

# SOURCEBOOK

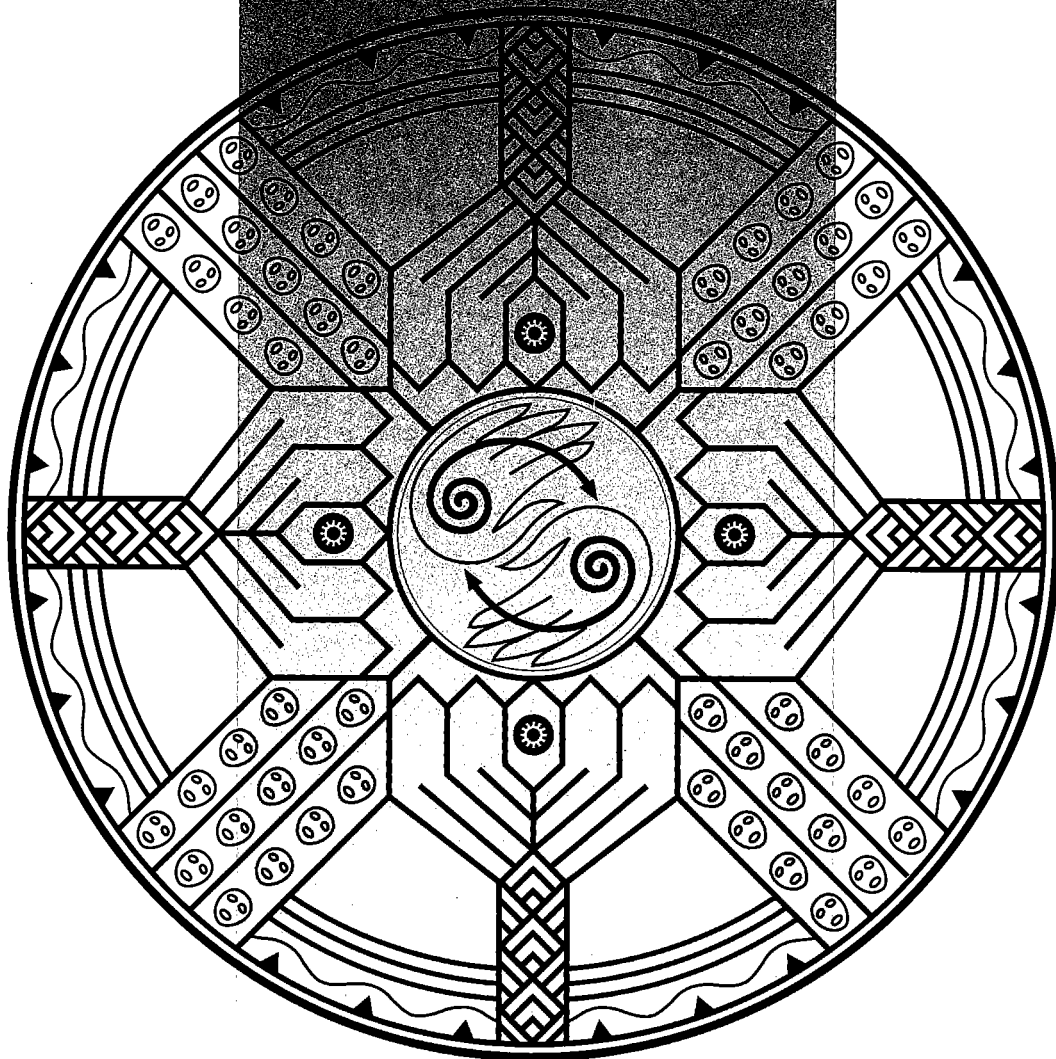
ON SUSTAINABLE DEVELOPMENT

---

**IISD**

INTERNATIONAL INSTITUTE  
FOR SUSTAINABLE DEVELOPMENT  
INSTITUT INTERNATIONAL  
DU DÉVELOPPEMENT DURABLE

**IIDD**



# SOURCEBOOK

ON SUSTAINABLE DEVELOPMENT

---

**IISD**

INTERNATIONAL INSTITUTE  
FOR SUSTAINABLE DEVELOPMENT  
INSTITUT INTERNATIONAL  
DU DÉVELOPPEMENT DURABLE

**IIDD**

Copyright © 1992 International Institute  
for Sustainable Development (IISD)

**Sections of this paper may be reproduced with  
acknowledgement to the International Institute  
for Sustainable Development.**

**Trademarks**

Throughout this book, many trademarked names are used. Rather than put a trademark symbol in every occurrence of a trademarked name, we are using the names only in an editorial fashion, and for information purposes, with no intention of infringement of the trademark.

Canadian Cataloguing in Publication Data  
Main entry under title:

Sourcebook on Sustainable Development

1st ed. --

Includes bibliographical references.  
ISBN 1-895536-04-9

1. Environmental policy – Directories.
2. Environmental policy – Bibliography.
3. Environmental policy – Data bases.
4. Environmental policy – Audio-visual aids.
- I. International Institute for Sustainable Development.

HC79, E5s68 1992 333.7'15 C92-098089-9

This book is printed on paper with 100% recycled content, including 15% post-consumer fibre, using vegetable-based inks.

Printed and bound in Canada.

Published and distributed by:

International Institute for Sustainable Development  
161 Portage Avenue East - 6th Floor  
Winnipeg, Manitoba, Canada  
R3B 0Y4

Phone: (204) 958-7700  
Fax: (204) 958-7710

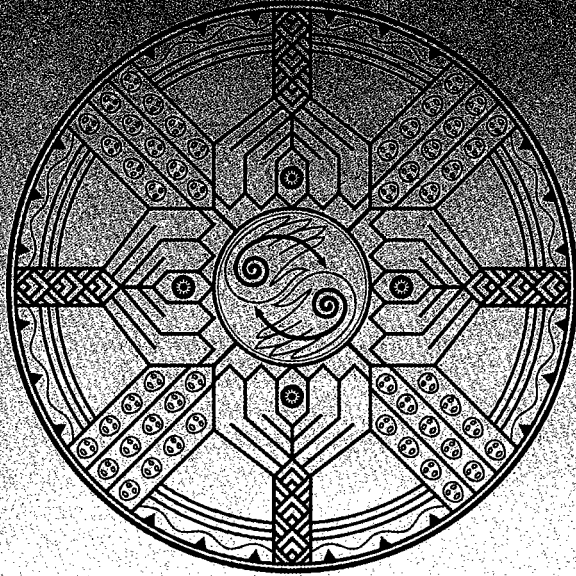
## Contents

<b>Preface</b>	<b>1</b>		
<b>Introduction</b>	<b>3</b>		
Acknowledgements	4		
Organization of the Sourcebook	5		
<b>Organizations</b>	<b>7</b>		
<b>Publications</b>	<b>33</b>		
Contents	34		
▶ Information on Sustainable Development	35		
• General	35		
• Guidebooks	38		
▶ Economy and Ecology	38		
▶ Law and Public Policy	41		
▶ Social and Community Issues and Solutions	41		
• Ethics, Spirituality and Religion	41		
• Population and Carrying Capacity	41		
• Human Settlements	42		
• Poverty and Well-Being of People	42		
• Community and Peoples' Participation	43		
• Education and Sustainable Livelihoods	43		
• Women and Youth	43		
▶ Environment and Natural Resources	44		
• Biological Diversity	44		
• Environment	44		
• Energy and Global Climate Change	45		
• Food and Agriculture	46		
• Forests and Water	47		
• Oceans and Coastal Areas	48		
▶ Investment for Sustainable Development	48		
• Military	48		
• Technology and Training	48		
• Credit, Debt and Structural Adjustment	48		
• Business	49		
• Development Assistance	50		
▶ Regional and Country Reports: A Sampling of Available Studies	50		
• General Sources	50		
• Africa	50		
• Asia	51		
• Europe	51		
• Latin America and the Caribbean	52		
• North America	52		
• South Pacific and Australia	53		
<b>Audio-Visual</b>	<b>55</b>		
▶ International Productions	56		
▶ Regional/National Productions	59		
▶ Cable Television	60		
▶ Independent Producers	61		

<b>Computer Networks and Conferencing Systems</b>	
<b>Online Databases</b>	<b>63</b>
<b>Computer Networks and Conferencing Systems</b>	<b>65</b>
■ APC Networks	65
▶ Association for Progressive Communications	65
▶ APC Related Computer Networking Initiatives	67
▶ Other APC-affiliated Networks	69
▶ NGONET	69
▶ United Nations Conference on Environment and Development (UNCED)	70
■ TCN/Electronic Village	70
▶ Telecommunications Cooperative Network	70
■ GeoNet	71
▶ Poptel/GeoNet	71
■ The Internet	73
▶ DDN Network Information Centre	73
■ BITNET	74
▶ EDUCOM Networking Activities	74
■ UUCP/UseNet	75
■ CompuServe Information Services	77
<b>Online Databases</b>	<b>79</b>
▶ IDRC Development Database Service	81
▶ Dialog Information Services Inc.	82
▶ Other Database Sources or Suppliers	89
▶ Other Sources of Information	89

## Appendixes

1 What is Computer Communications?	91
2 Glossary	94
3 APC Member Networks	99
4 APC-Affiliated Networks	102
5 List of APC Conferences Directly Related to Sustainable Development	106
6 Networks Using TCN/Electronic Village	116
7 GeoNet Databases Relevant to Sustainable Development	119
8 Internet Mailing Lists Related to Sustainable Development	121
9 List of Internet Information Services	125
10 BITNET Mailing Lists Related to Sustainable Development	126
11 UUCP Mailing Lists	128
12 Usenet Newsgroups	129
13 CompuServe	130
14 Computer Conference Samples	132



## **PREFACE**

---

## Preface

At IISD we frequently hear the complaint that there is both a wealth and a dearth of information about sustainable development – no shortage of writing on the subject, but difficulty in knowing what to read and where to find it. The topic is complex, global, and still not firmly categorized in the minds of librarians, booksellers, and audio-visual distributors. This first edition of *Sourcebook on Sustainable Development* attempts to sort through this bounty and give the reader a useable “window” on both the practical and intellectual side of sustainable development.

We found three trends while assembling our directory.

While the better known international institutions concerned with the environment, development, and human welfare are issuing an important body of work on sustainable development, another entire outlook on the subject is flowing upwards from grassroots organizations and writers in both the industrialized and the developing world. This valuable information is not always readily available, and indeed, this book to some extent reflects that scarcity.

Secondly, computer networking has become an extremely important means of communicating opinions, news, and debate on sustainable development. Anyone researching the subject would be remiss not to tap into the electronic web of knowledge that now encircles the world. Writing never destined to be published in the conventional sense resides on data bases, bulletin boards, and in the computers of individuals who might not otherwise have an opportunity to “speak” to the rest of the world.

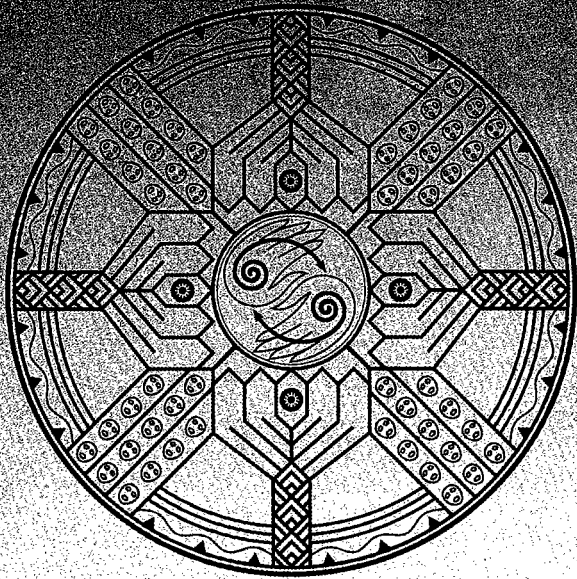
And finally, we realize that publishing references on sustainable development is like supervising a garden planted by someone else. The field is both extraordinarily productive and frustratingly unpredictable. Based on our own work at IISD, we gathered obvious sources and some not so obvious, with the understanding that much more would follow after the *Sourcebook* was printed, bound, and circulated, especially in the period following the Earth Summit.

It is our expectation that the project can be a long-term collaboration; an evolving directory, on paper and in electronic format, to be augmented with the advice of those in various parts of the world who wish to share sources available on sustainable development. We hope readers will consider contributing materials and suggestions for future editions.

Arthur J. Hanson  
President and CEO  
International Institute for Sustainable Development







## **INTRODUCTION**

---

## Introduction

Sustainable development has become a topic of great interest, increasingly appearing in writings and audio-visual productions about the environment, health and human welfare, development, and relations between the developed and developing worlds. References to new work on these subjects are entering catalogues and bibliographies at a rate that leads one to believe the world is trying to make up for lost time. But while various environmental sourcebooks have appeared, no one has yet attempted a directory of resources on sustainable development. This book is apparently the first.

Sustainable development is still more of an intention than a reality—a term that is being defined by a vast array of competing interests with differing notions of both sustainability and development. As defined by the World Commission on Environment and Development in *Our Common Future*, sustainable development is *development that meets the needs of the present without compromising the ability of future generations to meet their own needs*. It rests on three pillars:

- ▶ environmental planning and management,
- ▶ economic development, and
- ▶ the well-being of people.

Moving toward sustainable development—adding clarity to its emerging definition—requires an understanding of the root causes of *unsustainable* development. It requires reading, watching, and communicating with those who are working on the core issues. It requires that we look well beyond the elements of the green phenomenon, as seen through western eyes, to the long-term implications of a world heading rapidly beyond its carrying capacity, and in particular to needs within developing countries.

It is the goal of IISD to engage people of all backgrounds from across the world to produce and share information that will help change attitudes and modify behaviour. *Sourcebook on Sustainable Development* is a step in that direction. It identifies many of the key sources of information on sustainable development, including organizations, publications, audio-visual materials and computerized networks and information services. It is designed for grassroots and community-based organizations, educators, NGOs, business, government, and others with an interest in understanding and applying the tenets of sustainable development.

Given the rapid flow of new information and the difficulty of gathering existing sources under one roof, *Sourcebook on Sustainable Development* is far from complete. It is the first version of a data base that will grow steadily over time. Our hope is that it becomes something of a lightning rod, attracting new listings from readers who note omissions, and changes from those who find inaccuracies.

## **Acknowledgements**

IISD is responsible for the contents of the book. The special contribution of several individuals and organizations must be acknowledged:

- Richard Labelle, Information & Communications Officer of IISD, who directed the project and played an essential role in project design and review. He carried out the research, assembled much of the material and wrote the sections on organizations, audio-visuals, online databases, and oversaw and reviewed the work of consultants and editors.
- IISD staff, especially: S. Barg, M. Campana, A. Cosbey, G. Gallopin, A. Hanson, T. Laberge, V. Titi.
- Rory O'Brien, of the NIRV Community Resource Centre in Toronto, Canada, researched and wrote the section on computer networks on APC, BITNET, The Internet, UUCP/Usenet, APC Affiliated Networks.
- Paul Osborn, of The One Foundation in the Netherlands, researched and wrote the section on GeoNet, TCN and CompuServe.
- Tony Leighton, Christine Cummins, Barbara Huck and Sarah Yates for editorial support.
- Jenny Richards, from Television Trust for the Environment in London, U.K., for information on TVE and Channel 4.
- Various bibliographic and reference sources such as the *Yearbook of International Organizations*, and many computerized databases available from both commercial and non-commercial sources.
- Many others, too numerous to mention, who contributed information, in one form or another.

## **Organization of the Sourcebook**

Sustainable development incorporates information and analysis from many fields of study and from around the world. It brings together academic research and grassroots activity, government policy-making and international institutions. The proponents and practitioners present their work in many media, and utilize all modes of communication. Furthermore, sustainable development is about integration, bringing together economic, environmental and social issues into a single decision-making framework. The classical boundaries between fields of study must be crossed if the concept of sustainable development is to become a reality.

This book tries to bring together important material from the wide variety of relevant sources. It starts with a listing and description of about 70 of the principal international organizations active in the field of sustainable development.

The publications sections lists many of the most important sources. Not only does it cover the environment and economics literature, but also such things as poverty and the well-being of people, biological diversity, and credit, debt, and structured adjustment.

Audio-visual productions—either film or video—are powerful and popular. Excellent work is being done, and this section lists some of the major sources.

Finally, there is an efficient and rapidly expanding communications medium—computer networks and conferencing systems. They can provide cheap and very fast communications to many corners of the world—but often their potential is overlooked, because the technology is new and evolving so rapidly. What was difficult or impossible last year may be easy now. We provide detailed analysis of the substance available in the various systems, not just the access methodologies. The conferences and databases can be powerful tools, and this section should help make them available to users.

The 14 appendixes fill in a variety of details on computer technology and practices. For the new or aspiring user, it will help them take advantage of the technology.



## Organizations

The most visible organizations concerned with sustainable development are international institutions of the United Nations such as UNEP and the UNCED Secretariat, major environmental groups such as Greenpeace and World Wide Fund for Nature, and think-tanks such as World Resources Institute and Worldwatch Institute. But there are also thousands of smaller groups, including grassroots and special-interest groups, contributing to the dialogue. In the USA alone, there are now more than 7,000 local grassroots groups, many of them formed in opposition to a proposed waste-disposal site or power-generating station, others to offer citizens an outlet for their desire for a better environment. In developing countries, local health and environment groups, started in many cases by rural women, have become part of a valuable citizen support network.

In this directory we have limited our listings to a selection of the international institutions. Yet many of the large organizations we mention are well-connected to smaller groups. In fact, if there is a trend within the vast realm of environment, health, and social justice organizations it is toward "connectivity," with small and large groups alike making increasing use of electronic networking. Contact one and you will likely open the door to many more.

The listings of pertinent international organizations might easily be expanded four or five-fold by including the many UN special agencies such as UNESCO, ILO and UNICEF, environment, development or strategic analysis institutes, scientific and professional associations, and so forth. Readers seeking further information may wish to consult the very comprehensive *Yearbook of International Organizations*.<sup>1</sup> We have included a range of sectoral organizations as well as those which focus mainly on environment and development. The descriptions are derived from published materials, information derived from direct queries and from our own working knowledge and experience.

The listing on the next page is arranged alphabetically mainly by acronym, since so many of the organizations (including IISD) are better known in this fashion rather than by their full title.

■ ■ ■

<sup>1</sup> Union of International Associations (ed). 1990. *Yearbook of International Associations*. München, New York: K. G. Saur.

- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li>▶ Advisory Committee for the Co-ordination of Information Systems (ACCIS)</li> <li>▶ African Centre for Technology Studies (ACTS)</li> <li>▶ Alternative Farming Systems Information Centre (AFSIC)</li> <li>▶ AGRECOL Information Centre and Network</li> <li>▶ Asian NGO Coalition for Agrarian Reform (ANGOC)</li> <li>▶ Banff Centre for Management</li> <li>▶ Biomass Users Network (BUN)</li> <li>▶ Centro Agrónomico Tropical de Investigación y Enseñanza (CATIE)</li> <li>▶ Centre for Our Common Future (CCF)</li> <li>▶ Climate Change Information Centre (UNEP)</li> <li>▶ Centre for Environment &amp; Development for the Arab Region (CEDARE)</li> <li>▶ Consultative Group on International Agricultural Research (CGIAR)</li> <li>▶ Centro Latino Americano de Ecología Social (CLAES)</li> <li>▶ Centre for Science and the Environment (CSE)</li> <li>▶ Development Alternatives</li> <li>▶ Earthscan Publications</li> <li>▶ Earthwatch</li> <li>▶ Environment Liaison Centre International (ELCI)</li> <li>▶ Environmental Management Information Centre (EMIC) – Management Institute for Environment and Business.</li> <li>▶ Environment and Development Action in the Third World (ENDA)</li> <li>▶ Friends of the Earth International (FOEI)</li> <li>▶ General Agreement on Tariffs and Trade (GATT)</li> <li>▶ Global Environment Management Initiative (GEMI)</li> </ul> | <ul style="list-style-type: none"> <li>▶ Global Environment Monitoring System (GEMS)</li> <li>▶ Global Resources Information Database (GRID)</li> <li>▶ Greenpeace International</li> <li>▶ International Academy of Environment (IAE)</li> <li>▶ International Chamber of Commerce (ICC)</li> <li>▶ International Centre for Integrated Mountain Development (ICIMOD)</li> <li>▶ International Council for Local Environmental Initiatives (ICLEI)</li> <li>▶ Industry Cooperative for Ozone Layer Protection (ICOLP)</li> <li>▶ International Centre for Research in Agroforestry (ICRAF)</li> <li>▶ International Development Research Centre (IDRC)</li> <li>▶ International Institute for Environment &amp; Development (IIED)</li> <li>▶ Institute of Development Studies (IDS), University of Sussex</li> <li>▶ Institute for European Environmental Policies (IEEP)</li> <li>▶ Industry and Environment Office (IEO-UNEP)</li> <li>▶ Institute for African Alternatives (IFAA)</li> <li>▶ International Institute for Sustainable Development (IISD)</li> <li>▶ International Environmental Information System (INFOTERRA)</li> <li>▶ International Organization of Consumers Unions (IOCU)</li> <li>▶ International Register of Potentially Toxic Chemicals (IRPTC)</li> <li>▶ Island Press</li> <li>▶ Intermediate Technology Development Group (ITDG)</li> <li>▶ International Union for the Conservation of Nature (IUCN) (World Conservation Union)</li> <li>▶ Japan Committee for the Global Environment</li> </ul> | <ul style="list-style-type: none"> <li>▶ Kenya Consumers' Organization Project (KCO)</li> <li>▶ Mazingira Institute</li> <li>▶ The Panos Institute</li> <li>▶ Regional Environmental Centre for Central and Eastern Europe</li> <li>▶ Réseau sahélien d'information et de documentation scientifiques et techniques (Réسادoc) -Institut du Sahel</li> <li>▶ A Global Union for Technologies for Environment and Sustainable Development (SATIS)</li> <li>▶ Society for International Development (SID)</li> <li>▶ South Centre</li> <li>▶ Stockholm Environment Institute (SEI)</li> <li>▶ SustainAbility Ltd.</li> <li>▶ TATA Energy Research Institute (TERI)</li> <li>▶ Third World Network (TWN)</li> <li>▶ Union of International Associations (UIA)</li> <li>▶ United Nations Conference on Environment and Development (UNCED) Secretariat</li> <li>▶ United Nations Development Programme (UNDP)</li> <li>▶ United Nations Environment Programme (UNEP)</li> <li>▶ United Nations University (UNU)</li> <li>▶ World Bank (International Bank for Reconstruction and Development)</li> <li>▶ World Conservation Monitoring Centre (WCMC)</li> <li>▶ World Environment Center (WEC)</li> <li>▶ World Resources Institute (WRI)</li> <li>▶ World Wide Fund for Nature (WWF)</li> <li>▶ Worldwatch Institute</li> <li>▶ Zed Books</li> </ul> |
|--|---|--|

### **ADVISORY COMMITTEE FOR THE CO-ORDINATION OF INFORMATION SYSTEMS (ACCIS)**

ACCIS, a UN agency, facilitates access for member states to UN information and promotes the improvement of an information infrastructure within the UN. ACCIS has not yet succeeded in providing electronic access to the many information products and services within the UN. However, several published information products and services are available.

#### **Key Information Sources**

- ▶ *Directory of United Nations Databases and Information Services*, 1990: A guide to 872 computerized databases and information systems/services, including many that are relevant to sustainable development
- ▶ *ACCIS Guide to United Nations Information Sources on the Environment*, 1988
- ▶ *Register of Development Activities of the United Nations Systems*, 1988
  - ACCIS
    - Palais des Nations
    - 1211 Geneva 10
    - Switzerland
    - Telephone: 41-22-798-8591
    - Fax: 41-22-740-1269
    - Telex: 289696

### **AFRICAN CENTRE FOR TECHNOLOGY STUDIES (ACTS)**

ACTS is a not-for-profit organization identifying policy options for promoting technological innovation in sustainable development. Its primary objective is to prepare the intellectual basis and institutional infrastructure for the implementation of the UNCED recommendations and other relevant sustainable development themes. ACTS facilitates networking among African and European researchers and policy-makers working on sustainable development issues.

The Biopolicy Institute was formed by ACTS as a separate research institute in the Netherlands. ACTS stresses the need for access to information and technological collaboration between African and European institutions on the sustainable utilization of genetic resources.

#### **Key Information Sources**

- ▶ *Innovation*. A magazine which facilitates the sharing of information and experiences in technology and sustainable development issues
- ▶ ACTS Press. The publishing arm of the organization; has produced a number of monographs on biotechnology in the developing world, women and development, and other issues relevant to the developing world
  - ACTS
    - PO Box 45917
    - Nairobi
    - Kenya
    - Telephone: 254-2-744-047/095
    - Fax: 254-2-743-995
  - ACTS Biopolicy Institute
    - Witmakersstraat 10
    - 0211 JB Maastricht
    - The Netherlands
    - Telephone: 31-43-250-465
    - Fax: 31-43-218-820

### **ALTERNATIVE FARMING SYSTEMS INFORMATION CENTRE (AFSIC)**

AFSIC produces information products on sustainable agriculture, most of which are freely available. This is a useful source of up-to-date bibliographic and other information on sustainable agriculture.

#### **Key Information Sources**

- ▶ *AFSIC Notes*. A quick two-to four-page overview of relevant topics with a list of selected readings; appears periodically
- ▶ Database bibliographies. Produced quickly and free of charge from edited computerized searches of the AGRICOLA database; a list of most recent searches is produced periodically
  - Alternative Farming Systems Information Centre
    - United States Department of Agriculture
    - Room 111
    - National Agricultural Library
    - 10301 Baltimore Boulevard
    - Beltsville, Maryland 20705-2351
    - USA
    - Telephone: 301-344-3704



## **AGRECOL INFORMATION CENTRE AND NETWORK**

Founded in 1982 by a European working group, the AGRECOL Information Centre and Network acts as a clearing-house for information on sustainable agriculture. This information is made available to people of the Third World.

The centre owns a comprehensive collection of books, journals, articles, unpublished theses, reports and papers on sustainable agriculture in German, English, French and Spanish.

### **Key Information Sources**

- ▶ *Towards Sustainable Agriculture*. A two-volume publication
  - ▶ *Agriculture écologique en Afrique francophone*. A bibliography
    - AGRECOL Information Centre and Network  
Oekozentrum Langenbruck  
CH-4438 Langenbruck  
Switzerland
- Telephone: 41-62-60-1420  
Fax: 41-62-60-1640

## **ASIAN NGO COALITION FOR AGRARIAN REFORM (ANGOC)**

Founded in 1979 in preparation for the World Conference on Agrarian Reform and Rural Development, ANGOC seeks to promote sustainable development and environmental action. The establishment of the Sustainable Development Environment Action Program within ANGOC stems from the realization that environmental problems in developing countries are inextricably linked with problems of poverty, unequal access to wealth, and underdevelopment.

### **Key Information Sources**

- ▶ *Alternatives*. A bimonthly newsletter
- ▶ *Grassroots Action in Natural Resources Management*. A report of the Asian study tour
- ▶ *Bankwatch*. A newsletter focusing on the status of the projects funded by the Asian Development Bank in developing member countries
  - Angoc Regional Secretariat  
47 Matrinco Building  
2178 Pasong Tamo  
Makati, Metro Manila  
1200 Philippines

## **BANFF CENTRE FOR MANAGEMENT**

The Banff Centre for Management has been offering programs in resource and environment management since 1972. Technical courses include industrial and hazardous waste management. The valuing of natural resources is balanced with skill-based courses like environmental dispute resolution and information-technology courses like geographic information systems (GIS).

### **Key Information Sources**

- ▶ Management courses on resources and environment issues, including Tools for Sustainable Development
    - Banff Centre for Management  
Box 1020  
Banff, Alberta  
Canada T0L 0C0
- Telephone: 403-762-6130  
Fax: 403-762-6422

## THE BIOMASS USERS NETWORK (BUN)

A network of non-profit organizations, the Biomass Users Network promotes South-South cooperation in developing and strengthening national capabilities to increase sustainable production and the use of biomass resources. These resources are a means for advancing economic, social and ecological well-being, primarily in the rural areas.

BUN has headquarters in Costa Rica and regional offices in Bangkok and Harare.

### Key Information Sources

▶ *Network News*. A bi-monthly newsletter

- Biomass Users Network  
PO Box 1146-2050  
Montes de Oca  
Costa Rica

Telephone: 66-2-217-9892 ext 110  
Fax: 66-2-217-9901

## CENTRO AGRONOMICO TROPICAL DE INVESTIGACION Y ENSEÑANZA (CATIE)

The Tropical Agriculture Research and Training Centre promotes and carries out interactive research and development in Central America and the Caribbean. Its aim is to increase and sustain agricultural productivity and development in conjunction with national institutions.

CATIE's research focuses on sustainable agriculture including agroforestry, in the context of the program on Integrated Natural Resources Management.

### Key Information Sources

▶ *El Chasque*. Boletín informativo del Departamento de Recursos Naturales Renovables (informative bulletin of the Department of Renewable Natural Resources)

- CATIE  
Turrialba  
Costa Rica

Telephone: 1-506 56-6431/0169  
Fax: 1-506 56-1533  
Telex: 8005

## THE CENTRE FOR OUR COMMON FUTURE (CCF)

The Centre For Our Common Future was initiated as a focal point for follow-up activities on Our Common Future, the report of the World Commission on Environment and Development (WCED). More than 200 organizations from around the world act as working partners.

The centre's principal functions have been to promote the WCED report. However in future, the centre's role will shift to become an information clearinghouse and an objective source of information. Influenced by UNCED, CCF will also focus on developing methods of public participation in sustainable development.

### Key Information Sources

▶ *The Brundtland Bulletin*. An important source of information on sustainable development worldwide

▶ *Network 92*. A monthly publication available in print and on computer networks, documenting progress prior to the Earth Summit; it now includes periodic supplements reviewing sections of the latest draft of Agenda 21

- The Centre For Our Common Future  
Palais Wilson  
52 rue des Pâquis  
1201 Geneva  
Switzerland

Telephone: 41-22 732-7117  
Fax: 41-22 738-5046

## **UNEP CLIMATE CHANGE INFORMATION CENTRE**

This recently-established centre is intended to boost global awareness of the consequences of climate change. The small UNEP Secretariat will use the latest scientific information in an accessible manner through a variety of media, including pamphlets and videos.

- UNEP Regional Office for Europe  
Palais des Nations  
8-14 Avenue de la Paix  
CH-1211 Geneva 10  
Switzerland

Telephone: 41-22-988-400

Fax: 41-22 798-3945

## **CENTRE FOR ENVIRONMENT & DEVELOPMENT FOR THE ARAB REGION (CEDARE)**

The centre is an independent non-profit organization based in Cairo, with subsidiary focal points now being established throughout the Arab Region and the Mediterranean countries of Europe. The centre was launched in early 1992 by three principal sponsors: The Arab Fund for Economic and Social Development, the Government of Egypt and the United Nations Development Programme (UNDP).

The major objective of CEDARE is to assist the countries of the region in meeting their aspirations for sustainable development, while ensuring ecologically-sound management of resources.

