation;

sustainable property rights; least-cost policy tools; social costs; pricing of infrastructure; science, research and technology; "the precautionary principle;" defining the limits of natural resource use; and protecting New Zealand's international competitiveness. Chapter 4 examines New Zealand's environment today in terms of natural advantages, strengths, current problems, opportunities, and threats. Chapters 5 and 6 present goals and proposed actions, respectively, for nine priority issues: protecting indigenous habitats and biological diversity; managing pests, weeds and diseases; managing pollution, waste and hazardous substances; managing land resources; managing New Zealand's water resources; sustainable fisheries; managing the environmental impacts of energy services; responding to the risk of climate change; and restoring the ozone layer. Case studies are included. Chapter 7 discusses the need for comparative risk assessment for each priority area and how the results will be used. Chapter 8 identifies governmental and nongovernmental groups and their roles in implementing Environment 2010 Strategy. Chapter 9 lists conditions which must be met to achieve the vision presented in Chapter 1, and Chapter 10 presents a five-part environmental management agenda to help achieve the vision. Chapter 11 illustrates the process of setting priorities for the environment and monitoring outcomes. A glossary of terms is included.

Available from:
Ministry of the Environment
PO Box 10362
Wellington
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Tel: +64 4 473 4090; Fax: +64 4 471 0195
Internet: http://www.mfe.govt.nz/

New Zealand's national report to the United Nations Conference on Environment and Development: forging the links

UNCED National Reports

New Zealand. Ministry for the Environment, Wellington, NZ;
New Zealand. Ministry of External Relations and Trade, Wellington, NZ
Dec 1991, [118 p.], ill., charts, maps, statistical tables, En

Because of New Zealand's recent settlement (the Maori arrived only 1,000 years ago, and European settlement did not begin in earnest until 1840), human modification to the country's environment has been unusually rapid and intense, and in many areas has irreversibly altered the landscape, replacing indigenous forest and grassland with introduced plantations and pastures. Following an introduction, Chapter II of this report briefly describes the country's economic and cultural development and its environmental conservation movement, while Chapter III describes human, scientific and technological, and natural resources, including climate, land, freshwater, mineral, and energy resources; ecosystems; fisheries; tourism; and industrial, transportation, and urban infrastructures. Chapter IV provides a detailed exploration of the key issues addressed at the June 1992 Earth Summit (atmospheric protection, energy, forest management, freshwater resources, oceans, land resources, biological diversity, biotechnology, waste management, and human health), describing the policies and actions New Zealand has devised to deal with them. Chapter V examines New Zealand's environmental bodies and legislation, including the landmark Resource Management Act (1991) and recent Acts that uphold Maori rights set forth in the 1840 Treaty of Waitangi. Chapter VI includes excerpts of public comments made during the preparation of the report. Appendices contain the Treaty of Waitangi, the Report on New Zealand Environmental Management (1987-91) by the Parliamentary Commissioner for the Environment, and references.

Available from:
Ministry for the Environment
P.O. Box 10362
Wellington
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-602

Niue

Niue: national environmental management strategy

Environmental Strategies and Action Plans

South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1994, xx, 57 p., ill., map, En

Programs for achieving sustainable environmental management on the small island nation of Niue are briefly profiled in this environmental strategy statement. A total of 36 programs are presented in six strategic areas: (1) integrating environmental considerations into sustainable economic development; (2) improving environmental awareness and education; (3) strengthening the resource information base; (4) protecting areas of high ecological, wilderness, and cultural value; (5) improving waste management and controlling pollution; and (6) achieving sustainable use and management of natural resources. The report also discusses the formal establishment of an Environment Task Force to implement the various programs, and notes that their total cost far exceeds the country's resources. According to the report, Niue will be fortunate if even a small percentage of the proposed activities attract funding before the end of the century. Includes references.

Available from:
South Pacific Regional Environment Programme
PO Box 240
Apia
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Tel: +685 21929; Fax: +685 20231
E-mail: sprep@pactok.apc.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-708

Niue: state of the environment report—1993

State-of-Environment Reports

Lane, John
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1994, xvi, 53 p., ill., En

Niue's extensive subterranean freshwater "lens," which supplies nearly all of the country's domestic and stock needs, is threatened by contamination from inadequate disposal of animal and human waste and agricultural chemicals, as well as by extensive forest clearing. This is one of the findings of this environmental review of the small Pacific nation of Niue, which is known as the largest and highest coral atoll in the world. Niue has a land area of only 229 sq km and a population of 2,443 (and declining). Other findings concern the need for surveys to measure the abundance and distribution of species, and for a flora and fauna management plan to ensure the survival of threatened species such as the coconut crab, the fruit bat, and the Pacific pigeon. Niue's economy is substantially dependent on overseas aid (principally from New Zealand), and the government has a very limited capacity to finance environmental protection projects, so it is important that such projects be implemented through traditional family and village social structures. Niue has begun to incorporate environmental themes into school and community programs, and public environmental awareness is already fairly high. The country's environmental legislation, on the other hand, is inadequate; needed in particular are laws related to pollution, vegetation management, and land use planning. Includes references.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-685

Palau

Republic of Palau: national environmental management strategy

Environmental Strategies and Action Plans

Maiava, Iosefa
Republic of Palau. Bureau of Natural Resources and Development, Koror, PW;
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1994, xxii, 108 p., ill., map, statistical tables, En

Palau's natural beauty and rich biodiversity remain spectacular, and the country has thus far escaped some of the major environmental problems facing its South Pacific neighbors. On the other hand, there are serious pressures on Palau's natural resources, largely due to the replacement of Palau's traditional conservation ethic by modern practices. This document describes a National Environmental Management Strategy (NEMS) for Palau. Part 1 provides the framework for the NEMS as well as an overview of Palau's natural and human resources. Part 2 covers the proposed NEMS, grouping its strategies under four general headings: (1) creating an enabling framework for environmental policy, planning, and management; (2) human resources management (including population management, pollution control, education and information, and management of cultural, archaeological, and historical resources); (3) sustainable natural resources management (including sustainable tourism, marine resource, and agricultural development) and preservation of reserve areas; and (4) environmental monitoring and reporting. Part 3 provides 20 detailed project profiles, intended as practical starting points for implementation of the NEMS; these profiles may be amended over time, but they provide an indication of the Government of Palau's funding priorities. References are included.

Available from:
South Pacific Regional Environment Programme
PO Box 240
Apia
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Tel: +685 21929; Fax: +685 20231
E-mail: sprep@pactok.apc.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-709

Republic of Palau: state of the environment report—1994

State-of-Environment Reports

Otobed, Demei O.; Maiava, Iosefa A.
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1994, xviii, 82 p., ill., statistical tables, En

Each section of this environmental assessment of Palau highlights actions that could be adopted toward development of a National Environmental Management Strategy. For the short-term, the environmental condition of all the Palauan islands can be considered good, and the country's marine environment remains one of the world's most pristine ecosystems. The major long-term concerns for Palau relate to demographics (the population is expected to almost double between 1990 and 2005, mainly around Koror) and the increasing pressures from new infrastructural and industrial development. This pressure is the principal cause of depletion of some natural stocks, damage to habitats, decline in water and sanitation services, and difficulties in managing solid and chemical wastes. Part I of the report describes Palau's climate, geological formations, and terrestrial and marine habitats. Part II discusses the need for increased environmental awareness and research, and argues that Palau's rich cultural heritage, including kinship ties, traditional land and sea conservation practices, and communication forms (i.e., legends, songs, and dances) could be used to promote environmental conservation. Part III describes the economy and the built environment, while Part IV discusses environmental management, legislation, and policy, and spells out priority environmental programs by sector. Finally, specific environmental actions are suggested in Part V. Includes references.

Available from:
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-686

Papua New Guinea

Papua New Guinea conservation needs assessment

Biodiversity Assessments, Strategies, and Action Plans

Alcorn, Janis B., ed.
World Wildlife Fund—U.S.;
Nature Conservancy;
World Resources Institute;
U.S. Agency for International Development. Bur. for Research and Development. Ofc. of Environment and Natural Resources
1993, 2 v., maps, statistical tables, En

Papua New Guinea's (PNG's) tropical forests and freshwater wetlands are equal in biological importance to the Amazon and Congo Basins, while the coastal and marine areas around the country are among the most diverse aquatic systems in the world. Yet PNG's rich biodiversity is under immediate threat from unmanaged development and nonsustainable resource extraction. Volume 1 of this conservation needs assessment contains reports prepared by individual specialists on conservation issues and opportunities; topics discussed include environmental laws, Melanesian land and resource tenure traditions, the role of nongovernmental organizations, institutional issues, options for establishing a biodiversity data center, a proposed forest conservation project, and environmental policy. This volume also presents information from a March 1992 conservation needs assessment workshop, including consensus maps of biologically important areas, points of agreement among participants, issues that remain to be resolved, and recommendations. Volume 2 contains a biodiversity analysis, including detailed taxonomic reviews of Papua New Guinea's flora, warm-blooded vertebrates, fishes, amphibians, reptiles, and nonmarine invertebrate fauna; and ecological analyses of freshwater wetlands, coastal marine environments, and humid forests. Extensive bibliographies and species lists are included.

Available from:
Biodiversity Support Program
c/o World Wildlife Fund
1250 24th Street NW
Washington DC 20037
USA
Tel: +1 202 861 8303; Fax: +1 202 861 8324

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABN-952

Country environmental profile of Papua New Guinea

State-of-Environment Reports

Australian International Development Assistance Bureau, Canberra, AU
1994, xvi, 104 p., ill., charts, maps, statistical tables, En

In Papua New Guinea, which is only at the beginning stages of industrialization, economic development with minimal environmental degradation is a distinct possibility. This report reviews the principal environmental problems faced by Papua New Guinea and international, particularly Australian, efforts to mitigate them. Section I reviews Papua New Guinea's social and economic context, while the country's environmental characteristics and related issues, primarily those associated with its small-scale agricultural, mining, and fishing activities, are reviewed in Section II. Section III reviews the government's environmental initiatives. international environmental assistance, particularly that provided by the Australian International Development Assistance Bureau (AIDAB). Section V identifies environmental priorities, while Section VI broadly outlines Australian capabilities in these key areas. A list of contacts is included. Appendices discuss specific activities funded by AIDAB, the Australian Centre for International Agricultural Research (ACIAR), and other donors. Includes bibliography.

Available from:
Environment, Agriculture and Physical Infrastructure Section
Australian International Development Assistance Bureau
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-481

Solomon Islands

Environmental synopsis: Solomon Islands

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 35 p., maps, statistical tables, En

The Solomon Islands, a British Commonwealth State of 1,000 small islands in the South Pacific, ranks high on the list of threatened ecosystems, but has only a fledgling protected areas network and piecemeal and poorly enforced environmental legislation. Unsustainable timber extraction in particular represents a major threat to remaining ecosystems. Fortunately, there are indications that conservation awareness is increasing among the public as well as in government. This environmental review of the Solomon Islands was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines the Solomon Islands' institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international organizations working in the Solomon Islands. Includes bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
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Also Available from:
U.S. Agency for International Development
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Order No.: WRI-430

Solomon Islands: national environmental management strategy

Environmental Strategies and Action Plans

U.N. Development Programme;
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
1993, xxiv, 160 p., ill., statistical tables, En

Solomon Islands includes a diversity of landforms and life forms, including twice the number of bird species of any other Pacific Island country. In 1991, Solomon Islands developed a National Environmental Management Strategy (NEMS), which blueprints the country's environmental priorities until the end of the decade. Part I of this review of the NEMS provides a brief overview of Solomon Islands in terms of location, size, climate, land and marine resources, people, and economy. Part II presents a variety of environmental action strategies, grouped under the following general objectives: integrating environmental concerns and economic development; promoting environmental awareness and education; strengthening the resource base; protecting areas of high ecological, wilderness, and cultural value; improving waste and pollution management; and ensuring safe, sustainable use of land, forest, marine, coastal, mineral, and energy resources. Part III very briefly discusses issues concerning implementation and review of the NEMS. Appendices provide brief profiles of 41 specific NEMS projects, as well as a table summarizing costs. Includes bibliography.

Available from:
South Pacific Regional Environment Program
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Apia
Western Samoa
Tel: +685 21929; Fax: +685 20231
E-mail: sprep@pactok.apc.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-488

Solomon Islands: state of the environment report—1993

State-of-Environment Reports

Leary, Tanya
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH
1992, x, 65 p. + appendices, statistical tables, En

Solomon Islands' 6 major and 992 smaller islands, atolls, and reefs contain a greater diversity of animals—many of them endemic—than any other Pacific Island nation. This report synthesizes existing knowledge about Solomon Islands' natural resources and environment and was produced as background for a proposed National Environmental Management Strategy. Chapter 2 surveys the terrestrial environment—geology and geomorphology, vegetation and forests, and fauna—and identifies biological diversity and known endangered species. Chapter 3 does the same for marine habitats (coral reefs and lagoons, mangroves, and seagrass beds) and marine fauna and flora (fish, mollusks, reptiles, mammals, etc.). Chapter 4 briefly surveys cultural and archaeological resources, while Chapter 5 focuses on the socioeconomic and demographic situation. Chapter 6 provides an overview of environmental issues. These include population growth (at 3.5%, one of the highest rates in the world); lack of environmental information, awareness, and institutional capabilities; threats to terrestrial flora, fauna, and ecosystems; degradation and overharvesting of coastal and marine resources; marine pollution; inadequate solid waste disposal and other urban environmental problems; land degradation; threats from pesticides and other agrochemicals; and possible future mining activities. A major concern is the almost complete lack of reforestation in relation to the rate of logging. Includes species lists and references.

Available from:
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Tel: +685 21929; Fax: +685 20231
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-687

Country report for the 1992 UNCED conference: Solomon Islands—final report

UNCED National Reports

Hibberd, John J.; Schenk, John
Solomon Islands. Ministry of Natural Resources. Division of Conservation and Environment, Honiara, SB;
U.N. Development Programme;
South Pacific Regional Environment Programme, Apia, WS
Aug 1991, 80 p., En

Even among the Pacific islands, notable for their high biodiversity, the Solomon Islands with its many endemic species stands out. However, the country has no effective protected area system at present. The first section of this report presents basic information covering (1) natural resources (ecological, agricultural, timber, marine, and mineral) and their relation to land ownership, traditional customs, and village life; (2) economic activity; and (3) demographic and social trends. The section concludes by examining a range of natural resource and environmental issues; customary ownership of resources, often accompanied by disputes over utilization rights, is identified as a major constraint. The second section examines legislation, policies, and strategies at the national and provincial levels; assesses public and private sector environmental organizations; lists specific programs and projects with environmental components; and concludes with an overview of environmental training, education, and public awareness programs. The third and final section investigates options for addressing issues relating to sustainability and development. Major issues are identified and prioritized, and a prospective timeline is developed covering survey and inventory work, legislation, and strengthening of key institutions; possible constraints are also identified. Recommendations are presented in a variety of areas, ranging from ecoforestry and ecotourism to management

of inshore fisheries and village gardens, to government decentralization and budget deficit.

Available from:
UNDP Resident Representative
Private Mail Bag
Suva
Fiji
Tel: +679 31 25 00; Fax: +679 30 17 18

Tokelau

Tokelau environmental management strategy: action strategy for strengthening environmental management and sustainable development (Tokelau 2000)

Environmental Strategies and Action Plans

Toloa, Foua
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1995, xvii, 56 p., ill., maps, statistical tables, En

This environmental strategy for Tokelau profiles 20 action plans in key environmental areas. These are to: (1) develop a national environmental management and planning policy; (2) strengthen the Environment Unit of the Department of Natural Resources and Environment; (3) develop Environmental Impact Assessment guidelines and procedures; (4) review village environmental laws; (5) formulate environmental regulations; (6) upgrade the environmental curriculum for schools; (7) improve community environmental awareness; (8) record and document traditional natural resource management and conservation practices; (9) translate environmental documents into Tokelauan; (10-17) initiate programs in water catchment and storage, water quality monitoring, biodiversity conservation and protected areas, turtle conservation, ecotourism, climate change awareness, cultural revival, and disaster preparedness; (18) develop a coastal zone management plan; (19) expand the waste management program; and (20) investigate alternative energy sources. Each profile contains a statement of purpose, description of activities, cost estimates, executing agencies, potential benefits and issues, and proposed duration. The report also reviews the natural, cultural, and socioeconomic setting for the action plans and the strategic objectives to be attained through them, and describes an implementation structure. Includes references and synopses of proposed environmental policies.

Available from:
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PO Box 240
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Tel: +685 21929; Fax: +685 20231
E-mail: sprep@pactok.apc.org

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-710

Tokelau: state of the environment report—1994

State-of-Environment Reports

Ioane, Makalio K.
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme;
Tokelau. National Task Force for Environmental Management and Sustainable Development;
Tokelau. Environment Policy Unit
1994, xiv, 27 p., ill., En

The South Pacific nation of Tokelau possesses a wide variety of marine resources, but very limited terrestrial resources. Tokelau is made up of three tiny atolls, which in turn are comprised of 127 islets or "motu," varying in length from 90 m to 6 km, and in width from a few meters to 200 m. Population growth could potentially pose a threat, yet it appears that the population has stabilized at about 1,575 people. The country's rich marine resources, which include lagoon, reef, and deep-sea fisheries, have yet to be thoroughly inventoried. Tokelau's major environmental problems include: overexploitation of certain fish and other marine species, coastal sand, and its (albeit tiny) forest resources; pollution of freshwater lenses from improper disposal of chemicals and coastal waters from both land-based sources and shipping; and, due to the country's limited space, a serious solid waste disposal problem. Other environmental concerns include frequent storms and cyclones, climate change and sea-level rise, threats posed to the traditional culture from outside influences, and the need to improve environmental awareness, education, planning, management, and legislation, as well as to integrate environmental and development policies. This report

includes discussion of Tokelau's history, geology and geomorphology, vegetation, fauna, cultural and archaeological resources, and socioeconomic environment. Includes references.

Available from:
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-688

Tonga

Kingdom of Tonga: action strategy for managing the environment

Environmental Strategies and Action Plans

Thistlethwaite, Robert; Sheppard, David; Prescott, Netatua
U.N. Development Programme;
South Pacific Regional Environment Programme, Apia, WS;
IUCN—The World Conservation Union, Gland, CH;
Asian Development Bank, Manila, PH;
Kingdom of Tonga, [Apia, WS]
1993, xiv, 112 p., ill., statistical tables, En

The people of the Kingdom of Tonga have been living in close harmony with their island environment for thousands of years and now face the challenge of achieving economic development in a way that will not significantly alter its environment. This document presents an action strategy for implementing environmental protection strategies and programs established through the country's Environmental Management Plan in 1989-1990. The document begins with a brief overview of Tonga's natural resource endowment and of some environmental constraints and issues of concern, followed by action strategies and program descriptions covering 11 areas: environmental awareness and education; disposal of solid wastes and sewage; national capability for environmental management; climate change and sea-level rise; hazardous chemicals; renewable energy sources; basic data on natural resources; biological diversity; marine resources and the coastal zone; land resources; and drinking water supply. Some basic principles governing program implementation are also discussed. The second half of the document presents profiles of specific programs in the above 11 areas requiring foreign funding. Includes bibliography and numerous photographs and tables.

Available from:
South Pacific Regional Environment Program
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Apia
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E-mail: sprep@pactok.apc.org

Also Available from:
U.S. Agency for International Development
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Order No.: WRI-489

National report of the Kingdom of Tonga to the United Nations Conference on Environment and Development

UNCED National Reports

Kingdom of Tonga. Ministry of Lands, Survey and Natural Resources, Naku'alofa, TO
[May 1991], 80 p., statistical tables, En

In Tonga, where agriculture has long been the mainstay of the economy, land shortages in the face of population increases and growing urbanization have led to a number of environmentally unsound land use practices such as use of fragile lands for farming and the introduction of continuous cropping, agrochemicals, and mechanical cultivation. These and other environmental problems affecting Tonga are highlighted in this national report. Following an executive summary, Section II briefly examines development trends in Tonga and associated environmental impacts. Section III describes the Government's responses to environmental issues—legislation, institutional development, specific programs and projects, and efforts in training, education, and public awareness. Finally, Section III explores opportunities for sustainable development within the context of four priority concerns: population and human settlement; land use planning and management; natural resource and energy conservation; and trade, industry and development investment. It discusses constraints on sustainable

development, and presents recommendations on specific problems concerning urban planning, population control, park and reserve development, pollution control, lagoon rehabilitation and coastal protection, and solid waste disposal. Includes references.

Available from:
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Tuvalu

Tuvalu: state of the environment report—1993

State-of-Environment Reports

Lane, John
South Pacific Regional Environment Programme, Apia, WS;
U N. Development Programme;
Australian International Development Assistance Bureau
1994, xvii, 64 p., ill., En

Tuvalu is a small and fragmented land, with a total land area of 25.9 sq km split between nine island groups. With an elevation of generally less than 3 meters above sea level and a population of nearly 10,000 people (almost half of whom are squeezed onto the main islet of Fogafale, which has less than 2 sq km of habitable land area), the country is at considerable environmental risk from natural disasters and human activity. Part I of this report describes Tuvalu's geophysical features, climate, coral reef islands, plants and animals, and marine resources. Part II identifies population growth as the country's most pressing environmental problem, and recommends a strategy based on population control and encouraging inhabitants to remain in or return to the outer islands. The integration of environmental elements into Tuvalu's "Education for Life" program is also recommended. Part III reviews the relationship between the economy and the environment. Stress is laid on the need to manage solid waste, Tuvalu's most visible environmental problem; improve water quality (the country relies on septic tanks and absorption pit toilets and still uses the beach as a toilet); conduct Environmental Impact Assessments; and develop plans to prevent land use conflicts. Part IV discusses issues concerning the environmental management structure, land tenure, environmental legislation, and environmental monitoring. Part V suggests priority programs and projects for the National Environmental Strategy.

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Order No.: WRI-689

Vanuatu

Environmental synopsis: Vanuatu

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 34 p., maps, statistical tables, En

Vanuatu, a republic of 150,000 people living on some 80 scattered islands north of Australia, has been independent for only 12 years and faces all the development challenges one would expect in a poor and relatively new state. The most serious threat to the environment stems from population growth—at current rates, the population doubles every 9 years. In its favor, Vanuatu has the opportunity to move towards energy self-sufficiency, develop a promising tourist industry, and exploit the fishing resources of its sizable exclusive economic zone. Lack of environmental management experience and funding emerge as the major constraints to achieving sustainable use of resources in Vanuatu. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines Vanuatu's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. Because the information changes so rapidly, no attempt is made to provide a comprehensive survey of international

organizations working in the country. Includes bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
CH-1196 Gland
Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-435

Western Samoa

Environmental synopsis: Western Samoa

Environmental Synopses

IUCN—The World Conservation Union, Gland, CH
1993, [ii], 34 p., maps, statistical tables, En

Western Samoa, the first South Pacific island nation to gain independence and the first to join the United Nations, remains among the poorest in the world, with most of its 166,000 people living at the subsistence level. Conditions stand to worsen due to the country's many environmental problems: deforestation, soil erosion, water contamination, degraded ecosystems, an inadequate protected area system, and economic difficulties that overshadow environmental concerns. This environmental review was prepared as a briefing book for the Commission of the European Communities. After an introductory fact sheet and an outline of key issues, the report: (1) examines the country's institutional infrastructure, especially as related to environmental issues, together with national and international legislation and training opportunities; (2) reviews the country's natural resources; and (3) evaluates the nation's ecological heritage and considers its past, current, and foreseeable environmental problems. According to the report, certain features of Western Samoa could have a positive effect: (1) its centralized and autonomous government department dedicated to environmental activities; (2) the potential adoption of a National Environment Management Strategy; (3) the introduction of wood plantations; and (4) potential expansion of food harvesting by fishing its deep sea bottom, sea mounts, and far offshore banks. Includes bibliography.

Available from:
IUCN—The World Conservation Union
Rue Mauverney 28
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Switzerland
Tel: +41 22 999 00 01; Fax: +41 22 999 00 02

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-436

Western Samoa: national environment and development management strategies

Environmental Strategies and Action Plans

Western Samoa. National Environment and Development Management Strategies Task Team, Apia, WS;
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1993, xvi, 100 p., ill., charts, maps, statistical tables, En

Compared with many Pacific Island countries, Western Samoa has a range of environmental legislation and an extensive governmental infrastructure. In recent years, and even during the period of preparation of this National Environmental and Development Management Strategies (NEMS) document, significant and positive actions have been taken to address the country's major environmental problems: population growth; inadequate waste management; and limited resources to support economic development. Yet further action is needed in the face of the growing threat posed by modern throw-away lifestyles to the country's nature-based culture. Following an overview of environmental status in Western Samoa, this document describes the NEMS framework and process, the specific environment problems it addresses, and its policy objectives, planned activities, and implementation structure. Part III presents profiles of 16 programs that are indicative of current NEMS priorities; the programs range from population workshops to hospital wastes management, from ecological monitoring to a video on the environment. References are included.

Available from:
South Pacific Regional Environment Programme
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-711

Western Samoa: state of the environment report

State-of-Environment Reports

Taule'alo, Tu'u'u Ieti
South Pacific Regional Environment Programme, Apia, WS;
U.N. Development Programme
1993, xx, 76 p., ill., charts, maps, statistical tables, En

Traditionally, resources in Western Samoa were abundant, and life proceeded with very little formal planning. Now, however, the country finds itself at an environmental crossroads, with many critical environments exhibiting unsustainable levels of degradation and exploitation. Deforestation is probably Western Samoa's the most serious environmental problem; others include degradation of mangrove areas and coastal lagoons, inadequate sewage disposal in urban areas, and the degradation of soil and water resources by agricultural intensification and fertilizer and pesticide use. This report summarizes the status of Western Samoa's terrestrial, marine, and urban and rural environments, noting the environmental priorities within each, and assesses the country's demographic, cultural, and human resources, and economic patterns. The report examines environmental legislation and institutions, particularly the Lands, Surveys, and Environment Act of 1989 and the establishment in 1990 of a Division of Environment and Conservation. The conclusion notes that efforts to address Western Samoa's environmental problems will require an integrated environmental assessment and a long-term planning process that has no real precedent in Western Samoan tradition. Includes references.

Available from:
South Pacific Regional Environment Programme
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Also Available from:
U.S. Agency for International Development
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Order No.: WRI-690

Europe

(Eastern Europe regional)

Strategic environmental issues in central and eastern Europe

Environmental Strategies and Action Plans

Regional Environmental Center for Central and Eastern Europe, Budapest, HU
May 1994, 2 v., map, statistical table, En

This report examines the environmental problems faced by the Central and East European countries of Albania, Bulgaria, Croatia, the Czech Republic, Hungary, the Former Yugoslav Republic of Macedonia, Poland, Romania, Slovakia, and Slovenia, taking full account of the dynamic political, economic, and social transitions occurring in the region. Volume I—a regional analysis—discusses the impact of the transition period on environmental protection as of Spring 1994; assesses the region's environmental assets and damages; calls for a new environmental strategy, which includes more intra-regional cooperation; identifies priority environmental problems and the need for an integrated approach to resolving these; acknowledges the need for institutional, policy, and legislative reform, public support, finance, and technology; and identifies the unique opportunities presented by emerging democracy for improved environmental management. The volume also discusses the need to integrate economic development and environmental conservation and for an environmental lobby, examines financing options, and identifies key interest groups in each country. Volume II provides detailed country reports based on surveys, conducted 10/93-1/94, of government, NGO, academic, and business experts. Each report highlights priority environmental areas, emphasizing the relationship between those areas and the country's political and economic transformation, and identifies opportunities for regional cooperation.