### **Key Information Sources**

▶ Now being elaborated, will include a data bank, an early warning facility and remote sensing facilities

- Centre for Environment & Development for the Arab Region  
c/o Dr. Nour  
4 Al Hesn Street  
Giza  
PO Box 14  
Orman, Giza  
Egypt

## **THE CONSULTATIVE GROUP ON INTERNATIONAL AGRICULTURAL RESEARCH (CGIAR)**

CGIAR is an informal association of 40 public- and private-sector donors that supports a network of 16 international agricultural research centres. It applies science and technology to food production in developing countries. In recent years it has become increasingly concerned with integrating ecological and social economic considerations into Green Revolution technologies.

International centres supported by CGIAR are part of a global agricultural research system. Many of the more than 45,000 scientists from developing countries who were trained at CGIAR centres during the past 20 years form the nucleus of, and provide leadership to, national agricultural research systems in their own countries.

### **Key Information Sources**

- ▶ *CGIAR Annual Report*
  - ▶ *Sustainable Agricultural Production: Implications for International Agricultural Research* (published by FAO, 1989)
  - ▶ Databases and information services in the 16 specialized centres
    - CGIAR Secretariat  
c/o World Bank  
1818 H Street NW,  
Washington, D.C. 20433  
USA
- Telephone: 202-477-1234  
Fax: 202-334-8750  
Telex: 440098  
e-mail: Dialcom:/57:CGI001

## **CENTRO LATINO AMERICANO DE ECOLOGIA SOCIAL (CLAES)**

CLAES, the Latin American Centre of Social Ecology, is an international network of nongovernmental organizations involved in the study of human relationships, the connection between human relationships and the environment, and the promotion of alternative development which links the social to the environmental dimension.

CLAES focuses on issues including trade and poverty, particularly as they affect Latin America.

### **Key Information Sources**

▶ *Teko-ha*. A newsletter and networking tool

▶ *The Latin American Journal of Social Ecology*

#### ■ CLAES

Casilla de Correo 13000  
11700 Montevideo  
Uruguay

Fax: 0598-2 921-117 Attn: CLAES  
Telex: 23391

## **THE CENTRE FOR SCIENCE AND THE ENVIRONMENT (CSE)**

A non-profit society founded in 1981 by a group of journalists, scientists, engineers and environmentalists, CSE is a public-interest research and information-dissemination organization. Its activities focus on increasing public awareness of vital issues concerning the environment and development, as well as on strengthening ties between environmental NGOs and the media.

CSE's contributions to sustainable development include the publication of comprehensive reports on the state of India's environment, briefing workshops for journalists, and seminars and workshops on sustainable development.

### **Key Information Sources**

▶ *The Green File*. A monthly clipping service for environmentalists

▶ *Towards Green Villages*. A strategy for environmentally-sound participatory rural development in India

▶ The Documentation Unit. A collection of 18,000 books, 1,000 video cassettes and 400 maps and posters on the environment, as well as a clipping service

■ The Centre for Science and the Environment  
807 Vishal Bhawan  
95 Nehru Place  
New Delhi 110019  
India

Telephone: 91-11 643-3394/8109

## **DEVELOPMENT ALTERNATIVES**

A non-profit organization founded in 1983, Development Alternatives promotes grassroots activities in the area of sustainable development. The organization focuses on the development of technologies and programs which benefit the poor, including low-cost construction, cooking energy and textiles.

Development Alternatives has published state-of-the-environment reports and conservation strategies at the regional and national levels. It also monitors and evaluates development programs and organizes workshops and symposia on a variety of environment and development issues.

### **Key Information Sources**

▶ A bimonthly newsletter. Covers sustainable development information, as well as information related to the Earth Summit

■ Development Alternatives  
B-32 Institutional Area  
New Mehrauli Road  
Hauz Khas  
New Delhi 11016  
India

Telephone: 91-11-66-53-70  
Fax: 91-11-686-6031

## **EARTHSCAN PUBLICATIONS**

Books from Earthscan Publications address Third World issues and their global implications, beginning with the inescapable link between poverty and environmental degradation. Earthscan publishes titles on environment and development issues.

Earthscan is the editorially-independent arm of the International Institute for Environment and Development (IIED).

### **Key Information Sources**

- ▶ *Blueprint for a Green Economy*
- ▶ *Managing Sustainable Development*
- ▶ *Valuing the Environment*
- ▶ *Steady-State Economics: Economics of biophysical Equilibrium and Moral Growth*
- Earthscan Publications Ltd.  
3 Endsleigh Street  
London WC1H 0DD  
United Kingdom  
  
Telephone: 44-71-388-2117  
Fax: 44-71-388-2826

## **EARTHWATCH**

Earthwatch is the environmental monitoring and assessment arm of the UN. Established in 1972, and coordinated by UNEP, Earthwatch improves early-warning indicators of significant environmental changes, improves the planning and coordination of monitoring at global and regional levels, produces assessments of environmental problems, and promotes the establishment of environmental statistics and state-of-the-environment reporting.

GEMS is the monitoring arm of Earthwatch (see separate entry). Access to geo-referenced environmental data is provided by GRID (see separate entry). Other components are the International Register of Potentially Toxic Chemicals (IRPTC) and INFOTERRA (see separate entries).

The above-mentioned individual programs are better known in their own right than is Earthwatch. This probably reflects the difficulty that faces UNEP in coordinating the efforts of UN bodies responsible for environmental monitoring and assessment.

- Earthwatch  
United Nations Environment Programme  
PO Box 30552  
Nairobi  
Kenya  
  
Telephone: 254-2-333930, ext. 4311, 4316, 520600  
Fax: 254-2-520883  
Telex: 22068

## **ENVIRONMENT LIAISON CENTRE INTERNATIONAL (ELCI)**

Founded in 1975, ELCI is a coalition of NGOs working toward sustainable development. The centre is a networking and advocacy institution which facilitates NGO input into UNEP programs and activities. It seeks sustainable approaches to development and explores endogenous solutions to environmental crises.

ELCI is also a source of ideas and strategies on sustainable development for emerging grassroots movements and groups.

### **Key Information Sources**

- ▶ *The International Environment and Development File*. A quarterly of selected clippings from newspapers and newsletters on worldwide environment and development issues
- ▶ *Ecoforum and Eco Probe*. Networking tools covering a wide range of issues on sustainable development
- ▶ *Energy, Environment and Development Gazette*. A participatory publication launched in July 1991
- ▶ ELCI annual report
- ▶ A database of more than 8,000 environment and development NGOs worldwide
- ELCI  
PO Box 72461  
Nairobi  
Kenya  
  
Telephone: 254-2 56-20-22/20-15  
Fax: 254-2 34-08-49/56-21-75

### **ENVIRONMENTAL MANAGEMENT INFORMATION CENTRE (EMIC) – MANAGEMENT INSTITUTE FOR ENVIRONMENT AND BUSINESS**

EMIC is a clearinghouse for curriculum and training materials, and for contacts focused on integrating environmental considerations into business management.

The centre was initiated by the International Chamber of Commerce and UNEP in response to recommendations by the Bergen Industry Forum on Environmental Management in May 1990. It serves both corporate and academic audiences by promoting the understanding of sustainable development at educational institutions and through corporate training programs.

#### **Key Information Sources**

- ▶ *Curriculum Material and Network Directory*. A comprehensive reference guide to environmental issues as they pertain to business, published in September 1991
- ▶ Online database service
- ▶ Course development and management briefing services
- ▶ Audio-visual and printed materials, includes case studies, journal articles, syllabi and information on universities
- ▶ Compilations of professional and academic profiles
  - The Environmental Management Information Centre Management Institute for Environment and Business 1401 Wilson Boulevard Suite 600, PO Box 12208 Arlington, Virginia 22209 USA

Telephone: 703-525-1133  
Fax: 703-247-8343

### **ENVIRONMENT AND DEVELOPMENT ACTION IN THE THIRD WORLD (ENDA)**

ENDA is a non-profit organization, with regional offices in Senegal, Paris, Zimbabwe and Tunisia, which seeks to promote sustainable development in the developing world. Through its research, training and exchange programs, it strives to integrate the environmental, economic and cultural relationship in activities to meet the needs and objectives of grassroots groups.

#### **Key Information Sources**

- ▶ Books and papers on sustainable development; audio-visuals on sustainable agriculture
- ▶ *African environment/ environnement africain*. A quarterly published in French and English
- ▶ *Structural Adjustment and Environment in Africa* and other books
- ▶ *Vivre autrement*. A consumer and eco-development magazine available in French only
  - Enda-Distribution Team  
BP 3370  
Dakar  
Senegal  
Telephone: 221-21-60-27/22 42 29  
Fax: 221-22-26-95  
Telex: 51456  
e-mail: GEO2:ENDA
  - ENDA TM  
21-23 rue de la Folie-Régnault  
75011 Paris Cedex  
France  
Telephone: 33-1-437-20909  
Fax: 33-1-437-21681
  - ENDA-Zimbabwe  
PO Box 3492  
Harare  
Zimbabwe  
Telephone: 263-4-708-568
  - ENDA Inter-Arabe  
6 Impasse de la mer Rouge  
Ariana, Tunis  
Tunisia  
Telephone: 216-1-718-3040

### **FRIENDS OF THE EARTH INTERNATIONAL (FOEI)**

Founded in 1971, Friends of the Earth International is a global network of organizations campaigning to protect the environment. There are 33 FOEI national groups worldwide.

Friends of the Earth national organizations are bound together by a shared name and a common cause the conservation, restoration and rational use of Earth's resources. FOEI pursues this goal through the exchange of information and the promotion of bilateral contact and support among member groups. It also promotes and coordinates joint international campaigns and represents national groups at the international level.

The organization's structure was strengthened in 1986, with the creation of CEAT (Coordination Européenne, Amis de la Terre), FOEI's first regional network linking European Community member groups.

#### **Key Information Sources**

- ▶ *FOE Link*. A newsletter which circulates information about member groups' activities, international campaigns and the activities of the executive committee, published 10 times a year
- ▶ *ECO*. A bulletin which criticizes proposals and offers alternatives, produced by FOEI and other environment groups for distribution at international meetings attended by FOE campaigners
- ▶ *Atmosphere*. A quarterly produced by FOE-US on ozone-layer depletion and protection
  - FOEI Secretariat  
26-28 Underwood Street  
London N1 7JQ  
United Kingdom  
Telephone: 44-1 253-0201  
Fax: 44-1 490-0881

## **GENERAL AGREEMENT ON TARIFFS AND TRADE (GATT)**

GATT is a multilateral treaty established in 1947 to regulate multinational trade practices under the United Nations system. The treaty signatories undertook to conduct trade "with a view to raising standards of living, ensuring full employment and a large and steadily-growing volume of real income and effective demand, developing the full use of the resources of the world and expanding the production and exchange of goods". As a result of the 1972 UN Conference on the Environment (the Stockholm Conference), GATT established the Working Group on Environmental Measures and International Trade, charged with analyzing the impacts of environmental regulations on trade flows. The Working Group did not actually convene until 1991.

Trade and development was added to the text of GATT in 1965.

### **Key Information Sources**

- ▶ *International Trade Report*. An annual examination of trends within the framework of multinational trade; the 1991 edition deals with trade and environment
  - ▶ *Trade Policy Review*. A special series on the trade-related policies and practices of member states
  - ▶ *GATT Focus*. The GATT newsletter
  - ▶ *News of the Uruguay Round*. A press bulletin
    - GATT  
Centre William Rappard  
Rue de Lausanne 154  
CH-1211 Geneva 21  
Switzerland
- Telephone: 41-22 739-5111  
Fax: 41-22 731-4206

## **GLOBAL ENVIRONMENT MANAGEMENT INITIATIVE (GEMI)**

GEMI was formed in 1990 as a centre of corporate leadership and thinking on environmental management to foster environmental excellence by business worldwide. Working with other global organizations such as the UNEP and the International Chamber of Commerce, GEMI is sketching a new archetype for the successful business of the future. It encourages sound environmental management at the highest levels and cooperates closely with government, environmental organizations and concerned citizens. GEMI helped prepare the Charter for Sustainable Development presented at the second World Industry Conference on Environmental Management (WICEM II).

### **Key Information Sources**

- ▶ Corporate Quality/Environmental Management Issues. A symposium
  - ▶ Stakeholder communication activities
    - Global Environment Management Initiative  
1829 L Street NW, Suite 711  
Washington, D.C. 20036  
USA
- Telephone: 202-296-7449  
Fax: 202-296-7442

## **GLOBAL ENVIRONMENT MONITORING SYSTEM (GEMS)**

One of the main components of Earthwatch, GEMS coordinates and implements environmental monitoring and research; it makes periodic assessments of environmental health and provides scientific support to Earthwatch. These activities involve 142 countries and hundreds of national and international organizations.

The GEMS Program Activity Centre manages these activities and stimulates the development of new monitoring systems.

### **Key Information Sources**

- ▶ *UNEP Environmental Data Report*. Compiled biennially by the Monitoring and Assessment Research Centre (MARC) attached to the University of London; provides information on a variety of environmental issues
    - GEMS  
United Nations Environment Programme  
PO Box 30552  
Nairobi  
Kenya
- Telephone: 254-2-333930  
Fax: 254-2-520883  
Telex: 22068

## GLOBAL RESOURCES INFORMATION DATABASE (GRID)

GRID is a program element of Earthwatch and a component of the Global Environment Monitoring System (GEMS) of the United Nations Environment Programme (UNEP). GRID was created to help access environmental data worldwide using geographic information systems (GIS). GRID also aims to improve, harmonize and support the use of GIS and associated data management technologies. GRID endeavours to develop user friendly, free and open access to environmental information through a global system that works "as simply as a telephone network".

GRID offers training to personnel from developed and developing countries in the use of GIS for environmental management and as tools for capacity-building for sustainable development.

### Key Information Sources

▶ *Compendium of Global Environment Data*. GRID receives processed data from other sources that it keeps in a database, in order to make the data more available and more useful to other users. As of early 1990, GRID maintained 25 data sets ranging from political and natural boundaries of the world to data on tse tse fly distribution and elephant range and density.

- UNEP  
GRID – Nairobi  
PO Box 30552  
Nairobi  
Kenya  
  
Telephone: 254-2 333-930  
Fax: 254-2 520281

## GREENPEACE INTERNATIONAL

Greenpeace aims to halt and reverse destruction of the biosphere, end nuclear testing, carry out uncompromising but peaceful action in defence of the environment, taking responsibility of bearing witness at the site where damage is being done.

Greenpeace has been active in stopping whaling, preventing dumping of toxic wastes, campaigning against nuclear tests and manufacturing of bombs as a step towards disarmament.

### Key Information Sources

- ▶ *Greenpeace Magazine* is published bi-monthly
- ▶ Greenpeace makes available various computer conferences (see *Appendix* of section on Computer Networks and Conferencing Systems)

Greenpeace International  
Keizersgracht 176  
1016 DW Amsterdam  
The Netherlands  
  
Telephone: 31-20-523-6555  
Fax: 31-20-523-6500

## INTERNATIONAL ACADEMY OF ENVIRONMENT (IAE)

The International Academy of Environment is a recently-formed foundation for professional education, training and research in environmental management. It is supported by the Swiss government, the Canton of Geneva and the University of Geneva in cooperation with United Nations environmental organizations.

The IAE compares regional and national management of environmental issues. An independent international institution, it brings together decision-makers from the private and public sectors, academia and international and nongovernmental organizations.

Since May 1991, the IEA has offered seminars, workshops and conferences on environmental management targeted at decision-makers and senior staff from the public and private sector. The primary emphasis of the academy's education and training programs will focus on developing countries and Central and Eastern Europe.

### Key Information Sources

- ▶ *International Academy of Environment Newsletter*
  - International Academy of Environment  
4, chemin de Conches  
1231 Conches  
Switzerland  
  
Telephone: 41-22-789-1311  
Fax: 41-22-789-2538



## INTERNATIONAL CHAMBER OF COMMERCE (ICC)

ICC is a non-governmental organization serving world business. Its membership extends to more than 100 countries and includes thousands of business organizations and enterprises with international interests.

The Chamber focuses its efforts on representing business internationally, especially at the United Nations and to specialized government agencies. It also works to promote world trade and investment based on free and fair competition, to harmonize trade practices and formulate guidelines and terminology for importers and exporters, and to provide practical services to business.

The Commission on Environment of the ICC exists to assist the business community in making constructive contributions to solving environmental problems and in ensuring that business views are taken into account by intergovernmental agencies concerned with the environment.

### Key Information Sources

- ▶ *The ICC Guide to Effective Environmental Auditing*, 1991
  - ▶ *The Greening of Enterprise*, 1991
    - International Chamber of Commerce  
38, Cours Albert 1er  
75008 Paris  
France
- Telephone: 33-1-49-53-28-28  
Fax: 33-1-42-25-86-63/32-81

## INTERNATIONAL CENTRE FOR INTEGRATED MOUNTAIN DEVELOPMENT (ICIMOD)

ICIMOD promotes the development of mountain communities through policies and programs which integrate modern development technologies with effective and sustainable resource management of highly vulnerable mountain ecosystems. The specific objectives of the centre include translating existing knowledge of integrated mountain development into practical programs, and integrating new information into policies and projects with built-in sustainable management.

The centre focuses on the Hindu Kush-Himalayas. This mountain region covers all or part of eight states, extends more than 3,500 kilometres and contains a rapidly-increasing population in excess of 100 million in its mountain farming communities. Even larger populations live on the plains and in the river basins below in India, Nepal, Pakistan, China and Bangladesh. These people are also directly affected by the ecological management of the mountains above.

### Key Information Sources

- ▶ Publications. Occasional papers, workshop reports and books, including *Sustainable Development of Mountain Agriculture*, 1991
  - ▶ Documentation and bibliographic database services
    - ICIMOD  
GPO Box 3226  
Kathmandu  
Nepal
- Telephone: 977-1 525-313  
Fax: 977-1 524-509  
Telex: 2439

## INTERNATIONAL COUNCIL FOR LOCAL ENVIRONMENTAL INITIATIVES (ICLEI)

The primary objective of ICLEI is to build the capacity of municipalities to prevent environmental problems before they happen, to respond when they arise, and to enhance both the natural and built environments at the local level.

ICLEI is governed by, and for, local governments and their associations that are ICLEI members. Through its Local Agenda 21 initiative, working with teams of municipal officials, the Council assesses critical environmental needs at the local level. This constitutes part of the ICLEI contribution to UNCED.

### Key Information Sources

- ▶ *The Urban CO<sub>2</sub> Reduction Project*. Involves 14 municipalities learning from each other, trying to develop policies to stop global warming where much of it begins—in the world's cities
  - ▶ *The Information and Technical Exchange*. Information about innovative or effective municipal programs to protect the environment; available to ICLEI members
  - ▶ Case studies and guidance documents. For use in the everyday practice of environmental management
    - International Council for Local Environmental Initiatives  
8th Floor, East Tower, City Hall  
100 Queen Street  
Toronto, Ontario  
Canada M5H 2N2
- Telephone: 416-392-1462  
Fax: 416-392-1478  
Telex: 650-372-0732
- ICLEI Liaison  
Eschholzstrasse 86  
D-7800  
Freiburg  
Germany
- Telephone: 49-761-36265  
Fax: 49-761-36250

## **INDUSTRY COOPERATIVE FOR OZONE LAYER PROTECTION (ICOLP)**

ICOLP was founded to identify and collect information concerning alternatives to the use of CFCs and other substances that deplete the stratospheric ozone layer, and to spread this knowledge as widely as possible to allow companies worldwide to adopt safer substances.

A coalition of government, international organizations and private industry; ICOLP provides users of ozone-depleting solvents with a quick, comprehensive source of information concerning alternate processes and technologies, national and international legislation, and related government and industry activities.

### **Key Information Sources**

- ▶ OZONET. A database created by Northern Telecom to provide solvent users with information on alternate technologies
  - Industry Cooperative for Ozone Layer Protection  
1440 New York Avenue NW, #300  
Washington, D.C. 20005  
USA  
  
Telephone: 202-737-1419

## **INTERNATIONAL CENTRE FOR RESEARCH IN AGROFORESTRY (ICRAF)**

A centre of the Consultative Group on International Agricultural Research, ICRAF contributes to sustainable agriculture by promoting agroforestry, a sustainable form of land management based on the use of trees to maintain and/or enhance the production of food, energy or fibre in a fashion consistent with local conditions and circumstances.

ICRAF has accumulated much descriptive information on agroforestry systems and practices worldwide, and maintains an important library collection, including material on traditional agroforestry practices.

### **Key Information Sources**

- ▶ *Agroforestry Systems*. A journal for the rapid publication of research results
- ▶ *Agroforestry Systems Inventory*. A reprint series including descriptions of site-specific and often traditional agroforestry systems and practices
- ▶ *Agroforestry Abstracts*. Appears four times a year
- ▶ *Agroforestry Today*. A newsletter
  - ICRAF  
Gigiri (off Limuru Road)  
PO Box 30677  
Nairobi  
Kenya  
  
Telephone: 254-2-521450  
Fax: 254-2-521001  
e-mail: Dialcom:157:cgi236

## **INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC)**

The Parliament of Canada created IDRC as an autonomous public corporation to provide funds and expert advice for development-related research in Third World countries, according to their individual needs and priorities.

The Centre supports projects that are identified, designed, conducted and managed by researchers in developing countries.

IDRC works in various fields, including environment and natural resources, human health and information systems. The IDRC library maintains an important collection on sustainable development, including the complete collection of materials of the World Commission on Environment and Development (available for sale in microfiche).

### **Key Information Sources**

- ▶ *IDRC Reports*. Appears quarterly and informs about the work IDRC supports
- ▶ *For Earth's Sake*. A report from the Commission on Developing Countries & Global Change
- ▶ IDRC databases, including the library database
  - IDRC  
250 Albert St  
PO Box 8500  
Ottawa, Ontario  
Canada K1G 3H9  
  
Telephone: 613-236-6163  
Fax: 613-238-7230

## **INTERNATIONAL INSTITUTE FOR ENVIRONMENT & DEVELOPMENT (IIED)**

Established 20 years ago, the IIED is a leading policy research institute seeking ways to make economic progress without destroying the environmental resource base. Guided by research, the Institute operates in the areas of sustainable agriculture, drylands management, forestry and land use, human settlements and environmental economics, environmental consequences and sustainability of social and economic development, especially in the Third World. The majority of the Institute's work is done in the developing world for the benefit of the poor.

### **Key Information Sources**

- ▶ *IIED Perspectives* appears twice yearly
- ▶ *Haramata Drylands Bulletin* appears quarterly
- ▶ *Environment and Urbanization* appears twice a year
- ▶ *Earthscan Publications Inc.* is an editorially independent subsidiary of the International Institute for Environment and Development. Many Earthscan titles are essential readings on sustainable development
- IIED  
3 Endsleigh Street  
London WC1H ODD  
United Kingdom  
  
Telephone: 44-71-338-2117  
Fax: 44-71-388-2826

## **INSTITUTE OF DEVELOPMENT STUDIES (IDS)**

Located at the University of Sussex, IDS examines Third World development and the relationship between rich and poor countries. It is involved in research, teaching, and advisory work involving development problems. It is particularly interested in adjustment strategies for countries facing declining commodity export prices and heavy indebtedness; it also involves itself in issues of poverty, employment, income distribution and the international flow of resources through aid, trade and financial transactions.

### **Key Information Sources**

- ▶ The IDS Library. A centre for documentation on Third World development and a depository for UN publications; houses 250,000 non-serial and 15,000 serial titles
- ▶ *IDS Bulletin*. Published quarterly, covering issues in agriculture, rural problems, politics, economic development, socialist strategies, gender issues, health, education, employment, trade, aid, debt and poverty
- Institute of Development Studies  
University of Sussex  
Brighton BN1 9RE  
United Kingdom  
  
Telephone: 44-273-606261/678269  
Fax: 44-273-678420  
Telex: 877997

## **INSTITUTE FOR EUROPEAN ENVIRONMENTAL POLICIES (IEEP)**

IEEP, founded as an integral part of the *European Cultural Foundation*, analyzes strategies and alternatives for the development of policies concerning environmental problems in Europe. The Institute operates via inter-governmental commissions, as well as working closely with non-governmental organizations, to generate solutions for existing problems. It is involved in promoting various activities related to the environment in host countries, carrying out major studies, and organizing meetings, workshops, and lectures.

### **Key Information Sources**

- ▶ *The Environment in Europe*. A periodical published in English, French and German
- ▶ Papers and other publications
  - IEEP  
Aloys-Schulterstrasse 6  
D-5300 Bonn 1  
Germany FR  
  
Telephone: (49-228) 21 3810/  
(49 228) 22 0972  
Fax: (49 228) 22 1982  
Telex: 886885
  - IEEP  
London Branch Office  
3 Endsleigh Street  
London WC 1H ODD  
United Kingdom  
  
Telephone: 44-71-388-2117  
Fax: 44-71-388-2826  
Telex: 261681

## INDUSTRY AND ENVIRONMENT OFFICE (IEO-UNEP)

Part of the United Nations Environment Programme (UNEP), the Industry and Environment Office was established in 1975 to bring industry, governments and NGOs together to work toward environmentally-sound forms of industrial development. The office concentrates on formulating and promoting appropriate policies and strategies. It seeks to define and encourage the incorporation of environmental criteria in industrial development; to formulate and facilitate the implementation of principles and procedures to protect the environment; to promote the use of safe, low and non-waste technologies (LNWT) and to stimulate the exchange of information and experience on environmentally-sound forms of industrial development throughout the world.

### Key Information Sources

- ▶ The International Cleaner Production Clearing House (ICPIC). A computer-based information exchange system with 600 technology and program case studies, a calendar of training events, a directory of experts, and a bibliographic database; access by modem
- ▶ Query-Response Service. Responds to specific requests for technical information on the industrial environment
- ▶ *The Cleaner Production Directory*
- ▶ *The Cleaner Production Newsletter*
- ▶ *Technical Reviews and Guidelines*. Describes clean technologies and future perspectives
- ▶ *Industry and Environment Review*. A quarterly presenting information on emerging technologies
  - United Nations Environment Programme  
Industry and Environment Office  
Tour Mirabeau  
39-43, Quai Andre Citroen  
Paris CEDEX 15  
75739 France  
Telephone: 33-1-40-58-88-58  
Fax: 33-1-40-58-88-88/74

## INSTITUTE FOR AFRICAN ALTERNATIVES (IFAA)

IFAA is a network institute with a secretariat in London and centres in various African countries. Involved in publishing, policy research, and networking, IFAA has established an environment unit to promote research on environmental practice, formulate alternative policies aimed at reversing Africa's environmental decline, and coordinate the efforts of African and international NGOs and institutions working on sustainable development issues.

IFAA provides information on environment and development issues through conferences, courses, public lectures, publications and its documentations centre.

### Key Information Sources

- ▶ *Africa In Print*. Reviews books on African social, economic and environmental issues
- ▶ *IFAA Catalogue*. Includes a listing of new IFAA publications, available upon request from the IFAA London office
- ▶ *IFAA ECO NEWS*. The IFAA Environmental Unit's newsletter.
  - Institute for African Alternatives  
23 Beviden Street  
London N1 6BH  
United Kingdom  
  
Telephone: 071-251-1503  
Fax: 071-253-0801  
Telex: 262433  
e-mail: GN:IFAANET

## INTERNATIONAL INSTITUTE FOR SUSTAINABLE DEVELOPMENT (IISD)

The International Institute for Sustainable Development promotes sustainable development in decision-making at all levels, and within and between all sectors. The Institute engages in policy research and communications, focusing on programs in international trade, business strategy, national budgets and new institutions that support sustainable development. Poverty eradication is central to its research theme. IISD works in partnership with other organizations to create new approaches to the complex environment and development problems facing the world.

### Key Information Sources

- ▶ *Business Strategy for Sustainable Development: Leadership and Accountability for the '90s*
- ▶ *IISD Monitor*. A single issue periodical on sustainable development
  - International Institute for Sustainable Development  
161 Portage Avenue East, 6th Floor  
Winnipeg, Manitoba  
Canada R3B 0Y4  
  
Telephone: 204-958-7700  
Fax: 204-958-7710  
e-mail: IISD@web.apc.org

## **INTERNATIONAL ENVIRONMENTAL INFORMATION SYSTEM (INFOTERRA)**

Part of the United Nations Environment Programme (UNEP), INFOTERRA is a decentralized global network for information exchange on the environment. It was established in 1975 as one of the three components of Earthwatch (see GEMS and IRPTC). The network is made up of national focal points (NFPs), a program activity centre (PAC) based at UNEP in Nairobi, and regional services centres. It operates a worldwide network to assist organizations and individuals in locating technical, scientific, and decision-oriented information.

INFOTERRA depends on the cooperation of more than 6,000 information sources accessed via 140 NFPs around the world. Online computer searches of major databases around the world are offered free to developing countries.

### **Key Information Sources**

- ▶ *INFOTERRA World Directory of Environmental Expertise*. A directory of more than 6,000 entries, also available in machine-readable form under Micro CDS/ISIS; part four of this edition includes a list of major environmental libraries, databases and database hosts
- ▶ *INFOTERRA Bulletin*. A bi-monthly publication
- ▶ Environet. The INFOTERRA electronic mail system, available to users for querying INFOTERRA and for document transfers
  - INFOTERRA UNEP  
PO Box 30552  
Nairobi  
Kenya  
Telephone: 254-2 520600/333930  
Fax: 254-2 520711  
Telex: 22068  
e-mail (Environet)  
Dialcom:141:UN011

## **INTERNATIONAL ORGANIZATION OF CONSUMERS UNIONS (IOCU)**

An international consumers-rights advocacy group, IOCU seeks to raise environmental awareness among consumers and to identify and monitor potential abuses in environmental claims, eco-labelling and green advertising. Its major thematic conferences examine ways to make industries and businesses more environmentally-friendly and deal with the question of environmental standards.

### **Key Information Sources**

- ▶ *Buying the Earth*. A report on the environmental consequences of a more liberal trade system, as currently being negotiated with GATT
- ▶ An information kit prepared for the 1992 World Consumer Rights Day. Carries information sheets on environmental issues concerning consumers, a checklist for possible action and case studies of consumer action
- ▶ Newsletter. IOCU Regional Office for Europe and North America
  - Emmastraat 9  
2595 EG  
The Hague  
The Netherlands  
Telephone: 31-70-347-6331  
Fax: 31-70-383-4976

## **INTERNATIONAL REGISTER OF POTENTIALLY TOXIC CHEMICALS (IRPTC)**

IRPTC was established in 1975 as one of the three main components of Earthwatch (see UNEP).

Through a network of regional and national correspondents, the register makes data on chemicals available to those who need it.

### **Key Information Sources**

- ▶ *IRPTC Bulletin*
- ▶ IRPTC database
  - Palais des Nations  
CH-1211 Geneva 10  
Switzerland  
Telephone: 41-22 798-5850  
Fax: 41-22 733-2673

## ISLAND PRESS

In 1984 Island Press, a small publisher with a diverse list of books, was reorganized into an organization focusing exclusively on environmental issues. It publishes practical and solution-oriented books on problems which threaten health, well-being and the sustainability of life on Earth. To date it has produced more than 60 books from both environmental organizations and individuals.

### Key Information Sources

- ▶ *Steady-State Economics*
- ▶ *The Complete Guide to Environment Careers, the CEIP Fund*
- ▶ *Permaculture. A Practical Guide for a Sustainable Future*
- ▶ *Our Country, the Planet*
  - Island Press/Centre for Resource Economics  
1718 Connecticut Avenue NW  
Suite 300  
Washington, D.C. 20009  
USA

## INTERMEDIATE TECHNOLOGY DEVELOPMENT GROUP (ITDG)

ITDG helps poor people in the Third World to develop and use technologies and methods which give them more control over their lives and which contribute to the long-term development of their communities.