Available from:
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E-mail: rec-info@rec.hu
Internet: http://www.rec.hu/

Environmental action programme for Central and Eastern Europe: setting priorities

Environmental Strategies and Action Plans

World Bank, Washington, DC, US;
Centre for Co-operation with Economies in Transition, OECD, Paris, FR
1993, xvii, 113 p., maps, statistical tables, En

The resources available for environmental improvement in Central and Eastern Europe will be severely constrained over the next 5-10 years, while the costs of meeting some environmental objectives will be very high. This Action Programme provides a framework for setting national environmental priorities within each country and for cooperation between Eastern and Western Countries. The major factor for priority setting is effects on human health. In the near term air pollution from stationary sources is the greatest danger, but abatement will occur as market reform shifts production to less resource intensive methods and activities. Air pollution from mobile sources and water pollution are predicted to be major problems in the medium term. The report recommends solutions in three general areas: better economic and environmental policies, project expenditures carefully targeted by cost/benefit analyses, and institutional and capacity development. An executive summary and seven chapters cover: Introduction, How to Set Priorities, Policy Reforms, Building Better Institutions, Priorities for Environmental Expenditure, Transboundary Issues- Regional and Global Concerns, and Principle Recommendations. Six annexes are also included.

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(Europe regional)

Report from the European Community to the Commission on Sustainable Development on progress towards implementation of Agenda 21—the third session: April 1995

Agenda 21 National Reports 1995

European Commission, Brussels, BE
1995, 72 p., En

Efforts of the European Community to implement Agenda 21 are reviewed in this report. Part I details achievements under the Community's Fifth Environmental Action Programme (1992-95). These include creation of the European Environment Agency and of European Partners for the Environment (a forum for interchanges between industry and nongovernmental organizations); and some progress in integrating environmental issues into agricultural, energy, industry, tourism, and transport policies. However, the integration of environmental themes into decision making remains inadequate, and progress in broadening the range of policy instruments has been slow; the only outstanding economic instrument under consideration (the carbon dioxide/energy tax) remains blocked. Due to the economic recession, industry is skeptical that environmental initiatives can lead to competitiveness and employment opportunities. The Community's environmental auditing and eco-labeling schemes, however, offer ways of encouraging changes in production and consumption. At the international level, the Community is placing priority on implementation of legal instruments, such as the new Desertification Convention. Parts II and III of the report provides specific information on both cross-sectoral issues (the roles of major groups, overseas assistance, environmental technology, poverty alleviation, changing consumption patterns, demographic dynamics, biotechnology, and environmental research and information) and sectoral issues (land management, deforestation, desertification, mountain development, agricultural and rural development, and biological diversity).

Available from:
Secretariat of the General Consultative Forum on the Environment
Nuclear Safety and Civil Protection
200 rue de la Loi
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-640

Towards sustainability: a European Community programme of policy and action in relation to the environment and sustainable development

Environmental Strategies and Action Plans

Commission of the European Communities. Directorate General XI. Environment, Nuclear Safety and Civil Protection
1993, 162 p., charts, statistical tables, En

The European Community's fifth program on the environment, presented in this document, has the ultimate aim of transforming the patterns of growth in the Community in such a way as to reach a sustainable growth path. Part I summarizes the present state of the environment and the growing threats it faces, and outlines a strategy designed to break current trends and set a course for sustainable development. The strategy entails active involvement of all sectors of society using a broad range of instruments (including market-related instruments and improved information, education, and training) to achieve quantifiable changes in the environment and in consumption and behavior. Efforts will focus on five sectors—industry, energy, transport, agriculture, and tourism—and will be organized around the key themes of climate change, acidification and air pollution, protection of nature and biodiversity, management of water resources, the urban environment, coastal zones, and waste management. Part I also indicates how responsibility can in practice be shared and proposes measures to ensure implementation. Part II summarizes environmental threats and issues in the wider international sphere and what can or will be done by the Community and its constituent members. The upcoming June 1992 U.N. Conference on the Environment and Development is also addressed. Part III deals briefly with the selection of priorities, costs, and the

implementation of a mid-term review. Includes texts of environmental resolutions passed by the Community.

Available from:
Office for Official Publications of the European Communities
Luxembourg

Also Available from:
U.S. Agency for International Development
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Order No.: WRI-504

Europe's environment: the Dobris assessment

State-of-Environment Reports

Stanners, D.; Bourdeau, P., eds.
European Environment Agency, Copenhagen, DK;
United Nations Economic Commission for Europe;
United Nations Environment Programme;
Organization for Economic Cooperation and Development;
The Council of Europe;
IUCN—The World Conservation Union;
World Health Organization
1995, 676 p., statistical tables, maps, charts, En

This report presents an assessment of the state of Europe's environment and the pressures and human activities impacting on it, and analyses prominent environmental problems of concern to Europe as a whole. The report contains forty chapters, distributed among six parts. Chapters in Part I, The Context, explain how the report has been developed and organized and the function it fulfills; provide the context for the assessment of Europe's environment; and describe the climate, geology, biography, and political divisions of Europe. In Part II, the environment is assessed for each basic environmental medium—air, water, and soil—separately as well as in more integrated functional units—landscapes, nature and wildlife, and urban areas. A summary of human health in Europe completes the picture. Part III, Pressures, examines the agents and means by which Europe's environment is altered: population, production and consumption; exploitation of natural resources; emissions; waste; noise and radiation; chemicals and genetically modified organisms; and natural and technological hazards. Part IV examines the human activities which are the sources of pressures on the environment, providing an overview of their environmental impacts, outlooks, and driving forces. Eight key sectors are analyzed: energy; industry; transportation; agriculture; forestry; fishing and aquaculture; tourism and recreation; and households. Part V highlights 12 problems of particular concern: climate change; stratospheric ozone depletion; loss of biodiversity; major accidents; acidification; tropospheric ozone and other photochemical oxidants; management of freshwater resources; forest degradation; coastal zone threats and management; waste production and management; urban stress; and chemical risk. Each chapter focuses on the causes of the problem and the goals and strategies being adopted for their resolution. Part VI presents general findings and conclusions, highlighting responses and policy options for each of the 23 priority thematic or sectoral issues presented in previous chapters. Appendices include: (1) an inventory of 56 environmental problems; and (2) an assessment of information strengths and weaknesses. A statistical compendium has been prepared to accompany this report in which the background data and statistics are presented.

Available from:
Office for Official Publications of the European Communities
L-2985 Luxembourg
Internet: http://www.cec.lu/en/comm/opoce/wel.html

Also Available from:
Commercial booksellers
ISBN: 92-826-5409-5
Catalogue No.: CR-80-93-339-EN-C

Albania

Report on the environmental situation in Albania: national environmental action plan

Environmental Strategies and Action Plans

World Bank, Washington, DC, US;
Albania. Ministry of Health and Environmental Protection. Committee of Environmental Preservation and Protection, Tirana, AL;
U.N. Development Programme, Tirana, AL
Jul 1993, xii, 71 p., En

Although environmental degradation is not as extensive in Albania as elsewhere in Central and Eastern Europe, problems such as deforestation and soil erosion are widespread. Sound natural resource management is a priority as Albania seeks to restructure its agriculture,

tourism, oil, and mining sectors. This National Environmental Action Plan not only reviews Albania's environmental status and management but also describes the economic and social developments of the last 20 years, since the first U.N. Conference on the Human Environment, in Stockholm. Following an introduction, Chapter 2 reviews Albania's mineral and biological resources, flora, fauna, forests, and national parks. Chapter 3 discusses developments in the mining, energy, industrial, transportation, and agricultural sectors, as well as changes in population growth, child mortality, and educational levels. Chapter 4 details environmental hazards, including air and water pollution, solid waste pollution, threats to biodiversity, and occupational health and safety hazards (due primarily to outdated technologies). Chapter 5 examines environmental management infrastructure, including legislation, institutions (primarily, the Committee of Environmental Preservation and Protection, Albania's central environmental management body), international cooperation, and environmental finance. Chapter 6 summarizes Albania's environmental priorities: soil stabilization, surface water quality, biodiversity conservation, and control of industrial wastes. A detailed 3-year plan of action is annexed. Includes tables showing environmental problems by geographic location.

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Austria

Austria national report

Agenda 21 National Reports 1994

Government of Austria
Mar 1994, 48 p., En

Measures taken by Austria to implement the sustainable development objectives of Agenda 21 are enumerated in this report. Part I describes initiatives to promote sustainable consumption through environmental labeling, a National Environment Plan, user fees, labeling of timber and timber products produced through sustainable forestry, promotion of organic products, use of bio-energy, and waste recycling. Part 2 identifies the financial resources and mechanisms through which Austria supports Agenda 21 including contributions to the Global Environment Facility, the International Development Association, and the regional development banks; debt rescheduling; and aid to Eastern Europe. Parts 3 and 4 review, respectively, programs to promote the transfer of environmental technology, and efforts to develop international legislation that is supportive of sustainable development. Part 5 cites Austria's efforts to incorporate the interests of women, children and youth, private voluntary organizations, local authorities, workers and their trade unions, business and industry, the scientific and technological community, and farmers into sustainable development planning. Measures to promote human health through the development of sustainable human settlements, protection of freshwater resources, and environmentally sound management of solid wastes and sewage are reviewed in Part 6. Finally, Part 7 cites initiatives in toxic and radioactive waste management and the prevention of illegal international trafficking of toxic and dangerous products.

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E-mail: mayer@uba.ubavie.gv.at
Internet: http://www.ubavie.gv.at/

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-712

National climate report

Climate Change Assessments, Strategies, and Action Plans

Federal Ministry of the Environment, Vienna, AT
1994, 115 p., tables, charts, En

The Austrian Government is developing and pursuing a program to reduce carbon dioxide emissions by 20% on the basis of 1988 by the year 2005. Austria's strategy for reducing greenhouse gas emissions is based on measures which reduce energy consumption. These measures, which take into account current emissions as well as five different scenarios for future emissions, include those already in place, those planned for the next legislative session (1994-1998), and those which will require more time to be implemented. Measures already adopted are aimed at the following: power production/electricity supply industry (fuel switching to gas at thermal powerplants); room heating and water heaters (a mix of measures for tightening of building regulations and standards, introduction of an energy coefficient, tightening of residential building subsidies, coordination of the extension of conducted energy, priority for the utilization of district heating); renewable energies (utilization of wind, biogas, sewage gas, landfill gas, biomass, and solar energy source); combined heat and power plants (large-scale replacement of thermal energy utilization); transportation (extension of infrastructure for combined carriage, traffic organization, R&D, fleet fuel consumption regulations); and economy (introduction of a comprehensive energy and carbon dioxide levy). It is anticipated that these measures could stabilize Austria's carbon dioxide emissions at the 1990 level by the time period around 2000 to 2005, and that those to be implemented during the next legislative session could reduce the level well below the stabilization target. Austria's mountains, forests, lakes and streams are particularly vulnerable to climate change. Projected impacts include: increase in temperature with a maximum in winter; increase in winter precipitation (winter snowfall would decrease in favor of rain, thus increasing runoff); decrease in summer precipitation; and higher summer evaporation. In mountain areas, these changes translate to decrease in number of days with snow cover, reduction in glacier cover; and adverse consequences for mountain economies. Changes in species composition in forests and aquatic habitats are expected. Except for measures aiming at afforestation and changing forest management, Austria has not yet elaborated a detailed program of adaptation measures.

Available from:
Bundesministerium fur Umwelt
Stubenbastei 5
1010 Wien
Austria
Tel: +43 1 515 220; Fax: +43 1 510 000
Internet: http://www.bmu.gv.at/

State of the environment in Austria

State-of-Environment Reports

Austria. Federal Ministry for Environment, Youth and Family Affairs, Vienna, AT;
Austria. Federal Environmental Agency, Vienna, AT
1994, xvii, 168 p., charts, maps, statistical tables, En

This report is a translation (partly modified) of the official report on environmental control activities in Austria, submitted biannually to Parliament by the Federal Minister for Environment, Youth and Family Affairs. Topics covered include: (1) levels of various air pollutants, and other greenhouse effects; (2) water resources and water quality control, including groundwater and surface water quality; (3) issues related to soil, such as land use, threats from agricultural exploitation, and land loss; (4) damage done to forests; (5) nature and landscape, including national parks, protection costs, and endangered species; and (6) stipulations of the Austrian Chemicals Act. Briefer chapters are devoted to pesticides, waste management, noise control, energy production and consumption, radioactivity control, and gene technology and biotechnology. Information on Austria's Environmental Agency and the country's participation in the U.N. Environmental Program's INFOTERRA information system is also included, along with a discussion of Austrian obligations arising from international agreements.

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Umweltbundesamt
Spittelauer Lande 5
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Tel: +43 1 31304 5560; Fax: +43 222 31304 5400
Internet: http://www.ubavie.gv.at/

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-511

Belarus

Government report of the state of the environment in the Republic of Belarus

UNCED National Reports

Belarus. State Committee for Ecology, Minsk, BY
1992, 63 p., statistical tables, En

The ecological situation in Belarus—already perilous because of the Republic's industrial orientation—was been drastically and permanently altered by the disaster at the Chernobyl nuclear power plant in April 1986, which rendered one-fifth of the country completely unsuitable for economic activity and detrimental for human life. Section 1 of this report provides a brief overview of Belarus' ecological problems, many of which have stemmed from its activities in the mining, chemical and petrochemical, and machine and building construction sectors. Section 2 links environmental degradation with deterioration in human health; 15-20% of sicknesses seem to be tied to environmental factors. Section 3 briefly discusses population trends. Section 4, the heart of the report, examines the status of Belarus's water, land, mineral, and wildlife resources, assesses air quality and temperature changes over the last 100 years, identifies protected environmental areas, and recounts some of the consequences of the Chernobyl nuclear disaster. Section 5 discusses environmental policy, including institutions and Belarus' Environmental Protection Program for 1991-95, while succeeding sections describe environmental education activities, identify the country's three major public environmental protection organizations (the Society of Nature Conservation, the Ecological Union, and the Society of Hunters and Fishermen), and outline activities in international environmental cooperation.

Available from:
State Committee for Ecology of the Republic of Belarus
220048, 10 Kollectornaya Street
Minsk
Belarus
Tel: +70 172 20 61 90; Fax: +70 172 20 55 83

Belgium

Rapport de la Belgique a la Conférence des Nations Unies sur l'Environnement et le Développement (Belgium's report to the United Nations Conference on Environment and Development)

UNCED National Reports

Belgium. Ministère des Affaires Étrangeres, du Commerce Extérieur et de la Coopération au Développement, Brussels, BE
May 1992, 91 p., Fr

Belgium is among the most populous and commercialized countries in western Europe. The resulting environmental problems, particularly air and water pollution, are detailed in this national report on the state of the country's environment. The report covers the following areas: (1) a general overview of the country, including geography, climate, diverse regions, population characteristics, and economy; (2) the state of the environment, including atmospheric pollution; noise pollution; the ozone layer; pollution of surface water, soil, ground water, and the sea; production of industrial wastes; and transfrontier waste issues; (3) Belgium's environmental policy and plans at the federal and sectoral levels to address the country's environmental problems; and (4) the legislation and institutions that will be utilized in implementing the country's environmental plans. A special section is devoted to the state of the environment in Brussels, including management of air and noise pollution, environmental conservation measures, and environmental education. The last part of the report presents lessons for the future regarding institutional and political aspects of environmental preservation.

Available from:
Ministère des Affaires Étrangeres, du Commerce Extérieur
et de la Coopération au Développement
Brussels
Belgium

Bulgaria

Conserving biological diversity in Bulgaria: the national biological diversity conservation strategy

Biodiversity Assessments, Strategies, and Action Plans

Meine Curt
World Wildlife Fund—U.S.;
Nature Conservancy;
World Resources Institute;
U.S. Agency for International Development. Bur. for Global Programs, Field Support and Research. Center for Environment. Ofc. of Environment and Natural Resources;
U.S. Agency for International Development. Bur. for Humanitarian Response. Ofc. of Private and Voluntary Cooperation.;
U.S. Agency for International Development. USAID Mission to Bulgaria
Jun 1994, xxiv, 116 p., ill., charts, maps, statistical tables, En

Bulgaria, although relatively small, is rich in biological diversity due to its highly varied climate, geology, topography, and hydrology; however, in light of the sweeping economic, social, and political changes in the country, the need to conserve these rich natural resources is at a critical stage. This report summarizes the findings and recommendations from Bulgaria's National Biological Diversity Conservation Workshop, held in March 1993. The workshop was designed to prepare a national strategy and framework for future foreign assistance. Bulgaria's varying climate ranks it among the most biologically diverse countries in Europe, supporting 94 species of mammals, 383 birds, 36 reptiles, 16 amphibians, 207 Black Sea and fresh-water fish, an estimated 27,000 insects and other invertebrate species, roughly 3,500 plants, and more than 6,500 non-vascular plants and fungi. The loss of aquatic and terrestrial habitats constitutes the most significant threat to Bulgaria's biological diversity. In most ecosystems, various threats interact; therefore, Bulgaria's conservation program must address these threats in a coordinated and mutually reinforcing manner. This conservation plan emphasizes several priorities for immediate action: strengthening the scientific basis for conservation; legislative initiatives; expanding protected areas networks; education and cooperative extension; ecotourism policy; and discussion about the Black Sea Basin and the Balkan Peninsula. Appendices include maps, glossary, and a list of sources of additional information and assistance. Also includes illustrations.

Available from:
Biodiversity Support Program
c/o World Wildlife Fund
1250 24th Street NW
Washington DC 20037
USA
Tel: +1 202 861 8313; Fax: +1 202 861 8324

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABU-372

Environment and development of the Republic of Bulgaria: national report for the United Nations Conference on Environment and Development

UNCED National Reports

Bulgaria. Ministry of Environment, Sofia, BG
Mar 1992, 134 p., statistical tables, En

Though situated in the temperate continental climatic zone, Bulgaria, because of its diverse topographical forms and the Mediterranean influence, displays an extremely rich microclimatic variety, as well as significant biological diversity, with 402 animal and 330 plant species are under strict protection. Major environmental problems in the country include worsening air and water quality, a decrease in arable land, problems with solid industrial and household wastes, and health consequences of the Chernobyl nuclear disaster. At present, serious efforts are underway in Bulgaria to construct effective mechanisms and programs to protect the environment from future degradation, while coping with already induced pollution. This national environmental report is divided into 11 sections: geographical characteristics; economic development and protection of the environment between 1975 and 1990; demographic changes; management of natural resources; environmental pollution; the environmental health problems; the national system of environmental monitoring and information; environmental protection management and legislation; the role of nongovernmental organizations in environmental management (results of a sociological survey); science, education, and training; and Bulgaria's environmental policy and its position on global issues.

Available from:
UNEP Infoterra National Focal Point
7 Str. Industrialna
1202 Sofia
Bulgaria
Tel: +359 1 392 027; Fax: +359 1 392 190

Croatia

National report on environment and development [Croatia]

UNCED National Reports

Republic of Croatia, Ministry of Environmental Protection, Physical Planning and Housing, Zagreb, HR
May 1992, 142 p., statistical tables, En

Prepared during a time of war, this national report on Croatia's environment and development notes that the level of disruption and damage to the environment from the war has yet to be determined. Croatia's most important natural resources are fertile soil, forests, surface and underground waters (most of which have not been contaminated), the Adriatic Sea, and numerous protected areas. Unfortunately, a great part of the country's protected areas have been affected by the war; Plitvice Lakes National Park, which has been registered as a UNESCO world heritage site since 1979, is particularly endangered, while the well-known arboretum of Trsteno is partly destroyed. The report is divided into six sections covering (1) Croatia's landscape, natural resources, protected and particularly valuable areas, architectural heritage, and demographic features; (2) economic sectors; (3) environmental problems—transboundary air and water pollution are noted in particular; (4) strategies for protecting the environment, covering institutions, legislation, programs, projects, research, international cooperation, and the role of the public and of nongovernmental organizations; (5) war damage to the country's natural and cultural heritage, and (6) Croatia's expectations from the U.N. Conference on the Environment and Development.

Available from:
State Directorate for Environment
Ulica grada Vukovara 78
10000 Zagreb
Croatia
Tel: +385 1 633 444 ext. 2358; Fax: +385 1 537 203

Cyprus

Environmental programming for action in Cyprus

Environmental Strategies and Action Plans

Olgun, Mustafa Ergun
U.N. Development Programme. Development Support Services, Nicosia, CY;
Phedonos Consultants, Ltd., Nicosia, CY
Jan 1991, 4 v., En

Environmental degradation on the island nation of Cyprus, while not yet reaching the disturbing levels affecting many other countries, is becoming more and more apparent. Principal problems include denuding of the island's rich forest cover, increased soil erosion due to intensive cultivation of cereal crops on slopes, degradation of coastal lands from excessive tourism and urban sprawl, water shortages and water pollution, due partly to inadequate sewage systems. Also troubling are the wide use of insecticides, pesticides, and fertilizers, and increased intrusion of sea water into aquifers. This report assesses Cyprus's environmental problems and presents action proposals to address them. Because the country's long-standing political problems made it difficult to provide comprehensive data covering the whole of Cyprus, the report provides, in two separate main volumes, information regarding the Greek Cypriot population and the Turkish Cypriot population. These volumes describe the status and problems of each environmental sector, actions taken to date, further actions needed, and technical assistance requirements. Volume III outlines 40 priority projects requiring external funding. These proposals concern problems related to the atmosphere, freshwater resources, terrestrial resources and ecosystems, marine resources and the regional marine environment, the lithosphere. human settlements, and human health and welfare. Volume IV is an executive summary.

Available from:
United Nations Development Programme
115 Prodromos Street
P.O. Box 5605
Nicosia
Cyprus
Tel: +357 2 303 188; Fax: +357 2 366 125

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-692

Cyprus: note on environmental policy

Other Environmental Studies

Cyprus. Ministry of Agriculture and Natural Resources, Nicosia, CY
1993, v.p., En

This report contains six notes on Cyprus's environmental management framework, including institutional and legislative tools. The first note discusses the country's environmental policy and outlines activities undertaken under Cyprus's environmental action plan for the period 1989-1993; development of a new action plan was underway, as was preparation of a national Agenda 21. Additional notes discuss Cyprus': (1) institutional framework for environmental planning, coordination, implementation, and enforcement; (2) legislation, both new and old, to control pollution (including legislation concerning water and air pollution, waste management and disposal, pesticides and other chemicals, and noise)—new principles include environmental compensation schemes and implementation of the "polluter pays" principle; (3) Environmental Impact Assessment procedures; (4) forest management and conservation policy; and (5) measures to protect fauna (primarily seagulls and waterfowl, as well as endemic species), flora (13 plant species are under special protection), marine and freshwater life, and wildlife.

Available from:
Environmental Service
Ministry of Agriculture and Natural Resources
Nicosia
Cyprus

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-678

Czech Republic

The Czech Republic's first communication on the national process to comply with the commitments under UN Framework Convention on Climate Change

Climate Change Assessments, Strategies, and Action Plans

Czech Republic. Ministry of the Environment, Prague, CZ;
Czech Republic. Ministry of Industry & Trade, Prague, CZ
1994, 43 p., tables, En

The Czech Republic is undergoing the process of transition to a market economy, resulting in changes in its economic sphere and in the state administration, legislation, statistical and taxation systems. Since 1990, inventory data show a reduction in carbon dioxide emissions, which mirrors a decrease in industrial production and a restructuring of energy consumption. Climate protection measures, adopted mainly to prevent further environmental pollution, include: provisions for strict emission limits for fly-ash, sulfur dioxide, nitrous oxides, carbon dioxide, and other pollutants; obligatory measurements on energy consumption for heat and hot water service; the first stage of a long-term program to promote energy savings in residential buildings; a value-added tax with two rates, the lower set for environment-friendly items (biogas, absorption pumps, solar devices, thermostatic values in heating elements, economical light sources, electromobiles); income tax, with an exemption for the first six years of operation of small water power plants, wind power plants, and devices using solar, biogas, and geothermal energy; stricter standards for building heat insulation; a program to replace coal energy sources with cleaner sources of heat and power; subsidies for fluorescent lamps; funds for afforestation; support for using biomass and other reclaimable energy sources; and support for bio-fuel oil production and biodegradable lubricants. Measures under preparation or consideration for transportation, industry, government, and waste management sectors are listed, and the deregulation of fuel and energy prices is discussed. The impact of adopted measures is presented under two scenarios. Provisions for monitoring greenhouse gas emissions, evaluating the effect of implemented measures, and providing relevant information are described. Current scientific activities include a climate change vulnerability study and participation in the World Climate Programme and other international programs. The report also describes public information and education efforts

including dissemination of information on the Framework Convention, a report on the state of the environment in the Czech Republic, a national program of eco-labeling, and campaigns to strengthen public awareness of the relations between energy use and environmental conditions.

Available from:
Ministry of the Environment
Dept. of Environmental Strategies
Vrsovicka 65
100 10 Praha 10
Czech Republic
Tel: +42 2 67 12 28 38; Fax: +42 2 67 31 03 08

Environmental recovery programme for the Czech republic

Environmental Strategies and Action Plans

Czech Republic. Ministry of Environment, Prague, CZ
1991, 93 p., En

The environment in some regions of the Czech Republic can be described as disastrous. The atmosphere, water, and food are polluted, soil quality has deteriorated, most of the forests are seriously affected, and the landscape in many places has lost its ecological stability. The Czech Republic is one of the greatest exporters of pollution, which is transported through its atmosphere and rivers to neighboring and distant countries. This document describes an environmental recovery program for the country. Some of the topics addressed include: (1) alteration of lifestyles through education, information, popular culture, and NGOs; (2) environmental knowledge, including information systems and monitoring; (3) health hazards posed by dangerous physical, chemical, biological and social factors; (4) atmospheric, water, and soil pollution and management; (5) preservation of rock and mineral resources; (6) waste management; (7) the landscape, covering nature conservation, agriculture, forestry, and the need to create territorial systems of ecological stability; and (8) urban and rural settlements. Other sections provide information on environmental technology, evaluation of ecological effects, accidents and catastrophes, economic and administrative instruments, laws, regional programs, and international cooperation.

Available from:
Ing. Frantisek Urban
Director
Division of Nature Conservation
Czech Ministry for the Environment
100 10 Prague
Czech Republic

Environment in the Czech Republic

State-of-Environment Reports

Czech Republic. Ministry for the Environment;
Czech Ecological Institute, [Prague], CZ
1992, 292 p., charts, maps, statistical tables, En

This report is primarily a graphical (i.e., statistical) presentation rather than an interpretation of environmental facts in the Czech Republic; no prognosis or strategy for improvement of the country's environment is offered. Section 1 presents data on the environmental effects of settlement and migration, production and consumption, non-manufacturing activities (i.e., traveling, hunting, and fishing), wastes, and ecological disasters. Section 2 documents the state of and trends in the Republic's atmosphere; water, soil, and mineral resources; physical fields (e.g., changes in the ozone layer); landscape and plant and animal species; and constructed environment. Section 3 presents data on the effects of environmental changes on human physical, psychological, and social health; the food chain; and the country's economy. Finally, Section 4 contains narrative data on the Republic's environmental legislation, institutions, Environmental Fund, environmental projects and policy, public attitudes towards environmental issues, and international cooperation.

Available from:
Ministry of the Environment of the Czech Republic
Vrsovicka 65
100 10 Prague 10—Vrsovice
Czech Republic
Tel: +422 67 12 28 38; Fax: +422 67 31 03 08

Report on the environment in the Czech Republic

State-of-Environment Reports

Czech Republic. Ministry of the Environment, Prague, CZ
Jun 1994, 115 p., charts, maps, statistical tables, En

This report on the 1993 status of the environment in the Czech Republic provides the first extensive collection of environmental data obtained in the country after 1990. Generally, the report finds that the environmental threat posed by the energy, processing, and transportation industries has decreased as a result of cutbacks in industrial production due to economic transformation; air and water quality have improved because of large investments in equipment to reduce sulfur dioxide, nitrogen oxides, dust-based aerosols, carbon dioxide, and other ozone-damaging emissions; and environmental expenditures in 1993 exceeded 3% of the GDP. However, the Czech Republic continues to be plagued by land degradation and soil contamination resulting from electrical power production and mining; waste management remains unsatisfactory; and recovery of fauna, flora, and ecosystems, highly damaged prior to 1989, is progressing slowly (although in some cases deterioration is continuing). In addition, damage to forests from industrial emissions remains high, in some areas exacerbated by increased occurrence of insect pests and parasitic fungi. In 1993, the Czech Republic expanded its efforts towards international environmental cooperation, primarily directing itself towards European integration and the objectives of the Conference of Environmental Ministers in Lucerne (April 1993). Environmental legislation is gradually being harmonized with that of the European Union and the OECD countries.

Available from:
Ministry of the Environment of the Czech Republic
Vrsovicka 65
100 10 Prague 10—Vrsovice
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-615

Denmark

Denmark: national report to United Nations Commission on Sustainable Development 1994

Agenda 21 National Reports 1994

Denmark. Ministry of Foreign Affairs, Copenhagen, DK; Denmark. Ministry of the Environment, Copenhagen, DK
15 Apr 1994, 37 p., En

Denmark's progress in achieving the objectives of Agenda 21 is described in this report. Notable achievements include a Fund for Environmental Assistance and Emergency Relief overseas, a Centre for Technology Transfer, an ecological plan of action for housing and a cross-sectoral advisory Committee on City-Ecology, and an Action Plan on the Aquatic Environment. Also, Denmark participates in the Urban Environment Expert Group set up by the European Commission in 1991, and in 1993 hosted a conference for national authorities in Europe on the management of chemicals. Part I of the report reviews Denmark's sustainable development strategy and institutions; the relation between sustainable development and the economy, social conditions, and trade, and priorities for external assistance. Part II discusses cross-sectoral issues: international cooperation to accelerate sustainable development in developing countries and related domestic policies; changing consumption patterns; financial resources and mechanisms for implementing Agenda 21; and environmental technology development and transfer. Part III treats sectoral issues: human health, human settlements, protection of freshwater resources, and toxic and hazardous waste management. For each issue covered in Parts II and III, the report discusses achievements, main activities undertaken or planned, experience gained, and problems and constraints encountered.

Available from:
Secretariat for Environment and Sustainable Development
Miljoesekretariatet, Ministry of Foreign Affairs
2 Asiatisk Plads
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-718

Danish environmental strategy

Environmental Strategies and Action Plans

Denmark. Ministry of the Environment, [Copenhagen], DK
May 1994, 102 p., statistical tables, En

In the past 10-20 years Denmark has succeeded in abating environmental degradation, e.g., substantially reducing sulphur and heavy metal pollutants in the air, and decreasing phosphorus concentration in lakes and streams. However, it will take years for natural purification processes to dispose of past accumulations of pollutants. This environmental strategy describes Denmark's overall approach to planning for environment and development. Part I reviews the recently initiated process of strategic environmental planning in Denmark, while Part II provides a summary progress report on the state of the environment. Part III discusses plans and initiatives in 13 areas: energy, transportation, agriculture, industry, clean technology, waste management, the aquatic environment, pesticides, spatial planning, sustainable forestry, nature protection, building preservation, and occupational safety. Part IV describes domestic environmental projects, such as those of the Ministry of Defense and Project Green City Denmark, as well as Denmark's development assistance policy and planned environmental aid to developing countries. Finally, Part V addresses economic issues (revenues and expenditures related to the environment).

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Danish State Information Service
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-501

Denmark national report to UNCED—1992

UNCED National Reports

Denmark. Ministry of the Environment, Copenhagen, DK
1991, 99 p., En

Because Denmark is a tiny, densely populated country with limited natural resources and an intensely cultivated agricultural sector, changes in its environment are easily noticed. This report reviews the evolution of Denmark's environmental policies, beginning with the creation of a Ministry of the Environment in 1971 (earlier than most European countries) and culminating in the recent action plan for sustainable development, and then discusses environmental policies affecting individual sectors, e.g., attempts to integrate environmental concerns into economic development policies and initiatives to ensure environmentally sound trade, improve energy use (including the "Energy 2000" action plan and a similar transport plan, which resolves to reduce carbon dioxide emissions by 20% between 1988 and 2005), and reduce transport-related pollution. The environmental impacts of agriculture (including pollution of aquatic environments with nitrates) and related policies are discussed, as well as initiatives to control industrial pollution, which emphasize clean technologies and hazardous waste clean-up. Water pollution prevention efforts have included the 1987 Action Plan for the Aquatic Environment. The report notes Denmark's inadequate resource management system; biological diversity has diminished drastically in the last century, and small biotopes in arable land have largely vanished. Finally, the report covers urban planning, environmental education, research, development assistance policies, international initiatives, and environmental management in the autonomous territories of Greenland and the Faroe Islands.

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Internet: http://www.mem.dk

Estonia

[Estonia national report to the UN Commission on Sustainable Development 1994]

Agenda 21 National Reports 1994

Estonia. [Ministry of the Environment, Tallinn, EE]
1994, [19 p.], statistical tables, En

This report describing Estonia's progress in implementing Agenda 21 indicates that the country's environmental status has improved over the past few years. Worthy of note are the construction of sewage treatment plants, an inventory of the ecological damage caused by Soviet military bases, and the pumping of aircraft fuel from groundwater near one former military airfield. In addition, Parliament is reviewing a draft law on sustainable development and is expected to ratify the Framework Convention on Climate Change and the Convention on Biological Diversity. All environmental management tasks have been delegated to the Ministry of the Environment, giving Estonia perhaps one of the best institutional structures for environmental management in Europe. In addition, the country has established the Institute of Sea Research, the National Council of Sustainable Development, and the Joint Council of Nature Societies on Sustainable Development; and the country's environmental monitoring system is undergoing a reorganization, and from 1994 on will be fully financed from the state budget. The report also details activities taken to fulfill Agenda 21 objectives related to hazardous and solid waste management, some of which include the Waste Act (passed in 11/92), special charges for waste deposition, and ratification of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-720

Estonia: the transition to a market economy

Other Environmental Studies

World Bank, Washington, DC, US
1993, xxxi, 329 p., charts, statistical tables, En

Environmental degradation in Estonia is concentrated in the Tallinn region and the northeast, which is dominated by oil-shale mining and combustion and by the chemical industry, which is partly based on oil-shale. Surface and underground oil-shale mining has disrupted water supply, created significant air pollution, and produced a massive amount of solid waste. Other environmental concerns with a more restricted geographic impact can be observed in a few industrialized urban areas such as Parnu and Tartu, at major industrial facilities such as the cement plant at Kunda and the pulp and paper plant at Kehra, and at large-scale intensive livestock farms. Priority areas for improvement include (1) air quality in Tallinn and northeastern Estonia, (2) the collection and treatment of municipal and industrial wastewater, which is discharged into surface waters and the Baltic Sea, and (3) solid and hazardous waste management. The environmental chapter in this assessment of economic transition in Estonia reviews the country's environmental status, standards, legislation, institutions, monitoring, regulations enforcement, and identifies investment priorities for pollution abatement. The chapter also notes areas in special need of technical assistance and presents an Action Plan for the short- and medium-term that addresses environmental management issues in 17 areas, ranging from the revision of Environmental Impact Assessments to the disposal of oil-shale ash.

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Internet:
http://www.worldbank.orghttp://www.worldbank.org

Keskkond 1993 (Estonian environment 1993)

State-of-Environment Reports

Estonia. Ministry of the Environment. Environmental Information Centre, Tallinn, EE
1994, 94 p., charts, maps, statistical tables, En, Et

In the race between environmental requirements and economic development in Estonia, the former tends to lag, though not hopelessly. So concludes this survey of Estonian environmental policy during 1993. During the year, the country's institutional framework was restructured to lend the Ministry of the Environment broader jurisdiction; the system is much more contemporary than those of many European states. Monitoring was also reorganized, and contracts have been awarded for environmental data collection; however, budgets are small so only the most important areas are reviewed. Inventories of the damage caused by Russian military occupation continued during 1993, and the pumping of fuel from groundwater was begun at Tapa airfield. Estonia's participation in the conference of European Ministers of the Environment in Luzern, Switzerland, was the most significant activity on the international front. Construction of the Tallinn's wastewater treatment plant was the most successful project combining foreign aid, State, and local budget funding. Finally, six environmental laws were adopted, including the forest law; 20 laws governing water quality, protected species, natural resources, and land reform are pending; and three national parks (Vilsandi, Soomaa, and Karula) were founded. However, Estonia still needs to adopt the framework law on sustainable development (social sentiments have not favored its passage), and lack of funding has prevented the dissemination of environmental information. The report also includes information on the status of mineral, forest, water, and fishery resources, and on air quality.

Available from:
Estonian Environmental Information Centre (EEIC)
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-653

National report of Estonia to UNCED 1992

UNCED National Reports

Lahtmets, Mari, comp.
Estonia. Ministry of the Environment, Tallinn, EE
1992, 42 p., ill., charts, maps, statistical tables, En

Fifty years of centralized decision making from Moscow have degraded Estonia's environment as well as its economy, particularly in the North-East and Tallinn, the country's capital. Section 1 of this report provides a general overview of Estonia's natural resource base, history, population, education sector, economy, and environmental and nature protection. Section 2 provides a more detailed review of the country's natural resources, both mineral and biological. The former includes oil shale used in chemical and power production and building, limestone and dolomite used for building, phosphorite, sand and gravel, sea and lake muds (which are used for curative purposes), and mineral water, while the latter covers flora, fauna, forests, grasslands, mires (including fens, bogs, and swamps), and inland waters. Section 3 reviews environmental problems related to water quality (of particular significance given Estonia's location on the Baltic Sea coast), groundwater, air, soil quality, and waste disposal. The section also addresses the adverse health effects of environmental degradation, including effects from contaminated water and Soviet military occupation. Section 4 reviews Estonia's framework for environmental management, with discussion of institutions, legislation, economic measures, financing, policy priorities, and international cooperation.

Available from:
Ministry of the Environment of the Republic of Estonia
24 Toompuiestee Street
0100 Tallinn
Estonia

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-561

Finland

Finland's national report to the United Nations Commission on Sustainable Development (CSD): 13 January 1995

Agenda 21 National Reports 1995

Finland. Ministry of the Environment. Finnish National Commission on Sustainable Development, Helsinki, FI
Jan 1995, v.p., charts, map, En

Finland follows Agenda 21 Guidelines in preparing this report. Part I (Cross-Sectoral Issues) begins with a description of the role, composition, and work of the Finnish Commission on Sustainable Development. Among the Commission's accomplishments is the preparation of The Finnish Agenda 21, a national action plan of how to implement decisions made at the United Nations Conference on Environment and Development, at other international fora, and in Finland. A list of non-governmental organizations with membership in the national sustainable development coordination mechanism is provided, with their roles covered in separate chapters. Finnish development cooperation is described, particularly assistance programs for Central and Eastern Europe, areas in the Russian Federation close to Finland, and the Baltic Republics. This section of the report also includes annexes on environmental sound technology, combating poverty, changing consumption patterns, and demographic dynamics and sustainability. Information is provided using CSD Guidelines for Chapter 16: Environmentally Sound Management Technology (e.g., pending legislation on gene technology), Chapter 35: Science for Sustainable Development (e.g., organization of research in Finland), and Chapter 40: Information for Decision-Making (e.g., efforts to establish an integrated environmental and development information framework and inventory relevant databases; programmatic reports are enclosed). Under Part II (Sectoral Issues), Finland describes its integrated approach to the planning and management of land resources (Chapter 10) and its progress in implementing the objectives, activities, and elements of the Forest Principles and of Agenda 21 (particularly Chapter 11, Combating Deforestation). Finland's national plan covering forestry, Sustainable Forestry in Finland, is included as a part of this report, and several related reports are attached to it. Guidelines covering Chapter 12 and Chapter 13 are not filled out because there are no deserts or areas in danger of becoming deserts and no mountain areas of significance in Finland. Finland's efforts to promote sustainable agriculture and rural development (Chapter 14) and to conserve biological diversity (Chapter 15) are described using CSD guidelines and in annexes.

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Finnish Commission on Sustainable Development
Ministry of the Environment
International Affairs
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-641

Implementation of Agenda 21 in Finland

Agenda 21 National Reports 1994

Finland. Ministry of the Environment. National Commission on Sustainable Development, Helsinki, FI
1994, 122 p., charts, statistical tables, En

Although economic recession has slowed the progress of environmental reform in Finland, the country has taken several important steps in this regard. The Finnish National Commission on Sustainable Development was established in June 1993 with broad representation among governmental and nongovernmental groups. Other recent actions, described in this Agenda 21 report, include application of natural resource accounting in the forestry sector; development of indicators of sustainable development; development of a planned system of energy taxation which will promote conservation; approval by the Government of a new strategy for Finnish development cooperation; and enforcement of the "polluter pays" principle. Section I of the report provides general information on Finland's environmental policies, strategies, programs, and institutional structure; its progress toward sustainable development; the economic impact of environmental measures; trade and environment; Agenda 21 commitments related to finance; and participation in international activities. Section II examines cross-sectoral issues: international cooperation to accelerate sustainable development in developing countries and related domestic policies; changing consumption patterns; financial resources and mechanisms; and the transfer of environmentally sound technologies. Finally, Section III discusses the sectoral issues of human health, human settlements, freshwater

resources, and waste management, including that of toxic chemicals and radioactive materials.

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U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-721

Finland's national report under the UNFCCC

Climate Change Assessments, Strategies, and Action Plans

Finland. Ministry of the Environment, Helsinki, FI
1995, 32 p., statistical tables, charts, En

Finland is an industrialized country with vast forest area. Because of the structure of industry and the country's geophysical conditions, large amounts of energy are consumed. In 1990, carbon dioxide emissions from fossil fuels and peat and from industry totalled 54 million tons; wood burning added another 17 million tons, industrial processes 1.2 million tons, and emissions equivalent to imported electricity 11 million tons. The main focus of Finland's climate strategy is to intensify programs already underway, such as efficiency improvements in energy production and utilization and use of energy and carbon taxes, and to continue efforts to enhance carbon reservoirs and sinks through sustainable forest management. Additional measures are discussed in areas of energy policy (e.g., increased use of biofuels, new energy development, energy conservation program for the public sector, voluntary energy conservation agreements between government and industry); transportation (e.g., technical improvements, tax relief on cars with catalytic converters, speed limitation devices for heavy vehicles, taxes on car purchases and fuels, use of unleaded gasoline, subsidies for public transport, investments in rail network and in electrification, cut in the right to tax-deduct business travel costs, reduction in the transport subsidy to industry in developing areas, development of vehicles that use gas fuels, biofuels, and rapeseed (methyl ethers); agriculture (e.g., improvements in cowsheds and manure containers, better manure handling procedures, closer checks on and reduction in the use of chemical fertilizers, checks on the use of manure, increase in grass cultivation); and waste management (e.g., reduction in number of landfills, recovery and use of methane gas). Even with these measures, emissions will probably rise between 1990 and 2000, partly because it is assumed that all of the electricity used in Finland in the future will be produced there. Additional measures are being considered. In the area of international cooperation, the report describes Finland's assistance to developing countries and countries in economic transitions. Finland's research on climate change focuses on effects on ecosystems, strategies for adapting and combating these changes, the carbon balance of the peatlands, and adjustments of forests to changes in climate.

Available from:
Ministry of the Environment
PO Box 399
FIN-00121 Helsinki
Finland
Fax: +358 0 1991 9716
Internet: http://www.vyh.fi/welcome_eng.html

Finnish action for sustainable development

Environmental Strategies and Action Plans

Finnish National Commission on Sustainable Development, Helsinki, FI
1995, 180 p., charts, En

In accordance with Agenda 21, Finland has produced this summary of its Sustainable Development Action Program, outlining various measures that are already underway or planned for the next few years (1995-1997), both in Finland itself and with its international cooperation. Chapter One discusses environmental priorities—integration of ecological and economic concerns, maintenance of biological diversity, and promotion of sustainability in the forestry, agriculture, energy, and housing sectors—as well as means for pursuing these priorities through national programs, legal and economic instruments, research and technology, environmental impact assessments, and information, training, and education. Chapters Two through Four detail current and planned policy measures in: (1) economic development, labor policy, health and social welfare, and raw materials and energy use; (2) the industrial, agricultural, forestry, transportation, housing, public procurement, international trade and cooperation, development assistance, and technology transfer sectors; and (3) biological diversity, water resources (marine, coastal, inland, and groundwater), atmospheric quality,

and hazardous chemical regulation and waste management. Chapter Five discusses in more concrete terms the means identified in Chapter One for implementing the action plan.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-547

Environmental programme for forestry in Finland

Forest Assessments, Strategies, and Action Plans

Finland. Ministry of Agriculture and Forestry, Helsinki, FI;
Finland. Ministry of the Environment, Helsinki, FI
1994, 63 p., En

The New Environmental Programme for Forestry is a strategy of sustainable forestry adopted by Finland to reconcile the needs of commercial forestry, the conservation and protection of the environment, and the preservation and promotion of natural biodiversity. The program is intended to provide guidelines for Finland's forestry and environmental policy and for practical forestry activities and research, and to provide support for forestry-related training and guidance. This report starts out by defining the concepts of sustainable forestry, describing the target state of forests in Finland in the year 2005, and discussing forest protection policy needs for commercially exploited forests and conservation areas. It calls for a country-wide conservation program that addresses the protection, management, and maintenance of natural biodiversity, with protection of old-growth forests being urgently needed. Management practices in commercially exploited forests are reviewed: enhancement of forest health, vitality and wood production; management of key biotopes; fostering other forest uses such as natural and heritage landscapes, forest produce (e.g., wild edible mushrooms and berries), wildlife, and reindeer husbandry; and reducing environmental damage from runoff and fertilizer. New and reformed forestry legislation is proposed to address sustainable use of forests, financing sustainable forestry, promotion of biodiversity in forest ecosystems, prevention of damage to forests, and forestry matters pertaining to Finland's possible EU membership. Among the various aspects of financing conservation and management of forest ecosystems discussed are proposed changes in taxation for landowners who preserve forestland for non-commercial purposes. Changes in forest management planning, education, guidance, training, and environmental communication are proposed as ways to help to change attitudes, values, and practices in nature management. Also described are the roles of public and private organizations in environmental management, forest research needs, energy issues, international cooperation in environmental and forestry matters, and the economic impacts of the New Environmental Programme for Forestry. Programme follow-up is included. Environmental management principles pertaining to forestry practices are outlined in an annex.

Available from:
Ministry of the Environment
PO Box 399
FIN-00121 Helsinki
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Tel: +358 0 19911; Fax: +358 0 604934
Internet: http://www.vyh.fi/welcome_eng.html

State of the Finnish environment

State-of-Environment Reports

Finland. Ministry of the Environment. National Board of Waters and Environment. Environment Data Centre, Helsinki, FI
1993, 163 p., ill., charts, maps, statistical tables, En

Finland's remote northern location is both a blessing and a curse: though isolated from some of the impacts of environmental degradation occurring in other parts of the globe, its unique ecosystems are unusually fragile and slow to heal from the scars of human activity. An added disadvantage is that the impacts of the greenhouse effect and ozone layer depletion are likely to be felt more strongly in Finland than elsewhere. Following a discussion of the unique nature of Finland's arctic clime and the issue of air pollution originating abroad (mainly from Russia and Estonia), this report reviews Finland's environmental endowments and problems in regard to the following issues: (1) the loss of pristine natural habitats and biodiversity; (2) the effects of Finland's energy production and consumption; (3) pollution from Finland's leading industries, forest products and metallurgy; (4) pollution due to increasingly intensive agriculture and increasing use of private vehicles; (5) solid wastes from

private consumers and households and solid and hazardous residues from industrial and mining processes; (6) air quality and atmospheric emissions; (7) acidification of lakes, and increasingly, forests; (8) forests, the nation's most abundant resource; (9) Finland's abundant water resources; (10) the effects of toxins and carcinogens in air, water, and food upon public health; (11) environmental laws and legislation; and (12) the outlook for the future. Appendices include a list of major multilateral agreements to which Finland is signatory and methodological information. Includes numerous color photographs.

Available from:
National Board of Waters and the Environment
Environment Data Centre
P.O. Box 250
SF-00101 Helsinki
Finland
Tel: +358 0 731 44 211

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-514

France

Rapport de la France: extrait du rapport de la France a la Commission des Nations Unies pour le Développement Durable = Report of France: excerpt from the report of France to the United Nations Commission for Sustainable Development

Agenda 21 National Reports 1995

France. Ministère de l'Environnement, Paris, FR
Mar 1995, 27 p., Fr, En

France's progress in achieving the goals of Agenda 21, an international environmental action plan for the 21st century, is documented in this report. Part I reviews cross-sectoral issues, including the creation of the French Commission for Sustainable Development to serve as an oversight group and the identification of sustainable development indicators for water resources, land settlement and use, and environmental protection investments. Other achievements have included the creation of 13,000 new jobs to maintain waterways and environmental areas and improve waste management; improvements in energy management; and the introduction of environmental labeling on consumer products. Part II addresses sectoral issues, noting activities and achievements in forestry (92% of the French forest is no longer undergoing leaf-loss and tree mortality is never higher than 0.4% annually); international efforts to fight desertification in Africa; conservation of biodiversity; agriculture and rural development; and environmental planning. Part III explores achievements in environmental technology and discusses the newly established (1994) French Global Environmental Facility, which finances France's participation in global efforts to conserve biodiversity, protect international waters, and combat global warming.

Available from:
Ministère de l'Environnement
Direction Generale de l'Administration et du Developpement
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20, Avenue de Segur
75302 Paris 07 SP
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-626

Programme national de prevention du changement de climat

Climate Change Assessments, Strategies, and Action Plans

Government of France
1995, 71 p. + annexes, tables, charts, Fr

Measures adopted after the mid-1970s oil crises, including efficiency regulations and education, carbon taxes, and nuclear capability, have helped France reduce its CO2 emissions by -26.5% per capita from 1980 to 1990. This reduction compares favorably to the European Community average -19.3% and is second only to Sweden in the OECD. Due to these accomplishments, France estimates that further reductions will be more expensive than in other OECD countries and recommends that requirements for new reductions be set in relation to economic efficiency levels according to the the polluter pays principle. France supports the progressively implementation of EU-wide carbon taxes in areas where it is not likely to cause industrial relocation as well as the elimination of fossil fuel subsidies. Transport is France's biggest CO2 source at 35%, and the only one which has been increasing. Part of this increase

is due to expanding international trade. Counter measures proposed include both commercial and non-commercial: investigating the efficiency of heavy trucks and rolling back some of the deregulation of the industry which occured in the 1980s. France's gas tax is already higher than the EU average, and it encourages adoption of an EU-wide standard. In addition to the transport sector, the report also discusses the role of the construction, agriculture and electricity supply sectors in CO2 production. Forests and renewable energy sources are discusses for their CO2 reduction possibilities. Other greenhouse gases are addressed in separate chapters. The report concludes with sections on international assistance and global research. Five annexes provide quantitative information on sources and sinks and a final annex on French programs contributing to international research.

Available from:
Ministère de l'Environnement
Direction de la Prevention des Pollutions et des Risques
20, av. de Segur
75302 Paris 07 SP
France
Fax: +33 1 42 19 14 71

Plan national pour l'environnement: extraits du rapport préliminaire, éléments de réflexion (National environment plan: selections from the preliminary report, elements of consideration)

Environmental Strategies and Action Plans

France. Ministère de l'Environnement, Paris, FR
Sep 1990, 114 p., charts, statistical tables, Fr

Excerpts from France's preliminary National Environmental Plan are presented in this report. These excerpts are presented in four sections. The first reviews the Plan's current context. Key points include (1) the emergence between 1970 and 1990 of several technical and socioeconomic trends, e.g., the emergence of the global village, increased environmental risks associated with the growth and technification of the French economy, and the fragility of the seemingly advantaged French environment, with its mediocre record in such areas as air and water quality; (2) strengths and weaknesses of French public policy; (3) increased French environmental consciousness; and, (4) long-term concerns, such as global environmental threats and problems concerning resource stocks and waste accumulation. The second section outlines the principles and objectives of the National Environmental Plan, along with French response to international environmental efforts, while the third identifies means to implement the Plan: a capable Ministry of Environment, a "greening" of public policy and the economy with emphasis on preventing rather than healing environmental damage, and a willingness to pay the costs involved. Section four synthesizes environmental proposals around three orientations: expanded environmental goals; establishment of the means and competencies to achieve these goals; and adoption of a decentralized management method ultimately involving the entire French people. The report includes results of a 6/90 national survey on the environment as well as clippings of various articles and commentaries appearing in the press.

Available from:
Traitement de l'information sur l'environnement
Ministère de l'Environnement
14 Boulevard du General Leclerc
92524 Neuilly-sur-Seine
France

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-694

L'Environnment en France: rapport sur l'état de l'environnement en France (The environment in France: report of the state of the environment in France)

State-of-Environment Reports

Institut Français de L'Environnment, Orleans, FR
1994, 399 p., statistical tables, charts, maps, Fr

Information and graphics in this report were drawn from the French State of the Environment Report, published in 1994. Part I—The State of the Environment—describes the state of the natural environment, natural resources, and the living environment (marine and inland water, air quality, land use and land cover, wildlife, natural and technological risks, noise, waste, and urban areas). Part II—Human Activities and Pressures on the Environment—highlights sectoral contributions to changes in the environment (agriculture, forestry, energy, industry, and transportation). Part III—Response by Environmental Actors—focuses on environmental protection by national, regional and local government, European institutions, and French citizens. The report concludes with a summary of strong and weak points concerning the environment in France. Among the strong points: water resources are generally abundant; coastal

water quality is improving; protection of France's natural heritage is increasingly more effective; air emissions of carbon dioxide, sulfur dioxide, and suspended particulates are among the lowest in Europe; air pollution only affects a limited number of urban and large industrial areas; household waste collection is provided to 99% of the population; urbanization is limited to 5.6% of the total land area; major industrial risks are being managed; forest fires are fewer in number; and the Ministry of Environment's budget for environment has doubled. Among the weak points: river water quality is improving too slowly; drinking water does not meet coliform bacteria standards for 9% of the population and has nitrate concentrations too high for 3%; around 50% of lakes are affected by eutrophication; pollution caused by vehicle emissions (nitrogen oxides, ozone, and volatile organic compounds) is increasing in major cities; half of household waste and half of hazardous waste is landfilled; 6.6 million people are affected by high noise levels caused by land transportation; carbon dioxide emissions have increased since 1988-89; natural habitats such as dunes, hedgerows, wet grasslands, and wetlands are slowly, but steadily being lost; and half of the species and mammals and birds and a quarter of the species of freshwater fish are threatened. Localized pressures on the environment are also listed. An English summary has also been published.

Available from:
Librairie DUNOD
Rue Saint Sulpice
75278 Paris CEDEX 06
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Environnement et développement: l'expérience et l'approche Françaises (Environment and development: the French experience and approach)

UNCED National Reports

France. Ministère de l'Environnement, Paris, FR
Jul 1991, 315 p., statistical tables, Fr

France has long been aware of the seriousness of environmental problems such as pollution and environmental degradation and their effect on the quality of life. It was one of the first countries in the world to appoint a Minister of the Environment and to make a substantial contribution to the laws and institutions protecting the environment as well as to international efforts in this area. This national report on environment and development in France was prepared for the U.N. Conference on the Environment in Rio de Janeiro in 1992. The first part of the report discusses the environmental stakes in the 1990s and the rationale for a national action plan. The second part describes the physical environment of the country such as the atmosphere, waters, soil, forests, and biodiversity. The third part addresses environmental management within the context of sustainable development. Technological areas such as biotechnology, waste management, and chemical products are discussed as well as environmental legislation and information. The last part of the report presents strategies for environmental preservation on the international level. Also included is a special section discussing the role of nongovernmental organizations in environmental management.