### Key Information Sources

- ▶ *Books by Post 1992*. A catalogue of recommended books on appropriate technology and development issues
  - Intermediate Technology Myson House  
Railway Terrace  
Rugby CV21 3HT  
United Kingdom
  - Intermediate Technology Publications  
103-105 Southampton Row  
London WC1B 4HH  
United Kingdom
- Telephone: 44-71-436-9761  
Fax: 44-71-436-2013

## INTERNATIONAL UNION FOR THE CONSERVATION OF NATURE (IUCN) (WORLD CONSERVATION UNION)

IUCN works to provide knowledge and leadership for sustainable development to public and private sector agencies throughout the world. It seeks to assist governments to develop international conventions and national laws on conservation. IUCN collaborated with WWF, UNESCO, and UNFAO in the publishing of the *World Conservation Strategy*, an important international conservation statement. IUCN is a unique membership organization, linking governmental and non-governmental organizations and operating via international working groups. IUCN also maintains an Environmental Law Centre in Bonn.

### Key Information Sources

- ▶ *Caring for the Earth*. A strategy for sustainable living published in partnership with UNEP and WWF (1991 Revised Version)
- ▶ *Conserving the World's Biological Diversity*. Information about the conservation of biodiversity
- ▶ *Population and Sustainable Development*. A report of the IUCN Task Force on Population and Conservation for Sustainable Development
- ▶ *Economics and Biological Diversity*. Information about developing and using economic incentives to conserve biological resources
  - IUCN  
Avenue du Mont-Blanc  
CH-1106  
Gland, Switzerland  
Telephone: 41-22-649114  
Fax: 41-22-642926
  - IUCN Environmental Law Centre  
Adenauerallee 214  
D-53 Bonn 1  
Germany  
Telephone: 49-228-269-2231  
Fax: 49-228-269-2250

## **THE JAPAN COMMITTEE FOR THE GLOBAL ENVIRONMENT**

Consisting of 150 members, including business leaders, labour unions and the media, and with secretariat at three institutions (listed below), the Japan committee was established to promote global environmental awareness in Japan.

At home, the committee builds consensus between government and the people on efforts targeting the preservation of the global environment and promotes efforts to create an environmentally-friendly and sustainable society. Abroad, the Japan committee encourages international cooperation with developing countries in achieving sustainable development, and conducts campaigns advocating active participation in safeguarding the global environment.

### **Key Information Sources**

- ▶ The Environmental Information Centre. Collects, classifies and disseminates information on science and technology-related to environmental preservation
  - Environmental Information Centre (Headquarters)  
Toranomom First Building  
1-5-8 Toranomom  
Minato-ku, Tokyo 105  
Japan  
Telephone: 81-3-3595-3992
  - Global Industrial and Social Progress Research Institute  
33 Mori Building  
3-8-21 Toranomom  
Minato-ku, Tokyo 105  
Japan  
Telephone: 81-3-3435-8800
  - Association for Promotion of International Cooperation  
23 Mori Building  
1-23-7 Toranomom  
Minato-ku, Tokyo  
Japan  
Telephone: 81-3-3504-2085

## **KENYA CONSUMERS' ORGANIZATION (KCO)**

KCO is an independent, non-profit organization which has identified consumer activism as one of the most tangible ways of promoting sustainable development in Africa. It promotes consumer responsibility in Kenya and encourages research on climate change in Africa, focusing on the implications of analysis and recommendations for policy responses. KCO also works to raise awareness of the linkages between consumption patterns and climatic changes in Africa.

### **Key Information Sources**

- ▶ *Impact*. An important source of research information on perspectives about change in Africa; also an important networking tool for KCO
  - Kenya Consumer Organization (KCO)  
PO Box 21136  
Nairobi  
Kenya  
  
Telephone: 254-2-22-60-28/  
72-94-47  
Fax: 254-2-56-81-67

## **MAZINGIRA INSTITUTE**

A non-profit organization concerned with equitable development and environmental sustainability, the Mazingira Institute is involved in information, communication and education activities. Its work is based on an interdisciplinary approach to the issues of human settlements and environmental management, gender, health and environmental awareness, peace, cooperation and environment. Through its publications, distance-education program, workshops and seminars, the institute disseminates information on sustainable development to primary schools, grassroots institutions and the population at large.

### **Key Information Sources**

- ▶ *The Mazingira Institute Magazine* and *Mazingira Institute Video-book*. Both cover health and environment issues at the primary school level
  - Mazingira Institute  
Box 4550  
Nairobi  
Kenya  
  
Telephone: 254-2-47-066  
Fax: 254-2-740-524

## **THE PANOS INSTITUTE**

Panos is an independent information and policy-studies institute working internationally to promote greater awareness of sustainable development. Information about the institute's activities, publications, partnership arrangements and joint information facilities is available annually in the Panos Annual Report, published in June.

### **Key Information Sources**

- ▶ *Panoscope*. The Institute's monthly magazine
- ▶ *Greenlink*. Environment information from the Third World
- ▶ *Miracle or Menace: Biotechnology and the Third World*. A new report on patent rights to genetic resources
- ▶ *Panos Feedback*. A new publication from the Hungarian office which informs Eastern European readers about regional environmental concerns
- The Panos Institute  
9, White Lion Street  
London N1 9PD  
United Kingdom  
  
Telephone: 44-71-278-1111.  
Fax: 44-71-278-0345.  
Telex: 9419293  
e-mail: 87:CQQ265

## **REGIONAL ENVIRONMENTAL CENTRE FOR CENTRAL AND EASTERN EUROPE**

The Centre, which opened in September 1990, is an independent, non-profit foundation endowed by government and private contributions. Operating under the direction of an international Board of Trustees, it promotes regional approaches to environmental management and provides a forum for increasing public communication and access to environmental information. Expertise and resources come from around the world.

The Centre's first task has been to establish a broad base of environmental information, including electronically-accessed sources. Its main functions are to serve as a regional training ground for environmental technologies, conduct educational and public outreach campaigns and provide advice to the region's rapidly-expanding NGO community.

### **Key Information Sources**

- ▶ Environmental databases
- ▶ Print materials and publications
- Regional Environmental Centre for Central and Eastern Europe  
Miklos ter 1  
Budapest  
Hungary 1035  
  
Telephone: 36-1-168-6284/8685/9463/8203  
Fax: 36-1-168-7851

## **RÉSEAU SAHÉLIEN D'INFORMATION ET DE DOCUMENTATION SCIENTIFIQUES ET TECHNIQUES (RÉSADOC) INSTITUT DU SAHEL**

The Institut du Sahel coordinates and promotes research and training to combat drought and is part of the Comité permanent inter-Etats de lutte contre la sécheresse dans le Sahel (CILSS).

Résadoc, the Sahelian Scientific and Technological Information and Documentation Network, operates in a networking mode with Sahelian countries to share information on drought. Funded by external aid agencies, including CIDA, IDRC, UNESCO and French bilateral aid, Résadoc has developed an important database of information.

### **Key Information Sources**

- ▶ *Resindex*. A periodical bibliography on the Sahel
- ▶ Bibliographic databases
  - Institut du Sahel  
BP 1530  
Bamako  
Mali  
  
Telephone: 223-22-21-48  
Fax: 223-22-21-78



## **A GLOBAL UNION FOR TECHNOLOGIES FOR ENVIRONMENT AND SUSTAINABLE DEVELOPMENT (SATIS)**

SATIS is an international association of research institutes, international, national and intergovernmental organizations working in the field of appropriate technological alternatives for sustainable development. The institute assists communicators, development workers and technologists to apply development skills in science, technology and management.

### **Key Information Sources**

- ▶ *Who's Appropriate*, a program which promotes new technologies; the Replication Project matches suppliers and potential users of proven sustainable development
- ▶ The SATIS Classification. A collection of information on technology, environment and sustainable development
- ▶ *SATIS News*. A quarterly which acts as a networking tool; both the latter publications are available on electronic networks through the SatisNet Service

- SATIS  
BP 2664  
Dakar  
Senegal

Telephone: 221-21-75-95  
Fax: 221-21-26-95  
e-mail: Geo2:Satis

## **SOCIETY FOR INTERNATIONAL DEVELOPMENT (SID)**

SID is an association for people with an interest in international economic, political and social development. It promotes international dialogue, understanding, and cooperation for social and economic development, aimed at furthering the well-being of people and achieving an interdependent world of self-reliant nations. The society seeks to encourage, support and facilitate the creation of a sense of community among individuals and organizations committed to development. Finally, SID is committed to advancing development through educational means.

SID has more than 9,000 members in 132 countries. A significant part of the society's work is carried out through 87 SID chapters which provide active programs geared to the interests of their communities.

### **Key Information Sources**

- ▶ *Compass*. A newsletter providing detailed information on SID's international programs as well as contact between chapters and members
- ▶ *Development*. A quarterly journal which invites examination of the development experience, questions conventional wisdom and explores sustainable development strategies

- Society for International Development  
Palazzo della Civiltà del Lavoro  
00144 Rome  
Italy

Telephone: 39-6-591-7897,  
592-5506  
Fax: 39-6-591-9836  
Telex: 616484

## **SOUTH CENTRE**

An international organization established in 1990 as a follow-up office of the South Commission, South Centre promotes the implementation of the recommendations contained in the commission's report, *The Challenge of the South*.

South Centre convenes expert groups or commissions papers on issues such as the reform of the UN system, environment and sustainable development, food security and other topics which may have a vital bearing on the development prospects of the South. The organization has offices in Dar-es-Salaam and Geneva.

### **Key Information Sources**

- ▶ *The Challenge of the South*. The report issued by the South Commission, assesses the South's achievements and failings in the development field and suggests directions for reform
- ▶ *The South Letter*. A quarterly newsletter
- ▶ *Environment and Development. Towards a Common Strategy of the South in the UNCED negotiations and Beyond*

- South Centre  
Chemin du Champ d'Anier 17  
Case postale 228  
1211 Geneva 19  
Switzerland

Telephone: 41-22-798-3433  
Fax: 41-22-798-8531

- South Centre  
PO Box 71000  
Dar-es-Salaam  
Tanzania

Telephone: 255-51-46-924  
Fax: 255-51-46-146

## STOCKHOLM ENVIRONMENT INSTITUTE

The SEI was established in 1989, following an initiative of the Swedish Government.

Central to the Institute's work are the insights to these issues developed by the Stockholm Conference of 1972 and subsequently elaborated by the work of the Brandt and Palme Commissions and more recently, by the Report of the World Commission for Environment and Development in 1987.

SEI uses scientific and technical analysis as a point of departure for the specification of minimal harm technologies and the development of policies which can contribute to strategies for socially responsible environmental management and economic development.

A research program has been designed around the themes of environmental biosafety and issues in agricultural biotechnology for food security, developing techniques and strategies for responding to climatic change, assessing energy futures and issues in economics, ethics and environmental value.

### Key Information Sources

- ▶ *Main Series* of publications of SEI researchers
  - ▶ *Energy, Environment and Development Series* of publications
    - Stockholm Environment Institute  
Box 2142 Jarntorget 84 S-103  
103 14 Stockholm  
Sweden
- Telephone: 46-8-723-0260  
Fax: 46-8-723-0348

## SUSTAINABILITY

SustainAbility is an environmental communications and consultancy group involved in the greening of business.

The company has published a number of important titles and has been at the leading edge in promoting and communicating about sustainable development for a variety of audiences, including consumers, the private sector and the media.

### Key Information Sources

- ▶ *The Corporate Environmentalists: Selling sustainable development but can they deliver?*
  - ▶ *The Green Business Guide*
  - ▶ *The Green Consumer Guide*
  - ▶ and many other titles
    - SustainAbility  
The People's Hall  
91-97 Freston Road  
London W11 4BD  
United Kingdom
- Telephone: 44-71-243-1277  
Fax: 44-71-243-0364

## TATA ENERGY RESEARCH INSTITUTE (TERI)

TERI operates training programs on energy and the environment for civil servants, including a session devoted exclusively to the concept of sustainable development.

An Information and Research Centre on Global Warming and Climatic Change has recently been established to gather and disseminate information through research, publications and audio-visual materials. The new centre will also lend analytical support to the Indian government on questions relating to global warming.

In addition, the headquarters of the Asian Energy Institute (AEI) are located at TERI, allowing the pooling of expertise in a variety of fields for countering global environmental problems.

### Key Information Sources

- ▶ Documentation and Information Centre; TERI Information Services: provide information on a wide range of subjects including energy, environment, biotechnology and forestry
  - ▶ *TERI Information Service on Global Warming (TISGLOW)*, articles, abstracts, digests and book reviews published biannually to disseminate information on global warming, available on request
  - ▶ Audio-visual materials
  - ▶ Databases on socio-economic indicators useful for computing greenhouse gas emissions
    - TATA Energy Research Institute  
102, Jor Bagh  
New Delhi  
India 110003
- Telephone: 91-11-462-5296  
Fax: 91-11-462-1770  
Telex: 3161593

## **THIRD WORLD NETWORK (TWN)**

The Third World Network (TWN) is a network of groups and individuals involved in efforts to bring about a greater articulation of the needs and rights of people in the Third World; a fair distribution of world resources and forms of development which fulfill people's needs and that are ecologically and humanely harmonious.

The Third World Network was formed during an international conference 'The Third World: Development or Crisis?' organized by the Consumers' Association of Penang (CAP) in November 1984. TWN also seeks to coordinate and consolidate cooperation among development groups in the South as well as the North. CAP is the Secretariat and clearinghouse of the Network.

### **Key Information Sources**

- ▶ *Third World Network Features* aims to become a voice of non-governmental organizations in the Third World. Many of TWN stories are collected from groups working at grassroots level and deal with community activities and development
- ▶ *Third World Economics. Trends & Analysis* appears every two weeks and gives news and analyses that reflect grassroots interests of people in the Third World
- ▶ *Third World Resurgence* appears monthly and seeks to give a Third World perspective on many issues related to international development, and to sustainable development
- Third World Network  
87 Cantonment Road  
10250 Penang  
Malaysia  
  
Telephone: 60-4-373511, 373612  
Fax: 60-4-368106

## **UNION OF INTERNATIONAL ASSOCIATIONS (UIA)**

Established in 1907, the UIA facilitates the evolution of the activities of a worldwide network of non-profit organizations, especially NGOs or voluntary organizations. It also promotes understanding of international bodies.

The institute maintains contact with 17,000 international NGOs; it has consultative status with UNESCO, ILO and ECOSOC.

### **Key Information Sources**

- ▶ *Yearbook of International Organizations*. A three-volume directory listing 26,656 bodies by national directories of secretariats and membership, and by global action networks, respectively; not available as a computer database
- Union of International Associations  
Rue Washington 40  
Brussels B-1050  
Belgium  
  
Telephone: 32-2-640-1808  
Fax: 32-2-649-3269

## **UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED) SECRETARIAT**

The UNCED Secretariat was established following the UN General Assembly resolution on UNCED. It provides the structure and mechanism guiding the official UNCED process, and commissions reports and expert consultations, including those that have produced drafts of Agenda 21.

### **Key Information Sources**

- ▶ Country reports to UNCED
- ▶ Various computer conferences containing all official communications of UNCED, including Agenda 21; the draft text of conventions (see the section on Computer Networks and Conferencing Systems for details)
- ▶ *In Our Hands, Earth Summer '92*. A plethora of official background information commissioned for UNCED
- United Nations Conference on Environment and Development  
PO Box 80  
160 Route de Florissant  
Conches CH-1231  
Switzerland  
  
Telephone: 41-22-789-1676  
Fax: 41-22-789-3536  
e-mail: UNCED@IGC.APC.ORG
- UNCED New York Office  
Room S-3060 United Nations  
New York, N.Y. 10017  
USA  
  
Telephone: 212-963-5969  
Fax: 212-963-1010

## UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

---

UNDP is an organization of the United Nations linked to the General Assembly and to the United Nations Economic and Social Council (ECOSOC). UNDP assists developing countries in promoting human development and developing the capacity to manage their economies.

UNDP plays a leading role in coordinating the development efforts of the United Nations system. It has launched a Sustainable Development Network (SDN), which aims to link governmental, NGO, grassroots and entrepreneurial organizations which could benefit from and/or contribute to economic development that is sustainable and environmentally sound.

### Key Information Sources

- ▶ *Human Development Report*. Published yearly; available from Oxford University Press
- ▶ *Handbook and Guidelines for Environmental Management and Sustainable Development*
- ▶ *Choices: The Magazine for Human Development*
- ▶ *Annual Report of the Administrator*
- ▶ *Azimuths*. A monthly documentary magazine for television broadcast worldwide (see Audio-visual entry)
- ▶ *Sustainable Development Network Newsletter*. The newsletter of the UNDP-SDN Technical Support Unit
  - United Nations Development Programme  
One United Nations Plaza  
New York, N.Y. 10017  
USA  
Telephone: 212-906-5000  
Fax: 212-906-5364

## UNITED NATIONS ENVIRONMENT PROGRAMME (UNEP)

---

UNEP was established in 1972 on the basis of the UN Conference on the Environment: The Stockholm Conference. The role of UNEP is to coordinate and stimulate environmental action within the UN system. It has a distinct role from UNDP and other development organizations which fund development activities directly.

Significant information programs coordinated by UNEP include the Global Environment Monitoring Systems (GEMS), the International Environmental Information System (INFOTERRA), and the International Register of Potentially Toxic Chemicals (IRPTC).

### Key Information Sources

- ▶ Earthwatch
- ▶ Global Environmental Management System (GEMS)
- ▶ Global Resource Environment Database (GRID)
- ▶ International Environmental Information System (INFOTERRA)
- ▶ International Register of Potentially Toxic Chemicals (IRPTC)
- ▶ Industry and Environment Bureau
- ▶ *Our Planet*. A bi-monthly magazine; available free of charge
- ▶ Various databases
  - United Nations Environment Programme  
PO Box 30552  
Nairobi  
Kenya  
Telephone: 254-2-333930,  
ext. 4311, 4316, 520600  
Fax: 254-2-520883  
Telex: 22068

## UNITED NATIONS UNIVERSITY (UNU)

---

An organ of the United Nations founded in 1973, UNU is an international community of scholars engaged in research, training and information dissemination. Through its research and training centres in Africa and Europe, UNU promotes and stimulates the understanding of development as part of global transformation.

The university's major program areas for the 1990s have significant elements of sustainable development, including universal human values and global responsibilities, new directions in the world economy, sustaining global life-support systems, advances in science, and technology and population dynamics and human welfare.

### Key Information Sources

#### Monographs:

- ▶ *Food & Energy: Strategies for Sustainable Development*
- ▶ *Social Indicators for Human Development*
- ▶ *Agroforestry in the African Humid Tropics*

#### Periodicals:

- ▶ *Global Environmental Change*
- ▶ *Abstracts of Selected Solar Energy Technology*
- ▶ *Mountain Research and Development*. Published jointly with IMS

- United Nations University  
Toho Seimei Bldg  
15-1 Shibuya 2-Chome  
Shibuya-ku  
Tokyo 150  
Japan  
Telephone: 81-3-499-2811  
Fax: 81-3-499-2828  
Telex: 25442

## **WORLD BANK (INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT)**

Through its Environment Department, which focuses primarily on policy and operational environmental units located within each major geographic division, the World Bank has become a significant source of ideas and case studies about sustainable development.

The World Bank is well-placed to take on a leadership role among multilateral agencies because of its annual budget of US \$22 billion and its influence which now extends to Eastern Europe and to developing nations.

The World Bank assumes special initiatives such as the Global Environmental Facility (GEF), which funds projects that address global environmental problems such as biodiversity loss, and supports regional initiatives such as the African Environmental Action Plans.

### **Key Information Sources**

- ▶ *World Development Report 1992* is devoted to the theme of environment and development
- ▶ Annual Report of the World Bank Environment Department
- ▶ The Working Paper Series, a series of sustainable development views from the Environment Department
- ▶ "Red cover" reports are public versions of internal studies
- ▶ Slide and video programs
  - World Bank  
1818 H St. N.W.  
Washington, D.C. 20433  
USA  
  
Telephone: 202-477-1234  
Fax: 202-334-8750/473-3117  
Telex: 440098

## **WORLD CONSERVATION MONITORING CENTRE (WCMC)**

WCMC is an independent organization established by the World Conservation Union (IUCN), the World Wide Fund for Nature (WWF) and the United Nations Environment Program (UNEP). Its mission is to support international programs for conservation and sustainable development.

WCMC gathers data on species, habitats and sites through an extensive global network. It disseminates this information through information networks and data centres in developing countries to governments, development agencies, NGOs and multinational corporations, as well as to individual scientists, journalists and conservationists.

### **Key Information Sources**

- ▶ WCMC's data banks. Includes information on plant and animal species of conservation concern, important natural habitats, sites of biological diversity, the global network of national parks and protected areas, and the volume and impact of the international trade in wildlife
- ▶ WCMC's conservation bibliography. Contains both published and unpublished literature
  - World Conservation Monitoring Centre  
219 Huntingdon Road  
Cambridge CB3 0DL  
United Kingdom  
  
Telephone: 44-223-277314  
Fax: 44-223-277136

## **WORLD ENVIRONMENT CENTER (WEC)**

Founded in 1974, WEC is an independent, not-for-profit, non-advocacy environmental organization which contributes to sustainable development by strengthening environmental management and industrial health and safety practices worldwide. Through three major programs, WEC serves as a bridge for the exchange of information and expertise between industry and governments, as well as among non-governmental, national, and international organizations. WEC receives funding, expertise and materials from governments, national and international agencies, industry, foundations, and private citizens. Voluntary expert services are a hallmark of WEC's programs.

### **Key Information Sources**

- ▶ *IEDS Review*. Published by the World Environment Center
- ▶ *Pollution Prevention Pays* and *Chlorine Safety Pays*. Two recent WEC titles
  - World Environment Center  
419 Park Avenue South  
Suite 1800  
New York, N.Y. 10016  
USA  
  
Telephone: 212-683-4700  
Fax: 212-683-5053

## WORLD RESOURCES INSTITUTE (WRI)

WRI is a research and policy institute helping governments, the private sector, environmental and development organizations and others address the question: How can societies meet human needs and nurture economic growth without destroying the natural resources and environmental integrity that makes prosperity possible?

WRI's projects are directed at determining the effects of natural resources deterioration on economic development, and alleviating of poverty and hunger in developing countries.

WRI is an independent, not-for-profit corporation. In developing countries, the institute's Center for International Development and Environment provides policy advice, technical assistance and other support services to governments, nongovernmental organizations and local groups charged with managing natural resources and economic development.

### Key Information Sources

- ▶ *World Resources 1991–1992, a Guide to the Global Environment: Toward Sustainable Development.* Published in collaboration with UNEP and UNDP, this is an essential source of data and information on global change and sustainable development
- ▶ WRI has published more than 70 titles on agriculture; energy, climate and pollution; economics and sustainable development; and natural resources
  - World Resources Institute  
1709 New York Avenue NW, 7th Floor  
Washington, D.C. 20006  
USA  
  
Telephone: 202-638-6300  
Fax: 202-638-0036  
Telex: 64414

## WORLD WIDE FUND FOR NATURE (WWF)

Founded in 1961, the WWF is one of the largest independent nature conservation and advocacy organizations. WWF seeks to promote sustainable development through various activities and programs. In the conservation fieldwork projects, members listen and learn from local people, incorporating their economic and social needs into projects, and build on local knowledge and skills. The organization's other sustainable development activities include policy development in collaboration with governments, nongovernment organizations, aid agencies, commerce and industry. WWF provides institutional support for sustainable development.

### Key Information Sources

- ▶ WWF publishes many issue-specific publications
- ▶ *WWF Report.* Issued six times a year
- ▶ *WWF Conservation Yearbook*
- ▶ *The New Road.* A quarterly about religion, ethics and sustainable development
  - World Wide Fund International  
Avenue du Mont-Blanc  
CH-1196 Gland  
Switzerland  
  
Telephone: 41-22-649-111  
or contact the regional WWF office

## WORLDWATCH INSTITUTE

Largely as a result of its State of the World Report, which has appeared annually since 1984, the Worldwatch Institute is well-known in the field of sustainable development.

Worldwatch is known both for analysis and interpretation of existing data and for its ability to put complex issues into clear, concise language.

The Institute focuses on informing policy makers and the public about the interdependence of the world economy, and environmental and social support systems.

### Key Information Sources

- ▶ *1991 State of the World Report.* Seeks ways to design a healthy economy without destroying the environmental systems on which economy depends
- ▶ *1992 State of the World Report.* Focuses on environmental interdependence and its impact on national development in a wide range of areas
- ▶ *Worldwatch Paper Series*
  - Worldwatch Institute  
1775 Massachusetts Avenue NW  
Washington, D.C. 20036  
USA  
  
Telephone: 202-452-1999

## **ZED BOOKS**

---

Zed Books issues books on a variety of issues related to global change, including environmental deterioration, poverty and development, international trade, primary health care, international refugee reliefs, etc.

These books seek ways in which sustainable development in both North and South can move beyond convenient rhetoric and become a practical reality.

### **Key Information Sources**

▶ *Zed Books. New Titles. Spring 1992*

- Zed Books Ltd.  
57 Caledonian Road  
London N1 9BU  
United Kingdom  
  
Telephone:  
44-71-837-4014/8466  
Fax: 44-71-833-3960

## Publications

One way to quantify the increase in publications relating to sustainable development is by searching the commercially available data bases. The first title containing the words “sustainable development” appeared in 1979. By 1991, there were over 2,000 titles stored in more than 150 bibliographic data bases. In 1987, the year the Brundtland Commission’s *Our Common Future* was published, 50 articles on the major North American news data bases and wire services contained the term “sustainable development.” By mid-May 1992, there were over 700 for 1992 alone.

Our search has been comprehensive, covering the major databases noted in a later section of this report. It has been possible to list only a fraction of the citations we accessed. Sectoral and regional citations, in particular, are only a small sample of the available information. Most of the extensive UNCED literature base is absent from this first edition of the *Sourcebook*.

The wealth of publications now available on issues linking the environment, development, and human welfare covers an extraordinary range of opinion. We have narrowed our focus in this section to what might be called seminal works on sustainable development, such as *Our Common Future*, *World Conservation Strategy*, and the annual *State of the World* from the Worldwatch Institute, as well as other key publications from the United Nations, World Resources Institute, the OECD, the World Bank, and various publishers including environment and development-oriented ones such as Earthscan, Island Press, and Zed. Our other focus has been academic papers from universities and thinktanks around the world. Missing from this version of *Sourcebook on Sustainable Development*, but to be contained in future versions, is a listing of popular periodicals, newsletters, and journals.

We have tried to avoid an elaborate subdivision of topics in our classification of literature. Certain themes, for example, health and technology for sustainable development, are notable by their absence. Other topics such as trade and sustainable development, and indigenous peoples’ perspective on sustainable development are covered in much more detail within other IISD reports devoted to these specific themes.



## Contents

### Information on sustainable development

- ▶ General
- ▶ Guidebooks

### Economy and Ecology

### Law and Public Policy

### Social and Community Issues and Solutions

- ▶ Ethics, Spirituality and Religion
- ▶ Population and Carrying Capacity
- ▶ Human Settlement
- ▶ Poverty and Well-being of People
- ▶ Community and People's Participation
- ▶ Education and Sustainable Livelihoods
- ▶ Women and Youth

### Environment and Natural Resources

- ▶ Biological Diversity
- ▶ Environment
- ▶ Energy and Global Climate Change
- ▶ Food and Agriculture
- ▶ Forests and Water
- ▶ Oceans and Coastal Areas

### Investment for Sustainable Development

- ▶ Military
- ▶ Technology and Training
- ▶ Credit, Debt and Structural Adjustment
- ▶ Business
- ▶ Development Assistance

### Regional and Country Reports: A Sampling of Available Studies

- ▶ General Sources
- ▶ Africa
- ▶ Asia
- ▶ Europe
- ▶ Latin America and the Caribbean
- ▶ North America
- ▶ South Pacific and Australia

## Information on Sustainable Development

### ► General

- Angell, D.J.R. 1990. *Sustaining Earth: Response to the environmental threat*. London: Macmillan. 226pp.
- Archibugi, F., P. Nijkamp and F.J. Soeteman. 1989. *The challenge of sustainable development*. Proceedings of a conference in Milan in 1988. Dordrecht: Kluwer Academic Publishers, 348pp.
- Bennet, G. 1992. *Dilemmas: Coping with environmental problems*. London: Earthscan. 288pp.
- Brown, L.D. 1991. Bridging organizations and sustainable development. *Human Relations*. 44(8):807.
- Brown, L.R., C. Flavin and S. Postel. 1992. *Saving the planet: How to shape an environmentally-sustainable global economy*. London: Earthscan. 224pp.
- Brown, L.R. 1992. *State of the World: 1992*. A Worldwatch Institute report on progress toward a sustainable society. London: Earthscan. 272pp.
- Brown, B.J., M.E. Hanson, D.M. Liverman and R.W. Merideth Jr. 1988. Global sustainability: Toward measurement. *Environmental Management*. 12(2).
- Canadian Round Table on the Environment and the Economy. 1991. *Discussions on decision-making practices for sustainable development*. Ottawa: National Round Table on the Environment and the Economy. 134pp.
- Canadian Round Table on the Environment and the Economy. 1991. *On the road to Brazil: The Earth Summit*. Ottawa: National Round Table on the Environment and the Economy. 136pp.
- Carim, E. G. Barnard, G. Foley, D. De Silva, J. Tinker and R. Walgate. 1987. *Towards sustainable development: Fourteen case studies prepared by African and Asian journalists for the Nordic conference on environment and development at Stockholm*. London: Panos Institute. 200pp.
- Carley, M. and I. Christie. 1992. *Managing sustainable development*. London: Earthscan. 256pp.
- Clark, W.C. and R.E. Munn. 1986. *Sustainable development of the biosphere*. Cambridge: Cambridge University Press on behalf of IIASA. 491pp.
- Colby, M.E. 1990. *Environmental management in development: The evolution of paradigms*. World Bank discussion paper No. 80. Washington: The World Bank. 39pp.
- Council on Environmental Quality. 1990. *Environmental quality: Twentieth annual report*. Washington: Council on Environmental Quality. 494pp.
- Darmstadter, J. (ed). 1992. *Global development and the environment: Perspectives on sustainability*. Washington: Resources for the Future. 91pp.
- David, S. 1989. Sustainable development: Theoretical construct or attainable goal. *Environmental Conservation*. 16(1):41-48.
- Davidson, A. and M. Dence. 1988. *Brundtland challenge and the cost of inaction*. Halifax: Institute for Research on Public Policy. 159pp.
- DeFries, R.S. and T.F. Malone. 1989. *Global change and our common future*. Papers from a forum of the Scientific Research Society. Washington: National Academy Press. 227pp.
- Downs, R.M., L. Liben and D.S. Palermo (eds). 1991. *Visions of aesthetics, the environment and development*. L. Erlbaum Associates. 320pp.
- Evteev, S.E. 1989. Ecological security of sustainable development. *Development*. No. 2/3:112-115.
- Friedrich Naumann Foundation. 1988. *Agenda for our common future: Implications of the Brundtland Commission*. New York: Friedrich Naumann Foundation. 137pp.
- Gore, A. 1992. *Earth in the balance: Ecology and the human spirit*. New York: Houghton Mifflin. 408pp.
- Harborth, H.J. 1991. *Dauerhafte Entwicklung statt globaler Selbsterstörung: Eine Einführung in das Konzept des "sustainable development"*. Berlin: Edition Sigma. 122pp.
- Hettne, B. 1990. *Development theory and the three worlds*. Longman development studies. Harlow: Longman. 296pp.
- Hinrichsen, D. 1987. *Our common future, a reader's guide: The Brundtland report explained*. London: Earthscan. 38pp.

- Holmberg, J. (ed). 1992. *Policies for a small planet: From the International Institute for Environment and Development*. London: Earthscan. 380pp.
- Holmberg, John, S. Bass and L. Timberlake. 1991. *Defending the future: A guide to sustainable development*. London: Earthscan. 40pp.
- Institute for 21st Century Studies. 1989. *Global studies: Peace, development, environment*. Washington: Institute for 21st Century Studies. 259pp.
- IUCN, UNEP, WWF. 1980. *World conservation strategy*. Cambridge: IUCN Publications. Available in English, French and Spanish. 70pp.
- IUCN, UNEP, WWF. 1991. *Caring for the Earth: A strategy for sustainable living*. London: Earthscan. 228pp.
- Jacobs, P. and D. Munro. 1987. *Conservation with equity: Strategies for sustainable development*. New York: Columbia University Press. 466pp.
- Jacobson, H.K. and M.F. Price. 1990. *Framework for research on the human dimensions of global environmental change*. Paris: ISSC. 71pp.
- Kaageson, M. 1988. *Perspectives on sustainable development: Some critical issues related to the Brundtland report*. Stockholm: University of Stockholm. 115pp.
- Kane H. and L. Starke (ed). 1992. *Time for change: A new approach to environment and development*. Washington: Island Press. 141pp.
- Khosla, Ashok. 1989. Sustainable development: An Asian perspective. *Development* No. 2/3:116–20.
- King, A. and B. Schneider. 1991. *First global revolution: A report by the council of the Club of Rome*. London: Simon and Schuster. 197pp.
- Korten, D.C. 1990. *Getting to the 21st century: Voluntary action and the global agenda*. West Hartford: Kumarian Press. 253pp.
- Kuik, O. and H. Verbruggen (eds). 1991. *In search of indicators of sustainable development*. Selected papers from two workshops in 1989 and 1990. Dordrecht: Kluwer. 126pp.
- Lele, S.M. 1991. Sustainable development: A critical review. *World Development*. 19(6):607–21.
- Lindner, W. 1989. *Sustainable development: From theory to practice*. Rome: Society for International Development. 135pp.
- Lovelock, J. 1988. *The ages of GAIA: A biography of our living Earth*. New York: Norton. 252pp.
- McCormick, J. 1989. *Reclaiming paradise: The global environmental movement*. Bloomington: Indiana University Press. 259pp.
- Meadows, D.H., D.L. Meadows and J. Randers. 1992. *Beyond the limits: Global collapse or a sustainable future*. London: Earthscan. 320pp.
- Milbrath, L.W. 1989. *Envisioning a sustainable society: Learning our way out*. Buffalo: University of New York. 403pp.
- Myers, N. 1990. *Future worlds: Challenge and opportunity in an age of change*. New York: Anchor Books. 190pp.
- Myers, N. 1984. *GAIA: An atlas of planet management*. New York: Anchor Books. 272pp.
- Mykletun, J. and S. Soetevik. 1988. *One Earth—one world: Report from a research policy conference on environment and development*. Oslo: Norwegian Research Council. 284pp.
- Nafissian, M. (ed). 1988. *Sustainable development: A call to action*. Proceedings of a U.S. Senate Committee seminar on environment, public works and the World Bank. Alexandria: Legacy International. 131pp.
- Norgaard, R.B. 1988. Sustainable development: A co-evolutionary view. *Futures*. 20(6):606–20.
- OECD. 1991. *State of the environment*. Companion volume to Environmental indicators. Paris: OECD. 91 pp.
- Papers presented at a symposium in Tokyo. 1989. Reconciling the sociosphere and the biosphere. *International Social Science Journal*. No. 41:297–456.
- Pronk, J. and M. Haq. 1992. *Sustainable development: From concept to action—The Hague report*. Summary of conclusions of The Hague symposium held in November 1991.
- Ramphal, S. 1992. *Our country, the planet*. Washington: Island Press. 291pp.
- Rees, W.E. 1990. *Sustainable development and the biosphere: Concepts and principles*. Teilhard studies No. 23. Pennsylvania: Anima Books. 28pp.
- Redclift, M. 1987. *Sustainable development: Exploring the contradictions*. London: Methuen & Co. 221pp.

- Reid, W.V., J.N. Barnes and B. Blackwelder. 1988. *Bankrolling success: A portfolio of sustainable development projects*. Washington: Environmental Policy Institute. 48pp.
- Repetto, R. 1985. *The global possible: Resources, development and the new century*. New Haven: Yale University Press. 538pp.
- Ruckelshaus, W.D. 1989. Toward a sustainable world. *Scientific American*. Special issue. 261(3):166–75.
- Simonis, U.E. 1990. *Beyond growth: Elements of sustainable development*. Berlin: WBS. 151pp.
- Smith, E. 1990. *Sustainable development through northern conservation strategies*. Calgary: University of Calgary Press. 188pp.
- South Commission. 1991. *Environment and development: Towards a common strategy of the South in the UNCED negotiations and beyond*. Geneva: South Centre. 23pp.
- Starke, L. 1990. *Signs of hope: Working towards our common future*. Oxford: Oxford University Press. 192pp.
- Stokke, O. (ed). 1992. *Sustainable development*. England: International Special Books. 132pp.
- The Council on Environmental Quality and the Department of State. 1982. *The Global 2000 report to the president*. New York: Penguin.
- Tickell, C. and D.J.R. Angell. 1990. Diplomacy and sustainable development. *Sustaining Earth: Response to the environmental threat*. London: Macmillan Press.
- Timberlake, L. 1987. *Only one Earth: Living for the future*. New York: Sterling Publishing. 168pp.
- Tolba, M.K. and A.K. Biswas. 1991. *Earth and us: Population, resources, environment, development*. London: Butterworth-Heinemann. 107pp.
- Tolba, M.K. 1987. *Sustainable development: Constraints and opportunities*. London: Butterworth-Heinemann. 232pp.
- Trainer, T. 1989. *Developed to death: Rethinking Third World development*. London: Green Print. 230pp.
- Turner, R.K. 1988. *Sustainable environmental management: Principles and practice*. Boulder: Westview Press. 292pp.
- UNEP. 1981. *Sustainable development: The global imperative*. Nairobi. 124pp.
- UNESCO. 1987. Man and the biosphere: A partnership for sustainable development. *UNESCO Courier*. 10:1–34.
- United Nations Development Programme. 1992. *Human development report 1992*. New York: University Press.
- United Nations Development Programme. 1991. *Human development report 1991*. New York: University Press.
- Von Weizacker, U.E. 1991. Sustainability: A task for the North. *Journal of International Affairs*. 44(2):421–32.
- Ward, B. and R. Dubos. 1972. *Only one Earth: The care and maintenance of a small planet*. Gretna: Pelican Books.
- Williams, M., W. Harcourt and R. Cassani (eds). 1990. Human-centred economics: Environment and global sustainability. *Development*. No. 3/4.
- Winpenny, J.T. (ed). 1991. *Development research: The environmental challenge*. London: Overseas Development Institute.
- World Bank. 1992. *World Bank development report 1992*. Oxford: Oxford University Press. 344pp.
- World Bank. 1991. *World Bank development report 1991: The challenge of development*. Oxford: Oxford University Press. 304pp.
- World Bank. 1990. *Social indicators of development 1989*. Data on diskette. Washington: The World Bank.
- World Commission on Environment and Development. 1985. Progress reports of the Secretary General: Working papers considered by the commission at meetings in Geneva, Jakarta, Oslo and Sao Paulo. Geneva and Ottawa: WCED Archive Collection.
- World Commission on Environment and Development. 1987. *Our common future*. New York: Oxford University Press.
- World Resources Institute. 1991. *The 1992 information please environmental almanac*. Boston: Houghton Mifflin. 606pp.
- Yap, N. 1990. NGOs and sustainable development. *International Journal*. 45(1):75–105.
- Young, J. 1990. *Sustaining the Earth*. Cambridge: Harvard University Press. 225pp.

## ► Guidebooks

- Common Heritage Program. 1991. *EDIT glossary: Environment and development terms*. Ottawa: CHP. 31pp.
- Conklin, K.D., R.C. Hodgson and E.D. Watson. 1991. *Sustainable development: A manager's handbook*. Ottawa: National Round Table on the Environment and the Economy. 138pp.
- Corson, W.H. 1990. *Global ecology handbook: What you can do about the environmental crisis*. Boston: Beacon Press. 414pp.
- Crump, A. 1991. *Dictionary of environment and development*. London: Earthscan. 272pp.
- Dalal-Clayton, B. (ed). 1990. *A register of environmental and sustainable development expertise*. London: IIED. 140pp.
- Global Tomorrow Coalition. 1991. *A core bibliography on global issues related to environment, resources, population, and sustainable development*. Washington: GTC. 29pp.
- Global Tomorrow Coalition. 1989. *Sustainable development: A guide to our common future*. Washington: GTC. 77pp.
- Holmberg, J., S. Bass and L. Timberlake. 1991. *Defending the future: A guide to sustainable development*. London: Earthscan. 40pp.
- Lebel, G.G. and H. Kane. 1987. *Sustainable development: A guide to our common future. The report of the World Commission on Environment and Development*. Oxford: Oxford University Press. 74pp.
- Lekel, G.G. and H. Kane. 1990. *Sustainable development: A guide to our common future*. (Spanish). Costa Rica. 117pp.
- Nickerson, M. 1989. *Planning for seven generations: Guideposts for a sustainable future*. Merrickville. 168pp.
- Pearce, D.W. and R. Shaw. 1992. *MIT dictionary of modern economics*. Cambridge: MIT Press. 496pp.
- Rees, W.E. (ed). *Planning for sustainable development: A resource book*. Vancouver: UBC Centre for Human Settlements. 145pp.
- Sachs, W. (ed). 1992. *The development dictionary: A guide to knowledge as power*. London: Zed Books.
- Thomson, K. 1991. *United Nations Conference on Environment and Development (UNCED): A user's guide*. London: IIED. 36pp.
- Troyer, W. 1990. *Preserving our world: A consumer's guide to the Brundtland report*. Canadian round table series on sustainable development. Ottawa: Warglen International Communications. 128pp.

## Economy and Ecology

Adishesiah, M.S. 1990. *Sustainable development: Its content, scope and prices*. New Delhi: Lancer International in association with India International Centre. 54pp.

African Development Bank, United Nations Development Programme and The World Bank. 1990. *The social dimensions of adjustment: A policy agenda*. Washington: The World Bank.

Ahmad, Y.J., S. El Serafy and E. Lutz (eds). 1989. *Environmental accounting for sustainable development*. A UNEP-World Bank symposium. Washington: The World Bank. 100pp.

Anderson, V. and M. Jacobs. 1991. *The green economy: Sustainable development and the politics of the future*. London: Paul & Co. 256pp.

Archibugi, F. and P. Nijkamp. 1989. *Economy and ecology: Towards sustainable development*. Dordrecht: Kluwer. 348pp.

Ascher, W. and R. Healy. 1990. *Natural resource policymaking in developing countries: Environment, economic growth and income distribution*. Durham: Duke University Press. 223pp.

Asian Development Bank. 1990. *Economic policies for sustainable development*. Manila: ADB. 253pp.

Barbier, E.B. 1989. *Economics, natural resources, scarcity and development: Conventional and alternative views*. London: Earthscan. 223pp.

- Barbier, E.B. 1987. The concept of sustainable economic development. *Environmental Conservation*. 14(2):101–10.
- Barney, G.O., P.H. Freeman and C.A. Uliniski. 1981. *Global 2000: Implications for Canada*. Toronto: Pergamon Press.
- Bartelemus, P.L.P. 1992. Environmental accounting and statistics. *Natural Resources Forum*. 16(1):77–84.
- Bojoe, J., K.G. Maeler and L. Unemo. 1990. *Environment and development: An economic approach*. Nairobi: UNEP. 123pp.
- Bowers, J. 1990. *Economics of the environment: The conservationists' response to the Pearce report*. British Association of Nature Conservationists.
- Brown, M.B. 1992. *Fair trade: Reform and realities in the international trading system*. London: Zed Books. 192pp.
- Cairncross, F. 1992. *Costing the Earth: The challenge for governments, the opportunities for business*. Cambridge: Harvard Business School Press in cooperation with The Economist Books. 341pp.
- Colby, M.E. 1990. *Ecology, economics and social systems: The evolution of the relationship between environmental management and development*. Ph.D. thesis. University of Pennsylvania. 382pp.
- Constanza, R., B. Haskell, L. Cornwell, H. Daly and T. Johnson. 1990. *The ecological economics of sustainability: Making local and short-term goals consistent with global and long-term goals*. Environment working paper No. 32. Washington: The World Bank.
- Costanza, R. (ed). 1990. *Ecological economics: The science and management of sustainability*. Proceedings of a workshop in Maryland. New York: Columbia University Press. 525pp.
- Daly, H.E. 1992. *Steady-state economics: Economics of biophysical equilibrium and moral growth*. London: Earthscan. 304pp.
- Daly, H.E. 1991. *Steady-state economics*. Washington: Island Press. 302pp.
- Daly, H.E. 1990. Towards some operational principles of sustainable development. *Ecological Economics*. 2:1–5.
- Daly, H.E. and J.B. Cobb Jr. 1989. *For the common good: Redirecting the economy toward community, the environment and a sustainable future*. Boston: Beacon Press. 448pp.
- Ekins, P., M. Hillman and R. Hutchison. 1992. *Green economics*. New York: Doubleday.
- Ekins, P. (ed). 1986. *The living economy: A new economics in the making*. New York: Routledge. 398pp.
- Goodland, R. and G. Ledec. 1987. Neo-classical economics and principles of sustainable development. *Ecological Modelling*. 38(1/2):19–46.
- Goodland, R. 1990. *Race to save the tropics: Ecology and economics for a sustainable future*. Washington: Island Press. 219pp.
- Goodland, R., H. Daly and S. El Serafy (eds). 1991. *Environmentally sustainable economic development: Building on Brundtland*. Environment Department working paper No. 46. Washington: The World Bank.
- Hansen, S., H.F. Ludwig, G.B. Votaw and M. Kumar. 1990. *Economic policies for sustainable development*. Manila: Asian Development Bank. 253pp.
- Hansen, S. 1990. Macroeconomic policies and sustainable development in the Third World. *Journal of International Development*. 2(4):533–57.
- Henderson, H. 1990. From economism to systems theory and new indicators of development. *Technological Forecasting and Social Change*. 37(3):213–33.
- Henderson, H. 1990. Beyond economics: New indicators for culturally-specific, sustainable development. *Development*. No. 3/4:60–8.
- Jacobs, M. 1991. *The green economy: Environment, sustainable development and the politics of the future*. London: Pluto Press.
- Johannes, R.E. (ed). 1989. *Traditional ecological knowledge: A collection of essays*. Cambridge: IUCN Publications. 80pp.
- Katz, A.S. 1988. *The design of sustainable development: Economic and environmental values coalescing origins, theory and application*. Ph.D. thesis. Tufts University. 273pp.
- Klaassen, G.A.J. and J.B. Opschoor. 1991. Economics of sustainability or the sustainability of economics: Different paradigms. *Ecological Economics*. 4:93–115.
- Lafontaine, A. 1990. Environmental aspects of sustainable development: The role of the World Bank. M.A. thesis. Carleton University.

- Lubchenco, J. et al. 1992. The sustainable biosphere initiative: An ecological research agenda. *Ecology*. 72(2):371–412.
- MacNeill, J., P. Winsemius and Taizo Yukushiji. 1991. *Beyond interdependence: The meshing of the world's economy and Earth's ecology*. New York: Oxford University Press. 159 pp.
- MacNeill, J. 1989. Strategies for sustainable economic development. *Scientific American*. Special issue. 261(3):154–65.
- Markandya, A. and D.W. Pearce. 1988. Natural environments and the social rate of discount. *Project Appraisal*. 3(1).
- Markandya, A. 1992. *Earthscan reader in environmental economics*. London: Earthscan. 350pp.
- McCormick, F. 1991. Ecological prerequisites to sustainable development in lesser-developed countries. Conference paper for the 76th annual meeting of the Ecological Society of America. *Bulletin of the Ecological Society of America*. 72(2 suppl).
- Nijkamp, P. 1990. *Regional sustainable development and natural resource use*. Proceedings of the World Bank annual conference on development economics. Washington: The World Bank.
- Orians, G.H. 1990. Ecological concepts of sustainability. *Environment*. 32(9)11–39.
- Pearce, D.W., E. Barbier and A. Markandya. 1991. *Sustainable development: Economics and environment in the Third World*. London: Earthscan. 228pp.
- Pearce, D. (ed) 1991. *Blueprint 2: Greening the world economy*. London: Earthscan. 232pp.
- Pearce, D.W. and R.K. Turner. 1990. *Economics of Natural Resources & the Environment*. Baltimore: Johns Hopkins University Press. 320pp.
- Pearce, D.W., E. Barbier and A. Markandya. 1990. *Sustainable development*. London: Billing and Sons.
- Pearce, D.W., A. Markandya and E. Barbier. 1990. *Blueprint for a green economy*. London: Earthscan.
- Pezzey, J. 1989. *Economic analysis of sustainable growth and sustainable development*. Environment Department working paper No. 15. New York: The World Bank.
- Potvin, J.R. 1991. *Indicators of ecologically-sustainable development*. Synthesized workshop proceedings, available in English and French. Ottawa: Canadian Environmental Advisory Council. 45pp.
- Redclift, M. 1988. Sustainable development and the market: A framework for analysis. *Futures*. 20(6):635–50.
- Rich, B. The emperor's new clothes: The World Bank and environmental reform. *World Policy Journal*. 7(2):305–29.
- Schramm, G. and J.J. Warford. 1989. *Environmental management and economic development*. Baltimore: Johns Hopkins University Press. 208pp.
- Schumacher, E.F. 1974. *Small is beautiful: A study of economics as if people mattered*. London: Abacus.
- Simonis, U.E. 1989. Ecological modernization of the industrial society: Three strategic elements. *International Social Science Journal*. 41(3):347–62.
- Stone, R.D. and E. Hamilton. 1991. *Global economics and the environment: Toward sustainable rural development in the Third World*. Based on conference papers. New York: World Resources Institute. 61pp.
- Strong, M.F. 1991. Saving the planet: Environmentally-advantaged technologies for economic growth. *Business Week* special advertising section. No. 3246:85.
- The Group of Green Economists. 1992. *Ecological economics: A practical programme for global reform*. London: Zed Books. 192pp.
- Tisdell, C.A. 1988. Sustainable development: Differing perspectives of ecologists and economists, and relevance to LDCs. *World Development*. 6(3):373–84.
- U.S. Environmental Protection Agency. 1990. *Environmental investments: The cost of a clean environment*. Washington: EPA.
- Van den Bergh, J. and P. Nijkamp. 1991. A dynamic economic-ecological model for regional sustainable development. *Journal of Environmental Systems*. 20(3):189–214.
- Warford, J.L., N. Myers and R. Repetto. 1987. Environmental management and economic development: Special edition. *Annals of Regional Science*. No. 21:1–123.
- Winpenny, J.T. 1991. *Values for the environment: A guide to economic appraisal*. Overseas Development Institute.

## **Law and Public Policy**

Bates, G. 1991. The legal implications of sustainable development. *Science of the Total Environment*. 108(1/2):97–101.

Experts Group on Environmental Law of the World. 1987. *Environmental protection and sustainable development: Legal principles and recommendations*. Prepared for the World Commission on Environment and Development and published jointly with Martinus Nijhoff. 196pp.

Gamman, J.K. 1990. *Environmental policy implementation in developing countries*. Ph.D. thesis. Cambridge: MIT.

Glennon, M.J. 1990. Has international law failed the elephant? *American Journal of International Law*. 84(1):1–43.

Holmberg, J. (ed). 1992. *Policies for a small planet*. London: Earthscan.

IUCN Environmental Law Centre. 1989. *Status of multilateral treaties in the field of environment and conservation*. EPL occasional paper No. 1. Second edition. Cambridge: IUCN Publications.

Knight, C.F. 1991. Effects of national environmental regulation on international trade and investment: Selected issues. *Pacific Basin Law Journal*. 10:212–23.

Munro, R.D., J.G. Lammers and E.B. Weiss. 1989. Environmental protection and sustainable development: Legal principles and recommendations. *American Journal of International Law*. 83(3):685–7.

Pain, N. 1991. Sustainable development: Dealing with the concept in the Australian legal framework and suggestions for change to that framework and beyond. *Science of the Total Environment*. 108(1/2):151–61.

Saunders, J.O. (ed). 1990. *The legal challenge of sustainable development: Essays from the fourth institute conference on natural resources law*. Calgary: Canadian Institute of Resources Law. 401pp.

Von Weizsacker, Ernst U and J. Jesinghaus. 1992. *Ecological tax reform: A policy proposal for sustainable development*. London: Zed Books. 96pp.

## **Social and Community Issues and Solutions**

### ► Ethics, Spirituality and Religion

Engel, J.R. and J.G. Engel (eds). 1992. *Ethics of environment and development: Global challenge and international response*. London: Belhaven Press. 256pp.

Nef, J., J. Vanderkop and H. Wiseman. 1989. *Ethics and technology: Ethical choices in the age of pervasive technology*. Toronto: Wall and Thompson. 179pp.

Takala, M. 1991. Environmental awareness and human activity—special issue: The psychological dimensions of global change. *International Journal of Psychology*. 26(5):585–97

Turner, R.K. and D.W. Pearce. 1990. *Ethical foundations of sustainable economic development*. London: IIED. 37pp.

### ► Population and Carrying Capacity

Davis, K. and M. Bernstam. (eds). 1991. *Resources, environment and population: Present knowledge, future options*. Population and Development Review No. 16. New York: Population Council. 423pp.

Ehrlich, P.R. and A.H. Ehrlich. 1990. *Population explosion*. New York: Simon and Schuster. 320pp.

Fergusonbisson, D. 1992. Rational land management in the face of demographic pressure: Obstacles and opportunities for rural men and women. *Ambio*. 21(1):90–4.

Gilbert, A.J. and L.C. Braat. 1991. *Modelling for population and sustainable development*. London: Routledge. 261pp.

Mahar, D.J. and R. Goodland (ed). 1985. *Rapid population growth and human carrying-capacity: Two perspectives*. Staff working paper No. 690 and Population and Development Series No. 15. Washington: The World Bank. 115pp.

Mwalyosi, R.B.B. 1991. Population growth, carrying-capacity and sustainable development in Southwest Masailand. *Journal of Environmental Management*. 33(2):175–87.

Repetto R. 1989. Population, resources, environment: An uncertain future. *Population Bulletin*. 42(2):14–34.

Sarre, P. (ed). 1991. *Environment, population and development*. England: Hodder. 304pp.

United Nations Fund for Population Activities. 1991. *Population and the environment: The challenges ahead*. New York: UNFPA. 44pp.



United Nations Fund for Population Activities. 1991. *The state of world population 1991*. New York: UNFPA.

Western, S. 1988. Carrying-capacity, population growth and sustainable development: A case study from the Philippines. *Journal of Environmental Management*. 27(4):347-67.

### ► Human Settlement

Canfield, C. (ed). 1990. *Ecocity conference 1990: Report of the first international ecocity conference*. Berkeley: Urban Ecology. 128pp.

Institute of Urban Studies. 1991. *Sustainable cities*. Newsletter supplement. Winnipeg: IUS.

Maclaren, V.W. 1992. *Sustainable Urban Development In Canada: From Concept To Practice*. Toronto: ICURR Press. 3 Volumes.

Nicolson-Lord, D. 1987. *The greening of cities*. London: Routledge.

OECD. 1991. *Environmental policies for cities in the 1990s*. Paris: OECD. 91pp.

Stren, R., R. White and J. Whitney. 1990. *Sustainable cities: Urbanization and the environment in international perspective*. Presentations from a colloquium on human settlements and sustainable developments, in Toronto. Boulder: Westview. 365pp.

United Nations Centre for Human Settlement. 1989. *Urbanization and sustainable development in the Third World: An unrecognized global issue*. Nairobi: UNCHS (Habitat). 78pp.

University of Toronto. 1990. *Human settlements and sustainable developments: An international colloquium on urbanization and the environment*. Toronto: University of Toronto.

### ► Poverty and Well-being of the people

Brown, J.W. 1988. *Poverty and environmental degradation: Basic concerns for U.S. cooperation with developing countries*. Washington: World Resources Institute. 70pp.

Chambers, R. 1987. *Poverty, environment and the World Bank: The opportunity for a new professionalism*. Paper prepared for Strategic Planning and Review Department, World Bank. Brighton: University of Sussex Institute of Development Studies.

Demery, L. and T. Addison. 1987. *Alleviation of poverty under structural adjustment*. Washington: The World Bank.

Durning, A.B. 1989. *Action at the grassroots: Fighting poverty and environmental decline*. Washington: Worldwatch Institute. 70pp.

Holloway, R. 1989. *Doing development: Governments, NGOs and the rural poor in Asia*. London: Earthscan. 233pp.

Jackson, B. 1990. *Poverty and the planet: A question of survival*. London: Penguin Books. 226pp.

Jagannathan, N.V. 1989. *Poverty, public policies and the environment*. Environment working paper No. 24. Washington: The World Bank.

Kanbur, R. 1990. *Poverty and the social dimensions of structural adjustment in Côte d'Ivoire*. Social dimensions of adjustment in sub-Saharan Africa. Working paper No. 2. Washington: The World Bank.

Karaosmanoglu, A. 1989. *Poverty and prosperity: The two realities of Asian development*. Washington: The World Bank. 71pp.

Leonard, H.J. 1989. *Environment and the poor: Development strategies for a common agenda*. New Brunswick: Transaction Books. 222pp.

Lipton, M. 1989. *Attacking undernutrition and poverty: Some issues of adaptation and sustainability*. Ithaca: Cornell University. 35pp.

Pan American Health Organization. 1990. *Health, the environment and poverty in the Americas: A position paper*. Washington: Pan American Health Organization. 63pp.

Streeten, P. and Associates. 1981. *First things first: Meeting basic needs in developing countries*. Oxford: Oxford University Press. 206pp.

World Health Organization. 1992. *Our planet, our health*. Geneva: WHO Commission on Health and the Environment.

World Bank. 1990. *World development report 1990: Poverty*. Washington: The World Bank. 260pp.

Yunus, M. (ed). *Grameen dialogue*. No. 8. Dhaka: Grameen Trust.

## ► Community and Peoples' Participation

Asian NGO Coalition for Agrarian Reform and Rural Development. 1989. *People's participation and environmentally-sustainable development*. Proceedings from an inter-regional consultation in the Philippines in 1989. Manila: Makati. 185pp.

Asian NGO Coalition for Agrarian Reform and Rural Development. 1990. *Southeast Asia regional consultation on people's participation in environmentally-sustainable development*. Philippines: ANGOC.

Berkes, F. 1989. *Common property resources: Ecology and community-based sustainable development*. Papers from the 1986 Conference on Conservation and Development: Implementing the World Conservation Strategy (1986: Ottawa) and World Congress of Ecology (1986: Syracuse, N.Y.). London: Belhaven Press. 320pp.

Burkey, S. 1992. *People first: A guide to self-reliant participatory rural development*. London: Zed Books. 256pp.

Gallopin, G.C., P. Gutman and H. Maletta. 1989. Global impoverishment, sustainable development and the environment: A conceptual approach. *International Social Science Journal*. 121:375-97.

Ghai, D.P. and J.M. Vivian (eds). 1992. *Grassroots environmental action: People's participation in sustainable development*. New York: Routledge.

McCay, B.J. 1990. Common property resources: Ecology and community-based sustainable development. Book reviews. *Human Ecology: An Interdisciplinary Journal*. 18(2):214-7.

Rahman, M. 1992. *People's self-development: Perspectives on participatory action research*. London: Zed Books. 256pp.

Rees, W. and M. Roseland. 1991. Sustainable communities: Planning for the 21st century. *Plan Canada*. 31(3):15-26

Thomas-Slayter, B., C. Kabutha and R. Ford. 1991. *Traditional village institutions in environmental management: Erosion control in Katheka, Kenya*. From the ground up case study series No. 1. Washington: World Resources Institute.

Vivian, J.M. 1991. *Greening at the grassroots: People's participation in sustainable development*. UNSRID discussion paper No. 22. 25pp.

Warren, D.M. 1991. *Using indigenous knowledge in agricultural development*. World Bank discussion paper No. 127. Washington: The World Bank.

Wismer, S.K. 1990. *Planning for sustainable development in Canada: A community-based approach*. Ph.D. thesis: University of Waterloo. Vol. 51/05-A Dissertation Abstracts International: 1805.

## ► Education and Sustainable Livelihoods

Asian-Pacific Bureau of Adult Education. 1991. Regional trends in sustainable development. *ASPBAE Courier*. 51(April):54pp.

Bandhu, D., H. Singh and A.K. Maitra. 1990. *Environmental education and sustainable development*. New Delhi: Indian Environmental Society. 538pp.

Brown, J.L., P. Gotsch, F. Cotterell, T. Crop, L.W. Murchio, L.W. Murchio, S. Talis and M. Varley. 1991. *A sustainable development curriculum framework for world history and cultures*. Global Learning. 300pp.

CEIP Fund. 1989. *The complete guide to environmental careers*. Washington: Island Press. 328pp.

Chambers, R. 1983. *Rural development: Putting the last first*. New York: Longman.

Chambers, R. 1987. *Sustainable rural livelihoods: A strategy for people, environment and development*. Brighton: University of Sussex Institute of Development Studies. 32pp.

Disinger, J.F. 1990. Environmental education for sustainable development? *Journal of Environment Education*. 21(4):3-6.

## ► Woman and Youth

Carr, M. 1984. *Blacksmith, baker, roofing-sheet maker: Employment for rural women in developing countries*. London: Intermediate Technology. 148pp.

Dankelman, I. and J. Davidson. 1988. *Women and environment in the Third World: Alliance for the future*. London: Earthscan. 210pp.

De Villiers, M. 1989. The youth perspective: Accountability and responsibility. *Development*. No. 2/3:61-64.

Elson, D. (ed). 1991. *Male bias in the development process*. Contemporary issues in development studies. Manchester: Manchester University Press.

Gee, D. 1992. *Eco-nomics for children: What politicians should be doing for prosperity, posterity and the planet*. London: Earthscan. 112pp.

Lewenhak, S. 1992. *The revaluation of women's work*. London: Earthscan. 288pp.

Sontheimer, S.A. 1991. *Women and the environment, a reader: Crisis and development in the Third World*. New York: Monthly Review Press. 205pp.

UNICEF. 1989. *Children and environment: A UNICEF policy review*. New York. 32pp.

Vandana, S. 1988. *Staying alive: Women, ecology and development*. Third World Network.

## **Environment and Natural Resources**

### ► **Biological Diversity**

Long, S.P., M.B. Jones and M.J. Roberts. 1991. *Primary productivity of grass ecosystems of the tropics and sub-tropics*. London: Chapman and Hall. 288pp.

Mangun, W.R. 1991. *Public policy issues in wildlife management*. New York: Greenwood Press. 196pp.

McNeely, J.A. 1988. *Economics and biological diversity: Developing and using economic incentives to conserve biological resources*. Cambridge University Press: IUCN Publications.