Available from:
Charge de Mission
Ministère de l'Environnement
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Germany

Environment 1994: German strategy for sustainable development—summary

Agenda 21 National Reports 1995

Germany. Federal Ministry for the Environment, Bonn, DE
Aug 1994, 41 p., charts, maps, statistical tables, En

Germany's environmental policy for the 1990s, outlined in this policy report, is driven by the desire to integrate economic, social, and environmental concerns. The initial section of the report reviews the policy challenges posed by Germany's recent political reunification, opportunities for environmental cooperation within the European Union and internationally, and, in particular, the responsibilities of the new Laender (the former East Germany) to resolve the legacy of environmental degradation by developing environmental infrastructure, institutions, and legislation. The report also reviews: (1) specific policies governing chemical and waste management, air and water quality, natural resource conservation (including soil and landscapes), forest management, noise control, and nuclear energy; (2) Germany's intention to incorporate all environmental legislation into the Basic Law; and (3) current efforts to incorporate environmental protection efforts into other

areas of action and policy, including energy use, traffic management, agricultural activities, settlement development and land use planning, leisure activities, and defense. The concluding sections describe the impetus behind Germany's environmental research activities, and its international environmental cooperation with Central and Eastern Europe, the New Independent States, and western industrialized countries.

Available from:
Bundesministerium fur Umwelt, Naturschutz und Reaktorsicherheit
Referat Offentlichkeitsarbeit
Postfach 12 06 29
53048 Bonn
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Fax: +49 228 305 3225

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-627

German report to the 3rd CSD session 1995

Agenda 21 National Reports 1995

Germany. Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Bonn, DE;
Germany. Federal Ministry of Economic Cooperation and Development, Bonn, DE
[1995], v.p., statistical tables, En

Under the leitmotif of a social market economy with ecological responsibility, Germany is implementing a sustainable development strategy which takes account of its responsibility as a partner in the European Union and in worldwide cooperation. Thus concludes this document, the country's 1995 Agenda 21 report. The report is presented as a series of responses to the Agenda 21 survey form. Under Part I, cross-sectoral issues, the following topics are stressed: the introduction of environmentally sound industrial technology in the New Laender, environmental labeling of consumer products, Germany's overseas development projects in support of sustainable development, the country's increased expenditures on environmental research and other scientific initiatives related to sustainable development, and activities in environmental information management and sharing. This Part includes a short paper on environmental-economic accounting. Part II, covering sectoral activities, highlights the following areas: land use planning in cooperation with the European Union; national problems of soil pollution and land depletion; forestry; agricultural policy; sustainable mountain development (the Bavarian Alps); biodiversity; and biotechnology.

Available from:
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
P.O. Box 12 06 29
53046 Bonn
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Fax: +49 228 305 3225
Internet: http://www.bmu.de

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-642

Report of the Federal Republic of Germany to the UN Commission on Sustainable Development (CSD) for the 2nd session 1994

Agenda 21 National Reports 1994

Germany. [Ministry of the Environment, Nature Conservation and Nuclear Safety, Bonn, DE]
Feb 1994, 68, [3] p., statistical tables, En

Germany's report for 1994 on its progress in implementing Agenda 21 was prepared with the participation of German nongovernmental organizations, which have worked together in the Forum Environment and Development in diverse ways to help implement the directives of the Agenda and to evaluate the German government's progress in implementation as well. The report first addresses cross-sectoral subject areas, highlighting in particular efforts to strengthen the role of major groups. Other cross-sectoral issues discussed include international coordination, consumption patterns, financial resources, education and capacity building, and decision making structures. Part two of the report examines sectoral subject areas stressed by the Agenda for 1994, giving specific examples of actions planned or undertaken in the following sectors: human health; human settlements; water conservation; solid waste and sewage sludge; and toxic and hazardous products and wastes. The report is divided into Chapters corresponding to the Chapters of Agenda 21.

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Ministry of the Environment, Nature Conservation and Nuclear Safety
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Internet: http://www.bmu.de

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-723

Environmental policy: climate protection in Germany

Climate Change Assessments, Strategies, and Action Plans

Germany. Federal Environment Ministry, Bonn, DE
Sept 1994, 196 p., statistical tables, charts, En

This report updates and revives a 1993 report entitled "Climate Protection in Germany—National Report of the Federal Government for the Federal Republic of Germany in Anticipation of Article 12 of the United Nations Framework Convention on Climate Change." It provides an inventory of greenhouse gases (with the exception of CFCs and halons) for 1990 as well as emission trends and projections. Data for the former West Germany and the former German Democratic Republic are given separately along with totals for the unified country. Possible climate change impacts, although uncertain, are described for Europe's climate, aquatic and terrestrial ecosystems, and social and economic structures. Because of existing uncertainties, no measures for adapting to climate change are yet planned. Under Germany's climate protection strategy, the government aims to reduce all climate-relevant emissions by 50% by the year 2000 in relation to 1987 levels. Measures for achieving this goal (including approved/implemented measures, those currently being approved, and those whose approval is currently being prepared/planned) target the energy-supply sector and all energy-consuming sectors: private households and small consumers, industry, transportation, energy and waste-management providers, agriculture, and forestry. Other climate-protection tools include regulatory requirements, research and technology developments, information and consultation programs, education and training, and sequestering of carbon in forests. The report acknowledges that the Lander and many communities have also begun developing climate protection programs. National activities and contributions to international research and development programs are directed towards climate systems, climate change impacts, atmospheric research, terrestrial, polar, and marine research, environmental protection technology, and energy technology. Monitoring programs involve remote sensing, national data centers and databases, and information management. Education, training and public awareness programs, as described in this report, are also of decisive importance in meeting Germany's climate protection goal. International cooperation in the areas of technology and finance is discussed. Germany's outlook for success in climate protection concludes this report.

Available from:
Federal Ministry for the Environment, Nature Conservation and Nuclear Safety
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53048 Bonn
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Internet: http://www.bmu.de

OECD environmental performance reviews: Germany

OECD Environmental Performance Reviews

Organisation for Economic Co-Operation and Development, Paris, FR
1993, 227 p., charts, statistical tables, En

The significant progress made by Germany in addressing environmental issues over the past 20 years demonstrates that environmental degradation need not accompany economic growth. However, important concerns remain, including the state of the environment in Eastern German (the "new lands"), and the impacts upon Germany of pollution in its Baltic and Central European neighbors. Following an overview of Germany's physical, demographic, economic, and political characteristics, part one of this 3-part review addresses leading concerns: air pollution, solid wastes and contaminated site management, water management, and environmental restoration in the new lands, where water quality and availability have become major problems. Part two focuses on the integration of environmental concerns into Germany's macroeconomic policies as well as into sectoral policies in energy, transport, and the chemical industry. Part three discusses Germany's cooperation on environmental issues both with its immediate neighbors and with the world on matters such as exports of hazardous wastes and chemicals, protection of the ozone layer, climate change, and preservation of tropical rain

forests. Annexes contain a wealth of environmental and economic data in tabular form, a list of multilateral agreements with environmental implications to which Germany is a signatory, and a select bibliography.

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OECD Publications and Information Center
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E-mail: compte.pubsinq@oecd.org
Internet: http://www.oecd.fr

Environmental protection in Germany

UNCED National Reports

Germany. Federal Ministry for the Environment, Bonn, DE
[1992], 216 p., charts, maps, statistical tables, En

The accomplishment of German national unity, in October 1990, represents a major national challenge in the area of environmental protection, as there are many regions of severe pollution in the "new lands," the former German Democratic Republic. This report, the first overview of a united Germany's environment and environmental policy, was prepared by a national committee with representatives from all sectors of society. Chapter I presents basic data on the land, energy, and transportation sectors, and more detailed data on hazardous, industrial, and household waste management, water, soil, and noise quality, and wildlife and habitats, including forests and protected environmental areas. Chapter II reviews Germany's environmental policy. Chapter III discusses coordination among environmental agencies at the central, federal, and local government levels, while Chapter IV reviews the role of nongovernmental organizations, such as consumer and women's groups, scientific institutions, and trade unions, in environmental protection. Next, Chapter IV describes environmental laws and legislation, regional planning, education, research, and monitoring, and Chapters V and VI note the need to incorporate environmental concerns into both sectoral and macroeconomic planning. Chapters VII, VIII, and IX describe, respectively, ecological rehabilitation needs in the new lands; specific actions, laws, and ordinances; and specific areas of Germany's participation in international environmental protection programs.

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Greece

National report: Greece

UNCED National Reports

Greece. Ministry of the Environment, Physical Planning and Public Works, Athens, GR;
Greece. Ministry of Foreign Affairs, Athens, GR
1991, 104 p., charts, maps, statistical tables, En

Greece, the cradle and treasurehouse of one of the world's great civilizations, faces great challenges in preserving its natural and cultural heritage. This report, prepared for the 1992 U.N. Conference on Environment and Development (UNCED), documents socioeconomic trends in Greece, describes the management and status of the country's natural and environmental resources, and details the institutions, legislation, policies, and strategies proposed by the government to meet the country's environmental problems. Major environmental problems identified by the report include: waste disposal and air pollution problems in urban centers like Athens and Thessaloniki; environmental degradation from surface mining; pollution of inland and coastal waters; soil erosion due to fires, overgrazing, and steep slope cultivation; and environmental degradation associated with tourism. Current environmental priorities of the Greek Government are: conservation and management of ecosystems and protection of endangered species and their biotypes, protection of the marine environment from pollution, and abatement of air pollution in big cities. Also planned are efforts to raise the country's relatively low level of environmental awareness and participate in the international environmental movement.

Available from:
Ministry of the Environment
Patission Street 147
GR-11251 Athens
Greece

Hungary

Hungary: towards strategy planning for sustainable development—national information to the United Nations Commission on Sustainable Development

Agenda 21 National Reports 1994

Hungary. Ministry for Environment and Regional Policy. Hungarian Commission on Sustainable Development, Budapest, HU
1994, 53 p., En

This report details Hungary's progress as of 1994 in implementing Agenda 21. Following an introduction, Part II describes cross-sectoral issues, such as the transition to a market economy, the impact of the recent recession on production and consumption patterns, financial resources and mechanisms, and the use of environmentally sound technologies. Part III examines the following sectoral topics: human health, sustainable human settlements, freshwater resources, and toxic chemicals and hazardous wastes. In general, Hungary has made modest progress towards fulfilling the goals of Agenda 21: Parliament has just approved legislation for environmental impact studies, as well as the new medium-term energy policy paper, and will soon review a comprehensive environmental law. In addition, an environmental fund, which draws resources from a gasoline tax, has been developed, and the Hungarian Commission on Sustainable Development was established in 5/93 to coordinate implementation of Agenda 21 tasks. In some sectors, the development of institutional mechanisms and the integration of sustainable development criteria has been quite slow, although progress has been made in urban public transportation networks and coal mining. At present, Hungary may have to remain realistic in its expectations, as the principles of sustainable development may be able only very slowly to penetrate the fabric of its society. A list of national tasks and agencies responsible for implementing Agenda 21 is appended.

Available from:
Secretariat of the Hungarian Commission on Sustainable Development
Ministry for Environment and Regional Policy
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Hungary: stabilization of the greenhouse gas emissions. National communication on the implementation of commitments under the United Nations Framework Convention on Climate Change

Climate Change Assessments, Strategies, and Action Plans

Hungarian Commission on Sustainable Development, Budapest, HU
1994, 93 p., statistical tables, charts, En

Social and economic changes taking place in Hungary substantially affect contemporary and future emissions of greenhouse gases. Industrial production has declined and a considerable proportion of metallurgy, mining, agriculture, electronics, telecommunications, and fertilizer industries have disappeared. New activities have also appeared (e.g., passenger car production). Energy use and imports of primary energy resources and electricity have declined after a long period of growth. The structural decentralization of state-owned companies has increased, and new environmental standards are being introduced during this restructuring process. Due to the influence of these changes on greenhouse gas emissions and to lack of relevant research, Hungary has not elaborated an inventory of greenhouse gas emissions by IPPC/OECD or CORINAR methodology yet; instead, the default emission factors recommended by the IPPC/OECD methodology are used, but for carbon dioxide and methane only. Nonetheless, preliminary assessments for nitrogen dioxide, nitrous oxides, and volatile organic compounds calculated by simplified methods are presented. Hungary's climate change policies and measures are described: a national energy efficiency improvement and energy conservation program (whose goals include environmental protection, reducing dependency on imports, saving domestic energy

resources, postponing new electric power plants, increasing competitiveness of the economy, and adjusting to the energy policy of EU, OECD/IEA recommendations); raising public awareness of efficient uses of energy (the third nationwide campaign whose objectives are to spread awareness of the following: the connection between energy consumption and environmental quality; the ability to save energy and maintain or increase standards of living at the same time; energy saving as a positive sign of efficiency; and actions of individuals matter); a new forest policy to be implemented through a new forest law; and a program for reducing ozone depleting substances. Hungary predicts that carbon dioxide emissions should be returned to the base period (1985-1987) level by the year 2000. Future emissions of methane, nitrogen dioxide, nitrous oxides, and volatile organic compounds are also analyzed in the communication.

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National environmental and nature conservation policy concept [Hungary]

Environmental Strategies and Action Plans

Pomazi, I., ed.; Csanady, A.R., ed.
Hungary. Ministry for Environment and Regional Policy, Budapest, HU
1995, 92 p., ill., En

Hungary's National Environmental and Nature Conservation Policy Concept, which was accepted by the Government of the Hungarian Republic in 12/94 and is now under review by parliament, is published in this document. The Concept is based on western environmental policies developed over the last 20-25 years, and consists of two main parts, the first addressing environmental policy and the second nature conservation policy. Part 1 identifies nine principles on which Hungary's environmental policy is based, cites steps for pollution reduction, and identifies short- (up to the year 2000), medium- (2005), and long-term (2020) environmental priorities, and, in particular, those for human settlements. Part I also emphasizes the need for environmental cooperation among the private sector, the public sector (including central and local governments, and regional and international bodies), and the public; and identifies tools for implementing environmental policy through legal, economic, and administrative instruments, and research, development, and education. Part II identifies six principles on which Hungary's nature conservation policy is based, and then discusses the status of landscapes, geological-geomorphological resources, caves, soils, forests, grassy areas, wetlands, animal species, and flora. Part II also discusses plans for green corridors and biodiversity conservation, as well as the tools for implementing nature conservation. An annex lists the international environmental conventions in which Hungary participates.

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Hungary: towards strategy planning for sustainable development—national information to the United Nations Commission on Sustainable Development

Environmental Strategies and Action Plans

Hungary. Ministry for Environment and Regional Policy. Hungarian Commission on Sustainable Development, Budapest, HU
1995, 99 p., charts, statistical tables, En

This report details Hungary's progress on certain elements of Agenda 21 of the Rio Declaration of the 1992 U.N. Conference on the Environment and Development. Following an introduction, Part II describes cross-sectoral issues, such as the relationship between environment and labor policy, the relationship between the environment and population policy, financial resources for environmental protection, and the availability of environmental information for decision making. In Part III, national-level problems and plans for sectoral elements of Agenda 21 are appraised. This Part examines: land use from 1945 to 1989, and from 1990-1994, as well as tools for sustainable land use; drought management; sustainable forestry; biodiversity protection; and biotechnology for soil and water treatment, production of biomass, and in industrial production and recycling processes. The report concludes that while collaboration between the country's few environmental organizations has improved, public awareness and acceptance of sustainable development behaviors are not increasing—possibly a result of socioeconomic pressures

wrought by an economic transition that has placed little emphasis on environmental protection. Nonetheless, progress has been made in some areas: a new Environment Protection Act will soon be presented to Parliament, waste management and nature conservation laws have been drafted, environmental criteria are being incorporated into sector-oriented legislation, and a comprehensive national environmental protection plan is being prepared.

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Government of the Hungarian Republic: national report to the United Nations Conference on Environment and Development—1992

UNCED National Reports

Hungary. Ministry for Environment and Regional Policy, Budapest, HU
Dec 1992, 56 p., statistical tables, En

Radical socioeconomic transformation has afforded Hungary the unique opportunity to build environmental concerns into its future economic framework. Section I of this 1992 National Report to the U.N. Conference on Environment and Development discusses Hungary's economic and political history in terms of environmental policy and social movements, institutional framework (including laws and regulations), and impact on social structure and human health. Section II describes the status of Hungary's land and water resources, air, biosphere, nature conservation, landscape, and urban areas. Section III presents Hungary's environmental strategy, reviewing its principles (sustainable development, prevention of environmental degradation, integration of environmental and socioeconomic policy, international cooperation, and popular participation), and identifying its priorities, which include improved air and water quality, safe management of hazardous wastes, expansion of conservation efforts, improvement of the built environment, and urban environmental protection. A brief Section IV discusses the importance of international cooperation given Hungary's geographical, political, and economic position. Currently, the country takes the lead in initiating environmental cooperation in Central Europe.

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Iceland

Towards sustainable development: national environmental strategy of Iceland

Environmental Strategies and Action Plans

Iceland. Ministry for the Environment, Reykjavik, IS
1993, 51 p., En

Despite its reputation for a relatively untouched natural environment, Iceland faces serious environmental problems. For example, it is estimated that about 80% of Iceland's vegetation and soil resources have been lost since settlement of the country in the ninth century. More recently, cod stock has decreased drastically, refuse from trawlers has increased, precious natural wonders are threatened by pressures from tourism, drainage and cultivation of wetlands has affected flora and fauna in these areas, and waste is often disposed of in an unsatisfactory way. This report outlines Iceland's National Environmental Strategy. Key objectives are to: (1) reduce local pollution, waste generation, and pollution of the atmosphere; (2) complete improvements in waste management; (3) attain sustainable use of natural resources; (4) enhance protection of vegetative cover and improve soil conservation; (5) conserve biological habitats, as well as flora and fauna; (6) promote sustainable regional development; and (7) participate in international environmental activities. To achieve these objectives, Iceland hopes to motivate citizens, nongovernmental organizations, businesses, and public authorities to participate in environmental conservation and for sustainable development. Particular emphasis is placed on preventive measures and the application of economic instruments (such as the principle that those who profit from or abuse the environment should pay for their activities), as well as increased and more

coordinated environmental research, monitoring, and information.

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U.S. Agency for International Development
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Order No.: WRI-542

OECD environmental performance reviews: Iceland

OECD Environmental Performance Reviews

Organisation for Economic Co-operation and Development, Paris, FR
1993, 129 p., charts, statistical tables, En

After rapid economic expansion in the 1970s and much of the 1980s, Iceland is now in a period of sluggish economic growth. Future growth will depend largely on sustainable development of the country's natural resource base and on its comparative advantage of having an environment that is both actually clean and is perceived as clean. Together with such international issues as protection of the seas and the atmosphere, these facts have pushed environmental protection and its relationship with development to the forefront of public opinion polls in Iceland and onto the country's agenda. The present report sets out the baseline for assessing environmental progress and examines Iceland's environmental performance in four major strategic areas: management of marine and other natural resources; reduction of pollution; integration of economic and environmental decisionmaking; and international cooperation. In each of these areas, the extent to which government policy objectives are being met is assessed. Of note is that Iceland's environmental objectives, on both the domestic and international fronts, are generally expressed as broad aims or qualitative goals rather than as quantitative targets. The fisheries management system constitutes a notable exception. (Author abstract, modified)

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Iceland national report to UNCED

UNCED National Reports

Iceland. Ministry for the Environment, Reykjavik, IS
1992, 204 p., statistical tables, En

Having lost nearly 80% of its vegetative cover and soils, Iceland is well aware of how fragile ecosystems can be. However, due to its sparse population, low level of industrialization, and use of environmentally sound and renewable hydro and geothermal energy resources, pollution in Iceland is relatively low. Further, the concentration of urban settlements along the coast has precluded major sewage and sanitation problems, while a focus on animal husbandry rather than crop cultivation has precluded major problems with fertilizers and pesticides. This report describes Iceland's economy, environmental resources, and their interrelation; reviews the policy and legislative steps taken by the government to achieve environmentally sustainable development; and details specific programs and projects in the areas of nature conservation, management of ocean resources, soil conservation and afforestation, physical planning and construction, pollution control, environmental education and public relations, public health, environmental economics, and disaster preparedness and mitigation. Iceland's participation in regional and worldwide environmental efforts is also examined.

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Ireland

National report to the United Nations Conference on Environment and Development: Ireland

UNCED National Reports

Ireland. Department of the Environment, Dublin, IE
1992, 73 p., charts, En

By the standard of industrialized countries, Ireland has exceptionally high environmental quality: only 1% of river channel length is seriously polluted; air pollution is localized and major problems have been successfully addressed; land contamination is limited; and hazardous waste production is relatively small. Nevertheless, in Ireland, as elsewhere, proper environmental management will present increasingly formidable challenges and resource demands against a backdrop of budgetary constraints. Part 1 of this report provides background information on Ireland's population, infrastructural development, and economy. Part II describes the major economic and development sectors and their impact on the environment, including agriculture, industry, fisheries, tourism, energy, forestry, transport, and primary public services (e.g., water supply and sewerage). Part 3 describes strategies which have been implemented or are being developed to promote environmental protection and sustainable development, the basic coordinating mechanism for which is the National Environment Action Program published in 1990. Appendices list: governmental and nongovernmental organizations consulted during preparation of the report; official publications and reports on the environment; national legislation relating to the environment; and international environmental agreements to which Ireland is a party.

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Italy

Italy: progress in the implementation of the national plan for sustainable development—voluntary information to the U.N. Commission on Soustainable [i.e. Sustainable] Development

Agenda 21 National Reports 1995

Italy. Ministry of the Environment, Rome, IT
10 Apr 1995, 26 p., En

This report provides an overview of Italy's National Plan for Sustainable Development and describes the actions that have been initiated since the Plan was approved in December of 1993. It does not use the CSD 95 Guidelines for National Information on Agenda 21. The first section outlines Italy's present and expected commitments in the area of international cooperation for sustainable development and its participation in multilateral initiatives (research on climate change, reducing greenhouse emissions, conserving biological diversity, combating desertification, and protecting forests). The next six sections follow the organization of the Plan, focusing actions on the more traditional sectors: energy; industry; agriculture and forestry; transportation; and tourism. The Plan also calls for the need to radically alter the attitudes of public and private entities towards waste. The problems are grouped together in a way that should facilitate implementation by national administrators and other entities concerned. Each of these sections briefly describes the situation in Italy, the suggestions made in Agenda 21, the objectives to be given priority, and the actions and instruments needed; they conclude with a summary of the proposed programs and the parties responsible for implementing the Plan. Matters of crucial importance, such as the sea, the urban environment, soil conservation, and protected areas, together with other environmental concerns (air, water, soil, wildlife, landscape, etc) are targeted by the Plan. The final three sections deal with other Agenda 21 topics: approaches to the transfer of environmentally sound technology; biotechnology; and scientific and technological research. These areas are described as fundamental components of the policy aimed at sustainable development. Their purpose is to augment the body of scientific, social and practical knowledge to enable progress from the solution of individual problems to a solution in which results from various fields of research are sufficiently consolidated to deal with the complexity and interdependence of environmental issues.

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OECD environmental performance reviews: Italy

OECD Environmental Performance Reviews

Organisation for Economic Co-Operation and Development, Paris, FR
1994, 208 p., charts, statistical tables, En

After a relative decline during the 1980s, nature protection has resumed its traditional high place in Italian policy with the enactment of laws such as the Framework Law on Protected Areas in 1991 and the Law on Hunting in 1992. Following an overview of the physical, demographic, social economic, political, and legislative context for environmental protection in Italy, this review begins by examining the status of Italy's biodiversity and protected natural areas, as well as the state of, and responses to, problems with atmospheric emissions and air quality, solid wastes, and degradation of fresh and marine water resources. Part two examines Italian environmental policy in more depth, and specifically, how environmental concerns are integrated into economic policy and sectoral policies in transport and energy. Finally, Part three examines Italy's cooperation with other nations on environmental matters at the global, regional, and subregional levels. Recommended areas of improvement conclude the report. Annexes present selected environmental and economic statistics (with Italy's figures in bold) as well as a chronology of Italian participation in selected regional and global multilateral environmental agreements.

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Report on the state of the environment in Italy: survey for environmental impact assessment, public information and the report on the state of the environment

State-of-Environment Reports

Italy. Ministry of the Environment, Rome IT
1993, 2 v., ill., charts, maps, statistical tables, En

This second biennial Report on the State of the Environment in Italy provides a detailed picture, as of 1992, of the environmental challenges facing the country, highlighting critical needs concerning water purification, waste disposal, enforcement of quarrying regulations, pollution control, and land use planning. After an introductory discussion of the growing problem of atmospheric issues worldwide and of international environmental policy, the main volume of the report is divided into three sections. The first assesses the status of and legislation related to Italy's protected areas, vegetation, fauna, soil, air, water supply, and noise levels. The second examines environmental pressures exerted by the demand for land, waste production and disposal, radioactivity and ionizing radiation, and industrial, transportation, agricultural, and energy pollution. The third section describes Italy's Three-Year Environment Safeguard Programme and reviews public environmental expenditures, environmental education and public environmental research activities, economic policies that support environmental protection, and studies for long-term environmental planning. A supplementary volume contains five fold-out maps showing: geomorphological stability; recent movements of the earth's shell, high intensity earthquakes, and volcanic risk; real vegetation of Italy; protected areas; and energy infrastructure. Includes numerous photographs, charts, and graphs.

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U.S. Agency for International Development
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Order No.: WRI-516

Latvia

Summary of the first national communication under UNFCCC

Climate Change Assessments, Strategies, and Action Plans

Latvia. Ministry of Environmental Protection and Regional Development, LV
1995, 15 p., statistical tables, En

Because of the major changes taking place in the transition from centrally planned economy model to market relations, the Republic of Latvia reports difficulty in accurately assessing activities of subsectors of the economy (particularly industry), evaluating greenhouse gas emissions, and projecting future emissions. Nonetheless, this first communication provides general information about Latvia, an inventory of greenhouse gases and initial climate policy and measures for the non-industrial sector, and projections of efficiency of measures for the energy sector. Aggregated greenhouse gas emissions in Latvia for the period 1990-1994 dropped significantly due to processes of restructuring and decline of production and fragmentation in many sectors of industry and collective farming. Latvia 's climate policies and measures, largely a combination of environmental protection policy and of development strategies in various economic sectors, are presented for energy, transportation, agriculture, forestry, and waste sectors. They include: economic measures (natural resource tax, differentiated excise tax for fuel in favor of gas, fines); laws (regulation of vehicle inspection, speed limits, laws on land and forest management, laws on protection of atmospheric air); education information (awareness building action, education of vehicle drivers, ads on energy saving in mass media, training courses); government measures (free market price for fuel, organization of energy saving campaign, reconstruction of heating network, installation of heat meters, utilization of alternative energy, construction of hydroelectric plants, financial support for research, improvement of public transit system, preservation and renewal of forest resources, land use supervision system, establishment of waste management administration, construction of waste reprocessing plant); voluntary actions (e.g., adequate storage of organic fertilizers and manure, proper timing of fertilizer and manure application, waste sorting, waste reduction); and scientific studies (development of technologies for improved combustion of fuels, providing state-of-the-art equipment for gas companies, study of utilization of biogas, development of recycled waste utilization technologies). Projections of reductions in greenhouse gas emissions are presented in three scenarios of economic development.

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Ministry of Environment Protection and Regional Development
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Latvia: the transition to a market economy

Other Environmental Studies

World Bank, Washington, DC, US
1993, xxiv, 305 p., maps, statistical tables, En

The environmental section of this assessment of economic reform and transition in Latvia reviews the country's environmental status, standards, legislation, institutions, monitoring, and regulations enforcement. The study finds that Latvia, a major importer of electricity and natural gas with significant domestic sources of hydropower, has a considerably lower level of air pollution than most Central and Eastern European countries. The country's environmental problems are concentrated in major urban and industrial areas, at industrial sites in secondary towns, at intensive livestock enterprises, and at agricultural chemical storage areas. Heavy pollution of the Daugava and Lielupe rivers has seriously affected water quality in the rivers and the Gulf of Riga, and groundwater pollution is a problem in areas adjacent to solid and hazardous waste disposal sites and major agricultural facilities. Many of Latvia's environmental problems are the result of poor environmental planning in urban development and the siting of industrial facilities and disposal locations for solid wastes, hazardous materials, and sludge. A key constraint is the lack of a national environmental strategy. The report identifies priority investment areas for pollution abatement, as well as technical assistance needs.

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National report of Latvia to UNCED 1992

UNCED National Reports

Latvia. Environmental Protection Committee, Riga, LV
1992, 86 p., statistical tables, En

Latvia faces significant environmental protection and environmental health problems on both the national and local levels. Most of the country's environmental problems are concentrated in urban industrial areas, selected smaller industrial sites, and around intensive livestock enterprises and agrochemical storage areas. Heavy pollution of the Daugava and Lielupe Rivers from point and non-point sources has had serious impacts of the Gulf of Riga as well, and ground water pollution occurs locally, especially near waste disposal sites and agricultural facilities. Other environmental problems have arisen from the Soviet military occupation and transboundary river and air pollution. Part I of this report describes Latvia's natural resources, major economic activities, and the impacts of these activities on the environment. Part II presents Latvia's responses—policies, education, legislation, programs, and participation in international efforts. Emphasis is put on the need to: replace environmentally damaging technologies; tax environmental abuses; ensure compulsory environmental protection through legal and economic mechanisms; implement strict ecological inspections of industrial and craft facilities; protect Latvia's unique biotopes; develop improved waste management systems; and provide ecological education.

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Lithuania

Lithuania: the transition to a market economy

Other Environmental Studies

World Bank, Washington, DC, US
1993, xxix, 397 p., map, statistical tables, En

Lithuania's environmental protection and health problems are moderate compared with those in Upper Silesia, northern Bohemia, or the St. Petersburg region in Russia. Environmental problems are concentrated in urban areas and at industrial and energy facilities, which are dispersed throughout the country as the result of the decentralized development policy followed during the Soviet period. Mitigation of serious point- and non-point-source water pollution in the Nemunas River, the Kursiu Lagoon, and the north Baltic Sea coast will require a long-term effort. Lithuania also needs to construct a series of major municipal wastewater treatment systems, control widespread discharges from large-scale livestock and poultry farms, reduce air pollution associated with thermal power generation and vehicle emissions, and manage solid and hazardous waste, especially in Kaunas. This environmental review, one chapter in a broad assessment of economic transition in Lithuania, covers the country's environmental status (air and water quality, waste management, forests, protected areas and wetlands), standards, legislation, institutions, monitoring, and regulation enforcement, and identifies investment priorities for pollution abatement, as well as technical assistance needs.

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National report: United Nations conference on environment and development

UNCED National Reports

Lithuania. Environmental Protection Department, Vilnius, LT
1992, 137 p., charts, maps, statistical tables, En

Lithuania is still suffering the environmental effects of 50 years of Soviet occupation, in particular the damage done by thermoelectric plants and factories producing fertilizers, chemicals, petrochemicals, and construction materials. The Ignalina nuclear power station also remains a serious potential threat. This report assesses Lithuania's environment and assembles an environmental strategy. Part I describes Lithuania's population in terms of distribution, employment, and ethnic composition. Part II considers economic trends and the ways in which the country's industrial, agricultural, and energy sectors might be restructured. Part III assesses the country's environment, including air and water pollution, soil erosion, waste products, the effects of the Soviet occupation on the land use, flora, fauna, protected areas, and environmental health hazards. Part IV identifies policy goals and strategies in the areas of environmental legislation and regulation, environmental impact assessment, economic incentives, ecological monitoring, and ecological education. Finally, Part V discusses existing and planned means of implementing these goals and strategies, specifically covering atmospheric pollution control, ozone layer protection, water protection, waste management, and land management and landscape protection.

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Luxembourg

Rapport analytique du Luxembourg sur l'application de l'Agenda 21 (Luxembourg's analytic report on the implementation of Agenda 21)

Agenda 21 National Reports 1994

Luxembourg. Ministère des Affaires □trangeres, Luxembourg, LU;
Luxembourg. Ministère du Commerce Extérieur et de la Coopération, Luxembourg, LU;
Luxembourg. Ministère de l'Environnement, Luxembourg, LU
Mar 1994, [41 p.], statistical table, Fr

Luxembourg's first report on national progress in implementing Agenda 21 is presented. The report is in two parts. The first and longer part emphasizes the sectoral objectives of the Agenda, examining Luxembourg's achievements in areas of health, sustainable human settlements, water management, and the management of toxic chemicals and hazardous wastes. The second part briefly reviews progress in providing environmental assistance overseas and promoting the transfer of environmental technologies. Recent accomplishments include, inter alia, introduction of a system of energy audits, a program to reduce carbon dioxide emissions, creation of a national geographic information system, and enactment of legislative and technical measures to control hazardous wastes. A report on the activities of Luxembourg's Energy Agency is appended.

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Order No.: WRI-728

L'état de l'environnement 1993 (State of the environment 1993)

State-of-Environment Reports

Luxembourg. Ministry of the Environment, LU
June 1994, 372 p., tables, charts, maps, Fr

This report is the first of its kind for Luxembourg, and is designed to serve the public at large and international audiences as well as national policymakers. An overview of the physical, social, institutional and legal context precedes the body of eight chapters covering: geology, atmosphere and air pollution, water, agriculture, forests, nature protection, urban and economic development, and wastes. Numerous tables, graphs and maps are included, many presenting an international context either through comparison to standards such as WHO or statistics from other OECD countries. Each chapter is followed by a its own index, however, there is no overall index. The chapters roughly parallel Luxembourg's sectorally-based institutional and legal framework for environmental management. A Forest and Water Department has existed since 1840, an Environment Minister was appointed in 1971, an Environment Department created in 1980, and all were combined into an Environment Ministry in 1984. There is no overall legal environmental framework, although the Ministry brings together sectoral laws in a document know as the Environmental Code. Much responsibility rests with local authorities, and in increasing popular intercommunity cooperatives and public/private incorporated bodies.

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Malta

Malta's national report for the United Nations Conference on Environment and Development, 1992

UNCED National Reports

Malta. National Committee of Malta for the United Nations Conference on Environment and Development, Valletta, MT
1992, 75 p., statistical tables, En

The concentration of urban expansion, industrial facilities, and tourism along Malta's coasts has resulted in severe environmental pressures in those areas, including waste and sewage pollution, abandonment of agricultural land, active quarries, and threats to natural ecosystems. Malta's response to this threat is presented. Part 2 gives background on Malta's geography, climate, demography, economic performance, and ecology, while Part 3 examines the main economic sectors (agriculture and fisheries, industry, tourism, services, and energy). Part 4 discusses development and its impacts going back to medieval times; topics include development along Malta's coasts, patterns of urbanization, degradation of rural landscapes, and Malta's world class historical and cultural sites; appended to this section are surveys of Malta's coasts and underwater habitats. Part 5 discusses government responses to environmental and development issues, first reviewing policies going back 20 years, followed by a look at the 1990 Environmental Protection Act, planned institutional development within the Ministry of the Environment, the structure and functions of the Council for Science and Technology (established in 1988 as a key advisory body), and public environmental education. Part 6 lays out a 20-year plan, which details policies in the areas of settlement patterns, construction, housing, social and community facilities, commerce and industry, agriculture and fisheries, minerals, tourism and recreation, transport, conservation, and public utilities. Part 7 discusses Malta's contribution to the international environmental movement.

Available from:
Ministry for the Environment
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Internet: http://www.magnet.mt/

Moldova

Moldova: studies formulated by Moldovan consultants—volume III

Other Environmental Studies□

U.N. Development Programme, Chisinau, MD
Jan 1994, ii, 124 p., statistical tables, En

In the 1970's while still part of the Soviet Union, Moldova began to address issues in environmental protection and the relationship between the environment and the economy. Later, in 1990, the concept of sustainable development was introduced to Moldova, but at first neither political leaders nor the scientific community recognized its importance. More recently, however, the Moldovan government has financed studies in sustainable development, some results of which are presented in the first chapter of this document. The chapter briefly discusses the following hot topics: Moldovan environmental research since 1987; economic, demographic, and industrial issues relating to the environment; the country's limited water supply; the distribution of agricultural and forest land; waste management; energy resources; water and air pollution; and environmental legislation and regulation, especially fees and taxes for utilizing natural resources and penalties for environmental violations. The document also includes a chapter on disaster preparedness, which discusses both natural calamities and radioactive and chemical contamination, among other issues. Other chapters address: human rights; the educational system; social organizations; technological dependence; and political development.

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Monaco

Rapport national pour a Conférence des Nations Unies sur l'Environnement et le Développement: La Principauté de Monaco (National report for the United Nations Conference on Environment and Development: Monaco)

UNCED National Reports□

Principauté de Monaco. Departement des Travaux Publics et des Affaires Sociales. Service de l'Environnement, Monaco, MC
[1992], 54 p., Fr

Pollution of the atmosphere is one of the main environmental problems facing the Principality of Monaco. Monaco's air pollution is due to emissions from incinerated household, animal, and industrial wastes, as well as from motor vehicles and fallout from the Chernobyl disaster. Pollution of the surrounding Mediterranean Sea by effluent from industrial centers in Italy poses another major problem. This national report on the environment and economic development in Monaco addresses these as well as other environmental issues and covers the following information: (1) the quality of the environment, including air and water pollution, solid wastes, and noise pollution; (2) natural environmental hazards; (3) government efforts to improve environmental quality, ensure water supply, recycle wastes, preserve biological diversity, establish protected areas, and sponsor scientific research; (4) environmental legislation and regulations; (5) international cooperation; and (6) education and participation of the public.

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Netherlands

Netherlands' national communication on climate change policies

Climate Change Assessments, Strategies, and Action Plans

Netherlands. Ministry of Housing, Spatial Planning and Environment, The Hague, NL
1994, 105 p., tables, charts, maps, En

This National Communication provides a broad overview of the Netherlands' climate change policies, focusing on the national reduction of greenhouse gases in 2000 and projecting reduction possibilities beyond 2000. The Netherlands' inventory of greenhouse gases includes carbon dioxide, nitrogen dioxide, nitrou oxides, carbon monoxide, volatile organic compounds, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Trends indicate a reduction in carbon dioxide since 1992. Removals by sinks are low in the Netherlands (less than 0.1% of total carbon dioxide emissions). The Netherlands's climate change policies, which had already been established before the Framework Convention was signed, were updated in 1993. Included is a gas-by-gas approach, with targets, to reducing greenhouse gas emissions. Targets for HFCs and PFCs have not yet been set. Policies and measures described rely on a combination of instruments, including voluntary agreements (preferred as a means of securing acceptance of measures by all relevant participants), standards and regulations, fiscal and financial stimuli, information, and research and development. Estimates of future trends in greenhouse gas emissions show a 4% reduction in carbon dioxide by 2000 compared to 1990 levels, but an increase thereafter without additional policy changes. Methane reductions, often the beneficial result of policies related to reducing landfilling, acid deposition, and manure surplus, are projected to decrease by about 25% by the year 2000 and decrease further thereafter. Nitrous oxide, carbon monoxide, and volatile organic compound emissions are expected to decrease considerably over the next decades. Options to reduce nitrogen dioxide and fluorocarbon emissions are being explored. The report describes the Netherlands' susceptibility to changes in sea level and related changes caused by extreme weather and hydrological conditions and discusses possible adaptations to these climate changes. Described also are: the Netherlands' initiatives on Joint Implementation; financial assistance and international cooperation; research and monitoring (including national programs, links with international research efforts, other contributions to climate change research infrastructure, and technology research and development); and information campaigns.

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Internet: http://www.minvrom.nl/

OECD environmental performance reviews: Netherlands

OECD Environmental Performance Reviews

Organisation for Economic Co-operation and Development, Paris, FR
1995, 231 p., charts, map, statistical tables, En

The Netherlands' high population density, position downstream and downwind of major European industrial areas, intensive agricultural activities, and prominent transport industry are the major causes of its environmental problems, according to this review of the country's environmental performance. The transport sector, for example, is a major contributor to climate change and acidification, and is also a cause of air, noise, and odor pollution, while agricultural activities have resulted in destruction and fragmentation of natural habitats, high pressure on water resources, dispersion of toxic and hazardous pollution, eutrophication, emission of greenhouse gases, and acidification. Part I of the report reviews the status and management of the country's water resources, air quality, waste and soil management, and nature conservation efforts, while Part II reviews efforts to integrate environmental and economic policy, especially in the transport and agriculture sectors. Part III discusses bilateral, regional, and global environmental initiatives; international cooperation is of particular importance to the Netherlands because of regional environmental interdependencies (e.g., transfrontier air and water pollution, North Sea pollution) and economic interdependencies (given its economic status as a "gateway to Europe"). A series of specific recommendations are detailed in conclusion. Annexes present selected economic and statistical data and a chronology of significant environmental events during the period 1988-1993.

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Internet: http://www.oecd.fr

Netherlands' national environmental policy plan 2—the environment: today's touchstone

Other Environmental Studies

Netherlands. Ministry of Housing, Spatial Planning and the Environment, The Hague, NL
1994, 242 p., ill., charts, statistical tables, En

The Netherlands' first National Environmental Policy Plan (NEPP 1) in 1989 received international attention for its highly integrated approach to long-term environmental planning, and has produced significant results in prompting pollution reduction among its main target groups—large industries, refineries, and agriculture. This document, NEPP 2, lays down a framework for the period 1995-1998. Like its predecessor, NEPP 2 focuses on implementation issues, taking an integrated approach driven by objectives for eight environmental themes—climate change, acidification, eutrophication, toxic and hazardous pollutants, waste disposal, environmental disturbances (e.g., air and noise pollution), water depletion, and resource squandering. However, NEPP 2 places additional emphasis on strengthening implementation and targeting difficult to reach groups—consumers, the retail industry, and small and medium-sized enterprises. Following an introduction, Chapter 2 outlines NEPP 2's strategy for strengthening implementation, and discusses the long-term agenda for achieving sustainable consumption patterns and production processes. The Plan's international strategy is explained in Chapter 3. Chapter 4 presents the eight themes in detail; Chapter 5 discusses policies for reaching each of the Plan's target groups. The manner in which cooperation and compliance will be monitored and enforced is dealt with in Chapter 6. Finally, Chapter 7 summarizes the financial and economic implications of NEPP 2. An annex summarizes key action points of the plan, research requirements for which are expected to be solidified at a later time.

Available from:
Ministry of Housing, Spatial Planning and the Environment
Department for Information and International Relations
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2500 EZ The Hague
The Netherlands

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-474

National environmental outlook 2: 1990-2010

Other Environmental Studies

Netherlands. Rijksinstituut voor Volksgezondheid en Milieuhygiene, Bilthoven, NL
1992, 533 p., charts, maps, statistical tables, En

The Netherlands' National Environmental Policy Plan (NEPP) and its companion document, called NEPP+, define a strategy for achieving the country's environmental goals by 2010. This technical report examines the degree to which the measures in NEPP and NEPP+ are sufficient to actually achieve the stated objectives of those plans. Based on the latest insights from the natural sciences and future expectations in the areas of population growth, economy, energy use, motor traffic, and agriculture, the report finds that further measures are needed if NEPP and NEPP+ are to achieve their objectives by 2010. For example, established measures will reduce emissions by only 50-60%, not by the NEPP goal of 80-90%. Moreover, these measures will allow an increase in carbon dioxide emissions, and in the use of energy and raw materials. The report also finds that continued growth in production and consumption will require drafting and implementation of supplementary measures to ensure environmental soundness. The report covers broad socioeconomic developments; global, continental, regional, and local environmental problems; natural resource management; fluvial environmental problems at the national and regional levels; and the effects of environmental problems on public health and regional environmental quality, as well as on specific sectors such as agriculture, transportation, industry, and retail trade. Each chapter includes references.

Available from:
National Institute of Public Health and Environmental Protection (RIVM)
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-509

Environmental policy performance indicators: a study on the development of indicators for environmental policy in the Netherlands

Other Environmental Studies

Adriaanse, Albert
Netherlands. Ministry of Housing, Physical Planning and Environment, The Hague, NL
Apr 1993, 175 p., charts, maps, statistical tables, En

During the preparation of the Dutch National Environmental Policy Plan (NEPP) in 1987-1989, it became obvious that instruments were needed to assess measures implemented under the plan. This book reports the development of performance indicators for the main environmental policy issues in the Netherlands. It presents indicators for NEPP themes (climate change, ozone layer depletion, acidification, eutrophication, dispersion of toxic substances, disposal of solid waste, and disturbance of local environments), and indicators for targeted sectors (e.g., agriculture, energy, building trades, consumers). The indicators make it possible to compare different emissions and agents affecting the environment, which was not possible before. In order to aggregate the different types of environmental pressures, a basis for comparison was developed, the environmental pressure equivalent. In this way, interventions, effects, and mitigating measures can be expressed in the same unit of calculations, and geographical aspects can be taken into account. In conclusion, the book describes the potential uses of these newly developed tools in such fields as integration of environment and economy, development of indicators for specific geographic environmental policy, and integrated cycle management. Contains over 600 tables, figures, and charts, and includes references.

Available from:
SDU Publishers
PO Box 30446
2500 GK The Hague
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Norway

National report of Norway to the United Nations' Commission on Sustainable Development 1995

Agenda 21 National Reports 1995

Norway. Royal Ministry of Foreign Affairs, Oslo, NO
Jan 1995, 83 p., En

This report follows guidelines prepared by the United Nations Commission on Sustainable Development (CSD) in follow-up to Agenda 21. General information is provided on national coordination of Agenda 21 follow-up and on the role of non-governmental organizations. A section on financial resources describes Norway's contribution to The Global Environment Facility, efforts to ease the external debt burden of developing counties, and national budget for sustainable development. Discussion of environmentally sound technology is limited to efforts in agriculture and forestry and to measures taken by universities and research centers. In Norway poverty is not an issue of major concern. Initiatives aimed at changing consumption patterns are briefly described, and reference is made to a national population policy that covers environmental linkages. For Chapter 16, Norway describes efforts to manage biotechnology; although Norway does not have a strategy plan, national legislation has special provisions for gene technology. For Chapter 35: Science for Sustainable Development, relevant national legislation covering natural and social sciences and the most important programs addressing the subject are listed. Chapter 40 provides answers to questions on information for decision-making, including a summary of short-term indicators of sustainable development. For Chapter 10: Integrated Approach to the Planning and Management of Land Resources, Norway refers to its national plan/strategy. Reporting on forestry (Chapter 11: Combating Deforestation) consists of two parts: a forestry chapter which highlights major achievements, intended future action, and important implementation issues; and an annex which contains additional, quantitative information. Information for Chapter 12 is not provided because there are no deserts or areas in danger of becoming deserts in Norway. In Chapter 13 (Managing

Fragile Ecosystems: Sustainable Mountain Development), Norway notes that mountains are not used as a frame of reference, as such, in the management of ecosystems. Policies and legislation related to protection of mountain areas are listed. Norway's efforts to promote sustainable agriculture and rural development (Chapter 14) and to conserve biological diversity (Chapter 15) are described as being high national priorities.

Available from:
Ministry of Foreign Affairs
Department of Resource Issues
Section for Environment and Sustainable Development
P.O. Box 8114 Dep.
N-0032 Oslo
Norway

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-647

Biological diversity in Norway: a country study

Biodiversity Assessments, Strategies, and Action Plans

Sandlund, Odd Terje
Norway. Ministry of the Environment. Department of Terrestrial Ecology, Trondheim, NO
May 1992, 107 p. + annex, ill., charts, statistical tables, En

A technical overview of biodiversity in Norway is presented. The study begins by describing how climate, topography, biogeography, and the immigration history of Norway's flora and fauna have shaped the country's biodiversity. A description follows of the diversity of species on land, in fresh water and the sea, as well as among domesticated plants and animals. Given the relative youth of Norway's ecosystems, Norway's biological diversity comprises only about 33,000 plant and animal species in all (excluding viruses, bacteria, and algae), 22,000 insect, 5,000 fungi, 450 bird, 57 terrestrial mammal, 25 marine animal, roughly 150 marine and 40 freshwater fish, 5 amphibian, and 5 reptile species. Only a few species are endemic, among which the Norway Lemming is only found in Fennoscandia. The character of habitat types in undisturbed and anthropogenic environments is also described. Next, the study discusses development trends, including the disturbing influence of human beings, changes in the status of vertebrates, and threats to various habitats. Ensuing sections discuss measures for conservation and sustainable use and the economic value of Norwegian biodiversity. Urgent research and analysis requirements are detailed in conclusion. Includes numerous tables and photographs and a bibliography.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-369

Norway's national communication under the Framework Convention on Climate Change

Climate Change Assessments, Strategies, and Action Plans

Norway. Ministry of the Environment, Oslo, NO
1994, 63 p., statistical tables, charts, En

This report presents Norway's greenhouse gas inventory, national activities to reduce greenhouse gas emissions and projected effects of those measures, climate change impacts on natural ecosystems, research, monitoring, and education programs, and international activities in the field of climate change. Greenhouse gas emissions for the period 1985 through 1993 show that carbon dioxide accounts for approximately 70% of Norway's total emissions and mobile sources for the largest proportion of carbon dioxide emissions. Norway's forests take up 12 million tons of carbon, or about 35% of total carbon dioxide emissions. A carbon dioxide tax on oil, natural gas, and coal for energy use (including use in petroleum production offshore) is the main policy instrument used to control carbon dioxide emissions in Norway. Other measures (current and future) include: provisions for energy efficiency (particularly deregulation of and keener competition within the hydropower industry—the largest supplier of electricity—and technological improvements in offshore petroleum production); purchase taxes for cars; low maximum speed limits; alternative fuel development for the transport sector; possible implementation of road pricing; future vehicle inspections; changes in energy mix used by industries (from mineral oils to electricity and biological fuels); incentives for recycling; and energy efficiency services, grants and loans to residential and commercial sectors.

Ways of reducing methane gas include: extracting landfill gas for energy purposes; altering composition of animal fodder to reduce byproduct of ruminant digestion; and developing recovery systems to capture fugitive emissions on ships and terminals. Possible measures for reducing nitrous oxide and volatile organic carbons are being studied, and those for reducing PFC emissions from aluminum production and SF6 emissions from magnesium production are postulated. Emission standards for residential woodstoves will be introduced to reduce particulate and PAH emissions. Research and education related to climate change and carried out by the Center for International Climate and Energy Research—Oslo (CICERO), the Norwegian Climate and Ozone Research Program, and others are described. Joint international implementation of measures is advocated.

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Norwegian Pollution Control Authority (SFT)
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OECD environmental performance reviews: Norway

OECD Environmental Performance Reviews

Organisation for Economic Co-Operation and Development, Paris, FR
1993, 162 p., charts, statistical tables, En

Norway, one of the first countries in the world to establish a Ministry of the Environment (1972), has been a leader on both the domestic and international fronts in initiatives to reduce atmospheric emissions. Norway was also one of the first countries to identify transfrontier air pollution as a major cause of domestic acid rain (over 90% of the acid precipitation over Norway originates abroad). This report sets out a baseline for assessing future environmental progress and examines Norway's performance in five major areas: (1) nature conservation; (2) management of air and water pollution and solid wastes; (3) sectoral development, focusing on energy, Norway's leading source of revenue; (4) integration of environmental and economic decision making; and (5) international cooperation on environmental matters. Areas of ongoing concern and related recommendations are detailed in conclusion. Annexes present: selected environmental and economic data; a list of selected multilateral regional and global environmental agreements; and a chronology of events with environmental significance for Norway between 1988-1993.

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Internet: http://www.oecd.fr

Poland

National report to the first conference of the parties to the UN Framework Convention on Climate Change

Climate Change Assessments, Strategies, and Action Plans

Poland. Ministry of Environmental Protection, Natural Resources and Forestry, Warsaw, PL
1994, 64 p., statistical tables, charts, maps, En

The Polish economy is dominated by industries which have a relatively high proportion of low processed products, high energy and raw materials consumption, and low rate of production renewal. Over the next decades, Poland aims to reform sectors of the economy to lower energy and raw materials consumption, which should help in the reduction of greenhouse gas emissions. Greenhouse gas emission inventories for 1988, 1990 and 1992 show reductions, due in part to these reforms as well as to an economic recession. Contributing to emissions reductions since 1988 are the elimination and replacement of coal as an energy source in small boiler-houses, households, and small production plants, changes in heating systems in the municipal sector and farming, and increases in forest area which has increased absorption of carbon dioxide. Other strategies adopted by the Polish government to reduce greenhouse gas emissions include: changes leading to industrial production efficiency increases, including adaptation to environmental standards through environmentally-sound technologies; implementation of programs to increase the efficiency of energy use (e.g., gradual conversion from

coal to gas fuels, modernization of electric power production, abandonment of energy production subsidies, improvement in thermal insulation in buildings); rationalization of transportation system; limitations on pollutant emissions by agriculture (e.g., reduction in use of nitrogen fertilizers); increase in forest land area and improvement in forest health; implementation of water protection and use rationalization program, and implementation of waste re-use program (primarily biogas). Foreign assistance for 1990-1993 aided in the implementation of many of these actions. The forecasts concerning greenhouse gas emissions, particularly carbon dioxide emissions, indicate that in the year 2000 the emissions of these gases should not exceed the 1988 level. Strategies for adapting to climate changes are described for water management and coastline protection. In addition, climate change research and monitoring activities are highlighted, activities related to ecological education and development of public awareness of the causes and impacts of climate change are discussed, and the role of non-governmental organizations in environmental protection is emphasized.

Available from:
Ministry of Environmental Protection, Natural Resources and Forestry
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Environment in Poland: issues and solutions

Environmental Strategies and Action Plans

Nowicki, Maciej
Poland. Ministry of Environmental Protection, Natural Resources and Forestry, PL;
Commission of European Communities
1993, 191 p., ill., charts, maps, statistical tables, En

Part of communism's inglorious legacy in Central and Eastern Europe is the disproportionately high level of environmental pollution from heavy industry, particularly minerals extraction and metallurgy. Poland's long-term program to undo the environmental damage caused by the previous political system is detailed in this book. Part 1 discusses atmospheric pollution, water pollution, and waste management; environmental deterioration due to unmonitored mineral extractions in Upper Silesia; and environmental degradation in 27 other industrial regions. It also notes the material losses and health repercussions of environmental devastation and reviews Poland's nature conservation efforts. Part 2 discusses democratic reforms that are being undertaken in the industrial, energy, eco-agricultural, and transportation sectors; these reforms are environmentally as well as economically minded. Part 3 outlines Poland's 20-year program to conserve nature, manage waste, protect mineral resources and air quality, conserve water, and protect the country from the effects of radiation. Part 4 outlines strategies for implementing the program: reform and enforcement of environmental legislation; expansion of the environmental revenue system, which includes collection of pollutant-emission fees; international cooperation; and environmental education. An appendix presents selected statistical data on Poland's population, natural environment, and industrial, agricultural, animal husbandry, and transport and communication sectors. Includes bibliography.

Available from:
Kluwer Academic Publishers
101 Philip Drive
Norwell MA 02061
USA

Environmental performance reviews: Poland

OECD Environmental Performance Reviews

Organisation for Economic Co-operation and Development. Centre for Co-operation with the Economies in Transition, Paris, FR
1995, 185 p., charts, statistical tables, En

Poland, with its extensive extraction of rich mineral resources and its concentration of primary and heavy manufacturing industries, faces a number of environmental problems. However, the country has achieved significant environmental improvements since 1989 due mainly to a contraction of economic activity and restructuring of the industrial and energy sectors, but also as a result of improved environmental policies. Part I of this report, which examines the extent to which Poland's environmental policy objectives have been met, reviews the status of air and water quality, waste management, and nature conservation. Part II examines the success of attempts to integrate environmental concerns within economic policies, particularly within the energy and industrial sectors. Part III discusses regional cooperation (with Germany, the Czech and Slovak Republics, Ukraine, Belarus, Lithuania, and Russia) to resolve acute air and water problems, including those threatening the Baltic Sea, and international cooperation, including the role of foreign assistance. A concluding section advises Poland to develop and strengthen environmental

legislation according to successful European models, develop financially feasible environmental strategies, seize foreign assistance opportunities, expand cooperation with neighboring countries to solve severe environmental problems in Polish frontier regions, and regularly participate in international environmental fora.