Peakall, D.B. 1991. *Animal biomarkers as pollution indicators*. London: Chapman and Hall. 320pp.

Poore, D. and J. Sayer. 1991. *The management of tropical moist forest lands: Ecological guidelines*. Second edition. Cambridge: IUCN Publications. 76pp.

Reid, W.V. and K.R. Miller. 1989. *Keeping options alive: The scientific basis for conserving biodiversity*. Washington: World Resources Institute. 136pp.

Renecker, L.A. and R.J. Hudson (eds). 1991. *Wildlife production: Conservation and sustainable development*. Fairbanks: University of Alaska. 601pp.

Slayter, R.O. 1991. Conservation in our changing world. *Environmental Conservation*. 18(1):7-18.

Swanson, T.M. and E.B. Barbier (ed). 1992. *Economics for the wilds: Wildlife, wildlands, diversity and development*. London: Earthscan. 240pp.

Verwey, W.D. (ed). 1989. *Nature management and sustainable development*. Papers presented at an international congress in the Netherlands, 1988. Amsterdam: IOS. 531pp.

Wilson, E.O. (ed). 1988. *Biodiversity*. Washington: National Academy Press.

World Conservation Union, United Nations Environment Programme and World Resources Institute. 1992. *Global diversity strategy: Guidelines for action to save, study and use Earth's biotic wealth sustainably and equitably*. Washington: IUCN, UNEP and WRI.

World Conservation Monitoring Centre. 1990. *1990 United Nations list of national parks and protected areas*. Cambridge: IUCN Publications. 284pp.

World Conservation Monitoring Centre. 1990. *World plant conservation bibliography*. Cambridge: IUCN Publications. 660pp.

World Heritage Committee. 1991. *Masterworks of man and nature: Preserving our world heritage*. Produced in cooperation with Harper-MacRae of Australia. Cambridge: IUCN Publications. 600pp.

World Conservation Monitoring Centre. 1990. *The 1990 Red List of threatened animals*. Cambridge: IUCN Publications. Distributed in the USA and Canada through Island Press. 228pp.

Wilson, E.O. 1989. Threats to biodiversity. *Scientific American*. 261(3)108-116.

### ► **Environment**

Barde, J.P. and D.W. Pearce. 1991. *Valuing the environment: Six case studies*. London: Earthscan. 224pp.

Chase, S., E. Irving, N. Long and J. Pinkelman. 1987. *Managing natural resources for sustainable development*. Washington: Agency for International Development. 53pp.

CUSO Education Department. 1989. *Here to stay: A resource kit on environmentally-sustainable development*. Ottawa: CUSO.

Dugan, P. 1990. *Wetland conservation: A review of current issues and required action*. Cambridge: IUCN Publications. 96pp.

Eckholm, E. 1979. *The dispossessed of the Earth: Land reform and sustainable development*.

Worldwatch Paper 30. Washington: Worldwatch Institute. 47pp.

Environment and Natural Resources Group. 1992. *UNDP's handbook and guidelines for environmental management and sustainable development*. New York: UNDP. 72pp.

Frederick, D.K. and R.A. Sedjo (eds). 1991. *America's renewable resources*. Washington: Resources for the Future.

Gourlay, K.A. 1992. *World of waste: Dilemmas of industrial development*. London: Zed Books. 256pp.

Manning, E.W. 1990. Geographic information: Systems and sustainable development. *Government Information Quarterly*. 7(3):329-42.

Organization for Economic Cooperation and Development. 1991. *The state of the environment*. Paris: OECD.

Southgate, D.D. and J.F. Disinger, (eds). 1987. *Sustainable resource development in the Third World: Selected papers from an international symposium*. Columbus: Westview Special Studies in Natural Resources and Energy Management. 181pp.

United Nations Development Programme. 1992. *Sustainable development and the environment*. New York: UNDP. 32pp.

## ► Energy and Global Climate Change

Bassan, E. and T.S. Wood (eds). 1985. *Environmentally-sound small-scale energy projects: Guidelines for planning*. Alexandria: VITA Publications. 150pp.

Clark W.C. and R.E. Munn (eds). 1987. *Sustainable development of the biosphere*. Cambridge: Cambridge University Press. 450pp.

Hayes, P. and K.R. Smith (eds). 1992. *Global greenhouse regime: Who pays?* London: Earthscan. 256pp.

Houghton T., G.J. Jenkins and J.J. Ephraums (eds). 1990. *Climate change: The IPCC scientific assessment*. Intergovernmental Panel on Climate Change. Cambridge: Cambridge University Press. 403pp.

Institute for Local Self-Reliance. 1991. *Beyond 40 per cent: Record-setting recycling and composting programs*. Washington: ILSR. 264pp.

Intergovernmental Panel on Climate Change staff. 1991. *Climate change: The IPCC impact assessment*. Washington: AGPS Publication. 296pp.

Intergovernmental Panel on Climate Change staff. 1990. *Climate change: The IPCC response strategies*. Washington: Island Press. 272pp.

MacKenzie, J.J. 1991. *Toward a sustainable energy future: The critical role of rational energy pricing*. WRI Issues and Ideas. Washington: World Resources Institute.

Meheshwar, D. 1991. *Renewable energy: Environment and development*. New Delhi: Konark. 244pp.

National Academy of Sciences. 1991. *Policy implications of greenhouse warming*. Washington: National Academy Press.

Pachuri, R.K. 1991. *Energy, environment and development*. Tata Energy Research Institute series. New York: Advent. 2 vols.

Sachs, I. and D. Silk. 1990. *Food and energy: Strategies for sustainable development*. Tokyo: UNU Press. 83pp.

Suliman, M. (ed). 1990. *The greenhouse effect and its impact on Africa*. London: Institute for African Alternatives.

Tata Energy Research Institute. 1990. *Energy, environment, development*. Proceedings of the 12th conference of the International Association for Energy Economics. New Delhi: Har-Anand Publications in association with Vikas Publishing House.

U.S. Agency for International Development. 1989. *Energy inefficiency in the Asia/Near East region and its environmental implications*. Washington: RGG/Hagler, Bailly Inc.

U.S. Congress. 1991. *Energy in developing countries*. Washington: Office of Technology.

United Nations. 1991. *Energy systems, environment and development: A Reader*. New York: Atlas bulletin series No. 6. 400pp.

World Commission on Environment and Development. 1987. *Energy 2000: A global strategy for sustainable development*. A report for WCED. London: Zed Books. 76pp.

## ► Food and Agriculture

Altieri, M.A. 1987. *Agroecology: The scientific basis of alternative agriculture*. Boulder: Westview Press. 227pp.

Anderson, J.R. and J. Thampapillai. 1990. *Soil conservation in developing countries: Project and policy intervention*. Policy and research report No. 8. Washington: The World Bank.

Banskota, M., N.S. Jodha and T. Partap (ed). 1992. *Sustainable mountain agriculture: Perspectives and issues*. Volume 1. New Delhi: Oxford & IBH Publishing. 389 pp.

Brinkerhoff, D.W. and A.A. Goldsmith. 1990. *Institutional sustainability in agriculture and rural development: A global perspective*. New York: Praeger. 262pp.

Commonwealth Secretariat. 1985. *Conservation for sustainable development: A study on the scope for Commonwealth action on soil erosion, desertification and related drought problems in Commonwealth Africa*. London: Commonwealth Secretariat. 70pp.

Consultative Group on International Agricultural Research. 1989. *Sustainable agricultural production: Implications for international agricultural research*. Rome: FAO. 130pp.

Conway, G.R. and E.B. Barbier. 1990. *After the Green Revolution: Sustainable agriculture for development*. London: Earthscan. 205pp.

Dasgupta, F. and K.G. Maler. 1989. Social cost benefit analysis and soil erosion. *Economy and Ecology*. 1989:221–259.

David, R. 1991. *Food security and the environment: A select annotated bibliography*. Development bibliographies No. 4. Brighton: Institute of Development Studies. 53pp.

Dover, M. and L.M. Talbot. 1987. *To feed the earth: Agroecology for sustainable development*. Washington: World Resources Institute. 100pp.

Edwards, C.A., R. Lal, P. Madden, R.H. Miller and G. House. 1990. *Sustainable agricultural systems*. Iowa: Soil and Water Conservation Society. 696 pp.

Faeth, P., R. Repetto and K. Kroll. 1991. *Paying the farm bill: U.S. agricultural policy and the transition to sustainable agriculture*. Washington: World Resources Institute.

Fitspatrick, B., A.A. MacMillan, R. Pantanali, J.G. Williams and A. Carloni. 1988. *Sustainable development in famine-prone areas: Approaches and issues*. International consultation on environment, sustainable development and the role of small farmers. Rome: FAO. 21pp.

Francis, C.A., C.B. Flora and L.D. King. 1990. *Sustainable agriculture in temperate zones*. New York: John Wiley. 487pp.

Ghatak, S. 1988. Towards a second Green Revolution: From chemicals to new techniques in agriculture in the tropics for sustainable development. *Sustainable Environmental Management: Principles and Practice*. 145–69.

Glaeser, B. 1988. A holistic human ecology approach to sustainable agricultural development. *Wissenschaftszentrum Berlin fur Sozialforschung*. 20(6):671–8.

Gregersen H., S. Draper and E. Dieter (eds). 1989. *People and trees: The role of social forestry in sustainable development*. EDI seminar series. Washington: The World Bank. 288pp.

Hansen, M. 1988. *Escape from the pesticide treadmill: Alternatives to pesticides in developing countries*. Mount Vernon: Institute for Consumer Policy Research.

Hanstad, T.M. and M.N. Temple (eds). 1990. *Agrarian reform and grassroots development*. Boulder: Lynne Rienner Publishers.

Hoggart, K. (ed). 1992. *Agricultural change, environment and economy*. Global development and the environment series. London: Mansell.

International Federation of Agricultural Producers. 1990. *Sustainable farming and the role of farmers' organizations*. Paris: IFALP. 62pp.

Minae, S. and R.T. Prinsley (ed). 1989. *Agroforestry for sustainable development: Economic implications*. Proceedings of a workshop held in Swaziland. London: Commonwealth Science Council, with the Swaziland Ministry of Agriculture and Cooperatives. 141pp.

- National Research Council. 1989. *Alternative agriculture*. Washington: Academy Press.
- OECD. 1991. *Food and energy: Strategies for sustainable development*. OECD. 83pp.
- Okigbo, B.N. 1991. *Development of sustainable agricultural production systems in Africa: Roles of international research centres and national agricultural research systems*. Ibadan: IITA. 65pp.
- Parikh, J.K. (ed). 1988. *Sustainable development in agriculture*. Dordrecht: Kluwer. 387pp.
- Ramakrishnan, P.S. 1992. *Shifting agriculture and sustainable development*. Man and the Biosphere series No. 10. Paris: UNESCO.
- Riley, K.W., N. Mateo, G.C. Hawtin and R. Yadar (ed). 1990. *Mountain agriculture and crop genetic resources*. London: Aspect Publishing. 330pp.
- Savenije, H. and A. Huijsman. 1991. *Making haste slowly: Strengthening local environmental management in agricultural development*. Amsterdam: Royal Tropical Institute. 239pp.
- Sivaswamy, R.P. 1992. *Shifting agriculture and sustainable development*. Man and the Biosphere series. New Jersey: Parthenon. 600pp.
- Strong, M.F. 1989. *Ending hunger through sustainable development*. Arturo Tanco Memorial Lecture publication series. New York: Hunger Project. 30pp.
- Southeast Asia Sustainable Agriculture Network. 1991. Report of proceedings at a Southeast Asia SUAN regional planning meeting in Bali. 47pp.
- Walker, P. 1989. *Famine early warning systems: Victims and destitution*. London: Earthscan. 196pp.
- World Bank. 1986. *World development report 1986: Trade and pricing policies in world agriculture*. Washington: The World Bank.
- Zanecchia, A.L. 1991. *Crack in the citadel: Corporate control of food and the transition to sustainable agriculture*. Ph.D. thesis. University of Oregon. 455pp.
- **Forests and Water**
- Baumer, M. 1990. *The potential role of agroforestry in combatting desertification and environmental degradation*. The Netherlands: Technical Centre for Agricultural and Rural Cooperation. 249pp.
- Cook, C.C. and J. Grut. 1989. *Agroforestry in sub-Saharan Africa: A farmer's perspective*. Technical paper No. 112. Washington: The World Bank.
- Easter, K.W., J.A. Dixon and M.M. Hufschmidt. 1991. *Watershed resources management: Studies from Asia and the Pacific*. ISEAS Environment and Development series. Singapore: ASEAN Economic Research Unit.
- Gregersen, H., S. Draper and D. Elz. (eds). 1989. *People and trees: The role of social forestry in sustainable development*. University of Minnesota. 273pp.
- James, W. and J. Niemczynowicz (eds). *Water, development and the environment*. Proceedings of a symposium held in Sweden in 1989. Michigan.
- James, W. and J. Niemczynowicz (eds). 1992. *Water, development and the environment*. Chelsea: Lewis.
- Kerkhof, P. 1990. *Agroforestry in Africa: A survey of project experience*. London: Panos.
- Lundgren, A.L., L.S. Hamilton and N.T. Vergara. 1986. *Strategies for improving the effectiveness of Asia-Pacific forestry research for sustainable development*. Honolulu: East-West Center. 56pp.
- Marchand, M. and H.A. Udo de Haes. 1990. *People's role in wetlands management*. Proceedings of the international conference on wetlands, The Netherlands, 1989. Leiden: Centre for Environmental Studies. 872pp.
- Nair, P.K.R. 1990. *Prospects for agroforestry in the tropics*. Technical paper No. 131. Washington: The World Bank.
- Nair, P.K.R. 1989. *Forestry sciences: Agroforestry systems in the tropics*. Dordrecht: Kluwer. 664pp.
- Newson, M.D. 1992. *Land, water and development: River basin systems and their sustainable management*. Routledge natural environment problems and management series. London: Routledge.
- Poore, D., P. Burgess, J. Palmer, S. Rietbergen and T. Synnott. 1989. *No timber without trees: Sustainability in the tropical forest*. London: Earthscan. 252pp.

Repetto, R. and M. Gillis (eds). 1988. *Public Policy and the Misuse of Forest Resources*. Cambridge: Cambridge University Press. 200pp.

Rocheleau, D., F. Weber and A. Field-Juma. 1988. *Agroforestry in dryland Africa*. Nairobi: ICRAF House. 311pp.

Tillman, G. 1981. *Environmentally-sound small-scale water projects: Guidelines for planning*. New York. 153pp.

Young, A. 1989. *Agroforestry for soil conservation*. United Kingdom: CAB International. 276pp.

### ► Oceans and Coastal Areas

Beller, W., P. D'Ayala and P. Hein (eds). 1990. *Sustainable development and environmental management of small islands*. Man and the Biosphere series No. 5. New Jersey: Parthenon. 420pp.

Beller, W.S. 1987. *Proceedings of the interoceanic workshop on sustainable development and environmental management of small islands*. From a 1986 conference in Puerto Rico. Washington: Department of State. Available from National Technical Information Service, U.S. Department of Commerce. 116pp.

Chua, T.E. and L.F. Scura. 1991. *Managing ASEAN's coastal resources for sustainable development: Roles of policymakers, scientists, donors, media and communities*. Manila: ICLARM. 125pp.

International Centre for Ocean Development. 1992. *The future of the blue planet: moving the oceans into the centre of the global debate on sustainable development*. Halifax: ICOD. 17pp.

Jomo, K.S. 1991. *Fishing for trouble: Malaysian fisheries, sustainable development and inequality*. Occasional papers and reports. Kuala Lumpur: Institute of Advanced Studies.

## **Investment for Sustainable Development**

### ► Military

Sivard, R.L. 1989. *World military and social expenditures*. Washington: War Priorities.

### ► Technology and Training

Carr, M. (ed). 1988. *Sustainable industrial development: Seven case studies*. London: Intermediate Technology Publications. 190pp.

Carr, S.J. 1989. *Technology for small-scale farmers in sub-Saharan Africa: Experience with food crop production in five major ecological zones*. Technical paper No. 109. Washington: The World Bank.

Clark, N. and C. Juma. 1991. *Biotechnology for sustainable development: Policy options for developing countries*. IFIAS research series No. 10. Nairobi: ACTS Press. 117pp.

Elkington, J. and J. Shopley. 1988. *The shrinking planet: U.S. information technology and sustainable development*. Washington: World Resources Institute. 88pp.

Fowler, C., E. Lachkovics, P. Mooney and H. Shard. 1988. The laws of life: Another development and the new biotechnologies. *Development Dialogue* 1988(1/2)

Heaton G., R. Repetto and R. Sobin. 1991. *Transforming technology: An agenda for environmentally-sustainable growth in the 21st century*. Washington: World Resources Institute.

Ingram, G.B. 1990. Management of biosphere reserves for the conservation and utilization of genetic resources: The social choices. *Impact of Science on Society*. 40(2):133-41.

Makofske, W. et al (eds). 1991. *Technology, development and the global environment*. New Jersey: Ramapo College. 315pp.

National Critical Technologies Panel. 1991. *Report of the critical technologies panel*. Washington: U.S. Government Printing Office.

Sasson, A. 1988. *Biotechnologies and development*. Paris: UNESCO.

Science Council of Canada. 1988. *Environmental peacekeepers: Science technology and sustainable development in Canada*. Parallel text in English and French. Ottawa: Science Council of Canada. 48pp.

### ► Credit, Debt and Structural Adjustment

Bakhom, I., H. Bhaskara and C. Chimbano et al. 1989. *Banking the unbankable: Bringing credit to the poor*. Washington: Panos.

- Hansen, S. 1988. *Structural adjustment programs and sustainable development*. Washington: The World Bank for the Committee of International Development Institutions on the Environment.
- Hossain, M. 1988. *Credit for alleviation of rural poverty: The Grameen Bank in Bangladesh*. Washington: International Food Policy Research Institute.
- Miller, M. 1991. *Debt and the environment: Converging crises*. New York: United Nations Publications. 332pp.
- Vaggi, G. (ed). 1992. *From the debt crisis to sustainable development: Changing perspectives on North-South relationships*. New York: St. Martin's.
- **Business**
- Bennet, S.J. 1991. *Ecopreneuring: The complete guide to small business opportunities from the environmental revolution*. New York: Wiley.
- Berle, G. 1991. *Green entrepreneur: Business opportunities that can save the Earth and make you money*. United States: TAB Books.
- Butler, R.W. 1991. Tourism, environment and sustainable development. *Environmental Conservation*. 18(3)201-9.
- Carson, P. and J. Moulden. 1991. *Green is gold: Business talking to business about the environmental revolution*. New York: Harper Business. 224pp.
- David, Rhys. 1991. *The greening of business*. UK: Gower. 200pp.
- Davis, J. 1991. *Greening business: Managing for sustainable development*. Oxford: Blackwell. 220pp.
- De Kadt, E. 1990. *Making the alternative sustainable: Lessons from development for tourism*. Brighton: IDS. 39pp.
- Edwards, F. 1988. *Environmentally-sound tourism in the Caribbean*. Calgary: University of Calgary Press. 143pp.
- Elkington, J. and A. Dunmock. 1991. *Corporate environmentalists: Selling sustainable development, but can they deliver?* The 1991 Greenworld survey. London: SustainAbility. 234pp.
- Elkington, J. and J. Hailes. 1991. *The green business guide*. London: Victor Gollancz Ltd.
- Hopfenbeck, Waldemer. 1992. *Environmental management and marketing: Lessons in green excellence*. New York: Prentice-Hall. 300pp.
- Inskeep, E. and A Savignac. 1991. *Tourism planning: An integrated and sustainable development approach*. VNR tourism and commercial recreation series XIX. New York: Van Nostrand Reinhold. 576pp.
- International Chamber of Commerce. 1990. *The business charter for sustainable development*. Paris: ICC.
- International Chamber of Commerce. 1989. ICC: The business approach to sustainable development. *Development*. No. 2/3:37-9.
- International Institute for Sustainable Development. 1992. *Business strategy for sustainable development: Leadership and accountability for the '90s*. Winnipeg: IISD. 116pp.
- Pedler, M., J. Burgoyne and T. Boydell. 1991. *The learning company: A strategy for sustainable development*. London: McGraw-Hill. 213pp.
- Pennell, A.A., L. Molinaro Jr. and P.E. Choi (eds). 1992. *Business and the environment: A resource guide*. California: Island Press. 375pp.
- Plant, C. and J. Plant (eds). 1991. *Green business: Hope or hoax?*. Hartland: Green Books. 144pp.
- Pretes, M. 1989. *Sustainable development and the entrepreneur: An annotated bibliography of small business development and developing regions*. Whitehorse: Yukon Department of Economic Development. 52pp.
- Schmidheiny, S. 1992. *Changing course: Global business perspectives on development and the environment*. Cambridge: MIT Press. 350pp.
- Simms, C. 1991. *This green business: Impact of environmental issues on strategic management*. England: Horton Publications.
- Stead, W.E., J.G. Stead. 1992. *Management for a small planet: Strategic decision-making for the environment*. England: Sage Publications. 232pp.
- Williams, J. and Brundtland, G.H. (eds). 1990. *The greening of enterprise: Business leaders speak out on environmental issues*. Paris: ICC Publishing. 268pp.



## ► Development Assistance

Canadian International Development Association. 1992. *CIDA's policy for environmental sustainability*. Parallel text in English and French. Hull: Canadian International Development Agency. 22pp.

Conroy, C. and M. Litvinoff. *The greening of aid: Sustainable livelihoods in practice*. London: Earthscan. 302pp.

Eroecal, D. 1991. *Environmental management in developing countries*. Conference proceedings from Paris, October 1990. Some text in French. Paris: OECD. 417pp.

Food and Agriculture Organization. 1990. *Dirección de Asuntos de la Conferencia y el Consejo y de Protocolo, November 1990*. (FAO activities related to environment and sustainable development). Rome: FAO. 27pp.

Gaye, S. 1990. *Glaciers of the desert. Towards sustainable development: Nordic conference on environment and development*. London: Panos Publications. 16pp.

Hisham, M.A., J. Sharma and A. Ngaiza. 1991. *Whose trees: A people's view of forestry aid*. London: Panos Institute. 138pp.

MacNeill, J., J. Cox and D. Runnalls. 1990. *CIDA and sustainable development: How Canada's aid policies can support sustainable development in the Third World more effectively*. Institute for Research on Public Policy. 110pp.

McGaughey, S.E. 1989. Multilateral banks and sustainable development. *Interciencia*. 14(4):193-8.

OECD. 1989. *Strengthening environmental cooperation with developing countries*. Paris: OECD. 147pp.

Reid, W.V., J.N. Barnes and B. Blackwelder. 1988. *Bankrolling successes: A portfolio of sustainable development projects*. Washington: Environmental Policy Study Institute and National Wildlife Federation.

U.S. GPO. 1989. *U.S. development assistance and environmentally sustainable development*. Washington: U.S. Government Printing Office. 406pp.

Van der Klauw, E. 1989. *Environment and development*. The Hague: Ministry of Foreign Affairs. 43pp.

Voorlichtingsdienst Ontwikkelingssamenwerking. 1991. *World of difference: A new framework for development cooperation in the 1990s*. The Hague: SDU Publishers. 343pp.

## **Regional and Country Reports: A Sampling of Available Studies**

### ► General Sources

Adams, W.M. 1990. *Green development: Environment and sustainability in the Third World*. London: Routledge. 255pp.

Winpenny, J.T. 1990. National environmental policies: The scope for government intervention. *The Journal of International Development*. Special edition. No. 2:441-557.

World Resources Institute. 1991. *Directory of country environmental studies*. Washington: World Resources Institute. 171pp.

## ► Africa

Achebe, C., G. Hyden, C. Magadza and A.P. Okeyo. 1990. *Beyond hunger in Africa: Conventional wisdom and an African vision*. Nairobi: Heinemann Kenya in association with James Curry, London. 148pp.

Blackwell, J.M., R.N. Goodwillie and R. Webb. 1992. *Environment and development in Africa: Selected case studies*. Washington: World Bank Publications. 144pp.

Economic Commission for Africa. 1991. *African environment and development agenda: Achieving our development goals through the environment*. Preparations for the Earth Summit. Addis Ababa: ECA. 90pp.

Harrison, P. 1987. *The greening of Africa: Breaking through in the battle for land and food*. London: Paladin.

Institute for Development Studies and Institute for African Alternatives. 1989-1990. *Conference on the alternative development strategies for Africa, University of Dar es Salaam*. Tanzania: IFAA. Four volumes.

Lemba, A. and P. Malaska. 1989. *Africa beyond famine: A report to the Club of Rome*. London: Tycooly. 347pp.

Onimode, B. 1992. *Future for Africa: Beyond the politics of adjustment*. London: Earthscan. 208pp.

SADCC Coordinator for Forestry, Fisheries and Wildlife, government of Malawi. 1988-1991. *Natural resources and the environment: Policies and development strategy*. Malawi: SADCC.

Seidman, A. and F. Anang (eds). 1991. *Twenty-first century Africa: Towards a new vision of self-sustainable development*. Africa World. 342pp.

U.S. Congress. 1991. *Prospects for sustainable development in sub-Saharan Africa: Report by the Committee on Science and Technology, House of Representatives, Ninety-ninth Congress, second session*. Washington: House of Congress report. 88pp.

World Bank. 1989. *Sub-Saharan Africa: From crisis to sustainable growth—a long-term perspective study*. Washington: The World Bank. 300pp.

## ► Asia

Asian Development Bank. 1991. *Asian development outlook 1991*. Contains a major survey of environment and development in Asia. Manila: ADB. 307pp.

Asian NGO Coalition for Agrarian Reform and Rural Development. 1990–91. *Southeast Asia regional consultation on people's participation in environmentally-sustainable development*. Manila: Makati. 2 volumes.

Government of Pakistan. 1991. *Pakistan national report to UNCED 1992*. Karachi: Government of Pakistan – IUCN Pakistan. 164pp.

Government of the Philippines. 1991. *Philippine strategy for sustainable development: An overview*. *Philippine Development*. 17:15–25.

Horberry, J. 1990. Natural resource management for sustainable development: A study of feasible policies, institutions and investment activities in Nepal, with special emphasis on the hills. *Journal of International Development*. 2(4):449–70.

Khator, R. 1991. *Environment, development and politics in India*. Maryland: University Press of America.

Khoshoo, T.N. 1986. *Environmental priorities in India and sustainable development*. New Delhi: Indian Science Congress Association. 224pp.

Qu Geping. 1991. *Environmental management in China*. Beijing: UNEP. 333pp.

Shiva, V. 1991. *Ecology and the politics of survival: Conflicts over natural resources in India*. New Delhi: Sage Publications. 365pp.

Smil, V. 1991. *China's environment: An inquiry into the limits of natural development*. New York: Wiley. 369pp.

Thailand Development Research Institute. 1987. *Thailand natural resources profile: Is the resource base for Thailand's development sustainable?* Bangkok: TDRI. 310pp.

World Bank. 1990. *Indonesia: Sustainable development of forests, land and water*. Washington: World Bank Publications. 190pp.

## ► Europe

Burke, T., N. Robins and A. Trisoglio (eds) 1991. *Environment strategy: Europe 1991*. London: Camden Publishing. 208pp.

Drucker, G. and R. Atkinson. 1991. *The environment in Eastern Europe: 1990*. East European program environmental research series No. 3. Cambridge: IUCN Publications. 64pp.

Economic Commission for Europe. 1990. *ECE and sustainable development: Our contribution to a sustainable future*. New York: United Nations ECE. 29pp.

Finland Council of State. 1991. *Sustainable development and Finland: Council of state report to parliament on sustainable development*. Helsinki: Finnish Government Printing Centre. 98pp.

Flint, V., Y. Shchadilov and Y. Yazan. 1991. *Environmental status reports: 1991 volume three—USSR*. Cambridge: IUCN Publications. 98pp. [Available in the U.S. and Canada through Island Press.]

Lang, I. 1989. Linking environment protection and economic development in Hungary. *Development*. No. 2/3:107–11.

Ministry of Environment, Norway. 1990. *Action for a common future*. Proceedings of the regional ministerial conference concerning the report of the World Commission on Environment and Development in the ECE region. Oslo: Falch Hurtigtrykk. 54pp.

Ministry of the Environment, Norway. 1988–1989. *Report to the Storting No. 46*. Environment and development program for Norway's follow-up of the report of the World Commission on Environment and Development in the ECE region. Oslo: Falch Hurtigtrykk. 74pp.

Minister of the Environment, Sweden. 1991. *Swedish national report to UNCED 1992: United Nations Conference on Environment and Development*. Stockholm: Ministry of the Environment.

U.K. Department of the Environment. 1989. *Sustaining our common future: A progress report by the United Kingdom on implementing sustainable development*. London. 37pp.

### ► Latin America and the Caribbean

Ashuvud, J. and C. Folke. 1991. Environmental conservation for development in Central America: Linking the natural environment and the economy. *Ecology, Economy and Environment*. 1:253–70.

Browder, J.O. (ed). 1989. *Fragile lands of Latin America: Strategies for sustainable development*. Boulder: Westview Press. 352pp.

Carrizosa Umana, J. 1989. Desarrollo sostenible en Colombia: Sus tendencias y limites. (Sustainable development in Colombia: Trends and limits). *Estrategia, Economica Y Financiera*. 129:21–8.

Cox, J. and C. Embree. 1990. *Sustainable development in the Caribbean: A report on the public policy implications of sustainable development at the Caribbean region conference, Kingston, Jamaica*. Halifax: Institute for Research on Public Policy. 248pp.

De Onis, J. 1992. *The green cathedral: Sustainable development of Amazonia*. Oxford: Oxford University Press. 288pp.

ECLAC. 1991. *Sustainable development: Changing production patterns, social equity and the environment*. Santiago: ECLAC. 146pp.

Fundacion Jorge Esteban Roulet. 1990. *Latinoamerica: Medio ambiente y desarrollo*. Papers presented at a conference on environmental problems in Latin America organized by the Fundacion Jorge Esteban Roulet. Buenos Aires. 352pp.

Gallopin, G.C., M. Winograd and I.A. Gomez. 1991. *Ambiente y Desarrollo en America Latina y el Caribe: Problemas, Oportunidades y Prioridades*. Rio Negro: Grupo de Analisis de Sistemas Ecologicos, Bariloche Institute. 105pp.

Goldrich, D. and D.V. Carruthers. 1992. Sustainable development in Mexico: The international politics of crisis or opportunity. *Latin American Perspectives*. 19(1):97–122.

Goodman, D. and A. Hall (eds). 1990. *The Future of Amazonia: Destruction or sustainable development?* England: St. Martin's Press. 456pp.

Goodman, D. and M.R. Redclift (ed). 1991. *Environment and development in Latin America: The politics of sustainability*. England: St. Martin's Press. 238pp.

New World Dialogue on Environment and Development. 1991. *Compact for a new world: An open letter to the heads of state and government and legislators of America*. Washington: World Resources Institute. 26pp.

Quesadamateo, C.A. and V. Solisrivera. 1990. Costa Rica: National strategy for sustainable development—a summary. *Futures*. 22(4):396–416.

Towle, J.A. and B.G. Potter. 1989. *Organizational profiles of who is doing what in support of programs for sustainable resource development and environmental management in the Eastern Caribbean: A guide to donor organizations and technical assistance agencies*. St. Thomas: Island Resources Foundation. 109pp.