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State of the environment in Poland

State-of-Environment Reports

Andrzejewski, Roman, ed.; Baranowski, Marek, ed.
Poland. Ministry of Environmental Protection. State Inspectorate for Environmental Protection, Warsaw, PL;
U.N. Environment Programme;
Global Resource Information Database, Warsaw, PL
1993, 96 p., ill., charts, maps, statistical tables, En

In Poland, decades of centralized economic planning aimed at increasing production with little regard for the environment has left behind so many serious environmental problems that the critical must be separated from the simply urgent so that limited financial resources can be applied cost-effectively. Such a task is undertaken in this evaluation of the state of Poland's environment. The report, intended for non-specialists, contains thirteen chapters, each written by an expert in his or her field, covering: (1) Poland's geography; (2) Poland's climate and the extent and effects of pollution-induced climatic change; (3) land use; (4) protected areas and species; (5) forests; (6) agriculture; (7) soils; (8) air pollution; (9) surface waters and the Baltic Sea; (10) groundwater; (11) industrial and municipal wastes; (12) noise and vibration; and (13) radioactivity.

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Portugal

United Nations Conference on Environment and Development (UNCED) follow-up report: Portugal—to be submitted to the Sustainable Development Commission

Agenda 21 National Reports 1994

Portugal. Ministry of Environment and Natural Resources, Lisbon, PT
Jan 1994, 101 p., En

Portugal's first systematic attempt to assess its efforts to implement Agenda 21 is documented in this report. According to the report, Portugal has been involved in intense activity, both externally and internally, to implement the initiatives that resulted from the Rio Earth Summit, with emphasis on environmental-development integration in all decision making at as many levels as possible. The report also notes the institutional changes Portugal has made, reorganizing the Ministry responsible for the environment and strengthening technical and political mechanisms for coordination. Part I briefly describes Portugal's internal process for implementing Rio initiatives and the national strategy that emerged therefrom, while Part II examines cross-sectoral issues such as international cooperation, national capacity building, involvement of key groups (women, children, nongovernmental organizations, local authorities, workers, and the business and scientific communities), changes in consumption patterns, financial support for international programs, and environmental technology transfer. Part III examines individual sectors, detailing progress in the areas of health, human settlements, water management, and management of toxic chemicals and hazardous wastes. Part IV summarizes national action plans for implementing Rio Conventions and Declarations in regard to climate change, biodiversity,

forestry, and desertification. All of these activities, it is noted, will be implemented within the framework of Portugal's National Environmental Policy Plan.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-733

Portuguese report in accordance with article 12 of the UNFCCC

Climate Change Assessments, Strategies, and Action Plans

Portugal. Institute of Meteorology, Ministry of the Environment and Natural Resources, Lisbon, PT
1994, 125 p. + annexes, tables, charts, En

After an overview of national conditions (i.e., geography, climate, population, agriculture, economy, social structure, energy, industry, and transportation) to provide a context for Portugal's policies and measures related to climate change, this report provides a national inventory of anthropogenic emissions. Data prepared for the European Commission's CORINAIR project were used, dissaggregated and reaggregated where necessary to fit the IPCC format. Differences between the two inventories are noted. Combustion processes are Portugal's main sources of greenhouse gas emissions, excepting methane whose principal source is agriculture. Carbon dioxide emissions from combustion for 1995 and 2000 are projected to increase in all sectors. Major policies and measures aimed at reducing greenhouse gas emissions and enhancing carbon sinks are discussed for agriculture (e.g., reducing agricultural production, encouraging maintenance, expansion and protection of forests), energy (e.g., diversification and energy efficiency, clean technologies, renewable resources), industry (e.g., economic and financial incentives, information and awareness, legislated requirements), and surface transportation (e.g., multi-sectoral plans, competitive rail transport, modern, efficient, and environment-friendly infrastructure). Studies into the country's vulnerability to climate change as related to natural disasters (floods, droughts, heat waves), desertification, and sea level rise are proposed. Other studies are highlighted—air pollution monitoring, meteorological and socioeconomic research on the greenhouse effect, research on the regime and structure of coastal breezes, monitoring and characterization of climate in Portugal, studies for the support of the intergrated environmental management, and evaluation of available renewable energy potential. The issue of climate change is covered in various academic disciplines, in media provided to schools and the public, and within government through interdepartmental cooperation. Regarding international activities related to climate change, the report highlights Portugal's contributions to the Global Environmental Facility (GEF) and other bilateral, multilateral and regional activities and its efforts to improve relations between Portugal and and Portuguese-speaking Africa.

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National environmental plan (abridgement)

Environmental Strategies and Action Plans

Portugal. Ministerio do Ambiente e Recursos Naturais, Lisbon, PT
June 1995, 87 p., charts, En

The present document is an abridged version of the first National Environmental Plan (NEP) in Portugal. It is designed to inform readers, particularly international institutions and agencies, about strategic guidelines, specific and cross-sectoral objectives, and programmatic actions. The summary is presented in six chapters, starting with an Introduction which describes the structure of the document. Chapter 2 describes strategic guidelines of environmental policy, that is the major guidelines that give cohesion and a general strategical view to the actions presented in the following chapters. Chapter 3 presents the objectives and specific actions of the Ministry of Environment and Natural Resources (MARN) for topical areas such as water resources, the coastal area, nature conservation, urban and industrial waste, air quality and climate, noise, the urban environment, natural risks and those generated by man, consumer protection, research and technological development, education, training and public participation, and institutional capacity-building. Chapter 4 deals with program objectives, cross-sectoral actions, and government responsibilities. Special emphasis is given to

areas seen as target areas within scope of the 5th European Programme for Common Action in Matters of Environment (e.g., industry, energy, transportation, agriculture, and tourism). Chapter 5 identifies instruments for implementing environmental policy, and Chapter 6 proposes a system for evaluating and monitoring the Plan. Eight annexes are included. Annexes I-II present a brief description of the state of the environment in continental Portugal, a brief description of the occupation and organization of the territory of continental Portugal, and Portuguese public opinion on the environment, respectively. Annex IV describes financial support for the NEP, including available resources and investment areas. Annexes V and VI give information that is relevant to present environmental management needs (e.g., land use planning, administration of environmental matters), while additional annexes introduce instruments that could be useful in more advanced and mature stages of environmental planning—Global Evaluation Criteria of Environmental Projects (Annex VII) and Environmental Planning and Management Indicators (Annex VIII).

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OECD environmental performance reviews: Portugal

OECD Environmental Performance Reviews

Organisation for Economic Co-Operation and Development, Paris, FR
1993, 148 p., charts, maps, statistical tables, En

Since joining the European Community (EC) in 1986, Portugal has had one of the highest rates of economic growth in the Organisation for Economic Cooperation and Development (OECD) and has set itself the objective of reconciling development with environmental protection in accordance with EC guidelines. This report sets out a baseline for assessing future environmental progress by examining Portugal's performance in three key areas: (1) pollution abatement and natural resource management; (2) integration of environmental and economic decision making; and (3) international cooperation on environmental matters. In each area, the degree to which government objectives are being achieved is evaluated in the context of the country's economic growth, its low but increasing pollution levels, and the importance of trade to its economy. According to the report, at current levels of pollution abatement and control expenditure, Portugal will find it difficult to pursue sustainable development and attain a degree of environmental protection comparable to EC standards, and will likely require some financial assistance from the EC in this area, at least during the current transitional period. A short annex examines environmental and economic management issues and trends in Portugal's two autonomous regions, the island groups of Madeira and the Azores. Other annexes present selected environmental and economic data for Portugal and the OECD; lists of multilateral environmental agreements, with Portugal's participation highlighted; and a regional breakdown of environmental conditions in Portugal.

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Internet: http://www.oecd.fr

Portugal report

UNCED National Reports

Portugal. Ministry for the Environment and Natural Resources, Lisbon, PT
Jun 1991, 65 p., maps, statistical tables, En

The benefits of linking environmental and development policy are apparent in Portugal, where after four years of steady growth environmental quality is as good or better than before, demonstrating that economic and environmental progress are not incompatible. Following an introduction, Section II of this report examines the evolution of environmental policy in Portugal from 1970-1991 in relation to socioeconomic development during the same period. Section III assesses the state of Portugal's environment, covering air and water quality (including industrial emissions, ground and surface water pollution, environmental quality monitoring stations, etc.), land use patterns and soil quality, flora and fauna, ecosystems (e.g., forests and coasts), protected areas,

radioactivity, solid wastes, hazardous substances, noise pollution, the national network for gathering and processing environmental information, and the environmental effects of natural and anthropogenic disasters. Section IV presents Portugal's plan for maintaining the balance between environmental protection and economic development in the future, covering international cooperation, technology transfer, training and research, citizen participation and the role of nongovernmental organizations, financing, and information systems.

Available from:
Ministry of Environment and Natural Resources
Rua do Seculo, N. 51-2
1200 Lisbon
Portugal

Romania

National report [to UNCED: Romania]

[Romania. Ministry of Environment, Bucharest, RO]
[Jul 1991], [170 p.], statistical tables, En

Romania, located in the southeastern part of Europe, has a well-balanced and diverse natural resource base that holds significant processing possibilities. This environmental assessment of Romania over the last 20 years is divided into three major sections. Section I reviews the country's industrial, agricultural, transport, trade, tourism, education, health, and urban sectors; consumption patterns; the role of mineral, soil, forest, and water resources in economic development; developments in environmental management; and the impacts of socioeconomic development on the global environment, and on national water, air, and soil resources. Section II reviews the status of Romania's atmosphere, soils, biological diversity, biotechnology processes, water, including the Black Sea and its coastal resources, and waste management strategies. Section III recommends environmental priorities, including conducting environmental impact assessments of current development activities, improving environmental data collection and accountability for waste disposal within the industrial sector, and conserving wild birds and migratory species. Finally, Section III reviews environmental legislation, institutions, and projects, and current activities and plans for environmental cooperation at the international level.

Available from:
UNDP Resident Representative
Strada Aurel Vlaicu nr 16
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79362 Bucharest
Romania
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Russian Federation

Conserving Russia's biological diversity: an analytical framework and initial investment portfolio

Biodiversity Assessments, Strategies, and Action Plans

Krever, Vladimir, ed.; Dinerstein, Eric, ed.; et al.
World Wildlife Fund—U.S.;
Russia. Ministry of Environmental Protection and Natural Resources;
John D. and Catherine T. MacArthur Foundation;
U.S. Agency for International Development. Bur. for Global Programs, Field Support and Research. Ofc. of Environment and Natural Resources;
U.S. Agency for International Development. USAID Mission to Russia
Jan 1994, iii, 134 p. + 3 attachments, charts, maps, statistical tables, En

The vast, relatively intact ecosystems of Russia, with their singularly important wealth of biotic resources, provide one of the world's last opportunities for preserving true wilderness. This report presents an analytic framework which explains why conserving this Russian biodiversity should be a priority for major lending institutions and NGOs, as well as an initial investment portfolio. Following presentation of the overall framework, Section II proposes several federal-level projects, including, inter alia, conservation education, increased ecotourism in zapovedniks (nature reserves), and establishment of a conservation trust fund. A brief Section III identifies four regional-level projects, emphasizing training initiatives, while Section IV identifies specific urgent conservation projects within 14 distinct bioregions. The bioregions are distinguished by species assemblages, climates, and certain physical features; their boundaries reflect decades of research by Russian scientists. Section V outlines additional issues that must be considered, but for a variety of reasons could not be included in this initial portfolio. The total cost of the federal, regional, and bioregional proposals is about $17.5 million. Attachments provide details on the protected area systems in Russia, additional information on projects, and itemized budgets.

Available from:
World Wildlife Fund
1250 24th Str NW
Washington DC
USA
Tel: +1 202 861 8313; Fax: +1 202 861 8324

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: PN-ABU-371

Report on the state of the environment in the Russian Federation in 1993

State-of-Environment Reports

Ministry of Environmental Protection and Natural Resources;
Center for International Projects
1994, 233 p., statistical tables, charts, maps, En

This special edition translation of a Russian report by the US Foreign Broadcast Information Service. The report examines the state of the environment in the Russian Federation in 1993 in four parts. Part I describes the quality of the environment and the condition of natural resources in the following areas: air quality; stratospheric ozone; surface and ground waters; sea water; soils and land resources; mineral resources; forests and the plant kingdom; the animal kingdom, including fisheries; the radiation environment; climatic events and disastrous natural phenomena; environmental (human) health; and special types of environmental impacts. Part II provides an ecological assessment of the state of the territories, including protected natural areas. Part III describes the impact of the national economy on the environment for the major industries including agriculture. Included in this part is an analysis of the municipal and hazardous wastes and industrial accidents and catastrophes. Part IV provides an overview of state regulation of natural resource use and environmental protection. Subsections describe environmental protection legislation and penalties for violators; environmental standards; state programs for environmental protection; economic regulation of natural resource use; funding of environmental protection activities and environmental protection measures; organizational structure of environmental management; national and state ecological monitoring; international cooperation and interstate ecological problems; the state of science and technology in solving of environmental problems; informational and educational activities; and the public ecology movement. Conclusions imply that no appreciable changes occurred in 1993 in the condition of the Russian Federation environment and the trends in pressures which have a negative impact on the environment did not change for all practical purposes. The basic reasons for the continuation of the existing trends are low investment in projects to reduce negative impacts and in environmental protection, inadequate support for scientific, sectorial, and regional ecological programs, and inconsistencies in state environmental policies. There is optimism, however, that the country has entered into a new stage in solving ecological problems and that the current ecological situation will be overcome and positive results will be apparent in the next few years.

Available from:
National Technical Information Service
5285 Port Royal Road
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Tel: +1 703 487 4630; Fax: +1 703 321 8547
E-mail: orders@ntis.fedworld.gov
Internet: http://www.fedworld.gov/ntis/ntishome.html

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Foreign Broadcast Information Service
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Washington, DC 20013-2604
USA
Tel: +1 202 338 6735; Fax. +1 703 733 6042

National report to the UN Conference on Environment and Development 1992 [Russian Federation]

UNCED National Reports

[Russian Federation. Ministry of Ecology and Natural Resources, Moscow, RU]
1992, 87 p., statistical tables, En

Russia was by far the dominant republic in the former Soviet Union, accounting for the majority of its industrial production, and its mineral, forest, and hydroelectric resources. Moreover, Russia's environmental policy was based on that of the USSR, as were the policies of the other republics. For these reasons, data on the USSR as a whole have been incorporated into this report on Russia's environment. Section I discusses the ecological implications of Russia's socioeconomic development, covering the major economic sectors (energy, metallurgy, chemicals, timber, agro-industry, construction, machinery, and transport), as well as demographic processes, public health, and the national economy.

Section II catalogues Russia's water, land and soil, mineral, biological, and protected reserve resources, and their utilization. Section III details the extent of environmental pollution and the effects of natural disasters on the environment, while Section IV identifies environmental problems affecting specific regions of Russia. The final two sections review, respectively, Russia's environmental policies and management, and the level of environmental awareness among the general public. Despite its recent political and social upheavals, Russia has addressed environmental issues by new laws that guarantee the public's right to a favorable environment.

Available from:
Ministry of Ecology, Environmental Protection & Natural Resources
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Moscow 123812 GSP
Russian Federation
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Slovak Republic

Strategia, zasady a priority statnej environmentalnej politiky (Strategies, principles and priorities of national environmental policy [Slovakia])

Environmental Strategies and Action Plans

Slovenskej republiky. Ministerstvo zivotneho prostredia, Bratislava, XO
Nov 1993, v.p., charts, maps, statistical tables, Sk

This document discusses the Slovak Republic's national environmental plan, which includes specific short-, medium-, and long-term measures and objectives for environmental management. It designates five priority areas for environmental policy: protection of the atmosphere; ensuring water quality and the drinking water supply; soil conservation; purity of foodstuffs; proper disposal and minimal creation of waste; and biodiversity. The plan is based on the priorities set forth in 1992 at the U.N. Conference on Environment and Development in Rio de Janeiro, and draws some of its own environmental strategies from those employed by the European Union, United Nations, Council of Europe, OECD, and other groups in which the Slovak Republic participates or would like to participate.

Available from:
INFOTERRA NFP Slovakia
The Ministry of Environment of Slovakia
ENVIRO-Information Branch
Hanulova 9/A P.O. Box 1
84002 Bratislava
Slovakia

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-502

National report of the Czech and Slovak Federal Republic

UNCED National Reports

Czech and Slovak Federal Republic. Federal Committee for the Environment, Prague, CZ;
Czech and Slovak Federal Republic. Czechoslovak Academy of Sciences, Prague, CZ
Mar 1992, 186 p., charts, maps, statistical tables, En

Owing chiefly to emissions from heat and power generation facilities and from iron and metal foundries, the Czech and Slovak Federal Republic was among the heaviest polluters of the atmosphere in Europe in the late 1980s, according to this report, which was prepared for the June 1992 U.N. Conference on the Environment and Development (UNCED). The report has four major sections: (1) general information on the country's geography, natural conditions, population, and economic and political situation; (2) a description of natural resources and commercial activities, covering mineral and water resources, forests, soil and agriculture, biodiversity and conservation, energy, industry, and construction and transportation; (3) environmental concerns, which in addition to air pollution include water pollution, solid waste, loss of biodiversity, threats to human health, and degradation of soil, forests, and agricultural land; and (4) environmental policy, legislation, program, and projects.

Available from:
Ministry of Environment
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Spain

Informe para la 3a sesión de la Comisión de desarrollo sostenible (Report to the 3rd session of the Commission on Sustainable Development [Spain])

Agenda 21 National Reports 1995

Spain. Secretaria de Estado de Medio Ambiente, Madrid, ES
Apr 1995, v.p., statistical tables, Es

Agenda 21 of the Rio Declaration (the product of the 1992 U.N. Conference on Environment and Development), identified certain goals with respect to the formulation of international standards and terms of reference for environmental management and for information gathering and reporting. This document is Spain's response to a survey prepared by the U.N. Commission on Sustainable Development to inventory Spain's environmental information and protection structures, practices, and capabilities. The survey is divided into two main sections. The first addresses intersectoral capacities, programs, and structures, corresponding roughly to Chapters 16 and 40 of Agenda 21; areas covered include biotechnology research and transfer capacities and organizations, and major sources of environmental information upon which the government draws during its decision making process. Section 2 covers sectoral capabilities and practices in the areas of land use planning, forest protection, combatting desertification, development in mountain zones, sustainable agriculture and rural development, and conservation of biodiversity; these subsections correspond to, respectively, Chapters 10-15 of the Agenda.

Available from:
Secretaria de Estado de Medio Ambiente y Vivienda
Ministerio de Obras Públicas, Transportes y Medio Ambiente
Nuevos Ministerios
Centro de Publicaciones
28003 Madrid
Espana
Tel: +34 1 597 7000

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-630

Informe nacional: [España] (National report: [Spain])

UNCED National Reports

Spain. [Ministry of Public Works and Transport, Madrid, ES]
30 Sep 1991, 121 p., statistical tables, Es

Spain, though part of Western Europe, is not at the same level as its more developed neighbors in terms of GNP, per capita income, quality of life, or environmental quality. However, Spain faces many of the environmental problems associated with economic development (i.e., industrialization and urbanization), as well as some, such as desertification and indiscriminate burning of woodlands, which are characteristic of a less developed nation. Following a summary, Part II of this report describes development trends in Spain and their impacts on the environment, beginning with a socioeconomic profile covering recent political and economic history, and sectoral developments in agriculture, energy, transportation, industry, health, education, tourism, natural reserves, and the urban environment. The second chapter profiles Spain's natural resources, both physical and biological, while Chapter three discusses Spain's environmental concerns in regard to atmospheric pollution, freshwater and marine pollution, soil degradation, residues (urban, agricultural, and industrial), technology transfer, and biological diversity. Part III takes a look at the responses to environmental concerns which Spain has developed over the last two decades, including sectoral projects and programs, legislation, and institutional development. Finally, Part IV discusses Spain's perspective on the international environmental movement and participation in international fora.

Available from:
Servicio de Documentacion y Publicaciones
Direccion General de Politica Ambiental
Ministerio de Obras Publicas, Transportes y Medio Ambiente
Paseo Castellana, 67
28071 Madrid
Espana

Sweden

Environment: our common responsibility

Agenda 21 National Reports 1995

Sweden. Ministry of the Environment, Stockholm, SE
Mar 1995, 119 p., charts, maps, statistical tables, En

The environmental problems facing Sweden are large and complex, the most serious being acidification and the eutrophication of lakes and watercourses. Part I of this report presents Sweden's official environmental policy. It discusses Sweden's plans to participate in international and regional environmental initiatives and goes on to detail Swedish policies to develop promote sustainable development at the local level; promote sustainable forestry, fishing, and reindeer herding practices; preserve the landscape via subsidies for farmers who practice ecological cropping methods; protect biodiversity and mountain regions; reduce industrial, energy, and transportation emissions; expand waste recycling and reuse programs; generate employment through new environmental initiatives; and compile all environmental legislation, including the Forestry Act, into an Environmental Code. Part II presents the 1994 annual report to Parliament on the state of Sweden's environment, with emphasis on the extent to which objectives established by Parliament have been fulfilled. Specific consideration is given to the impact of greenhouses gases and photochemical oxidants on the ozone layer and the climate, the introduction of genetically altered organisms, persistent organic compounds, land and water resource exploitation and management, soil and water acidification, air and noise pollution, eutrophication, heavy metals, pesticides, habitat protection, waste management, and nuclear safety. Concluding sections discuss the use of economic instruments such as taxes to protect the environment and the costs of environmental protection.

Available from:
Ministry of the Environment
S-103 33 Stockholm
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Tel: +46 8 763 1000; Fax: +46 8 20 4331

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-631

Sweden's national report under the UNFCCC

Climate Change Assessments, Strategies, and Action Plans

Sweden. Ministry of Environment and Natural Resources, Stockholm, SE
1994, 119 p., tables, figures, maps, En

Sweden's main strategy for reducing carbon dioxide emissions is to limit the demand for fossil fuels, replacing them with renewable energy resources, improved energy management, and more efficient use of energy. Since the 1970's energy crisis, Sweden's energy system has been restructured and the share of fossil fuels in total energy supply has dropped from 80% in 1970 to 50% in 1990. During the same period, carbon dioxide emissions declined by 40%, although emissions by the transportation sector increased. In the energy and manufacturing sectors, measures to further reduce carbon dioxide emissions include a carbon dioxide tax on fossil fuels, a value added tax on all forms of energy, programs of energy management, and promotion of biofuels, wind power, and solar energy, and in the transportation sector, these include higher taxation on fuels and R&D concerning use of alternate fuels and hybrid and electrical vehicles. Various measures have been taken in the forestry and agricultural sectors to reduce greenhouse gas emissions: restrictions on forest site preparation operations and drainage; reduced and better nitrogen application practices; converting arable lands to grazing lands or forests; and increased use of winter cover vegetation. Carbon dioxide, methane, and nitrous oxides emissions are expected to decrease 10% each by the year 2000. Sweden's forests provide a sink in amounts approximating more than half of the annual carbon dioxide emissions. Areas that are vulnerable to climate changes include Sweden's sub-arctic ecosystems (owing to long generation times, slow growth and irregular reproduction), the Baltic Sea (through sea level rise, warmer seawater temperature, and reduced salinity), and spruce forests (which are adapted to cold temperatures). Sweden's financial contributions are made in the Baltic states, Eastern Europe, and developing countries to promote environmentally adapted energy systems, in particular measures to reduce carbon dioxide emissions. Sweden supports research in the field of climate change both at the international level and nationally (the latter includes research on impacts of climate change on Nordic ecosystems and technical research, primarily concerning different measures to enhance energy efficiency). Public information is disseminated in connection with R&D programs.

Available from:
Ministry of Environment and Natural Resources
(Milj"departementet)
103 33 Stockholm
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Fax: +46 8 723 1160
Internet:
http://www.sb.gov.se/info_rosenbad/departement/miljo

Switzerland

Rapport national de la Suisse pour la Commission sur le Développement Durable: deuxième session (National report of Switzerland for the Commission on Sustainable Development: second session)

Agenda 21 National Reports 1994

Switzerland. Federal Office for Foreign Economic Affairs, Bern, CH
May 1994, 61 p. + 3 p., charts, statistical tables, Fr

This report represents Switzerland's national report for 1994 on its progress in implementing Agenda 21. The report, which treats its subjects for the most part with reference to specific Chapters of the Agenda, is in three parts. Part I provides background information on sustainable development in Swiss foreign and domestic policy, while Part II reviews progress in the cross-cutting issues of international cooperation in accelerating sustainable development, modification of national consumption patterns, financial assistance to Third World environmental efforts, and technology cooperation and transfer. Part III documents Switzerland's progress in the sectoral issues of human health, human settlements, protection of freshwater resources, and management of toxic chemicals and hazardous and radioactive wastes. The report notes that Switzerland has formed an Interdepartmental Committee for Rio Follow-up, which is responsible for coordinating sectoral policies in response to Agenda 21 and other agreements arising out of the June 1992 Rio Earth Summit. The Committee, which includes representation by nongovernmental organizations, has formed working groups in eight areas: forests; biological diversity; trade and environment; technological cooperation; climate; assistance policies; financial instruments; and population.

Available from:
State Secretary
Federal Office for Foreign Economic Affairs
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Bern
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Tel: +41 31 322 2235; Fax: +41 31 322 7259

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-736

Implementation of the Rio decisions in Switzerland

Agenda 21 National Reports 1995

Switzerland. Federal Office for Foreign Economic Affairs, Bern, CH
Apr 1995, 9 p., En

This report describes both new and ongoing initiatives on the part of Switzerland to implement commitments made at the Rio Earth Summit. In March 1993, the Swiss Federal Council created the Interdepartmental Committee for Rio Follow-up (IDCRio), which unites the heads of 17 Federal Offices and emphasizes coordination with nongovernmental organizations. Already, the IDCRio has sensitized the Federal Administration to the importance of the Rio initiatives and of sustainable development, has sponsored a study to put the concept of sustainable development into concrete terms, and is developing a National Action Plan for implementing Agenda 21 (although the Plan has proved more difficult to elaborate than was expected). Other Swiss achievements include revision of the Environmental Protection Law and of laws to protect water, natural resources, and the natural heritage; development of a new federal forestry law in January 1993; implementation of the Energy 2000 action program to stabilize fossil energy use until the year 2000; and in the transportation sector, use of traffic restrictions and taxes to reduce carbon dioxide and ozone emissions, along with plans to shift shipping of goods from road to rail. Also, Switzerland is participating in and/or supporting a number of environmental research and educational initiatives.

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Federal Office for Foreign Economic Affairs
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-742

Global warming and Switzerland: foundations for a national strategy

Climate Change Assessments, Strategies, and Action Plans

Switzerland. Federal Office of Environment, Forests and Landscape, Bern, CH
1994, 112 p., tables, figures, En

This report provides a synthesis of current knowledge of the greenhouse effect and the gases which contribute to its enhancement, and reviews the sectors of activity which influence greenhouse gas emissions in Switzerland. Switzerland produces about 66.1 million tons per year of carbon dioxide equivalent emissions, with the carbon dioxide share (74%) being dominant. Possible impacts of climate change in Switzerland include: a rise in the snow-limit in mountainous areas by 300 to 500 meters; shrinking of glaciers (by three quarters of surface area and 90% of bulk); melting of permafrost at altitudes below 3,000 meters and recurrent rock and landslides; range extension of certain parasites and pathogens of consequence to human, floral, and faunal health; and population migration and/or conflicts resulting from deteriorating conditions. Swiss measures and programs of relevance to global warming are discussed: measures reducing energy-related carbon dioxide emissions (e.g., promotion of rational energy use and energy savings, development of carbon dioxide-free energy sources, energy consumption standards for household appliances, buildings, and motor vehicles, stricter regulations on space heating and electricity consumption, retro-fitting of existing buildings, energy and/or carbon dioxide tax and tariffs, use of renewables); measures for carbon dioxide reduction in forestry and agriculture (e.g., use of wood and plant biomass as substitutes for fossil fuels, storage of carbon in long-lived wood products, use of fuels derived from rapeseed oil); and measures to reduce other greenhouse gas emissions (e.g., reduction and phaseout of ozone-depleting substances, environmentally-sound disposal of used refrigerators, minimizing emissions of methane from known sources, reduction in use of mineral nitrogen fertilizers and animal food, various measures to combat air pollution, incentive taxes, promotion of electric vehicles, increased fines for highway speed limits violations, etc). Additional measures are discussed in the areas of education and communication, climate research and monitoring, and energy research and development. Switzerland's participation in the international process of curbing greenhouse gas emissions and its support for reductions in developing countries and central and eastern European countries are highlighted.