UNDP. 1990. *Our own agenda: Latin American and Caribbean Commission on Development and Environment*. Washington: Inter-American Development Bank and UNDP.

### ► North America

Canadian Environmental Advisory Council. 1987. *Canada and sustainable development*. Ottawa: Environmental Advisory Council. 100pp.

Environment Canada. 1991. *Canada's national report to the United Nations Conference on Environment and Development, Brazil, June 1992*. Ottawa: Department of Supply and Services. 149pp.

Environment Canada. 1990. *Canada's green plan for a healthy environment*. Three documents. Ottawa: Environment Canada.

Gale, R.J.P. 1990. *Environment and development: A case study of public interviews to the Macdonald Commission on the Economy*. Ph.D. thesis. University of Waterloo.

Hamilton, H., M. Hollingworth and M. Bloomfield (eds). 1989. *Our common future: A Canadian response to the challenge of sustainable development*. Ottawa: Harmony Foundation. 85pp.

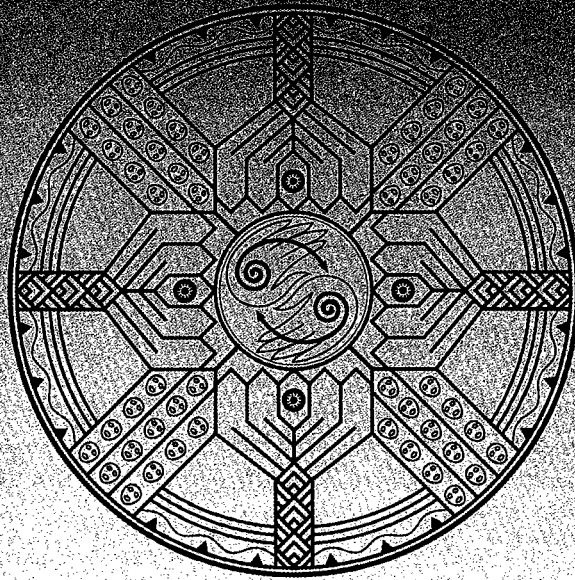
Keating, M. 1989. *Toward a common future: A report on sustainable development and its implications for Canada*. Ottawa: Supply and Services Canada. 47pp.

► **South Pacific and Australia**

Cameron, J.I. 1991. Policies for achieving ecologically-sustainable development. *Science Total Environment*. 108(1/2):71-86.

Winslow, D. 1992. Sustainable development in New Caledonia. *Pacific Affairs*. 64(4):489-505





**AUDIO-VISUAL**

---

## Audio-Visual

Like any medium focused on an “emerging” issue, audio-visual productions about sustainable development—and unsustainable development—were until recently, hampered by lack of funding, distribution, and a suspicion that public interest may be fleeting. Today, those impediments are being peeled away rapidly.

Since the mid-1980s, public awareness has been built on unforgettable environmental imagery: Kenyan photographer and video producer Mohamed Amin was the first to witness, and relay to the rest of the world, the devastating effects of drought in Ethiopia. His work brought hundreds of television cameras to Africa. Sam LaBudde’s clandestine video footage of dolphins dying brutally in the nets of tuna fishermen inspired an equally powerful response—as have pictures and footage of ecologically ruined towns in Romania, the eerie desolation of the Aral Sea, lakes of oil in the Kuwaiti desert, the Exxon Valdez, and the topless reactor at Chernobyl, photographed by a nervous cameraman from the window of an airplane.

Through the determined efforts of a few visionary organizations, the financing and distribution of productions about sustainable development are improving. Two innovative groups are at the leading edge: Television Trust for the Environment (TVE) helps finance, plan, and produce AV coverage of the environment, development, health, and democratization issues, with special emphasis on working with independent producers and NGOs in the South. The Hamburg-based One World Group of Broadcasters is an international consortium of broadcasters co-producing television programs dedicated to furthering the cause of sustainable development and world peace, and “ensuring the voices of the South are heard in the North.”

In this part of the directory our listings originate almost exclusively in the North, a symptom of the gap in availability and promotion of AV productions between the North and the South. We hope this gap will be addressed in future editions.

## International Productions

### INTERNATIONAL TELEVISION TRUST FOR THE ENVIRONMENT

The International Television Trust for the Environment is an editorially-independent trust co-sponsored by the United Nations Environment Programme (UNEP), Central Television (UK), and the World Wide Fund for Nature (WWF). More than 40 other granting organizations channel money through TVE to help co-produce programs. This seed funding has enabled the production of more than 90 editorially-independent television programs. TVE also distributes thousands of video cassettes and regularly up-dates information on the latest programs.

TVE's mission is to inform and educate the viewing public worldwide on topical issues relating to the environment and development, and on the links between the two. It does this by securing the production and distribution of audio-visual materials, together with educational back-up information, and by publishing information about new audio-visual programs. In fulfilling this mission, TVE pays special attention to the needs of low-income countries.

TVE helps NGOs, producers, policy-makers, broadcasters and educational institutions based in the South and in Central and Eastern Europe, by distributing video-cassette how-to films on development issues and training. It also provides a database of producers and film crews outside the West, along with an outreach educational service for the South which provides information packs for schools, colleges, NGOs and resource centres.

TVE produces news material on development issues for broadcasters worldwide and helps producers from the South gain access to news programs.

In addition, TVE publishes *Moving Pictures Bulletin*, an excellent guide to films on development and the environment. This Bulletin heads TVE's Moving Picture Project which also includes a database, "yellow pages" referral service of films on environment, development and health issues, and a training programme to help filmmakers in the South make their own films on regional environmental issues.

#### ► Developing Stories:

This BBC/TVE series features six films by Southern filmmakers offering an alternative Southern perspective on the Earth Summit debate. *Developing Stories* will be simulcast in 84 countries in conjunction with the Earth Summit. A brief description of these six films follows. For a more detailed overview, see *Moving Pictures Bulletin*.

#### *Lucia*

Produced in the Philippines by Manila Inter-Film in 1992, this 90-minute drama chronicles the struggle of a family in a fishing village ravaged by oil pollution from a tanker sunk off the coast.

#### *Rabi*

Produced in Burkina Faso in 1992 by Cinecom Production, this hour-long modern fable uses traditional African storytelling techniques around the theme of respect for nature. The theme is illustrated by the relationships between a boy with a tortoise, his father, and a wise man.

#### *Life and Debt*

Produced in Brazil in 1992 by Octavio Bezerra Production Cinematographicas, this 50-minute film argues the problem of street children results from the same pressures that have led to the exploitation of the Amazon rainforest. Both, it contends, derive from Brazil's massive USD 130 billion debt, first incurred 500 years ago with the Spanish conquest of the New World.

#### *Seeds of Plenty, Seeds of Sorrow*

Produced in India in 1992, by Media Workshop, this 52-minute documentary asks who has benefited from the Green Revolution. Although India was able to double the production of cereals in six years and become nominally self-sufficient in food production, what price was paid? Today the Green Revolution is blamed for the creation of a new class of landless people, living in serfdom. The film explores the dark side of the Green Revolution.

#### *And the Dish Ran Away with the Spoon*

Produced in Trinidad and Tobago in 1992 by Banyan Ltd, this 50-minute film is a wry, irreverent look at cultural imperialism in the Caribbean. Using interviews, vox pops, indigenous poetry, music and American TV programs, it shows how programming from the North gives a distorted view of the world.

#### *Suspended Dreams*

Produced in Lebanon in 1992 by Media for TV and Cinema Production and Distribution, this 50-minute documentary tells the story of a community's struggle to reconstruct. It assesses the impact of war on the environment and looks ahead to the impending regional conflict over water.



► **Other films and documentaries of note:**

***Last Exit to Rio***

Produced in Germany in 1992 by NDR (see One World below), this 45-minute documentary is based on UNEP's *State of the Environment: 1972-1992*. Using the car as a metaphor for sustainable development, it assesses environment and development worldwide. The film shows the construction of the USD 100 million highway that will allow world leaders attending the Earth Summit to bypass Rio's notorious shanty towns.

***Rivers of Sand***

Produced in the United Kingdom in 1991 by Central TV, this 52-minute film won the 1991 One World Broadcasting Award. The documentary chronicles three aid projects dealing with a deteriorating environment in a remote corner of northern Mali. The film travels from the river Niger to the edge of the Sahara, where moving sands threaten to engulf entire communities and where one man seeks to bring water back to a dried up lake. *Rivers of Sand* shows there are no quick solutions to the encroaching desert in sub-Saharan Africa.

***The Spirit of Kuna Yola***

Produced in the United States in 1991 by Archipelago Films, this 52-minute winner of the 1991 Earth Watch Film Award is an account of the struggle of the Kuna Indians of Panama's San Blas islands. The tribe lives on a small group of coral islands in the Caribbean and is one of the few Central American native groups to have survived invasions of American tourists, and settlers with chainsaws and cattle, yet keep its culture intact.

Many other titles, including animated films, are listed in the Special Earth Summit Issue of *Moving Pictures Bulletin*, March 1992. Among these are productions from the Open University Series (BBC/Open University), BBC/International Broadcast Trust Series, Action Aid, UNCHS/Habitat, UNESCO/UNEP, the International Development Research Centre (IDRC), UNICEF, the World Food Program, as well as many single issues and single agency films.

► **Eastern Europe:**

The environmental destruction in the countries of Eastern Europe after 40 years of central planning and communist repression is horrendous. The July 1991 issue of *Moving Pictures* published by TVE discusses these issues and describes some films that document a problem that is acute and life-threatening.

- Television Trust for the Environment (TVE)  
46 Charlotte St.  
London W1P 1LX  
United Kingdom

Telephone: 44-71-637-4602  
Fax: 44-71-580-7780

**THE ONE WORLD GROUP OF BROADCASTERS**

One World is an international group of public television organizations in 84 countries which have come together to co-produce programs on environment, development and world peace.

The group originated in Hamburg, Germany in 1988. At that time participant companies of the European Broadcasting Union met and agreed to plan, finance and broadcast joint programs.

► **Several projects resulted from the agreement:**

***The Earth in our Hands***

Produced by NDR, this documentary describes the state of the planet at the beginning of the 1990s.

***The March***

A BBC co-production, this television film describes a fictional mass exodus of Africans to Europe fleeing from hunger and despair.

***World Leaders***

Produced by NDR, this live dialogue presents presidents Vaclav Havel of Czechoslovakia, Robert Mugabe of Zimbabwe and Richard von Weizsäcker of Germany, brought together by satellite to discuss questions of the future with a round table of experts in Hamburg.

***Five Discussion Programs:***

Produced on selected topics from the field of research and development, four of these programs were recorded by NRK in Bergen, Norway, while the fifth, from DFF, was broadcast live from Potsdam, Germany.

***One World, One Voice***

This BBC production, part documentary, part concert, united musicians from all over the globe in creations dedicated to the idea of one world.

► **To create awareness of UNCED, the One World '92 season includes the following environmental specials:**

***Developing Stories***

See the description under TVE, for which the One World Group is providing funding.

***Last Exit to Rio***

This 45-minute documentary is described under TVE.

**Happy Families**

This documentary introduces families in five industrial nations who attempt, over a 30-day period, to live in as environmentally-friendly a way as possible.

**One World Art**

Artists from around the world are brought together to create a work of art on the One World theme.

One World includes the following members: BBC, Great Britain; Antenne 2/FR3, France; Czech TV, Czechoslovakia; Danmarks Radio, Denmark; Eesti TV, Estonia; NDR/ARD, Federal Republic of Germany; MTV, Hungary; NHK, Japan; Latvian TV, Latvia; Lithuanian TV, Lithuania; NOS, the Netherlands; NRK, Norway; ORF, Austria; Polish TV, Poland; RAI, Italy; RTE, Ireland; RTP, Portugal; Romanian TV, Romania; Russian TV, CIS; SRG, Switzerland; Swedish Education Broadcasting, Sweden; TV Cultura, Brazil; TVE, Spain; YLE, Finland. In addition, other companies from many other countries, including those in Eastern Europe and the Third World, have agreed to broadcast individual programmes from the package.

- Rolf Seelman-Eggebert  
The One World Group of Broadcasters  
c/o NDR/ARD  
Gazellenkamp, 57  
2000 Hamburg 54  
Germany  
  
Telephone: 40-41-56-42-30  
Fax: 40-560-45-79  
Telex: 211-489

## UNITED NATIONS DEVELOPMENT PROGRAMME (UNDP)

---

For more information on UNDP, see the section on organizations.

UNDP produces videos on general development activities, environment, water and sanitation, and technical cooperation among developing countries. UNDP co-produced *Rivers of Sand* (see TVE).

**Azimuths**

This 28-minute video magazine program is produced by UNDP and is offered monthly to television stations worldwide. Each magazine segment, which can run from seven to 12 minutes in length, deals with development issues, including those related to sustainable development. Some titles of interest include:

*Saving Species*: Three videos showing efforts to protect crocodiles, elephants and pandas.

*Madagascar: Land of the Periwinkle*: This program focuses on the biological diversity of Madagascar.

*Colombia: The Right to Shelter*: This program details how slum residents build their houses.

- Azimuths  
United Nations Development Programme  
Palais des Nations  
CH-1211 Geneva  
Switzerland  
  
Telephone: 41-22-798-5850/1881  
Fax: 41-22-798-7524

**► Other UNDP titles of interest:*****Borrowed from Our Future***

This 20-minute video provides an overview of basic environmental issues and sustainable development, including population growth, food security, biodiversity, energy, changing climate, urban growth and industrial development.

***Choices for the Next Century***

Inspired by UNDP's *Human Development Report*, this 27-minute video shows how people's lives improve when governments grant them freedom and invest in their education and welfare.

***Closing the Gap***

This half-hour documentary outlines UNDP's use of the Round Table process to help developing countries plan and manage technical cooperation and obtain needed assistance. Documented in Guinea Bissau, Niger and Lesotho.

- UNDP  
Division of Information  
Room DC1-1927  
1 UN Plaza  
New York, N.Y. 10017  
USA  
  
Telephone: 212-906-5303

## Regional/National Productions

(Excerpted from *Moving Pictures Bulletin*, December 1991)

### ACCESS NETWORK

The Access Network (Alberta Educational Communications Corporation) produces, markets, exhibits, acquires and distributes educational, cultural and informational television and radio programming.

The network has broadcast or produced several environmental programs including *Baka: People of the Rainforest*; *Great Expectations: Recycling in Alberta*; and *The Harmony Puzzle* all dealing with the links between economic activity and environmental issues.

- Alberta Educational Communications Corporation  
16930 - 114th Avenue  
Edmonton, Alberta  
Canada T5M 3S2

Telephone: 403-451-7272  
Fax: 403-452-7233

### AMERICAN BROADCASTING COMPANY (ABC)

ABC's environmental output consists primarily of short program segments (5-35"). In 1991, ABC carried *A Users Guide to Planet Earth: The American Environment Test*.

- ABC Inc.  
2040 Avenue of the Stars  
Century City, California 90067  
USA

Telephone: 213-557-7777

### BRITISH BROADCASTING CORPORATION (BBC)

The BBC has produced a number of documentaries dealing with environmental issues, including: *Alaska: Oil on the Rocks*, which looks at the Exxon Valdez disaster and its aftermath; *The Greenhouse Effect*, which documents this phenomenon and looks at remedies; and *A Rainforest Remedy*, a production which documents the search in a Cameroonian tropical forest for a remedy for cancer, and at the same time looks for solutions to the destruction of the tropical rainforest. *Where on Earth are We Going?* This hard-hitting series of six 30-minute productions by Jonathan Povitt, director of Friends of the Earth, looks at green alternatives in the world today.

- BBC Training Videos  
Woodlands  
80 Wood Lane  
London W12 0TT  
United Kingdom  
Telephone: 44-81-576-2361  
Fax: 44-81-749-2867

### CANADIAN BROADCASTING CORPORATION (CBC)

The CBC is Canada's public broadcasting network. Its flagship environmental/natural history series is *The Nature of Things*, which began in 1960.

- Canadian Broadcasting System  
Box 500, Station A  
Toronto, Ontario  
Canada M5W 1E6  
Telephone: 416-975-3311

#### ► The Nature of Things

With scientist David Suzuki as host, the series boasts 24 programs a season, of which 13-14 are in-house productions. The Nature of Things produces hard-hitting, issues-oriented programs such as *Temagami: The Last Stand* on

logging in Ontario, and *Trouble in the Forest*, a look at the impact of acid rain on North American forests.

- The Nature of Things  
CBC Enterprises  
Box 500, Station A  
Toronto, Ontario  
Canada M5W 1E6  
Telephone: 416-975-3500  
Fax: 416-975-3482

### CHANNEL 4

The United Kingdom's Channel 4 is unique among broadcast stations in that it does not actually produce programs itself, but commissions them, or buys them from outside, independent production companies. Originally established with a mandate to cater to minority interests not properly served elsewhere by British commercial stations, Channel 4 has become the boilerhouse for independent environment and documentary programming during the past 10 years. As such, it has helped to energize and shape broadcasting policy in the U.K.

The key Channel 4 program slots which cover sustainable development issues are: *Fragile Earth*, featuring environmental stories; *South*, a unique showcase for filmmakers from the developing world; *Eleventh Hour*, devoted to multicultural features; and *Cutting Edge*, a hard-hitting factual documentary series for established filmmakers. For the Earth Summit, Channel 4 is broadcasting six 26-minute programs focusing on environmental success stories. They are based on U.K. environmental activist Jonathan Porritt's best-selling book *Save the Earth*.

- Channel 4  
60 Charlotte Street  
London W1P 2AX  
United Kingdom  
Telephone: 44-71-631-4444  
Fax: 44-71-637-1495

## **INUIT BROADCASTING CORPORATION (IBC)**

IBC is a non-profit corporation which provides weekly broadcasts in Inuktitut to 25,000 Inuit living in northern Canada. In 1985, IBC produced *People in the Sand*, a documentary on famine relief in Ethiopia.

- Debbie Brisebois  
Executive Director  
Inuit Broadcasting Corporation  
251 Laurier Avenue W, Suite 703  
Ottawa, Ontario  
Canada K1P 5J6

Telephone: 613-235-1892  
Fax: 613-230-8824

## **PUBLIC BROADCASTING SYSTEM (PBS)**

Until the boom in cable stations, PBS was the main outlet for environmental programming. Series such as NOVA, Frontline and Nature, along with specials from the National Audubon Society, have been constants in the PBS program schedule.

- PBS  
1320 Braddock Place  
Alexandria, Virginia 22314-1698  
USA

### ▶ NOVA

NOVA is a documentary series produced by WGBH in Boston, or co-produced with BBC Horizon or other national broadcasting authorities, public television stations and independent producers.

Since 1990, NOVA has produced several issue-oriented environmental programs, including *Poison in the Rockies*, *The Bomb's Lethal Legacy*, *The Big Spill* and *Can the Elephants be Saved?*

- NOVA  
WGBH  
125 Western Avenue  
Boston, Massachusetts 02134  
USA  
  
Telephone: 617-492-2777  
Fax: 617-787-7843

### ▶ Frontline

From WGBH, Frontline is the PBS flagship public affairs series. In the past, it has featured several environmental programs including *Cry Ethiopia*, *Decade of Destruction* and *Global Dumping Ground*.

- Frontline  
WGBH  
125 Western Avenue  
Boston, Massachusetts 02134  
USA  
  
Telephone: 617-783-3500  
Fax: 617-243-0243

### ▶ Nature

Produced by Thirteen/WNET New York, the series is made in association with the Nature Conservancy, an international organization which promotes natural diversity.

Thirty-four programs are available for home video use, including *Vietnam: A Country Not a War*, and *Madagascar: Island of Ghosts*.

- Nature  
Thirteen/WNET  
356 West 58th Street  
New York, N.Y. 10019  
USA  
  
Telephone: 212-560-3006  
Fax: 212-582-3297

## **TV ONTARIO**

A Canadian educational television organization, TV Ontario produces and broadcasts in both French and English. TV Ontario produced one of the first programs on global warming, *Vista: The Greenhouse Effect*, as well as *H<sub>2</sub>O Overview* on water quality in the Great Lakes. Other productions include *Common Ground*, a half-hour program which looks at what people can do about environmental problems and *The Green Earth Club*, a children's series.

- TV Ontario/La Chaîne  
Box 200, Station Q  
Toronto, Ontario  
Canada M4T 2T1  
  
Telephone: 416-484-2600  
Fax: 416-484-4234

## **Cable Television**

### **THE DISCOVERY CHANNEL**

This cable network airs many environmental documentaries and informational series. Among them is *Countdown 2000*, a project which combines community action programming with environmental and conservation organizations.

With WFF, the Discovery Channel co-produced *The Ivory Wars*, a film considered to have been instrumental in bringing about a world trade embargo on ivory. *In Celebration of Trees* documents the importance of trees to world ecosystems, while *In Company of Whales* focuses on the state of marine mammals.

*Earth Guide* is a weekly how-to program which raises specific problems and offers suggestions to remedy them. *Assignment Earth* is a weekly magazine show with an investigative approach to environmental issues. The Discovery Channel also broadcasts *Assignment Discovery* for classroom use.

- The Discovery Channel  
7700 Wisconsin Avenue  
Bethesda, Maryland 20814-3522  
USA

Telephone: 301-986-0444  
Fax: 301-986-4826

### **TURNER BROADCASTING SYSTEM (TBS)**

TBS owns three networks: the Cable News Network (CNN), TBS Superstation and Turner Network Television (TNT). TBS president Ted Turner has made coverage of environmental issues a priority.

*Captain Planet and the Planeteers* is an animated adventure series stressing environmental responsibility. *Earth Matters*, aired three times a day on CNN, focuses on global environmental topics, while *Network Earth* is a fast-paced and provocative weekly half-hour magazine dealing with environmental problems and solutions. *Network Earth* and *Earth Matters* are participating in the *Save the Earth* season of programming which focuses on the Earth Summit in Rio.

- Turner Broadcasting System Inc.  
One CNN Center  
Box 105336  
Atlanta, Georgia 30348  
USA

Telephone: 404-827-1700  
Fax: 404-827-3107

## **Independent Producers**

### **CHEDD-ANGIER**

*Race to Save the Planet* was produced as a major series to provide environmental programming for a mass audience. The series consists of ten 60-minute documentaries, covering issues from farming practices and population, to recycling and global warming. Filmed in more than 30 countries, it was screened as part of public television's Operation Earth campaign.

- PSG Inc.  
7461 Beverly Blvd.  
Penthouse  
Los Angeles, California 90036  
USA  
Telephone: 213-937-5020  
Fax: 213-937-5027

or

- WGBH  
125 Western Avenue  
Boston, MA 02134  
USA  
Telephone: 617-492-2777  
Fax: 617-787-0714

### **CHILDREN'S TELEVISION WORKSHOP (CTW)**

The CTW is a non-profit educational corporation which has produced a number of award-winning programs and series for public and cable television. These include *Sesame Street* for children, *Rotten Truth About Garbage and Waste*, and *You Can't Grow Home Again*, about rainforest destruction.

- Children's Television Workshop  
One Lincoln Plaza  
New York, N.Y. 10023  
USA

Telephone: 212-595-3456  
Fax: 212-595-3606

### **INTERNATIONAL DEVELOPMENT RESEARCH CENTRE (IDRC)**

IDRC produces 16mm films and videos depicting scientific and technological interventions in agriculture, food, nutrition, sciences, forestry, health sciences, fisheries and aquaculture, education, and science and technology. Many of these films are directly relevant to the question—what technologies are suitable for sustainable development. These titles are distributed through the National Film Board of Canada (see below).

Some of the titles include:

*Trees of Plenty* (19") shows how leguminous trees can be used for maintaining and enhancing soil fertility and agricultural production.

*A Handle on Health* (28") is about simple, durable hand pumps, locally manufactured, and used mostly by women to provide clean water and improve local self sufficiency.

- International Development Research Centre  
P.O. Box 8500  
Ottawa, Ontario  
Canada K1G 3H9

Telephone: (613) 236-6163  
Fax: (613) 238-7230

### **NATIONAL AUDUBON SOCIETY**

The National Audubon Society has produced several hard-hitting documentaries on issues including toxic waste dumping in the Great Lakes, the state of the oceans, dolphins and tuna fishing, logging in the United States, and the use of public lands. Many of these television productions have been highly controversial. Among them are *Danger at the Beach*; *Great Lakes: Bitter Legacy*; *If Dolphins Could Talk*; *The New Range Wars* and *Giants of the African Forest*, on elephants.

The National Audubon Society also uses state-of-the-art technology to communicate its message: Audubon Wildlife Adventures is a computer software series, a compact disk - interactive (CD-I) program which combines digital audio disks with visuals and computer data.

- National Audubon Society  
801 Pennsylvania Avenue SE,  
Washington, D.C. 20003  
USA

Telephone: 202-547-9009

Fax: 202-547-9022

### **NATIONAL FILM BOARD OF CANADA (NFB)**

---

The NFB has produced many documentary and animated films dealing with the environment, especially with issues such as logging, mining, dam building and other resource conservation and development concerns.

The NFB has produced a brochure, *Green Videos*, which details 25 environmental films.

- National Film Board of Canada  
PO Box 6100  
Station A  
Montreal, Quebec  
Canada H3C 3H5

Telephone: 514-283-9000

Fax: 514-496-1646

### **NATIONAL GEOGRAPHIC SOCIETY**

---

The National Geographic Society publishes the well-known monthly magazine *National Geographic* and produces *Explorer*, a two-hour weekly program of films which the Society tries to schedule with related magazine articles.

- National Geographic Television  
Division  
1615 M Street NW  
Washington, D.C. 20036  
USA

Telephone: 202-957-7000

Fax: 202-775-6590

### **PRODUCER SERVICES GROUP (PSG)**

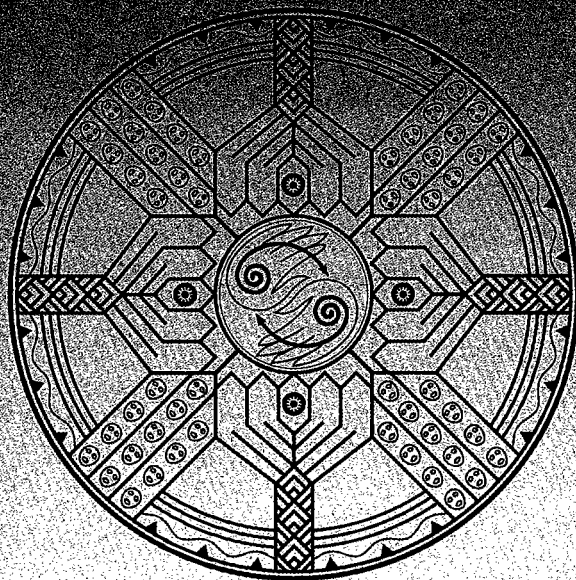
---

A film and television company based in Los Angeles and London, PSG produced *Millenium: Tribal Wisdom and the Modern World*, a series of 10 films on indigenous peoples from around the world.

- Producer Services Group, Inc.  
7461 Beverly Boulevard,  
Penthouse  
Los Angeles, CA 90036  
USA

Telephone: 213-937-5020

Fax: 213-937-5027



**COMPUTER  
NETWORKS  
AND  
CONFERENCING  
SYSTEMS**

---

**ONLINE  
DATABASES**

---

## **Computer Networks and Conferencing Systems ▼ Online Databases**

---

Electronic telecommunications through computers, modems, and networking software is becoming the single most important way that information on sustainable development is moving across the globe. Fast and inexpensive, telecommunication uses little energy, is politically uncontrollable and is unfettered by commercial interests—a powerful interactive worldwide web of knowledge available wherever a computer and a satellite or telephone line can be linked.

Long-distance computer networking has become an essential tool of the NGO community. Large environmental groups “talk” among their worldwide offices and to campaigners in the field via computer. News from the developing world sent through this huge network is often the only reliable source of information from oppressed countries or countries of little interest to western television audiences. Likewise, grassroots groups have turned to computer networking to link with like-minded groups. By pooling intellectual resources this way, they save precious time and effort, and offer each other a valuable support immune to considerations of time and space.

For anyone equipped with a computer and modem, there is a veritable river of information on sustainable development and environmental/human welfare issues flowing through telecommunications lines. Our selections for this part of the sourcebook are limited to the major networks most relevant to sustainable development. Along with the large American commercial data base services such as CompuServe and Dialog, they include the Association for Progressive Communication (APC) network, a large grouping of NGOs that use the vast system of online “packet-switch” transfers and “gateways” to move e-mail and e-mail conferences across the world; Poptel/GeoNet, an international electronic alliance of NGOs that is now one of Europe’s largest single computer networks; and Internet, BITNET, UUCP/Usenet, FidoNet, and others.

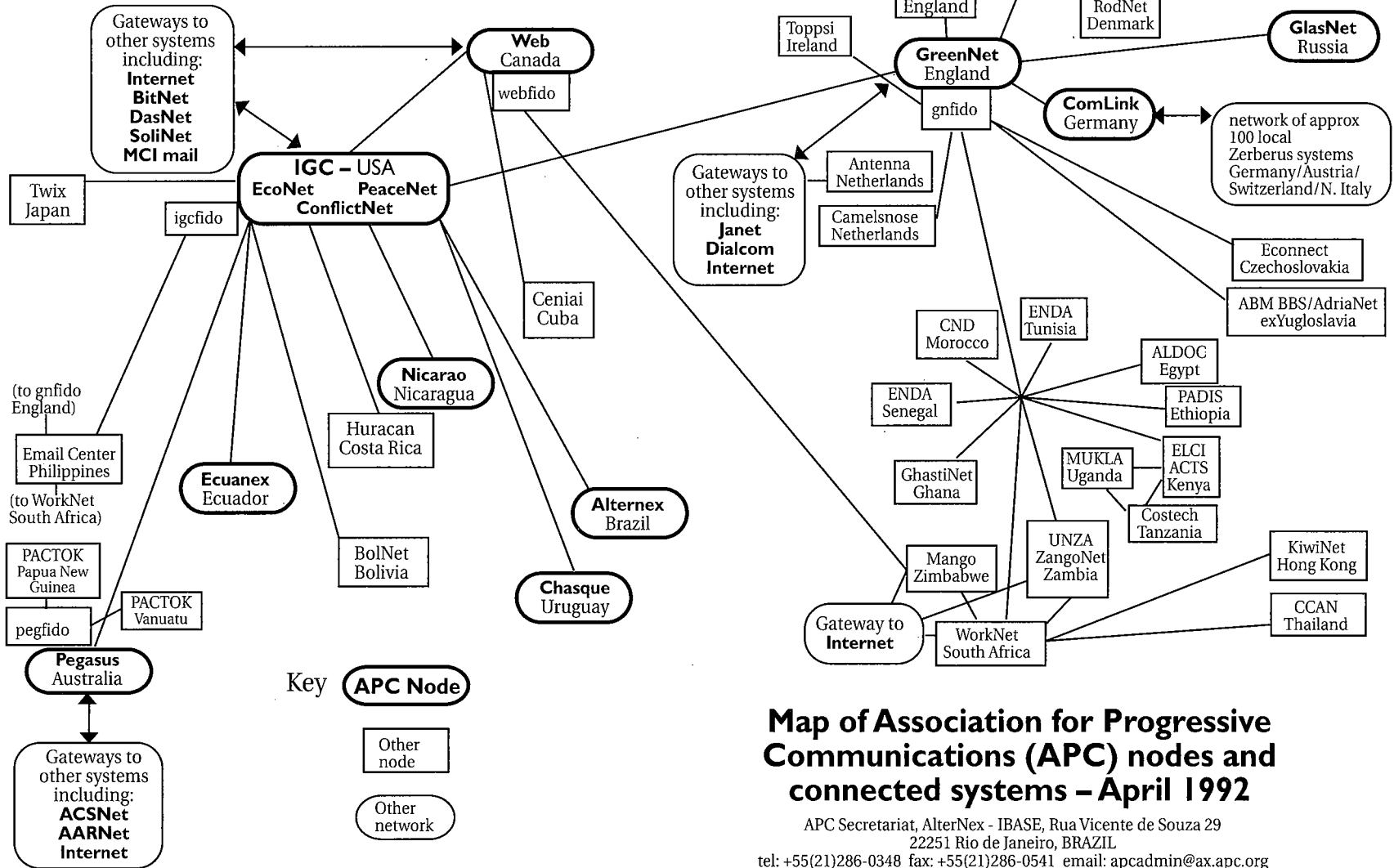
Some sense of the way in which these networks help to create a global village is provided in the diagram on the next page of nodes and linkages of the APC. IISD and many other environment and development organizations in Canada link to other parts of the world via The Web. *EcoLinking* is a useful new book dealing with online environmental information from a North American, i.e. mostly USA, perspective<sup>1</sup>.