Available from:
Swiss Federal Printing and Supplies Office (EDMZ)
3000 Berne
Switzerland
Fax: +41 31 322 39 75

Report on the environment 1993: the state of the environment in Switzerland

State-of-Environment Reports

Switzerland. Federal Office of Environment, Forests and Landscape, Bern, CH
1994, 360 p., ill., charts, maps, statistical tables, En

Switzerland provides a good example of the close correlation between a country's economic development and growth and an increase in production, consumption, waste products, and energy requirements. Since 1975, the country's gross domestic product has increased by a factor of 2.5, reaching SFr338.4 billion in 1992. Energy consumption has grown by a multiple of three since 1960, despite a net gain in energy efficiency. And although considerable progress has been made in fulfilling the objectives of Swiss environmental policy, the government still faces the challenge of reconciling specific environmental requirements with those of the economy. This report discusses the state of the environment in Switzerland. After initial sections devoted to population and economic development in Switzerland, European Union environmental policy, Swiss environmental legislation, and international developments, the report provides a detailed examination of the Swiss environment in terms of geology, hydrology, accident prevention, climate, soil and contaminated sites, chemical substances, gene technology, water resources, fishing, waste management, air and noise pollution, forests and timber, nature and landscape, and hunting. A final section examines the role of market economy instruments in curbing environmental degradation. Lists of Swiss environmental laws and agencies are appended.

Available from:
Bundesamt fur Umwelt Wald und Landschaft (BUWAL)
Sektion Kommunikation
3003 Bern
Switzerland

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-518

Ukraine

Ukrainian national report on the state of natural environment in the Danube River basin

Other Environmental Studies

Ukraine. Ministry for Environmental Protection, Kiev, UA
1992, v.p., charts, statistical tables, En

Pollution of the Danube River Basin is both a national problem for Ukraine, and an international legal problem which touches upon the interests of at least two states. The international and legal aspects of the problem became even more urgent in 1992 with the opening of the new transcontinental waterway, Rhine-Mine-Danube, which traverses many European states. This report provides a highly technical review of the environmental and biological status of the Danube Basin, assessing in turn: (1) biological resources in the Danube, its lakes, and sections of the Tissa, Syret, and Prut River Basins, including freshwater aquatic ecosystems, floodlands and swamp ecosystems, land and forest ecosystems, and national parks and reserves (detailed information is provided on, inter alia, phytoplankton; zooplankton; zoobenthos; fish; elevated aquatic vegetation; protected bird species in the international biosphere national park, the "Danube Plav;" snakes; mammals; grasses, and other plants and animals); (2) the peculiarities of fluvial and lake sediments in the Danube, the Pridanube water reservoirs, and the Prut, Siret, and Tisa rivers; (3) macro- and microelements and pesticides contaminating soils in the region, and the influence of intensified agricultural production on water quality; (4) air pollution; and (5) problems with industrial and municipal wastes (including detailed charts on wastes from more than 100 specified industrial plants and treatment facilities). A final section discusses political, economic, and social issues affecting environmental management, both domestic and international, in the Danube River Basin.

Available from:
Danube Programme Coordination Unit
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-675

The state of the environment and activities in Ukraine: Report on the environment 1992/3

State-of-Environment Reports

Demkin, V.; Movchan, Y.
Ministry for Environmental Protection, Kiev, UA
1994, 40 p., charts, statistical tables, maps, En

Ukraine's economy has been based traditionally on the resource-extensive, energy-intensive production of steel, machinery, and electricity and on intensive agriculture. Now an independent country, Ukraine has declared all of the country as a zone of ecological disaster, emphasizing a need to improve the ecological health of the country and making nature protection, conservation of a favorable-for-life environment, and ecological safety top national priorities. In this area, the Ministry for Environmental Protection of Ukraine (MEP) is taking action to shape policies to provide future sustainable development. This report provides an overview of the state of Ukraine's environment, political, economic, scientific, and public endeavors to pursue this goal. It describes Ukraine's environment and sources of pollution, highlighting industry, energetics, agriculture, waste generation, and the Chernobyl nuclear accident in particular, as well as the impact of environmental quality on human health. The report also addresses regional ecological problems. In a section on natural resource management and environmental protection, the report describes changes that were made within MEP to improve its ability to develop and implement policies relating to natural resources protection and sustainable development. This section also identifies environmental laws that have been drafted or enacted, describes the status of natural areas protection and ecological monitoring, discusses the need for a national environmental education program to enhance public awareness about the environment, and outlines a long-range plan of action to introduce all-inclusive state policies on nature protection and

sustainable development. There is also mention of Ukraine's collaboration with other countries and international organizations. The main body of the report concludes with a discussion of priorities for environmental protection and natural resources management. Several appendices are included: technical ones providing facts on Ukraine's physiography, climate, rivers and water resources, mineral and energy resources, agricultural resources, forests, economic potential, population, and protected areas; one outlining Ukrainian laws and regulations concerning environmental protection; and another listing international agreements signed by Ukraine.

Available from:
Rayevsky Scientific Publishers Inc.
Kiev
Ukraine

Ukraine national report [to the] UN Conference on Environment and Development Brazil—92

UNCED National Reports

Ukraine. Ministry of Environmental Protection, Kiev, UA
1992, 42 p., charts, map, En, Uk

While Ukraine, situated nearly at the center of Europe, is generously endowed with vegetation and mineral resources, for decades the Ukrainian environment has been suffering the effects of severe pollution due to the Soviet-directed economy's overreliance on chemical, metallurgical, and mining industries, which produce as much as 1 billion tons of waste a year. This report to the U.N. Conference on Environment and Development includes (1) descriptions of Ukraine's natural resource base, economy, and population, (2) an overview of efforts to utilize and protect natural resources (i.e., mineral, land, water, atmospheric, and biological), and (3) a review of state environmental protection policies. A chapter is also devoted to the environmental impact of the Chernobyl nuclear disaster. Chernobyl raises important questions about the interrelationship between people and their environment; a final section describes a Ukrainian-founded international competition to create an "anti-Chernobyl," an "ecopolis" or environmentally friendly city.

Available from:
Ministry for Environmental Protection and Nuclear Safety

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-576

United Kingdom

Nothing ventured, nothing gained: failing to invest in the future

Agenda 21 National Reports 1994

Friends of the Earth, London, GB
1 Oct 1993, 89 p., En

The UK's strategy for sustainable development, as outlined in the consultation document prepared by the UK's Department of the Environment, is fundamentally flawed. So concludes this commentary by the Friends of the Earth, which responds to the consultation document paragraph by paragraph. Generally, the Friends feel that the consultation document fails to grasp the fundamental premise that the environment sets limits on economic development; as a result, the government has inappropriately positioned the issue of sustainable development within its policy hierarchy. In particular, the ideological demand for deregulation should not be allowed to override sustainable development. The paper concludes that the UK's sustainable development strategy will fail if it does not: (1) set timetabled targets, or at least outline a methodology for setting such targets, that fully reflect precautionary principles and the risk to the most vulnerable areas of the country's environment; (2) use economic instruments only as policy making tools rather than as a means of establishing objectives; and (3) cease to rely on voluntary support for sustainable development (the government must accept the role of leadership and respond to the needs of the UK citizens). Moreover, the strategy needs to address more fully the environmental footprint of UK on the rest of the planet by undertaking initiatives that will help it to meet the objectives of Agenda 21.

Available from:
Friends of the Earth
26-28 Underwood Street
London N1 7JQ
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-738

United Kingdom report to the Commission on Sustainable Development 1995

Agenda 21 National Reports 1995

United Kingdom. Department of Environment, London, GB
1995, [121 p.], En

In this report, the United Kingdom reviews its activities to meet the environmental objectives of Agenda 21. These include establishment of three nongovernmental bodies: (1) the Government's Panel on Sustainable Development to provide independent advice to Minsters; (2) a Roundtable on Sustainable Development, comprising representatives from business, private organizations, and other sectors of the community; and (3) "Going for Green," a national committee to foster citizen awareness and activism. In addition, a local government initiative, Local Agenda 21, is underway, and the Government has introduced legislation to create two new agencies responsible for pollution control. Part I of this report provides general information on some of the Agenda's cross-sectoral issues (national coordination, the roles of major groups, financial resources, environmental technology, poverty alleviation, changing consumption patterns, and demographic dynamics), along with more detailed information on biotechnology, the place of science in sustainable development, and improved information for decision making. Part II discusses progress in the sectoral areas of land management, deforestation, desertification and drought, mountain systems, agriculture and rural development, and biodiversity, with particular attention given to issues in forestry. The report describes plans for implementing "Sustainable Forestry: the UK Programme," which aims, through grant aid, research, law enforcement, and information and technical assistance, to promote timber production as well as to preserve and improve the nation's woodlands.

Available from:
Department of Environment
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Internet: http://www.open.gov.uk/doe/doehome.htm

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-743

Biodiversity: the UK action plan

Biodiversity Assessments, Strategies, and Action Plans

United Kingdom. Department of the Environment, London, GB
Jan 1994, [2 v.], ill., maps, statistical tables, En

In compliance with the Convention on Biological Diversity which was signed at the Earth Summit in Rio de Janeiro in June 1992, the United Kingdom (UK) produced this biodiversity action plan. Section I discusses the UK's commitment to biodiversity, its scientific tradition, and the role of research in protecting biodiversity. It looks at UK biodiversity from a historical and geographic perspective, identifies the varied species and habitats within the UK, and discusses why UK biodiversity is special and significant. Section II, the longest part, describes the UK's environmental strategy and programs as well as threats, problems, and opportunities. Chapters in this section discuss: programs for in-situ and ex-situ conservation; sustainable use of natural resources; the importance of environmental awareness and education; the need for a national biota database; and UK support for biodiversity overseas, particularly in Antarctica, the Crown Dependencies, and the Dependent Territories. Section III describes the mechanisms necessary for the implementation, reporting, and review of the Plan. A Biodiversity Action Plan Steering Group, which would oversee the development of conservation targets and corresponding programs, is proposed. Includes numerous photographs and a brief bibliography.

Available from:
Department of Environment
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London E15 2HF
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Fax: +44 081 533 1618

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-370

Biodiversity challenge: an agenda for conservation action in the UK

Biodiversity Assessments, Strategies, and Action Plans

Royal Society for the Protection of Birds, Bedfordshire, GB
1994, vii, 137 p., ill., statistical tables, En

Discussion among conservation private voluntary organizations in the United Kingdom (UK) has generated several ambitious, yet realistic, ideas to help the government in producing a Biodiversity National Action Plan. This report details these ideas, which include quantifiable targets for the conservation of priority species and habitats; action plans that would facilitate the achievement of the targets within a given timeframe (on average, a 10-year time span is envisioned); and a system for continued monitoring and modification of targets and actions plans. The socioeconomic context of conservation efforts is addressed, including the need for improved coordination among governmental bodies, and between the public and private sectors. Appendices, which comprise over half of the report, include targets for the conservation of over 530 species and 16 habitats, as well as examples summary action plans for the restoration of selected species (the early gentian <<Gentianella anglica>>, the large blue butterfly <<Maculinea arion>>, and the corncrake <<Crex crex>>) and habitats (estuaries, lowland wet grassland, rivers and streams, lowland raised bogs, lowland heathland, and Caledonian pinewoods). Includes numerous photographs and drawings.

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The Royal Society for the Protection of Birds
The Lodge
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Bedfordshire SG19 2DL
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-371

Climate change: the UK programme

Climate Change Assessments, Strategies, and Action Plans

United Kingdom. Department of the Environment, London, GB
1994, 80 p., tables, figures, En

The UK's Climate Change Program includes inventories of emissions and scenarios of possible future trends, and sets out measures aimed at returning emissions of each of the main greenhouse gases to 1990 levels by 2000. For carbon dioxide, a saving about 10 million tons of carbon against projected emissions by 2000, is expected based on measures spread across all sectors: domestic energy consumption, through taxation on domestic fuel and power, and a new Energy Saving Trust; energy consumption by business, through energy efficiency advice and information; energy consumption by the public sector, through targets for central and local government and public sector bodies; and transportation, through increases in road fuel duties, and a commitment to real increases of at least 5 on average in future budgets. For methane, the program anticipates a 10 reduction from 1990 levels by 2000, through initiatives to encourage the methane use for energy generation, such as new waste management practices, reduced fuel emissions from coal production, and new guidance on limiting emissions from several industrial sectors. For nitrous oxide, a 75% reduction from 1990 levels by 2000 is anticipated, mainly through the reduction of nitrous oxide emissions from nylon manufacture. Anticipated reductions for other greenhouse gases include nitrogen dioxide (25%), volatile organic compounds (35%), carbon monoxide (50%), halocarbons (elimination of CFCs), and perfluorocarbons (90% for carbon tetrachloride and 90% for hexafluoroethane). Efforts to enhance carbon sinks are described, mainly afforestation and other new tree planting. The UK assistance to countries that are helping to combat climate change is discussed, particularly bilateral aid to developing countries for energy efficiency and forest projects, bilateral aid to Eastern European economies in transition, and multilateral assistance, including the Global Environment Facility. The UK program also describes a wide range of publicity and educational campaigns aimed at improving awareness of climate change and provides an overview of UK climate change research, including data acquisition, climate

prediction and modelling, response measures, and climate change impacts and adaption. The report concludes with an assessment of longer-term developments and options.

Available from:
HMSO Publications Centre
PO Box 276
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Internet: http://www.hmso.gov.uk/

This common inheritance: UK annual report 1995

Environmental Strategies and Action Plans

Government of the United Kingdom, London, GB
Mar 1995, 191 p., En

This fifth annual report on the United Kingdom's commitment to sustainable development outlines the UK's 1994 environmentally related actions and compares them with those of previous years and those planned for 1995 and beyond. Following a narrative summary of UK actions during 1994, the remainder and major portion of the document presents tables indicating (1) the commitments made by the government to environmental protection and sustainable development, (2) actions on these commitments taken during 1994, and (3) actions planned for 1995 and after. The list of commitments is long, covering some 613 areas in all. The tables are organized in four sections. Section I reviews 102 commitments to protect the global atmosphere, air quality, and freshwater, marine, soil, and wildlife resources and habitats. Section II examines 237 environmental commitments made in the areas of agriculture, forestry, fisheries, mineral extraction, energy, manufacturing and services, biotechnology, chemicals and waste, urban and rural development, housing, transportation, and tourism. Section III outlines 113 commitments in the areas of international cooperation, central, local, and private management, land use planning systems, energy, research, technology, and education. Finally, Section IV reviews 157 commitments specific to Wales, Scotland, and Northern Ireland. Annexes include a list of selected recent environmental legislation.

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Internet: http://www.hmso.gov.uk/

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-546

Sustainable development: the UK strategy

Environmental Strategies and Action Plans

United Kingdom. Department of Environment, London, GB
Jan 1994, 2 v., ill., charts, maps, statistical tables, En

As one of the first countries to industrialize, the United Kingdom (UK) was also among the first to find ways of tackling the environmental problems that economic development can bring, e.g., resource depletion, pollution, congestion, and environmental degradation. This sustainable development strategy for the UK looks 20 years ahead at current trends and emerging problems, and examines new arrangements and processes for carrying forward sustainable development in different sectors of society. Section 1 discusses the principles of sustainable development in the international and national context. Section 2 reviews the state of the environment, and specific sectors of concern such as population, air and water resources, soil and land use, minerals, and wildlife and habitats. Section 3 discusses economic development and sustainability in such areas as agriculture, forestry, fisheries, minerals, energy, manufacturing, biotechnology, chemicals, transportation, and leisure. Finally Section 4 addresses the question of putting sustainability into practice through central and local government, business and industry, voluntary bodies, and individual people. It also addresses environmental accounting and indicators, land use planning systems, science engineering, and technology.

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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-549

OECD environmental performance reviews: United Kingdom

OECD Environmental Performance Reviews

Organisation for Economic Co-Operation and Development, Paris, FR
1994, 208 p., charts, statistical tables, En

As the cradle of the industrial revolution, the United Kingdom (UK) has had long experience with the environmental problems that accompany economic development. In recent decades, the UK has also been in the forefront in identifying environmental threats and in devising policies and institutions at the domestic and international levels for addressing those problems. This report sets a baseline for assessing future progress by examining the environmental performance of the UK in four major areas: (1) reduction of air and water pollution, and management of solid wastes; (2) nature conservation and landscape preservation; (3) integration of environmental policies with policies concerning economics, energy, and the chemical industry: and (4) international cooperation on environmental matters. In each area, the extent to which government objectives are being met is assessed based on environmental effectiveness and economic efficiency criteria. A number of conclusions and recommendations are offered which could contribute to further environmental progress in the UK. Annexes include selected environmental and economic data; a list of selected multilateral environmental agreements and the UK's participation therein; and a chronology of events with environmental significance for the UK from 1988-1994.

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Internet: http://www.oecd.fr

Yugoslavia (former)

Yugoslavia: national report to the United Nations Conference on Environment and Development 1992

UNCED National Reports

Yugoslavia. Federal Secretariat for Development. Environmental Division, Belgrade, YU
1991, 232 p., statistical tables, En

Yugoslavia faces the formidable task of addressing major environmental problems (e.g., air and water pollution, radioactive and other toxic waste disposal, etc.) at a time of widespread economic instability (e.g., market liberalization and its accompanying inflation) and rapid demographic shifts (particularly urbanization). This report describes Yugoslavia's natural resources and discusses their management in the context of current socioeconomic trends, with separate chapters on demographic development and urbanization, the country's natural and architectural heritage, the development of individual economic sectors (e.g., agriculture, forestry, energy, mining, tourism, transportation, etc.), and the principal impacts of development on specific natural and environmental resources. A final section examines Yugoslavia's efforts to create a comprehensive environmental policy, including implementing measures and institutions, specific environmental programs and projects, and Yugoslavia's cooperation with international organizations on environmental protection.

Available from:
Federal Secretariat for Development
Environmental Division
Belgrade
Yugoslavia

Other

Former Soviet Union regional

Environmental legacy of the former Soviet republics (as collated from official statistics)

State-of-Environment Reports

Mnatsakanian, Ruben A.
University of Edinburgh. Institute of Ecology and Resource Management. Centre for Human Ecology, Edinburgh, Scotland, GB;
Fondation pour le Progres de l'Homme, Paris, FR;
Institut pour une Politique Europeen de l'Environement, Paris, FR;
British Council, London, GB
1992, xi, 209 p., maps, statistical tables, En

During their last years of existence, Soviet environmental agencies issued relatively detailed reports on the state of the environment in the USSR and on developments in environmental protection technologies, but this information was classified as secret, which is one reason the general public was not aware of the severe ecological dangers caused by the USSR's exploitation of nature for military-industrial ends. This book selects and collates the important information in these official reports, covering the environmental situation up to 1989 in each of the country's 15 Republics, and for each region in Russia. Simple diagrammatic maps of each Republic and each major economic region of Russia and the Ukraine are presented, illustrating total emissions, plus major pollutants which exceeded permissible levels in 1989, in about 600 cities. Illustrating air pollution, pollution of surface and groundwater, and areas of soil erosion, salinization, waterlogging, acid deposition, radioactive pollution, deforestation, etc., the maps indicate whether the problems shown are serious, very serious, or catastrophic. The book also includes information (not in the official reports) on such issues as the nuclear catastrophe in the Urals in 1957, the Novaya Zemlya nuclear test and waste dumping site, and a bacteriological weapons test site on an island in the Aral Sea.

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Environmental status reports: 1990—volume three: USSR

State-of-Environment Reports

IUCN—The World Conservation Union, East European Programme, Gland, CH
1991, vi, 103 p., ill., charts, maps, statistical tables, En

Prepared in 1989, prior to the dissolution of the Soviet Union, this environmental status report is presented in two parts. Part I discusses (1) air, water, land and soil, mineral, and biological resource protection, and the USSR's protected areas system; (2) the institutional and legislative framework for environmental management, environmental education and research, and international cooperation; (3) the ecological impact of economic development, reforms made under perestroika, mechanisms to improve environmental quality, environmental legislation, natural resource management system, priorities for natural resource use, environmental technology, and the ecological social movement; and (4) the USSR's priority environmental initiatives and opportunities for regional and international cooperation. Part II is an abridged translation of the official report on environmental status prepared by the State Committee for the Protection of Nature. It provides detailed information on air, water, and soil quality, biological resources, biological pollution, regional ecological problems, the Chernobyl nuclear accident in 1986, and nature protection activities. Includes a list of protected areas, hunting management units, and nature parks.

Available from:
IUCN Publications Unit
World Conservation Monitoring Centre
219c Huntingdon Road
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United Kingdom

Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-538

Latin America regional

Situación ambiental en América Latina: algunos estudios de casos (Environmental situation in Latin America: some case studies)

State-of-Environment Reports

Centro Interdisciplinario de Estudios sobre el Desarollo Latinoamericano, Buenos Aires, AR
1991, 579 p., Es

Compiled in this volume are environmental case studies of 11 Latin American countries: Argentina, Bolivia, Brazil, Colombia, Chile, Ecuador, El Salvador, Guatemala, Mexico, and Peru. The volume is designed to provide a basis for comparison, as well as to give a general overall perspective on the status of Latin America's environment and environmental protection efforts; as such, the study countries represent a wide range of cultures, climates, levels of development, and ecosystems. Each study was prepared by national experts, and each is about 40-50 pages long with two main sections. The first section provides an overview of the natural environment (e.g., local ecosystems, climate, soils, geology, flora and fauna, and protected areas); discusses demographics, economic activities, and settlement history; and reviews the principal human activities having environmental consequences (agriculture, ranching, hunting/gathering, forestry, industry, mining, and urban growth). The second section examines environmental policies, institutions, and goals; this section includes a survey of governmental (national, provincial, and municipal) and nongovernmental organizations with environmental interests, along with an overview of environmental legislation and other incentives to environmentally beneficial behavior, such as tax incentives. Each study includes a bibliography.

Available from:
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Also Available from:
U.S. Agency for International Development
Development Information Services Clearinghouse
Order No.: WRI-654

OECD Countries

The state of the environment

State-of-Environment Reports

Organization for Economic Cooperation and Development, Paris, FR
1991, 297 p., statisitcal tables, charts, maps, En

This is the third OECD report on the state of the environment. It focuses on the environment in OECD countries, assessing the progress achieved over the past two decades and identifying remaining problems. The first part of the report (The State of the Environment: Progress and Concerns) covers the following topics: global atmospheric issues (stratospheric ozone depletion, the greenhouse effect, global spread of air pollution); air quality (local and urban air pollution, large scale air pollution); inland waters (development and quality of water resources, drinking water, water management); the marine environment (pressures on and state of the marine environment, sustainable use of living marine resources); land (soils, land use); forest (forest resources, demand for forest products, environmental effects of forestry management, external pressures on forest resources in OECD countries, consequences for the rest of the world); wildlife (uses and value of wildlife, conditions and trends, impact of human activities, protection and management); solid waste (waste production and disposal, transfrontier movements of waste, old landfill sites, recovery, recycling and prevention); and noise (effects of noise, sources of noise). The second part of the report draws attention to the relationship between the state of the environment and economic growth and structural changes in OECD countries. It examines pressures on the environment from human activities in such sectors as agriculture, industry, transportation, and energy, as well as socio-demographic changes, but emphasizes that these activities in turn depend on the environment for their sustainable development. The third part of the report discusses economic and international responses to environmental problems, highlighting efforts in the area of performance measures, environmental policy, sustainable development, international trade, and international aid. While the report primarily concerns the environment in member countries, OECD places its analysis in the context of world ecology and economic interdependence. The report draws on the OECD's environmental database as well as information from national reports on the state of the environment and from national environmental yearbooks available in most member countries.

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Also Available from:
(Offices in Bonn, Tokyo, and Washington DC)

IV. Description of Reporting Categories

The studies in the *World Directory* have been organized into the following reporting categories:

- *Agenda 21* National Reports
- Biodiversity Assessments, Strategies, and Action Plans
- Climate Change Assessments, Strategies, and Action Plans
- Environmental Profiles (donor programs)
- Environmental Strategies and Action Plans
- Environmental Synopses
- Forestry Assessments, Strategies, and Action Plans
- OECD Environmental Performance Reviews
- State-of-Environment Reports
- UNCED National Reports
- Other Environmental Studies

This section describes each category, covering the following elements:

- purpose
- general content
- historical context (including relationship to previous editions)
- future directions
- methods
- contacts
- bibliography

Reporting categories have changed from edition to edition according to the types of reports found. Apart from the Environmental Synopses, few new reports were produced by bilateral foreign assistance agencies, so these have been collapsed into a single category. As more countries take the lead in their own reporting, the categories chosen will increasingly be arranged by theme rather than by institutional sponsors. The multisectoral strategies and action plans, as well as the sectoral strategies for biodiversity and forestry, reflect this change in the current edition. Finally, new international programs have emerged, including the reports to the Commission on Sustainable Development (*Agenda 21*), the UN Climate Change Convention, and OECD's Environmental Performance Reviews.

Agenda 21 National Reports

Agenda 21 is the global strategy for sustainable development adopted at the 1992 UN Conference on Environment and Development. In 1993 the UN Commission on Sustainable Development (UNCSD) was established to support the implementation of *Agenda 21*. At its first session in 1993, the UNCSD decided to encourage annual, voluntary national reporting on progress toward *Agenda 21* goals.

To carry out its assessment responsibilities, the UNCSD divided the 40 chapters of *Agenda 21* into 9 clusters: five cross-sectoral clusters to be reviewed every year and four sectoral clusters, each to be reviewed once before the overall review in 1997. The cross-sectoral clusters are: critical elements of sustainability (poverty, consumption, population); financial resources and mechanisms; education, science, and technology; decision making structures; and roles of major groups. Sectoral clusters are: health, human settlements, and fresh water; toxic chemicals and hazardous waste (both reviewed in 1994); land, desertification, forests, and biodiversity (reviewed in 1995); and atmosphere and marine resources (reviewed in 1996).

To help guide country reports for the 1994 session, the Commission's Secretariat, part of the newly created UN Division of Policy Coordination and Sustainable Development (UNDPCSD), distributed a 57 page questionnaire in August 1993. Three countries (Cuba, Uganda, USA) submitted reports by the original deadline of November 30, 1993; another 28 countries and two regions submitted reports in time to be summarized for the 1994 session (summaries can be found on the Internet at the UNCSD gopher—see below), and 56 countries eventually submitted reports. With help from the Earth Summit Watch program (see below), WRI was able to obtain reports for 18 countries.

For the 1995 session, the Secretariat simplified the guidelines, providing them on diskette and via the Internet. Thirty-three countries submitted reports in time to be analyzed for the April session, and 60 had submitted reports by October 1995. The Secretariat did not prepare individual country summaries for this session, but did prepare an overall summary document (see bibliography). WRI was able to obtain reports for 22 countries and the European Community.

The Secretariat does not publicly distribute any of the country reports. Although a few have restricted their distribution, many countries have made their reports available through their ministries, UN representatives, or embassies. Some countries are making their reports available on the Internet.

The Natural Resources Defense Council, as part of the environmental consortium Campaigns for Action to Protect the Earth (CAPE 21), has played a lead role in monitoring country reporting and encouraging closure of the 'implementation gap.' Its unique annual reports detail country by country progress in specific areas within the broader UNCSD themes under review for that year.

UNDP is sponsoring a major program to assist developing countries in following up on UNCED. The Capacity 21 program is designed to assist countries to set national

agendas and integrate the principles of *Agenda 21* into their existing policy and plans. Projects with specific strategy and assessment components are underway in Bolivia, Chile, The Gambia, Iran, Jordan, Lebanon, Sudan, and Syria, among others.

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Bibliography

Earth Summit Watch. 1993. *One Year After Rio*. New York: Natural Resources Defense Council.

---. 1994. *Four in 94*. New York: Natural Resources Defense Council.