■ ■ ■

<sup>1</sup> Rittner, D. 1992. *EcoLinking. Everyone's guide to online environmental information*. Berkeley: Peachpit Press. 352pp.



All of the systems shown here are "nodes". If you have a computer and modem you can log on to any of them and exchange messages with other users anywhere over the whole network. For most systems you will need to have an account so you have your own special identity on the system. Some FIDO systems only accept calls from other FIDO systems, but you can run FIDO software on your own computer.



## Map of Association for Progressive Communications (APC) nodes and connected systems - April 1992

APC Secretariat, AlterNex - IBASE, Rua Vicente de Souza 29  
 22251 Rio de Janeiro, BRAZIL  
 tel: +55(21)286-0348 fax: +55(21)286-0541 email: apcadmin@ax.apc.org

## Computer Networks and Conferencing Systems

### APC NETWORKS

**ALTERNEX ▼ CHASQUE ▼ COMLINK ▼ GLASNET  
GREENNET ▼ IGC NETWORKS ▼ NICARAO  
NORDNET ▼ PEGASUS WEB**

#### **Association for Progressive Communications (APC)**

APC Secretariat  
IBASE

Rua Vicente de Souza 29  
22251 Rio de Janeiro  
Brazil

Telephone: 55-21-286-0348  
Fax: 55-21-286-0541  
e-mail: [apcadmin@apc.org](mailto:apcadmin@apc.org)

APC Office (U.S.)  
18 de Boom Street  
San Francisco, CA 94107  
USA

Telephone: 415-442-0220  
Fax: 415-546-1794  
Telex: 15405417  
e-mail: [apcadmin@apc.org](mailto:apcadmin@apc.org)

Between 1985 and 1987, independent groups in the USA, the United Kingdom and Canada established networks of environmentalists and social change activists to cooperate more effectively. These networks were PeaceNet and EcoNet in the USA, GreenNet in the United Kingdom, and the Web in Canada.

Full integration was possible because these networks operate the same hardware and software for electronic mail and computer conferencing.

More grassroots national and regional networks were added in 1989 and 1990: Nicarao in Nicaragua, AlterNex in Brazil, NordNet in Sweden, and Pegasus in Australia.

Representatives of these networks met in 1990 to form the APC, the Association for Progressive Communications, an international non-profit organization dedicated to facilitating progressive social change through cooperative local and global computer networking.

The APC aims to provide a globally-interconnected electronic communications network dedicated to a free and balanced flow of information. The APC's member organizations serve people working toward goals including

peace, the prevention of warfare, elimination of militarism, protection of the environment, furtherance of human rights and the rights of peoples, achievement of social and economic justice, elimination of poverty, promotion of sustainable and equitable development, advancement of participatory democracy, and nonviolent conflict resolution.

Collectively, the APC system connects over 13,000 activists in more than 90 countries. This number is increasing exponentially, with fledgling local networks continually being formed and linking up. In 1991, ComLink in Germany, GlasNet in Russia, and Chasque in Uruguay became APC members. Other networks were granted associate status as well, including EquaNex in Ecuador.

APC-affiliated regional networks exist in Kenya, Zimbabwe, South Africa, Zambia, Ethiopia, Senegal, Ghana, Cuba, Costa Rica, Ecuador, Bolivia, Ireland, the Netherlands, Estonia, Czechoslovakia and the Philippines.

All APC networks are fully integrated for e-mail and online conferences. Information placed in one network is obtainable on all networks; thus ongoing discussion and information sharing can take place among people all over the planet.

#### ► Access

The APC Networks are accessible to anyone that shares the APC's goals.

To obtain an account, contact the appropriate network in your region and a staff person will inform you as to the correct procedures for getting online. This is the list of APC Networks and the regions they cover:

*AlterNex* ■ Brazil and South America

*Chasque* ■ Uruguay

*ComLink* ■ Germany

*GlasNet* ■ Russia, Commonwealth of Independent States countries

*GreenNet* ■ Great Britain, Western Europe, Africa, Asia

*IGC* ■ USA, Mexico

*Nicarao* ■ Nicaragua and Central America

*NordNet* ■ Scandinavia, Baltic States

*Pegasus* ■ Australia, Oceania, South-East Asia

*Web* ■ Canada

For a breakdown of costs for each Network, see *Appendix 3 APC Networks*.

Currently, individuals in most Third World nations now must dial long-distance to online services in the developed

nations. The APC's aim is to help local systems establish themselves throughout the countries of the south. This effort will help decrease the dependency on foreign-based hosts by local networkers, yet still allow connections to be made when desired. Local communications not only allow interaction with local colleagues, but also enable information to be collected locally in batches and transferred to the rest of the world en masse, thereby realizing economies of scale.

For a more detailed listing of the individual APC Networks, including contact information and charges, see *Appendix 3 APC Networks*.

### ► Services

Each APC Network operates much like a cross between a post office and a convention centre. A single host computer in each country or region runs sophisticated software that ensures electronic messages are either placed into an individual's private mailbox or put into computer conferences where they can be read by everyone.

Users of the network use their modems to connect their computers to the APC host via regular telephone lines. Once connected, they can transfer messages to other users or receive them at leisure. The communication is asynchronous and aspatial, eliminating the need for participants to be communicating in the same place or at the same time.

### ■ Electronic mail

e-mail is the most highly-used feature of APC. Networking is still very much a sequence of encounters between individuals, and the sending of letters as a way of keeping in touch is still the norm. Yet this habit is also changing. Having the capability of carbon copying the message to several others just by typing in their online addresses has meant that small group interactions have been greatly strengthened. Coupled with having the ability to send documents by e-mail to colleagues halfway around the world in a matter of minutes, activists are now forming alliances and task forces that would have been logistically impractical only a few years ago.

Each APC system has the capability of exchanging e-mail with other APC networks. Because of connections to the global meta-network of hundreds of interlinked messaging systems (including the aforementioned Internet, BITNET, UUCP/Usenet, and FidoNet, and to the commercial networks such as Dialcom and CompuServe, as well as the fax and telex networks), the potential correspondents number more than 20 million people.

### ■ Computer conferences

The APC's great potential is realized in its conferencing capabilities. A conference is a shared information space that gives a network user an opportunity to post a message as a new topic to which other users can then add their responses. This allows people sharing a particular interest to maintain group communication over great distance. And because the messages posted to the conference remain indefinitely on the system, one is able to participate at one's leisure, whether daily or weekly.

Conferences can either be public or private. Public conferences are open to all to join, while private ones are restricted to only those people who have obtained prior permission.

APC has over 1200 conferences available to its users. Their subject matter generally deals with social concerns: the environment, peace, social justice, health, education, and local and international development.

Many news organizations are making their articles available on a regular basis. This practice makes the conference act like a newswire service. The InterPress Service, which is the fifth-largest newswire in the world, and the first for Third World coverage, distributes its newsfeed over APC, as do dozens of smaller alternative news services.

Other organizations maintain conferences in which they place their regular publications such as newsletters or reports.

Perhaps the main way conferences are used is for the posting of bulletins — general sharing of items of interest to the participants. This process provides a growing repository of information in particular subject areas which has proven especially useful to researchers and students.

Certain conferences act as discussion forums. Many organizations use them in this way to prepare multi-authored documents, create plans and policies, prepare budgets and discuss events. Often, these conferences are private ones.

Other uses include upcoming events listings, job postings, and provision of advice for using microcomputers. As awareness grows, this new technology is being used in the preparation and coordination of large international projects involving a multitude of participants.

APC networks and their small-host affiliates are all able to exchange conferences as well as e-mail. Due to e-mail

gateways and direct connections, any of the following can also be made available in conferencing format (including mailing lists) on an APC or affiliated system:

*Internet mailing lists*

*BITNET mailing lists*

*UUCP mailing lists*

*Usenet newsgroups*

*FidoNet echos*

For a listing of APC-originated conferences, see *Appendix 5*. Non-APC-originated conferences obtainable on APC are listed in the sections on Internet, BITNET, UUCP/Usenet, and FidoNet.

In the main, APC-originated conferences are not used for the sharing of high-level technical or scientific data. But since many of the scientific research-oriented mailing lists from Internet and BITNET are carried on APC, some exchange is possible.

### ■ Online Databases

At present, the only APC network that has databases accessible online by its users is IGC, the APC network in the USA. Other APC networks are also developing their own online databases and this capability should exist for them within the year.

The following is a description of the IGC databases.

**InterACT** ■ An online utility for faxing to world leaders and others, it provides telephone and fax numbers for all members of the USA Senate and House of Representatives, fax numbers for various magazines, newspapers, and broadcasters, and it can send your own message to each fax number.

**UN NPPA UN** ■ List of National Parks and Protected Areas (from WCMC/IUCN)

**Harbinger File** ■ A directory of citizen groups, government agencies and environmental education programs concerned with California environmental issues.

**DEER** ■ The Directory of Environmental Education Resources, a project of the Colorado Alliance for Environmental Education and the Colorado Department of Education.

**RG-ENERGY** ■ Energy Cost Analysis System (from REAL GOODS)

**EVENTS** ■ General calendar of events for the IGC online community. Post your own organizational events here!

**EPA** ■ Bibliographic citations compiled by the US Environmental Protection Agency Library Network.

## APC related Computer Networking Initiatives

### ▶ Networks in Africa

The following is an overview of some of the computer networking projects under way in Africa. Why Africa? Because the examples provided by these largely local groups demonstrate what is possible for dedicated individuals to achieve using available resources.

Some of the experience they have gained can be of use to others working locally with limited support but who are looking for ways to tap into APC and associated networks and conferencing systems worldwide.

While these networks are independent entities that have established themselves in their own countries, they have been assisted in connecting with the larger global networks by certain APC networks, notably GreenNet and Web.

Generally, due to the poor telephone infrastructures in the developing world, it is difficult to maintain good written communication. Faxes, for example, rarely get through in their entirety on the first attempt. For successful and cost-efficient computer communications, therefore, appropriate technology must be used. This means that, instead of the hardware and software used by most of the APC networks, almost all of the APC-affiliated small host networks in Africa and other such places are using regular DOS based personal computers running specially configured FidoNet software, transferring data by high-speed modems. This is comparatively inexpensive, needs little maintenance, and does not require hard-to-find sophisticated technical expertise to set up and operate.

The following report was prepared by Mike Jensen, a development communications consultant and acting systems operator for WorkNet (South Africa).

### ■ NGONET Africa.

The NGONET Africa project is based at the Environment Liaison Centre International (ELCI) in Nairobi where a Fido bulletin board system has been set up to provide a conduit for electronic mail traffic in the region and to NGOs worldwide. This is done using a high-speed modem to make daily calls to the GreenNet Fido gateway in London. The project is supporting four prototype network hosts, one for each region of Africa – ELCI in Nairobi (East Africa), Mango in Harare (Southern Africa), ENDA in Dakar (West Africa) and ENDA-Arabe in Tunis (North Africa). ELCI, Mango and ENDA-Dakar are already established and ENDA-Arabe is expected to come on line before the end of the year.

## ■ ESANET

ESANET (Eastern and Southern African Network) is a pilot project to link researchers at universities in Uganda, Tanzania, Zambia, Zimbabwe and Kenya with each other and with researchers worldwide by installing electronic mail facilities at the computer centres of universities in these countries. ESANET is based at the University of Nairobi Institute of Computer Science. To maximize scarce resources, coordination and technical support is being shared with the NGONET project. Where there is no local NGO host system, it has been agreed that NGOs will be able to use the resources of the campus-based nodes.

Nodes are currently being installed in:

**Kampala** ■ Makerere University – nodename MUKLA,

**Nairobi** ■ University of Nairobi – nodename UNICS,

**Dar es Salaam** ■ University of Dar es Salaam/Eastern and Southern African Universities Research Project – nodename ESAURP,

**Lusaka** ■ University of Zambia Computer Centre – nodename UZCC,

**Harare** ■ University of Harare Computer Centre – nodename UHCC.

## ■ HealthNet

HealthNet is operated by a Boston-based NGO called Satelife which was initiated as a project of the International Physicians for the Prevention of Nuclear War (IPPNW). Satelife has purchased 60 per cent of the capacity of the University of Surrey (UK)-built Uosat-F satellite. This will initially be used to exchange health and medical information between the same universities (coincidentally) participating in the ESANET project and via Memorial University in St. John's, Newfoundland, Canada.

## ■ PADISNET

The Pan African Documentation Centre Network (PADISNET) is a project to link 34 countries into a network of participating development planning centres which exchange databases and information. PADIS is based at the United Nations Economic Commission for Africa (UNECA) in Addis Ababa which also operates a Fido node connecting to Accra, London, Nairobi, Johannesburg and Washington.

In Accra, the Centre for Scientific and Industrial Research (CIIR) is participating in the PADISNET project and has established GhastiNet as a local host system. This machine currently also operates as a host for the

African Association of Universities and the Technology Transfer Centre.

## ■ WEDNET

Supporting research on women and natural resource management is the aim of the WEDNET project which seeks to link researchers in Senegal, Ghana, Burkino Faso, Nigeria, Sudan, Kenya, Zimbabwe, Zambia and Canada via electronic communications and conventional networking. WEDNET is also based at ELCI in Nairobi.

## ■ WorkNet

In South Africa, WorkNet operates as the national electronic network host for NGOs. The network has been established for about three years and now has about 180 users representing the labour movement, human rights groups, the alternate press, documentation centres, service organizations and church groups. The ICFTU (International Congress of Free Trade Unions) has funded the development of gateway software which allows major BBS users to send messages to other systems and obtain/post to online conferences.

## ■ MANGO

MANGO is a bulletin board service in Harare, Zimbabwe, operated by a collective of NGOs including: Africa Information Afrique (a regional news agency), IMBISA (Bishops Conference based in Harare), SARDC (Southern African Research and Documentation Centre), EDICESA (Ecumenical Documentation and Information Centre for Eastern and Southern Africa). It was recently agreed that the system be made available to the NGO community as a whole. MANGO now connects three times daily with the Web Fido gateway in Toronto. In addition, it connects three times a day to WorkNet in Johannesburg.

## ■ ARSONET

ARSONET is a project to link the national African Standards Authorities in Addis Ababa, Ethiopia; Dakar, Senegal; Nairobi, Kenya and Cairo, Egypt, with Fido networking technology. ARSO has established a node in Nairobi which also connects daily to London. In Addis Ababa, users are connecting with PADIS as their host, in Senegal through ENDA; a separate system connecting directly to London will be established in Cairo.

## Other APC-Affiliated Networks

Besides the African host networks, there are systems in other regions that are affiliated with APC through regular exchanges of e-mail and conferencing material. These systems include Equanex in Ecuador, Huracan in Costa Rica, Bolnet in Bolivia, Cenai and TinoRed in Cuba, Toppsi in Ireland, LMDP/ArtsNet and Camelsnose in the Netherlands, Econnect in Czechoslovakia, and Dix in Estonia.

More information about the networks mentioned in this section is contained within *Appendix 4*.

## NGONET

Instituto del Tercer Mundo  
Casilla 1539  
Correo Central  
Montevideo 11000  
Uruguay

Telephone: 598-2-496192  
Fax: 598-2-419222  
Telex: 40001 MAILBOX UY  
e-mail: ngoinfo@chasque.org.uy  
geo2:ngonet

or  
Gillian Phillips – NGONET Canada  
242B Charlotte St, Ottawa, Ontario K1N 8L3  
Telephone: 613-238-4474/236-0827  
Fax: 613-238-1162  
e-mail: web: phillips

NGONET is a service operated by Instituto del Tercer Mundo, a Uruguayan NGO that assists other NGOs with their information and communications needs. It was established as a means of helping the worldwide NGO community obtain information about, and participate in, the United Nations Conference on Environment and Development (UNCED).

The following services are now offered by NGONET, or are under development and will be available during 1992:

### ► Services

NGONET is developing several major databases of NGO information. Housed in Montevideo, they are available around the world.

**NGODAT** ■ Contains names, addresses and other details of environment and development NGOs participating in UNCED and related activities. With more than 5,000 records, this FoxBase database is updated and expanded every 2 weeks. Accessible online through Econet and GeoNet and also through Antenna in the Netherlands, it

will be available direct from NGONET and the other electronic nodes of the Association for Progressive Communications (APC) in 1992.

**NGOBIB** ■ Using Micro-CDS-Isis software and following international bibliographical standards, summaries of more than 450 key documents (mainly produced by NGOs) are stored in this database. NGOs can request an index or the full text of specific documents from NGONET through any e-mail system, conventional mail or fax and a document can be e-mailed or printed and mailed/faxed to them. NGOBIB will be online direct from NGONET later in 1992.

The following databases are now in preparation and will be available online in 1992.

**NGOMED** ■ Provides information on media contacts and information dissemination channels for NGOs. It is a subset of NGODAT.

**NGOFUND** ■ This FoxBase database will provide details of potential funders of NGO projects.

**NGOPAIR** ■ This FoxBase database will provide information to NGOs wishing to "twin" or collaborate with other NGOs on issues and projects.

*Improving Access to Electronic Networks for Women*  
Working with the women's coordinator at the Institute for Global Communication, NGONET seeks to expand links between women's groups worldwide. NGONET will provide demonstrations and support to women attending the women's activities in Rio from June 1 to June 14, 1992.

*Provision of Information in Other Languages*  
Discussion is ongoing on the provision of more information in French and other languages including Portuguese and Arabic.

*Support of Indigenous and Peasants Networks*  
NGONET is working with the secretariat of the World Rainforest Movement to provide information and communication support to the recently-created Alliance of Indigenous and Tribal Peoples of the Tropical Rainforests and to follow up the workshop on Landlessness and Deforestation (New York, February 28th – March 1st)

*Community Radio Links*  
Working with national radio stations such as PanAmericana in Uruguay, production and distribution centres such as IBASE in Brazil and international radio networks including AMARC, NGONET is formulating the development of several community radio programs providing UNCED-related information.

*The future of NGONET*

Many of NGONET's present services are focused on supporting NGOs involved in the UNCED process. However, NGONET will continue to expand its support and communications network in coming years. In June 1992 NGONET will undertake an extensive evaluation of its services and modify its goals according to the post-UNCED needs expressed by NGOs around the world. A five-year plan will be developed by October 1992.

Currently collecting information on environment and development and UNCED-related NGOs, NGONET has already begun discussion on broadening its issue-base to include labour and other NGO sector interests.

Critical NGONET activities, including the collection of information, support to NGO activities, and the development of solid international links with other NGO organizations, will continue to be central tasks.

NGONET will continue to work towards the development of a decentralized communications network, based on the collaborative efforts of various media channels and information sources, and will pursue the goal of providing technologically and linguistically-appropriate two-way information exchange between NGOs around the globe.

### **United Nations Conference on Environment and Development (UNCED)**

UNCED Secretariat  
P.O. Box 80  
160 Route de Florissant  
Conches  
CH-1231 Geneva  
Switzerland

Telephone: 41-22-789-1676  
Fax: 41-22-789-3536

The APC has supported the consultative process of the United Nations Conference on Environment and Development, which is leading to the Earth Summit in Rio de Janeiro, by providing electronic communications for the organizers, NGOs and government agencies the world over. Many online conferences exist for rapid and cost-effective dissemination of official UNCED documentation and for ancillary discussion.

Besides the reports of the UNCED Preparatory Committee meetings, a number of the UNCED Working Groups set up to focus on particular issues, were maintaining updated versions online. Newsletters such as *The UNCED Link*, *Earth Summit Bulletin*, *US Citizens' Network Newsletter*,

and smaller publications such as *Countdown to Rio* and the *PrepCom IV Primer* were made available online. This material, as well as plenary and committee reports of the United Nations and official keynote speeches, has enabled the many participants to remain current.

For a full listing of UNCED and related conferences, see *Appendix 5*.

At each of the last three Preparatory Committee meetings for the conference held in Nairobi, Geneva and New York, APC networks and their affiliates have made their communications facilities available to the participants. In New York, APC and NGONET collaborated on giving free access to their services to those who attended and calling this "FreeNet".

The APC network in Brazil, AlterNex, is operated by IBASE, the Brazilian Institute for Economic and Social Analysis. IBASE is providing the official electronic communications system for the conference. Another "FreeNet" for participants is planned.

See also the *organizations section*.

• • •

### **TCN/ELECTRONIC VILLAGE (DIALCOM)**

#### **Telecommunications Cooperative Network**

1333 H St NW, Suite 700  
Washington, DC 20005  
USA

Telephone: 202-682-0949

Fax: 202-682-7859

e-mail: Dialcom 41:TCN002

The Telecommunications Cooperative Network (TCN) is a membership service organization, aimed at facilitating the use of telecommunications by its membership, comprising over 2500 non-profit organizations primarily in, or with partners in, North America. TCN is not itself a vendor of telecommunications services.

TCN's package of services includes voice mail, long-distance voice networks, audiotext, facsimile broadcast, and consulting, in addition to computer-mediated communications.

The scope of the TCN/ Electronic Village is global, both in its subscriber base, and the information available. However, there is a very strong predominance of organizations which are located and headquartered in North America. No matter

how strong their global perspectives might be, as is indeed the case with the United Nations agencies, it is inevitable that some of the information services, and much of the networks' style of communication and information flow, reflect their North American connections. Thus, many of the news services (press releases, feature articles) are accented towards a North American market.

### ► Access

The TCN/Electronic Village is available to subscribers which are not-for-profit entities. Access can be through any packet switching network in the world which can link to host systems in the USA.

The NUA network user address of Dialcom system 41 is 0311030100341.

### ► Charges

The monthly charge for a mailbox on TCN/ Electronic Village is USD 20, which provides 'rental' of a password protected ID to access the system. All other charges are strictly for use of the system. The hourly on-line connect charge for use of the Dialcom system is USD 5.00 off-peak (nights and weekends), and USD 9.00 at all other times. Connection charges via the telecommunications networks vary according to the location of the incoming call. The domestic connect charge in the USA is USD 4.00 off-peak and USD 5.00 peak.

### ► Services

The Computer Mediated Communications services of TCN are referred to by TCN as their "data services". These comprise the selection of a communications network as the most appropriate medium for a specific member, or group of members, for electronic mail, multi-medium messaging (fax, telex), and databases. In this way, TCN has helped some members to establish themselves as users of the CompuServe network, and, in the future, it could assist other members to use other networks, such as GeoNet. The bulk of TCN's data services are operated in the "Electronic Village", an electronic mail, computer conferencing and database access network housed on the commercial BT Tymnet/ Dialcom Service. Most of TCN's services on Dialcom are operated on the Dialcom host 141.

#### ■ Services in the Electronic Village

TCN's data services make use of the extensive range of services available on many Dialcom systems, so that a subscriber can use:

- electronic mail, within the Village host system, with other Dialcom networks. Through the DASNet facility, which acts as an electronic mailman moving regularly

between networks as it collects and delivers inter-system mail, electronic mail can be exchanged with virtually all other computer networks.

- multi-media data communication to telex, fax and telegraphic services world-wide, usually at North American rates.
- access to external databases, which are listed below at the end of this section.

See *Appendix 6* for more details.

• • •

## GEONET

### Poptel-GeoNet

25 Downham Road  
London N1 5AA  
United Kingdom

Telephone: 44-71-249-2948

Fax: 44-71-254-1102

GeoNet: geo2:support

Internet: support@geo2.geomail.org

Dasnet:(dcfgn2)support

NUA: 02342123002920

(note: use this Poptel-GeoNet address to contact any GeoNet service; the full list of systems is too long to reproduce here)

GeoNet is a public service e-mail and information system designed by GeoNet GmbH of Germany. GeoNet host-systems in a number of countries are linked together to form the GeoMail network. A large proportion of the GeoMail user-base, particularly users of the systems run by Poptel (hosts GEO2 and MCR1), are 'noncommercial', working in fields such as development, environment, international trade, labour, and human rights. Poptel is a broad program which promotes the popular use of telematics (computer-mediated communication), for sustainable social and economic development.

There are fifteen GeoMail hosts in Belgium, Germany, Netherlands, Portugal, Russia, Switzerland, USA and United Kingdom. All are operated by independent organizations, such as Poptel. While not run by one of the telecommunications giants, GeoMail is nevertheless the largest public service electronic mail network in continental Europe. In all, there are approximately 15,000 subscribers to GeoNet systems worldwide.

Concrete plans are well advanced for new GeoNet hosts to operate in most countries, including: western and eastern Europe, the Mediterranean area, and in locations throughout Africa, Asia/ Pacific, and Latin America/ Caribbean in the next two years.



More than 50% of the subscriber base of the Geo2 system, located in the United Kingdom, comprise independent organizations outside of the country of location. There are GeoNet subscribers in more than 80 countries.

### ► Access

Each GeoNet system can be accessed by direct dial modem and through packet switching systems.

In addition, each GeoNet system can be accessed through local dial-in numbers operated by SprintNet, currently in almost 30 countries in three continents. Furthermore, the GeoNet InterMail network can be used, so that a subscriber to the Moscow system can access it, when visiting New York, by calling the US system and being connected by the GeoMail Interswitch facility.

As with most other commercial electronic host systems, access can also be made from a telex terminal. Finally, access can be made through using the Inmarsat-C satellite network.

### ► Charges

The basic monthly charge for a mailbox on the GeoNet system Geo2 is PST 12 (Pounds sterling), approximately USD 20, which provides 'rental' of a password-protected ID to access the system, and 60 minutes of online use for electronic mail and bulletin boards. Additional time is charged at PST 0.08, approximately US 0.14 per minute. Additional services, such as lowest cost routing of multi-media messaging, electronic mail with other systems, and database searches, are charged separately.

### ► Services

GeoNet offers extensive electronic mail, multi-media messaging, conferences, and local and external databases.

#### ■ Electronic mail

All GeoNet systems communicate with one another over the international data network, using the InterMail protocol. As well as allowing e-mail (text messages and binary files) to be exchanged between the GeoMail hosts, InterMail enables users of one system to gain access to other systems in the network in 'real time'. GeoMail users have a number of Gateways allowing message exchange with users of other e-mail systems:

**X.400** ■ GeoMail users can have their own X.400 address, which is a globally-agreed protocol to standardize addressing and delivery of electronic mail. A special X.400 gateway connects the GeoMail network to other X.400 compatible VAN's—Value Added Networks—and private networks.

**InterLink, or 'DASnet'** ■ users of e-mail networks which do not have full X.400 facilities can still be contacted through the DASnet gateway which regularly picks up and delivers mail from a number of networks, including the giant InterNet network.

**Specialized gateways** ■ a number of special gateways are currently operating, or under development. These include:

- The Inmarsat gateway, which allows message exchange between GeoMail users and users of the Inmarsat-C satellite network (fully operational).
- The UUCP gateway, which allows faster and cheaper message exchange with Internet users.
- The new Fido gateway developed jointly by GreenNet (a member of the Association of Progressive Communications – APC) and Poptel which allows message exchange with important Fido small systems. These Fido gateways and systems are described in more detail elsewhere in this Chapter.

#### ■ Multi-media messaging

Systems in the GeoMail network share resources such as fax and telex gateways, whereby an outgoing fax or telex is routed via the most appropriate gateway to improve reliability and reduce costs. Thus a fax from California to Siberia will be delivered electronically from the GeoNet host in California to the GeoNet host in Siberia, where it will be transmitted to the destination fax, at local telephone rates. This kind of resource sharing will become more common as networks harmonize standards. GeoNet subscribers can have their own telex numbers, so that received telexes are delivered to their mailbox.

A facility is under development (mid-1992) for incoming fax messages to be received as text messages in a GeoNet subscriber's mailbox. The incoming message will be optically translated to basic (ASCII) text.

A facility already exists for GeoNet to transmit a fax with an image of the subscriber's logo or letterhead.

#### ■ Databases

GeoMail users can access databases held on their own 'home' GeoNet system, other GeoNet systems, and other public-access hosts such as Datastar, Dialog, and Profile. Users do not need to obtain their own subscriptions to these services, and can interrogate databases without having to learn the command languages for each (a special GeoMail gateway translates standard GeoNet commands into the command language of the particular database). After informing an external host of the search criteria to be used in database session, a subscriber can

log out, and have the search results delivered, in a pre-defined format, to the subscriber's mailbox. This reduces considerably the cost of consulting external databases.

A powerful new development in the Geomail network is the facility for a GeoNet system to establish and manage databases on their own system. This means that a GeoNet host in one location can provide extensive database services, using bibliographic and full text materials provided by local institutions. While there is a charge by GeoNet to the supplying institution for setting and managing its online databases, income from user searches can be used to generate income for the institution. Thus, for example, a GeoNet host in West Africa will operate its own full database service on organizations working in specific fields of sustainable development, and be able to make this information available to GeoNet users in other parts of the world. The same command language is used for local and external databases.

Databases which are directly related to sustainable development and currently available through GeoNet systems, are listed in *Appendix 7*. It should be noted that GeoNet will negotiate, at the request of a GeoNet subscriber, with suppliers of other external databases for their inclusion in the GeoNet services.

#### ■ Bulletin boards

Each GeoNet system maintains bulletin boards which can be read, and written 'on' by any subscriber of any GeoNet system, unless access to read or write is restricted by passwords. A bulletin board on GeoNet is the equivalent of a 'conference' on systems such as APC member hosts, although its structure is different.

Since 1989, various GeoNet bulletin boards dealing with international development issues have been 'ported' to APC systems to become APC conferences, at the request of APC system subscribers. In principle, any public-access GeoNet bulletin board can be ported. APC subscribers should contact their system operator for details.

Bulletin boards dealing with issues of international and sustainable development are the most heavily used on GeoNet. Most are used primarily for document delivery and not so much for dialogue. According to regular evaluations undertaken both by GeoNet and by user groups, this is because of the relatively high cost for the majority of subscribers located far from the host—especially those in the South, of accessing GeoNet services. This makes discussion an expensive commodity. However, this situation will change as the number of GeoNet hosts increases.

## THE INTERNET

### DDN Network Information Center

SRI International  
Room EJ291  
333 Ravenswood Avenue  
Menlo Park  
California 94025  
USA

e-mail: To: SERVICE@SRI-NIC.ARPA  
Subject: HELP

The Internet is a global research network consisting of 727,000 host systems in more than 40 countries. Some 15 million people have access to the Internet, mainly at universities, colleges and other educational institutions, and commercial, government, and military research facilities. Since its inception in the early 1970s, it has continued to grow at an exponential rate.