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---. 1995. *National Information: Report of the Secretary-General*. E/CN.17/1995/24.

Biodiversity Assessments, Strategies, and Action Plans

Most of the sectoral studies focussing on biodiversity in this edition are profiles, strategies, and action plans produced by national governments. A major impetus for biodiversity assessment and planning is the international Convention on Biological Diversity. Signed by 156 countries in 1992 at UNCED, Article 6 of the Convention states that all contracting countries need to develop new or adapt existing national

strategies to meet its provisions. In addition to strategies, specific guidelines for regular reporting of progress by signatories were agreed to in the second Conference of Parties (1995) with the first of these national reports due in 1997.

Since before the Convention, UNEP has been helping countries complete Country Studies to identify resources, legal mechanisms, and potential costs and benefits of biodiversity conservation. By late 1994, 12 countries had completed such studies, while 20 more were ongoing. UNEP, WRI and IUCN produced the *Global Biodiversity Strategy* in 1992 to help national governments elaborate their plans in the global context. In 1995, WRI, in collaboration with UNEP and IUCN, published *National Biodiversity Planning: Guidelines Based on Early Experiences Around the World*, and at the global level, UNEP coordinated the production of the *Global Biodiversity Assessment*, an effort to establish a scientific baseline for measuring progress on biodiversity conservation.

Because relatively few national strategies have been developed, biodiversity reports from the three related categories from the 1993 Directory are also included in the current *Matrix of Countries and Reporting Categories*:

1) USAID's Tropical Forestry & Biodiversity Assessments began in 1987 as a result of amendments to the U.S. Government's Foreign Assistance Act requiring USAID missions to prepare such background assessments for each country receiving financial assistance from the United States. These studies are used to update a mission's Country Program Strategy Plan (CPSP), upon which the U.S. bilateral assistance program is based.

2) The IUCN/EC Conservation of Forest Ecosystem Studies were products of a joint project called the Conservation and Rational Use of Forest Ecosystems in Central Africa. The studies examine the conservation, ecology, jurisdictional status, and exploitation of tropical forests, and include lists of the sites that are important to conserve and recommend a series of actions that will guarantee conservation while assuring the long-term exploitation of forest resources.

3) WCMC's Biological Diversity Profiles provide basic background on species diversity, major ecosystems and habitat types, protected area systems, and legislative and administrative support; they identify the status of sites of critical importance for biological diversity and ecosystem conservation; and they provide a concise report on the values, threats, and conservation needs of these sites for decisionmakers and development agencies.

Bibliography

United Nations. 1992. *Convention on Biological Diversity.* Internet: http://www.unep.ch/bio conv-e.html

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---. 1995. *Global Biodiversity Assessment.* Nairobi.

Miller, K.R. and S.M. Lanou. 1995. *National Biodiversity Planning: Guidelines Based on Early Experiences Around the World.* Washington, DC; Nairobi; Gland, Switzerland: WRI; UNEP; IUCN.

WRI, UNEP, IUCN. 1992. *Global Biodiversity Strategy.* Washington, DC; Nairobi; Gland, Switzerland.

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Climate Change Assessments, Strategies, and Action Plans

National-level climate change assessments, strategies, and action plans is a new category. In 1990 the UN General Assembly set up an Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC/FCCC) to address growing scientific evidence of the possibility of global climate changes caused by human actions. By the UNCED in 1992 a framework convention had been negotiated and signed by 156 countries. The Convention entered into force on 21 March 1994, 90 days after the 50th country ratified.

Article 12 of the Convention requires industrial countries (including Eastern Europe and the Former Soviet Union, also known as Annex I parties) to submit a "national communication" to the Secretariat six months after ratification. These reports are to include:

- inventories and projections of greenhouse gas emissions and removals by sinks using agreed methodologies;

- policies and measures for returning greenhouse gas emissions to 1990 levels by the year 2000; and,

- impacts and adaptations, and scientific and educational programmes;

- financial and technology transfers from donor countries.

Seventeen reports were received in time to be included in the synthesis report prepared for the first Conference of the Parties (COP—ratifying States) at its first meeting from 28 March to 7 April 1995 in Berlin. As of August 1995, 27 of the 37 Annex I Parties had submitted reports. Summaries for 18 reports are available on the Geneva-based Secretariat's Internet site, and 18 reports were obtained and abstracted for this Directory.

To ensure that the information provided is as useful and credible as possible, international teams of experts are subjecting the first communications to in-depth reviews and country visits. These reviews will be analyzed by the COP's Subsidiary Body for Scientific and Technological Advice (SBSTA) and the results presented at the second Conference of Parties in 1996. The NGO community has also played an active role in assessing national reports under the umbrella of the Climate Action Network (CAN). The Network collaborates with local NGOs to compile and publish evaluations of national reports submitted by their respective governments.

Reports to the UNFCCC from developing countries are not due until 1997, however, many are already underway. Donor countries (Annex II parties) are providing assistance, such as the U.S. Support for Country Studies to Address Climate Change Program, and the UNFCCC Secretariat is helping to match needs with donors through its Climate Convention Information Exchange Programme (CC:INFO). Country reports to the 1996 Commission on Sustainable Development are also likely to include climate relevant information, because atmosphere and climate is one of the sectors to be reviewed.

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Environmental Profiles (Donor Supported)

Foreign assistance programs have frequently supported the preparation of national environmental profiles and assessments to provide an overall context and give direction to their country investments. More and more donor involvement appears to be accomplished through assisting countries' national institutions to produce their own state-of-environment reports and through multilateral processes, such as the National Environmental Action Plans. New profiles supported by the Netherlands, Australia, and Japan are included in this edition. Other donor-supported programs have also been summarized here to help the reader understand the historical context of this category.

Netherlands Ministry of Foreign Affairs Environmental Profiles

The Netherlands environmental profiles describe the natural and human environments, identify key areas where action is needed, and conclude with recommendations for action. The studies often focus on a particular subnational region, involve local research organizations, and include workshops which can lead to policy recommendations and proposals for assistance. Ten profiles were included in the 1993 edition, five are included in this edition (Burkina Faso, Cape Verde, Egypt, Gaza, Pakistan), and approximately eight more are in stages of identification or appraisal (Benin, Guinea-Bissau, Guinea/Mali, Niger, Tanzania, Uganda, Bolivia, Peru).

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Australian Agency for International Development Country Profiles

At the May 1993 conference on the "Asian-Pacific Response to UNCED" the Australian Minister for Development Cooperation announced the agency's intention to compile

profiles of assisted countries to help advance the goals of Agenda 21. The studies include information on the social, economic and environmental situation, government and donor initiatives, key environmental issues, and possibilities for Australian cooperation. Two profiles are included in this edition (Indonesia, Papua New Guinea) and two more are expected soon (China, Laos).

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Overseas Economic Cooperation Fund of Japan Environmental Profiles

The Japanese OECF sponsors the preparation of environmental profiles for Asian countries. The purpose of these profiles is to compile environment-related information about the borrower's country in order to be able to appraise proposed development projects efficiently and appropriately. The environmental issues covered in the profiles include pollution, the natural environment, and the human and social environment. Two profiles were included in the 1993 edition (India, Indonesia) and two new studies appear in this edition (Philippines, Thailand). Three more profiles may be available (China, Malaysia, Pakistan). All of these documents are available in English and Japanese.

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The Canadian International Development Agency (CIDA) Environmental Strategies

CIDA's strategies are primarily internal documents designed to indicate the best ways for Canada to incorporate environmental concerns in its bilateral programs. Six strategies were included in the 1993 edition (Cameroon, the Caribbean Region, Peru, Bangladesh, Indonesia, and Pakistan). Ten more strategies were finished at that time, but not publicly released (West Africa, the Southern Africa Development Coordination Conference (SADCC), Central America, Jamaica, South America, India, Malaysia, Philippines, Thailand, and Vietnam). Another nine strategies were in preparation, but none have been received in time for inclusion in this edition (Egypt, Cote d'Ivoire, Lesotho, Zambia, Ecuador, Indochina, East Asia, South Asia, and Asia).

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Denmark's Department of International Development Cooperation (DANIDA) Environmental Profiles

The aim of these profiles is to strengthen environmental considerations in DANIDA's development assistance programs. The profiles include an analysis and description of the most important environmental issues and an overview of the monitoring, research, and administrative capacity of the country to address environmental problems. Five studies were included in the 1993 edition (Kenya, Sudan, Tanzania, Bangladesh, India). At that time, DANIDA had also prepared a series of strategies that examine environmental issues in the following specific sectors: water resources management, dryland agriculture, fisheries development, agriculture in humid areas, industrial and urban development, and human health.

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United States Agency for International Development (USAID) Country Environmental Profiles

The goal of the country environmental profiles is to assess a country's natural resource potential in relation to its economic growth and development. USAID's Washington office supports the preparation of country environmental profiles in cooperation with the USAID country missions and local, national, and regional organizations. Twenty-eight profiles were included in the 1993 edition and approximately 40 more, completed in the early 1980s, can be found in the 1993 Directory Database Diskette.

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Environmental Strategies and Action Plans

Strategies and action plans assess resources, analyze environment and development problems, and outline policies, objectives, priorities, and planned actions. While strategies generally focus on goals and priorities, action plans propose specific actions, projects, and investments. Often, both of these functions are combined into a single document or two-volume set. This strategy and action plan category includes: National Conservation Strategies (NCS), National Environmental Action Plans (NEAP), National Environmental Management Strategies (NEMS), Green Plans, and National Sustainable Development Strategies (NSDS).

One of the first global calls for environmental planning was presented in *the World Conservation Strategy* (1980), which recommended that countries formulate

National Conservation Strategies. The first such strategies appeared in the early 1980s, and some are still being produced, although many have merged with other processes, such as the NEAP or the NSDS. The NCS's aim to identify a country's most urgent environmental needs, allocate limited resources, and build the institutional capacity to handle complex environmental issues.

National Environmental Action Plans make up the majority of the reports in this category in the current Directory. NEAPs aim to provide a a time-bound plan of action which integrates environmental considerations into a nation's economic and social development. The World Bank supported the first NEAP in Madagascar in 1987. With Operational Directive 4.02 in 1990, the Bank further encouraged the process in many countries by linking it to preferential loan treatment. Although the NEAP is intended to be an in-country process based on local participation, donor schedules and the use of outside experts has reduced the scope of national participation in some cases.

In the South Pacific the major environmental planning initiative is the National Environmental Management Strategies (NEMS) program, coordinated by the South Pacific Regional Environment Programme with assistance from United Nations Development Program, Asian Development Bank and the World Conservation Union. NEMS generally include a brief natural resources and social profile, followed by actions to be taken, principles for implementation and specific project proposals.

The most recent manifestation of strategic planning is the National Sustainable Development Strategy. *Agenda 21* and *Caring for the Earth*, the follow-up to the *World Conservation Strategy*, called for such plans which would balance environmental, social, and economic factors. Many of the UNCED national reports cover similar issues, and in a few cases, such as Sweden and Japan, national Agenda 21 reports also include such plans. To help countries develop such strategies, IUCN and IIED have recently published *Strategies for national sustainable development: A handbook for their planning and implementation*.

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Many NEAPs are now available through the:
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Washington DC 20433
USA
Tel: +1 202 458 5454
Fax: +1 202 522 1500
E-mail: pic@worldbank.org
Internet URL: http://www.worldbank.org
(The Bank also maintains PICs in London, Paris and Tokyo.)

For more detailed information on NEAPs contact:
Environment Department
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On the Internet there is extensive information at the Green Plan Center, maintained by the Resource Renewal Institute.
URL: http://www.rri.org

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National Conservation Strategies

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World Bank. 1995. *National environmental strategies: Learning from experience.* Washington DC: World Bank, Environment Department.

Lampietti, J. and U. Subramanian. 1995. *Taking stock of national environmental strategies*. Washington DC: World Bank, Environment Department.

Dorm-Adzobu, C. 1995. *New roots: Institutionalizing environmental management in Africa.* Washington DC: WRI.

National Sustainable Development Strategies

Carew-Reid, J., R. Prescott-Allen, S. Bass and DB Dalal-Clayton. 1994. *Strategies for national sustainable development: A handbook for their planning and implementation.* London: IIED, IUCN, Earthscan Publications.

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Johnson, HD. 1995. *Green Plans: greenprint for sustainability.* Lincoln, Nebraska: Univ. of Nebraska Press.

Dalal-Clayton, DB. [forthcoming]. *Getting to grips with green plans: A review of recent experience in industrial countries.* Environmental Planning Issues n. 10. London: IIED.

Environmental Synopses

The United Kingdom's Overseas Development Agency (ODA), the European Union (EU), and the Australian International Development Assistance Bureau (AusAID) supported the preparation of a number of environmental synopses of developing countries by two non-governmental organizations: the World Conservation Union (IUCN) and the International Institute for Environment and Development (IIED). The synopses have been produced as desk studies, drawing on published sources of information and sharing a common format and content. Each has undergone an in-country review by a team of specialists from governmental and non-governmental institutions. These 25 to 30 page summaries are intended as intermediate publications that bridge the gap between shorter environmental briefing documents and much longer and detailed environmental studies.

The synopses address the following environmental topics:

- key environmental issues which are having, or might have, a major impact on the country;

- the institutional context—environmental institutions and organizations, environmental policies and

legislation, and training institutes and their training capacities—in which environmental issues are handled;

- the state of the environment, including an inventory of natural resources and a discussion of the related issues in industry, energy, demography, and urbanization; and,

- an analysis of the pollution and degradation processes affecting the environment, considering pollution of water, land, and air; water shortages; soil erosion and degradation; deforestation; biodiversity; the marine environment and coastal zones; the urban environment; energy issues; and industry.

The Environmental Synopses also contain a selected bibliography of source material and relevant maps.

The initial five synopses appeared in the 1993 Directory, and the remaining 41 synopses appear in the current edition (31 of the total are for African countries). At this time no more are planned.

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Forestry Assessments, Strategies, and Action Plans

Most of the forestry reports included in this and previous editions of the *Directory* are national responses to the global Tropical Forest Action Programme (TFAP), which was initiated in 1985 by a consortium of international and national organizations, including the UN Food and Agriculture Organization (FAO), UN Development Program (UNDP), the World Bank, and WRI. According to the FAO, a total of 92 countries have adopted the TFAP approach. Included in this total are master plans for forestry development (MPFDs), which are carried out with the support of the Asian Development Bank for its member countries. Country by country status reports are available in a periodic FAO publication called *TFAP Update*. Tropical Forest Action Plans for 26 countries were included in previous editions and 12 more are abstracted in the current document. TFAP processes in a number of countries are now being reworked to address the broader scope of planning and wider participation advocated in post-UNCED processes.

The UN Commission on Sustainable Development (UNCSD) discussed forests as one of the Agenda 21 sectoral issues at its 1995 meeting. In preparation for this meeting, the UNCSD requested that countries submit reports according to provided guidelines. FAO has prepared a summary for the UN of the 34 country responses (along with those from other organizations) in a *Review of Sectoral Clusters, Second Phase: Land, Desertification, Forests and Biodiversity*. In response to requests to national governments, WRI received only two national forest strategies not related to the TFAP process: *New Environmental Programme for Forestry in Finland*, and *Forestry Action Plan for China's Agenda 21*.

In 1995 the UNCSD also formed the Intergovernmental Panel on Forests (IPF) to further international forest negotiations. The Panel is guided by the *Agenda 21* chapter "Combating Deforestation and Non-legally Binding Forest Principles."

Currently, a number of efforts to reach agreement on criteria and indicators for sustainable forest management are of particular importance to the Panel's work and the future of forest assessment and reporting:

- the International Tropical Timber Organization for tropical timber exporting countries;

- the Helsinki Process for European nations;

- the Montreal Process and Santiago Agreement for non-European, temperate and boreal forest countries (Australia, Canada, Chile, China, Japan, Mexico, New Zealand, the Republic of Korea, the Russian Federation, and the United States of America); and,

- the Tarapoto Proposal for Amazonian countries.

The challenge will be to integrate these various agreements and to strengthen forest assessment and planning activities within national sustainable development planning.

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---. 1992. *Non-Legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forest.*

World Resources Institute. 1990. *Taking Stock: The Tropical Forestry Action Plan after Five Years.* Washington, DC.

Santiago Declaration. February 3, 1995. *Statement on Criteria and Indicators for the Conservation and Sustainable Management of Temperate and Boreal Forests.* Santiago, Chile.

Organization for Economic Cooperation and Development, Environmental Performance Reviews

The principal goal of the OECD's environmental performance reviews is to help member countries improve their individual and collective performances in environmental management. Primary objectives for this program are:

- to help individual governments assess progress by establishing baseline conditions, trends, policy commitments, institutional arrangements, and the capacity to carry out national evaluations;

- to promote environmental improvements and a continuous policy dialogue among member countries, through a peer review process and by the transfer of information on policies, approaches, and experiences of countries; and,

- to stimulate greater accountability from Member countries' governments towards public opinion within developed countries and beyond.

Program efforts are directed at promoting sustainable development, with emphasis on developments in domestic and international environmental policy, as well as on the integration of economic and environmental decision-making.

Environmental performance is assessed with respect to a country's effort in reducing the overall pollution burden, managing its natural resources, integrating environmental and economic policies, and strengthening cooperation within the international community. Environmental performance is assessed with regard to the degree of achievement of domestic objectives and international commitments. Such objectives and commitments may be broad aims, specific qualitative goals, precise quantitative targets, or a commitment to a set of measures to be taken. Assessment of environmental performance is also placed within the context of historical environmental records, the present state of environment, the natural resource endowment of the country, and its economic conditions and demographic trends.

These systematic, independent, and periodic reviews are organized and conducted in a way similar to the OECD's economic reviews. The report is peer reviewed by the Group on Environmental Performance, composed of officials from member countries who have responsibility for national policy development and implementation and a broad competence recognized at national and international levels. The conclusions of the report are approved by the group. Member countries are expected to be reviewed every five years, and these reports are distributed under the authority of the Secretary-General of the OECD.

Reports for eleven OECD countries had been completed by early 1996 (Austria, Canada, Germany, Iceland, Italy, Japan, Netherlands, Norway, Portugal, United Kingdom, United States) and four more are pending (France, New Zealand, Spain, Sweden). In addition, OECD's Centre for Cooperation with Economies in Transition is producing reviews for Eastern European and former Soviet Union states. The review for Poland is available; reports for Bulgaria and Belarus are in preparation.

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OECD. 1993. *OECD Core Set of Indicators for Environmental Performance Reviews.* Environment Directorate Monograph. Paris.

---. 1994 (biennial). *Environmental Indicators: OECD Core Set.* Paris.

---. 1995 (biennial). *Environmental Data Compendium.* Paris.

---. 1995 *Environmental Performance in OECD Countries—Progress in the 1990s.* Paris.

State-of-Environment Reports

Reports on the state of the environment present information on the conditions and trends of the environment; identify and analyze causes, linkages, and constraints; and

indicate emerging issues and problems and their relevance to policies. Most state-of-environment (SOE) reports are prepared by national governments for national policymakers and the public. However, some reports are prepared by intergovernmental organizations, and, in a few cases, by non-governmental organizations. SOE reporting began with the emergence of national environmental policies, with the first reports being produced in 1969 and 1970 by Japan and the United States, respectively. Most OECD countries produce an SOE report on a regular schedule, varying between yearly and every five years. Other countries which have produced three or more reports at regular intervals include China, Czech Republic, Estonia, India, Israel, Malaysia, Singapore, Taiwan, and Venezuela. The *Directory* also includes the first SOE reports for Cambodia, Ukraine, Uganda, and several of the Pacific Island nations.

A variety of regional reports are also available: included in this edition are two for Southern Africa prepared by NGOs, one for the former Soviet Union by an academic research institute, and a third by the OECD for its member countries. Although we have not abstracted them, relevent global reports are included in the attached bibliography.

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United Nations Conference on Environment and Development, National Reports

In the most comprehensive environmental reporting effort to date, United Nations member countries were asked by the UNCED Secretariat to prepare reports on their environment and development situation as part of the national preparations for the United Nations Conference on Environment and Development, held in Rio de Janeiro, Brazil, in June 1992. By December 1992, 169 national and regional reports had been submitted. The *1993 Directory* included abstracts of 67 national reports, and the current edition includes 84 more.

To assist countries, the Secretariat produced guidelines proposing that each report address development trends and resulting environmental impacts, responses to environment and development issues, and initiatives in international cooperation. These responses could include principles and goals, policies, legislation, institutions, programs, and projects. Countries were encouraged to consult local, regional, and international NGOs, women's groups, and industry in the preparation of their reports.

Many reports assess how national economic and other activities can stay within the constraints imposed by the need to conserve natural resources. Some consider issues of equity, justice, and fairness. These studies are intended to help ensure that development policies will bequeath to the next generation a natural resource inheritance either the same as, or better than, the present one.

The Secretariat prepared a 5 to 10 page content review of each national report focussing on the drafting process, problem areas, capacity-building, priorities, finances, environmental technologies, international cooperation, and expectations for UNCED. These summaries are published in the three volume set entitled "Nations of the Earth Report." The summaries and the full texts of the reports are available on the UNCED CD-ROM, along with many other official UNCED documents. Generally, copies of the national reports can also be obtained from the United Nations Development Programme (UNDP) Resident Representative of each country. The NGO community has also produced an UNCED CD-ROM of its contributions to the Conference.

The UNCED process has continued under the auspices of the UN Commission on Sustainable Development, which meets annually in New York and has a permanent secretariat housed in the United Nations Division of Policy Coordination and Sustainable Development (UNDPCSD). Countries are encouraged to submit updates on their post-UNCED progress, and these reports are covered under the *Agenda 21* category description.

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---. 1993. *Earth Summit CD-ROM.* New York: United Nations Publications.

Other Environmental Studies

Studies included here do not fit well into the other established categories, but nevertheless provide important national-level environmental information. Included here are environmental agency reports, economic and future studies, land use assessments, and rapid appraisals of post-war environments. Also included in this category are studies from earlier editions which were classified under the Environmental Policy and Management category.

Environmental progress in a country is greatly influenced by the policies and practices of its environmental management institutions. The major environmental institutions of Cambodia, India, and Singapore submitted annual reports, and these are included.

The World Bank compiles a variety of studies on its client countries, and as environmental issues gain international recognition, they are increasingly being integrated into these studies. One such series is the Country Economic Memoranda. Included here are CEMs for Estonia, Indonesia, Jamaica, Kazakhstan, Latvia, and Lithuania. Other CEMs, mentioned in the Bank's 1994 annual environmental report "Making Development Sustainable," include Eritrea, India, Maldives, Kyrgyz Republic, Papua New Guinea, and Tajikistan.

The report on "Information for Decision-making" to the 1994 UN Commission on Sustainable Development emphasized that policy-makers need to be able to predict future environmental conditions from current trends and policies. The Netherlands and Israel have both produced such environmental futures studies, and the Netherlands study is able to relate directly to quantifiable goals set in its National Environmental Policy Plan.

Land use and land tenure have significant impacts on environmental conditions, and land use surveys are a major source of information for environmental planning and assessment. IIED has studied land use

information in a number of developing countries and has published the case studies included here for Sri Lanka and Tanzania. UNEP also recently supported a land management study for Egypt.

The environment can be seriously impacted by armed conflicts, but the information needed for post-conflict improvements is often lacking due to weakened abilities of governments. Immediately following the Iraq-Kuwait conflict (the "Gulf War") in 1991, UNEP sent in a team of experts to conduct a rapid assessment of environmental impacts and make preliminary suggestions for actions to address them. This effort is the first such post-war assessment to be published and included in this Directory. It consists of three volumes, each covering one of the impacted countries: Iraq, Kuwait, and Saudi Arabia.

V. The Interaise Project

INTERAISE: Past, Present, and Future

In 1988, representatives from the bilateral development assistance organizations expressed the need for a directory of environmental studies to assist and coordinate their work. At that time the United States, Canada, Denmark, and the Netherlands were each supporting the preparation of their own type of national environmental assessments and other donors were planning to do the same. Some form of coordinated database was needed. The WRI staff had assisted in developing a number of these studies and was asked by USAID to prepare such a directory.

After publication of the first Directory in 1990, two European-based organizations with significant experience in environmental profiles and strategies, the International Institute for Environment and Development (IIED) and the World Conservation Union (IUCN), joined with WRI to propose an expanded information service for policy makers. Some members of the Organization for Economic Cooperation and Development's Development Assistance Committee (Australia, Germany, the Netherlands, Switzerland, the United States, and later Denmark) agreed to support the project called the International Environmental and Natural Resource Assessment Information Service (INTERAISE). The project published a second *Directory of Country Environmental Studies* in 1993 and established a publicly accessible library of the directory document collection at each organization.

INTERAISE began its second phase in 1993 with each organization taking the lead in different elements of the expanded information service. WRI's focus has been the production of the third edition of this directory, while IIED has led in the dissemination of the directory document collection to developing countries. IIED's outreach included providing complete regional collections to 14 information centers, as well as handling ad hoc requests. IIED also published a *Directory of Impact Assessment Guidelines*, which covers environmental impact assessment.

IUCN has been working with two regional organizations, the Southern African Research and Documentation Centre (SARDC) in Zimbabwe and the Center for Tropical Agricultural Research and Teaching (CATIE—Centro Agronómico Tropical de Investigación y Enseñanza) in Costa Rica, to produce regional directories of environmental information. In addition to providing more information on subnational profiles and strategies, these directories will provide contact information and profiles of sustainable development policy making processes for the countries in the region.

A phase III of the INTERAISE project is now under consideration in which the partners would improve access to and use of sustainable development policy information by:

1) strengthening regional capacity through working more closely with regional and national organizations on joint information assessment projects;

2) maintaining existing databases and expanding and linking these information sources and services through the use of electronic communications;

3) monitoring and evaluating the effectiveness and use of the INTERAISE products and services.

Partners and Products

World Resources Institute

The World Resources Institute is an independent center for policy research and technical assistance on global environmental and development issues. WRI's work is carried out by a 120-member interdisciplinary staff, strong in the social and natural sciences and augmented by a network of advisors, collaborators, international fellows, and partner institutions in more than 50 countries. WRI is governed by a 38-member international Board of Directors from ten countries and is a not-for-profit corporation.

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About the Directory Database Diskette
The Directory Database Diskette contains bibliographic information and abstracts from the 1990, 1993, and current editions. The database can be searched using more than 750 keywords from the USAID Thesaurus. The results can be output in customized formats for wordprocessing and other applications.

The Database is integrated into a read-only version of Micro CDS/ISIS, a bibliographic software program developed by the United Nations Educational, Scientific, and Cultural Organization (UNECSO) for IBM PC compatible computers. Installation requires a high density floppy disk drive (3.5") and a hard disk with at least 2.5 megabytes of space available.

About the Directory on the Internet
The contents of the Directory Database Diskette are being made available on WRI's Internet site (URL: http://www.wri.org). This version does not have the keyword searching and output formatting options available on the diskette.

International Institute for Environment and Development

IIED is an independent, non-profit organization that seeks to promote sustainable patterns of world development through research, services, training, policy studies, consensus-building, and public information. Established in 1971, the Institute advises policy-makers and supports and collaborates with Southern specialists and institutions working with, or on behalf of, governments and international agencies, the academic community, foundations and non-governmental organizations, community organizations, and the people they represent.

Focussing on the links between economic development, the environment and human needs, the Institute has research programmes in a number of areas critical to sustainable development, including human settlements, sustainable agriculture, environmental planning and management, forestry, drylands, environmental economics, and climate change.

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A Directory of Environmental Assessment Guidelines (June 1995)
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World Conservation Union (IUCN)

Founded in 1948, the World Conservation Union brings together states, government agencies, and a diverse range of non-governmental organizations in a unique world partnership—over 800 members in all—spread across some 125 countries.

As a union, IUCN seeks to influence, encourage and assist societies throughout the world to conserve the integrity and diversity of nature and to ensure that any use of natural resources is equitable and ecologically sustainable.

The World Conservation Union builds on the strengths of its members, networks, and partners to enhance their capacity and support global alliances to safeguard natural resources at local, regional, and global levels.

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