The Internet is made up of more than 1,000 regional and special interest networks. One of these is the National Science Foundation Network (NSFNET). All these networks are interlinked by a common data transfer protocol called TCP/IP. Though most hosts on the Internet are located in North America, there are many in other countries as well, including an increasing number in the Third World.

#### ▶ Access

Unless one is affiliated with an educational or research institution, it is almost impossible to get access to Internet facilities. There has been a recent push, however, to open up the Internet to commercial activities. This could mean that the public, in the near future, could get onto Internet merely by paying a small fee to a local commercial host. If you are a member of an educational or research institution which is on the Internet, you can probably get an account by asking the Computer Services department.

#### ▶ Charges

All organizations that maintain an Internet site must pay the going rates charged by the local Internet administration. These costs range from several hundred to several thousand dollars per year and are used to pay for the telecommunications links for the regional network. The users of the network do not have to pay anything, and the general rule is that no organization can charge for Internet services.

## ► Services

Like most online services, the accessing and exchanging of information is the purpose of the network. To facilitate this there are three main mechanisms: Electronic mail (e-mail), remote login (telnet), and file transfer (ftp).

### ■ Electronic mail

e-mail is probably the most-used Internet service. All major networks can send and receive mail from the Internet. Unlike certain other networks with which you may be familiar (UUCP and BITNET), Internet mail is usually delivered directly to the recipient.

### ■ Mailing lists

Certain Internet hosts act as redistributors of messages for groups sharing a common interest and wishing to share information with each other. The host system maintains a list of all the online addresses of the members of a group, and this list is itself given a unique address. To share messages with colleagues, members send the information to the list address, which then sends a copy to everyone.

While it can be somewhat cumbersome for people to receive ongoing e-mail from several mailing lists, all arriving in one mailbox, it is a way of staying in touch that would otherwise be almost impossible.

There are more than 1,000 public mailing lists. Those that appear to have the most relevance to sustainable development are presented in *Appendix 8* of this report.

### ■ Information resources

There are hundreds of host systems on the Internet that offer services such as bulletin boards, databases, and archives of programs and mailing lists. Mostly they are bibliographic databases of library holdings at universities. Those relevant to sustainable development are in *Appendix 9*.

## BITNET

**BITNET Network Informatino Center (BITNIC)**  
**INFO%BITNIC.BITNET@CUNYVM.CUNY.EDU**  
**NETSERV%BITNIC.BITNET@CUNYVM.CUNY.EDU**  
**LISTSERV%BITNIC.BITNET@CUNYVM.CUNY.EDU**

### EDUCOM Networking Activities

P.O. Box 364  
 Princeton  
 New Jersey 08540  
 USA

Telephone: 609-734-1878

BITNET (Because It's Time NETwork) is a general purpose academic network chartered to facilitate non-commercial information exchange among its members. BITNET connects more than 500 American colleges and universities, as well as colleges and universities in Canada (where it is known as NetNorth), in Europe (where it is known as EARN), and in Latin America, Australia, Africa and the Far East. Like Internet and UUCP/Usenet, most BITNET hosts are located in North America and Europe.

The Corporation for Research and Education Networking (CREN) is the managing agency for BITNET.

### ► Access

Access is usually restricted to the academicians, students and administrative staff of colleges and universities, though other researchers with legitimate needs are sometimes granted temporary accounts.

### ► Charges

Generally the users are not charged for their individual usage of BITNET services, though it is often the case that the institution will charge a regular set fee for maintenance of an account on the local computer.

### ► Services

The primary function of BITNET is electronic mail. People with BITNET accounts are given an address of the form USER@HOST, where USER is the individual's account name and HOST is the name of the BITNET host computer. Sending mail to another person on BITNET is fairly straightforward. The exchange of mail messages among many BITNET users, however, requires a facility called a 'listserver'.

Listservers keep track of the addresses of all members of a particular group and when members wish to post a message which can be read and answered by anyone, they send the message to the appropriate list address, then copies are sent to all the members' mailboxes. The electronic address for a listserver is `LISTSERV@node`. The electronic address for a list is `list@node`.

Note the difference between `LISTSERV@node` and `list@node`. A mail message to be distributed to the list members is sent to `list@node`; commands such as `SUBSCRIBE`, `UNSUBSCRIBE`, and `REVIEW` are sent to `LISTSERV@node`. Be careful not to confuse these two; occasionally a user sends a command to `list@node` and everyone on the list receives this command as a mail message.

The best known listserver is `LISTSERV@BITNIC`. BITNIC (BITNET Network Information Center) contains a large amount of listserver information and performs a coordinating function for other listservers. Similarly, there are regionally-located "backbone listservers" that contain a variety of frequently-accessed information (eg: an inventory of all lists on all listservers). Backbone listservers allow efficient distribution of network information.

#### ■ BITNIC Documentation

Help Manuals and other documentation are available from BITNIC (BITNET Network Information Center). Send the following commands or messages to `LISTSERV@BITNIC`:

**LIST GLOBAL** ■ a "list of lists" maintained at the BITNIC listserver and on all backbone listservers. You will receive a file (not a mail message) which contains the network ID (listname), full address (`list@node`), and list title of all available lists.

**GET BITNET SERVERS** ■ "a list of network servers and services"; including file servers (eg: ISACC, `INFO@NSF`), NETSERV file servers, user directory servers (eg: FINGER, NAMESERV, WHOIS), `LISTSERV` file servers, `LISTSERVE` filelists, RELAY, and a selected list of electronic magazines. For general information about servers see the BITNET USERHELP file listed below.

**GET LISTSERV GROUPS** ■ an annotated list of selected lists; includes listname, listowner and brief description. Also includes a listing of ARPAnet Special Interest Groups with BITNET sub-lists.

**GET BITNET OVERVIEW** ■ the best short description of BITNET, its services, and membership structure.

**GET USING SERVERS** ■ the closest thing BITNIC has to a

listserver user manual. Includes introductory information and commands, description of some lists, a list of listserver sites, and some information on BITNET database.

**GET BITNET USERHELP** ■ the "official" BITNET user manual, written by Chris Condon, to "familiarize you with the basic concepts behind BITNET and how to communicate with people throughout it." It starts with "BITNET for the Complete Idiot" and offers brief coverage of most BITNET topics including listservers, gateways, interactive communication, etc.

#### ■ Mailing Lists

There are more than 3,000 BITNET mailing lists. Of these, the fewer than 100 which are directly pertinent to sustainable development are listed in *Appendix 10*.

■ ■ ■

## UUCP/USENET

### UUCP Project

`uucp-query@cblpf.ATT.COM`

`cblpf!uucp-query`

`uucp-query@cblpf.UUCP`

`uunet!usenet-request usenet-request@uunet.uu.net`

The UUCP network is a network of computers that use the UNIX operating system. Part of the UNIX operating system is a program that allows files to be copied via telephone line and modem to another UNIX computer. This program is called UUCP (UNIX to UNIX CoPy) and is the basis for the circulation of electronic mail among network sites.

There are approximately 45,000 host computers on the UUCP network. Though there are many in developing nations, the vast majority are located in the industrialized countries. It is estimated that there are more than 10 million people with accounts on the network.

Usenet is not a network per se, but a distributed computer conferencing system that makes use of the UUCP network as the vehicle for transporting messages. Special software is used to structure the messages into specific topic groupings called 'newsgroups'. About 20 per cent of the UUCP network account holders are Usenet readers.

### ► Access

Since its inception in the early 1980s, the UUCP network has been anarchic. There has never been any official network administration to set fees or make policies. This does not mean that the network is unstable or problematic,

however. Due to the strong cooperative spirit of the cadre of computer scientists who created it and have overseen its development, it has functioned quite efficiently with a minimum of problems.

Because there is no administration to set access policy, the network is open to anyone with UUCP or UUCP-emulating software that can find a network site to connect to. Once connected, mail and newsgroup messages can be exchanged. For those who only wish to access a network computer occasionally through dial-up access, rather than maintain their own network host, there are an ever-increasing number of public access UUCP/Usenet systems willing to offer individual accounts. The APC networks, for example, offer people the opportunity to use the services of UUCP/Usenet.

### ► Charges

The costs of operating one's own site are minimal, being only the cost of the telephone connection to the next site, which is usually a local call. Charges for an account on a public-access host can vary from nothing to a few hundred dollars per year. It is often the case that individual mail to other sites is sent without any extra charge.

### ► Services

Like the Internet and BITNET, there are hundreds of UUCP Mailing Lists. The actual mailing lists are maintained by human moderators. If you wish to become part of a mailing list, send a message to the moderator stating your name and full e-mail address.

Moderators do have the right to restrict access, but generally will allow anyone to join.

For a full list of updated mailing lists, users are encouraged to check the news.lists and news.announce.newusers newsgroups each month.

A list of UUCP mailing lists related to sustainable development is given in *Appendix 11*.

### ■ Newsgroups

Unlike Internet, BITNET, and UUCP mailing lists, which are received by individual users with accounts on those networks, Usenet newsgroups are received by the host computer. Access to any and all of the newsgroups is then available to each user. In this, they are similar to the computer conferences on the APC Networks. Many, in fact, are currently being received on various APC hosts.

Newsgroups distributed worldwide are divided into seven broad classifications: "news", "soc", "talk", "misc", "sci", "comp" and "rec". Each of these classifications is organized into groups and subgroups according to topic.

**"comp"** ■ Topics of interest to both computer professionals and hobbyists, including topics in computer science, software sources, and information on hardware and software systems.

**"sci"** ■ Discussions marked by special and usually practical knowledge, relating to research in, or application of, the established sciences.

**"misc"** ■ Groups addressing themes not easily classified under any of the other headings or which incorporate themes from multiple categories.

**"soc"** ■ Groups primarily addressing social issues and socializing.

**"talk"** ■ Groups largely debate-oriented and tending to feature long discussions without resolution and without appreciable amounts of generally-useful information.

**"news"** ■ Groups concerned with the news network and software themselves.

**"rec"** ■ Groups oriented towards hobbies and recreational activities.

These "world" newsgroups are (usually) circulated around the entire USENET—this implies worldwide distribution. Not all groups actually enjoy such wide distribution, however. The European Usenet and EUNET sites take only a selected subset of the more "technical" groups, and controversial "noise" groups are often not carried by many sites in the US and Canada (these groups are often under the "talk" and "soc" classifications).

For a full list of updated newsgroups, users are encouraged to check the news.lists and news.announce.newusers newsgroups each month.

Of the 800 or so worldwide newsgroups and the 1,000 newsgroups with limited distribution, there are very few related to sustainable development. For a listing of these, see *Appendix 12*.

## COMPU SERVE INFORMATION SERVICES (CIS)

Available in North America, and most countries, excluding Europe:

### **CompuServe Customer Service**

5000 Arlington Centre Boulevard  
PO Box 20212  
Columbus, Ohio 43220  
USA

Telephone: 614-457-8650

### **Europe/1 CompuServe Customer Service**

15/16 Lower Park Row  
PO Box 676  
Bristol BS99 1YN  
United Kingdom

Telephone: (in UK) 0800.289458  
(from outside UK) 44-272-255111  
Fax: 44-272-252210

### **Europe/2 CompuServe Customer Service**

Jahnstrasse 2  
Postfach 1169  
D-8025 Unterhaching bei Muenchen  
Germany

Telephone: (in Germany) 0130-4643  
(from outside Germany) 49-89-66550222  
within Switzerland 155 3179  
Fax: 44-89-66550255

CompuServe is the largest network of individuals using personal computers, with approximately 750,000 users worldwide. The overwhelming bulk of CompuServe membership is in North America, although there are subscribers in virtually every country of the world.

The predominance of individual members, above institutional subscribers, is reflected in the package of dialogue services, which are often focused on a process of exchange (called "Forums") among subscribers. There are several dozen publicly accessible forums, mainly centred upon computers and information technology, hobbies, lifestyles and education. Forums are often 'managed' by discussion coordinators, many of whom are linked to commercial enterprises with a direct interest in the Forum's topic. In addition, it is possible for certain subscribers, such

as the members of a voluntary association or a company, to conduct a closed forum.

In the field of sustainable development, there is only one publicly accessible forum, known as "Network Earth", mediated by the Turner Broadcasting System, which has a program of the same name. This Forum is dominated by wide-ranging ecological dialogue among concerned North American citizens, and it provides many insights into their concerns and priorities. In addition, the forum has a growing library of documents available for downloading, many of them directly related to the specific topics which emerged during the preparatory phases of the UNCED process.

The prime geographic coverage of its membership and the services offered to them is the North American economy. CompuServe is increasingly available in Europe and other industrialized economies.

### ► Access

Access is available, with significant communications surcharges, through local direct dial-in points throughout North America, Europe, Japan and other industrialized countries.

CompuServe can also be accessed from any packet switching network service able to link to X.25 or X.121 network user addresses (NUAs) in North America, the United Kingdom, Switzerland or Germany. It should be noted that CompuServe has incomplete and out-of-date information on international access. The information on access from many parts of the South is inadequate.

### ► Charges

There is no subscription fee for access to the basic service. An extended subscription, which allows access to more business and commercial information, is USD 10.00 per month.

There is a basic cost for time spent on line. However, there are additional costs for electronic mail with other networks, and fax and telex (at North American or European rates). Database usage is also charged, with rates varying according to the host, the specific database consulted, and the extent of information retrieved.

Outside North America, where CompuServe can be accessed in most cities and towns for the price of a local phone call, the costs of access are a significant additional expense. Within Europe, Japan, and some other industrialized countries where CompuServe has local dial-in access points, communication surcharges cost around USD 10.00 per hour. Elsewhere, communication must be made either via the national packet switching network, or by direct dial to an access point in one of the regions mentioned, such as Europe or North America.

## ► Services

The principal services are:

- communication
- electronic shopping
- reference and resources
- interest and dialogue areas

### ■ Communication

CompuServe offers electronic mail facilities for correspondence with any other member of CompuServe. CompuServe's electronic service allows the transfer of both text and binary files. Mail can also be exchanged with subscribers of the MCI Mail and AT&T Mail networks. The system allows the transmission of messages to any fax or telex machine in the world.

### ■ Electronic shopping

CompuServe offers facilities for the purchase of a wide variety of consumer items direct from retailers. These include: computer software, clothing, books, and airline tickets.

### ■ Reference and resources

CompuServe offers a variety of information resources, finance, news, entertainment, computer software/hardware for personal and business applications, travel information, as well as reference resources.

The reference services, principally through CompuServe's IQuest facility, provide access to approximately 1,000 databases on consumer, business, academic, social, scientific, legal, medical, and basic reference information. Access is open to databases operated by twelve commercial database suppliers (hosts). While search procedures are simplified, the system does not allow multi-host searching, nor off-line delivery of results to a subscriber's mailbox.

The principal databases relevant to sustainable development are in *Appendix 13*.

## Online Databases

Interest in sustainable development has exploded. As of mid-May 1992, we counted over 1700 'unique' citations in 121 mostly bibliographic databases and about 3000 citations in 74 news databases we searched. From January to mid-May 1992, 710 news articles have appeared on sustainable development within some 380 databases accessed via Dialog Information Services. This is a far cry from 1980, when the first citations appeared.

Databases are structured files that are searchable using a computer. The information they contain is quickly retrievable and vast amounts of it can be accessed.

Databases contain many different types of information: citations, abstracts, news stories, biographical records, unique chemical substances data, recipes, time series, software programs, images, or a description or listing of virtually anything. In 1989, there were over 5500 databases containing about 5 billion records. No doubt, there are more today.

About two-thirds of these databases are in the US, and most of the databases contain full text (29%), bibliographic (25%), or directory (15%) information. Most of these databases are in the following subject areas: business (33%), science, technology and engineering (19%), and health and life sciences (11%). Other categories include law, social sciences, news, etc.<sup>1</sup>

Sustainable development still is not often used as an index term, either to classify databases, or their contents, but this is changing as the term gains currency. Increased use of sustainable development for indexing means increased ease of searching, and more pertinent citations.

This section contains information gathered from a select number of databases.

The IISD looked through the following:

- Development databases available through the Development DataBases Service of the International Development Research Centre (IDRC) in Ottawa, Canada.
- The databases available through Dialog Information Services, Inc. (see Table 1 and Table 2)

There are many more.

■ ■ ■

<sup>1</sup> Marcaccio, K.Y. Ed. 1990. *Computer-readable databases: A directory and data sourcebook*. 6th ed. Detroit: Gale Research Inc. 1379pp.

<sup>2</sup> Dialog Information Services, Inc. 1992. *Price list, Spring (March 1992)*. Palo Alto: Dialog Information Services.

<sup>3</sup> Ojala, M. 1991. Dollar \$ign Column. Staying alert via online clipping services. *Online* 15(5):80-82.

### ► Access

The Online databases mentioned here are available to anyone with a computer, a modem, and a telephone. Most can be reached through a local packet switching network, or by direct dialup. Some such as IDRC, require approval, and others, a subscription fee. Costs can vary substantially based on the mode of access.

Use of the Dialog databases involves three types of fees: connect time - which is the time for querying and downloading, i.e. retrieving records from a file. This varies upwards from USD 60 per hour for many of the databases listed here.

Another charge is the rate per record or royalty charged to download a record. For many of the databases, this can vary from USD 0.30-0.50 to, exceptionally, USD 5.50 per page of text, for specialized reports. Most records are available in the lower cost range, and users can decide which databases to query.

The other category is telecommunications charges, and these will vary with the country. Telecommunications charges are cheapest, i.e. USD 6-24 per hour, in North America<sup>2</sup>.

Access to these services from many developing countries can be prohibitively expensive, because of the high telecommunications charges. Telecommunications fees and authorization to use these networks are steps limiting the free flow of information around the world. Interested users in Third World countries should enquire to find out if a local packet switched network exists or they should write to the database host.

### ► Remaining Current: Clipping, Alert or SDI services

How does one stay current when so much information is floating around? Computerized access to information means masses of data become available. Staying on top of sustainable development in the news and in the research world is not straightforward, nor is it cheap. But there are ways.

Computerized clipping services provide one answer<sup>3</sup>. A computerized clipping service automatically (daily if required), captures newly added database records according to search criteria. These captured records can be directed to any post box, and electronically, to some e-mail addresses. The cost varies with update frequency and database connect and royalty charges.



**TABLE 1**

The major (mostly bibliographic) databases pertinent to sustainable development available through Dialog Information Services, Inc.

Rank	No. of Records on Sustainable Development	Database Name	Coverage (years)
1	375	GEOBASE	1980-1992
2	290	CANADIAN BUS. & CUR. AFF.	1982-1992
3	224	ENVIRONMENTAL BIBLIOGRAPHY	1974-1992
4	213	CURRENT CONTENTS SEARCH	1990-1992
5	178	CAB ABSTRACTS	1984-1992
6	125	SOCIAL SCISEARCH	1972-1992
7	107	AGRIS INTERNATIONAL	1974-1992
8	106	SCISEARCH	1974-1992
9	102	ENERGY SCIENCE & TECHNOLOGY	1974-1992
10	99	LCMARC-BOOKS	1968-1992
11	90	BIOSIS PREVIEWS	1969-1992
12	73	ACADEMIC INDEX	1976-1992
13	73	TRADE AND INDUSTRY INDEX	1881-1992
14	68	AGRICOLA	1979-1992
15	68	ENVIROLINE	1970-1992
16	51	MAGAZINE INDEX	1959-1992
17	47	BIOBUSINESS	1985-1992
18	47	PTS NEWSLETTER DATABASE	1987-1992
19	46	BRITISH BOOKS IN PRINT	1992
20	42	NTIS	1964-1992

**TABLE 2**

The major news databases pertinent to sustainable development available through Dialog Information Services, Inc.

Rank	No. of Records on Sustainable Development	Database Name	Coverage (years)
1	606	PTS NEWSLETTER DATABASE	1987-1992
2	449	TEXTLINE: ASIAN/AUSTRALIAN NEWS	1988-1992
3	365	TRADE AND INDUSTRY ASAP	1983-1992
4	302	CANADIAN BUS. & CUR. AFF.	1982-1992
5	199	TEXTLINE: UNITED KINGDOM NEWS	1988-1992
6	189	Reuters	1987-1992
7	172	TEXTLINE: NO/CT/SO AMERICAN NEWS	1988-1992
8	127	PR Newswire	1987-1992
9	117	TEXTLINE: EUROPEAN NEWS	1988-1992
10	117	TEXTLINE: WORLDWIDE JOURNALS	1988-1992
11	101	INVESTEXT	1982-1992
12	98	Financial Times Fulltext	1986-1992
13	94	NEWSWIRE ASAP	1985-1992
14	75	PTS PROMT	1972-1992
15	75	TRADE AND INDUSTRY INDEX	1981-1992

Strategies to minimize cost by shopping around and checking the various online services may be the way to go for those who are budget conscious<sup>4</sup>. Conversely, one can limit the search to only capture new book titles on sustainable development added to the LC MARC database of the Library of Congress of the USA, a moderately-priced database which is regularly updated. Unfortunately, the cost of these services to users outside North America and Europe can be expensive due to telecommunications costs.

### ► CD-ROM

Compact disk-read only memory (CD-ROM) technology offers an alternative to the high cost of telecommunications. Many of the databases mentioned here are also available on CD-ROM which can store about 600 Megabytes (Mb) of data on one plastic disk.

The initial cost of purchasing a CD-ROM may seem high, but in most cases, unlimited use can be made of the data because the royalty charges are built into the purchase price.

The main disadvantage of CD-ROM, apart from the initial cost, is the need to subscribe to receive updated editions of databases.

Some of the databases mentioned here are available on CD-ROM from the same database hosts. Another major publisher of databases on CD-ROM is SilverPlatter (*see address below*). Many development aid agencies are providing CD-ROM to developing country institutions.

### IDRC Development Database Service (DDBS)

- Contact:
  - DDBS Manager
  - Library
  - P.O. Box 8500
  - Ottawa, Ontario
  - Canada K1G 3H9
  - Tel: 613-236-6163
  - Fax: 613-238-7230

The International Development Research Centre (IDRC) (see a description of IDRC under the Organizations section) provides online access to several databases on international development. Among these, the following databases are most pertinent to sustainable development.

### ► BIBLIOL.LIBRARY

This database is the computerized version of the catalogue of the library of the International Development Research Centre (IDRC) in Ottawa and includes over 60,000 entries. The major works of the collection have been indexed. IISD counted about 400 citations using sustainable development as a search key. This is one of the few databases that includes sustainable development as a search term. Included in this collection are the complete reports and other archived material of the World Commission on Environment and Development (WCED), the Brundtland Commission.

### ► FAO

This bibliographic database includes worldwide coverage of documents written by, or for, the Food and Agriculture Organisation (FAO) of the United Nations, on agriculture and food production. Much of the documentation deals with developing countries and sustainable agriculture, as well as related topics in agricultural and rural development.

### ► IDRIS

The Inter-agency Development Research Information System (IDRIS) database contains over 7100 entries describing various development projects of 7 different organizations: the Board on Science and Technology for International Development (BOSTID) of the National Academy of Sciences of the USA, the German Appropriate Technology Exchange (GATE), IDRC, the International Foundation for Science (IFS), the Japan International Cooperation Agency (JICA), the Swedish Agency for

■ ■ ■

<sup>4</sup> Briscoe, E.D., and C. Wall. 1992. Inexpensive news sources. *Database* 15(1):28-36.

Research Cooperation in Developing Countries (SAREC) and the United Nations University (UNU). Fifty-seven entries were recovered on sustainable development, but there are probably more.

#### ▶ AID

This database contains technical research and development materials produced by the United States Agency for International Development (USAID). The fields covered include science and technology for development, social sciences, and natural resources in international development. The file contains over 25,000 references. Thirty-four entries on sustainable agriculture and 279 on agroforestry were identified.

#### ▶ UNESCO

This database lists publications prepared by or for the United Nations Educational, Scientific and Cultural Organization (UNESCO) and dealing with development aspects of educational, scientific and cultural issues. One hundred and fifteen citations were identified on sustainable development, which is used as a search term.

### Dialog Information Services Inc.

- Dialog Information Services, Inc.  
3460 Hillview Avenue  
Palo Alto  
California 94304  
USA  
  
Tel: 415-858-3785  
Fax: 415-858-7069

With over 380 databases, Dialog is one of the largest host systems (i.e.: database suppliers), in the world. DIALOG is a service trademark of Dialog Information Services, Inc. A description of these databases follows.

Dialog provides a variety of database types. Information they contain includes: news stories, directories, numeric data, articles in magazines and journals, including citations or, increasingly, the full text of records.

The databases supplied by Dialog are generally produced independently. Dialog makes them available for a fee.

IISD searched the bibliographic and news databases of the Dialog family of databases and ranked the results in order of number of records relevant to sustainable development per database.

A description of major databases for sustainable development available through Dialog<sup>5</sup>, and some other hosts, follows.

#### ▶ AGRICOLA

##### Database type: Bibliographic

AGRICOLA is the database of the National Agricultural Library (NAL). This file provides comprehensive coverage of worldwide journal literature and monographs on agriculture and related subjects, including: animal studies, botany, chemistry, entomology, fertilizers, forestry, hydroponics, soils, and more.

**Coverage:** 1970 to present, with monthly updates

**File Size:** 2,826,702 records

**Provider:** U.S. National Agricultural Library,  
Beltsville, Maryland, USA

#### ▶ ACADEMIC INDEX

##### Database type: Bibliographic

ACADEMIC INDEX (AI), produced by Information Access Company, provides indexing of more than 400 scholarly and general interest publications. Coverage represents the most commonly held titles in over 120 college and university libraries. ACADEMIC INDEX expands the coverage found in its sister file, MAGAZINE INDEX, (see below), by providing information in the areas of the social sciences and the humanities. The subject coverage of ACADEMIC INDEX includes the following general areas: art, anthropology, economics, education, ethnic studies, government, history, literature, political science, general science, psychology, religion, sociology, and leisure.

**Coverage:** 1976 to present, with monthly updates

**File Size:** 931,496 records

**Provider:** Information Access Company,  
Foster City, California, USA

<sup>5</sup> All of these databases are available through Dialog Information Services Inc., but some are also accessible or available through other hosts, i.e. providers of online information, including CompuServe, which is described in the section on computer networks. A more comprehensive list of database suppliers or hosts follows later in this section. Note that some other databases of interest to sustainable development are available through these hosts. Information adapted from Dialog Database Catalog, 1992.

## ▶ AGRICOLA

**Database type:** Bibliographic

AGRICOLA is the database of the National Agricultural Library (NAL). This file provides comprehensive coverage of worldwide journal literature and monographs on agriculture and related subjects, including: animal studies, botany, chemistry, entomology, fertilizers, forestry, hydroponics, soils, and more.

**Coverage:** 1970 to present, with monthly updates

**File Size:** 2,826,702 records

**Provider:** U.S. National Agricultural Library, Beltsville, Maryland, USA

## ▶ AGRIS INTERNATIONAL

**Database type:** Bibliographic

AGRIS is the database of the International Information System for the Agricultural Sciences and Technology Information System (AGRIS), the worldwide network of centres imputing information to the AGRIS database. The AGRIS INTERNATIONAL database serves as a comprehensive inventory of worldwide agricultural literature that reflects research results, food production, and rural development. Research results and other literature which would not otherwise be circulated widely is assembled and input by national and other specialized centres in developing and developed countries. This database is an important source of environmental material of interest to international development. The file corresponds in part to *AgrIndex*, published monthly by the Food and Agriculture Organization (FAO) of the United Nations. Subject coverage focuses on many topics including: general agriculture; geography and history; education, extension, and advisory work; administration and legislation; economics, development, and rural sociology; plant production; protection of plants and stored products; forestry; animal production; aquatic sciences and fisheries; machinery and buildings; natural resources; food science; home economics; human nutrition; pollution, and more.

**Coverage:** 1975 to present, with monthly updates

**File Size:** 1,291,330 records

**Provider:** U.S. National Agricultural Library, Beltsville by agreement with the Food and Agriculture Organizations (FAO) of the United Nations

## ▶ BIOBUSINESS

**Database type:** Bibliographic

BIOBUSINESS provides current and retrospective information to business executives, financial analysts, product development and marketing professionals, and information specialists about the business applications of biological and biomedical research. The file provides coverage of economic aspects of the following life sciences areas: agriculture, animal production, biomass conversion, biotechnology, crop production, diet and nutrition, fermentation, food technology, forestry, genetic engineering, health care, industrial microbiology, medical diagnostics, medical instrumentation, occupational health, pesticides, pharmaceuticals, protein production, toxicology, veterinary science, and waste treatment. Approximately 500 technical and business journals, magazines, newsletters, meetings – proceedings, patents, and books from all over the world are scanned for relevant articles.

**Coverage:** 1985 to present, with weekly updates

**File Size:** 371,575 records

**Provider:** BIOSIS, Philadelphia, Pennsylvania, USA

## ▶ BIOSIS PREVIEWS

**Database type:** Bibliographic

BIOSIS PREVIEWS contains citations from Biological Abstracts (BA), Biological Abstracts, Reports, Reviews, Meetings (BA/RRM), and BioResearch Index (BioI), the major publications of BIOSIS (BA/RRM is the successor to BioI beginning in 1980). Together, these publications constitute a major English-language service providing comprehensive worldwide coverage of research in the biological and biomedical sciences. Biological Abstracts includes approximately 275,000 accounts of original research yearly from nearly 9,000 primary journal and monograph titles. Biological Abstracts/RRM includes an additional 260,000 citations a year from meeting – abstracts, reviews, books, notes, letters, selected institutional and government reports, and research communications. U.S. patents are included from 1986 through 1989.

Abstracts are available for records from the Biological Abstracts portion of the database starting with Vol. 62, July 1976, and for book synopses in BA/RRM starting in 1985. Most BA/RRM records do not contain abstracts; no BioI records contain abstracts.

**Coverage:** 1969 to present, with weekly updates

**File Size:** 7,713,784 records

**Provider:** BIOSIS, Philadelphia, Pennsylvania, USA

### ► BRITISH BOOKS IN PRINT

**Database type:** Bibliographic

BRITISH BOOKS IN PRINT provides indexing of books published in the United Kingdom, as well as those published throughout the world which are printed in the English language and are available within the U.K. Government publications of wide general interest are included. Some maps are also listed in the database. BRITISH BOOKS IN PRINT corresponds to the print publication of the same name.

**Coverage:** Current, with monthly updates

**File Size:** 1,642,224 records

**Provider:** J. Whitaker & Sons, Ltd.,  
London, United Kingdom

### ► CAB ABSTRACTS

**Database type:** Bibliographic

CAB ABSTRACTS is a comprehensive file of agricultural and biological information and contains all records in the 26 main abstract journals published by CAB International. Over 8,500 journals in 37 different languages are scanned for inclusion, as well as books, reports, theses, conference proceedings, patents, annual reports, and guides. In some cases, less accessible literature is abstracted by scientists working in other countries. About 130,000 items are indexed each year. Significant papers are abstracted, while less important works are reported with bibliographic details only. The journals included in CAB Abstracts cover the following subjects: agricultural engineering, animal breeding, animal disease, arid lands, dairy science, forestry, forest products, horticulture, nutrition, veterinary science, entomology, plant breeding, plant pathology, rural recreation and tourism, soils and fertilizers, weeds, world agricultural economics, and more.

**Coverage:** 1972 to present, with monthly updates

**File Size:** 2,878,913 records

**Provider:** CAB International,  
Farnham Royal, Slough, United Kingdom

### ► CANADIAN BUSINESS AND CURRENT AFFAIRS

**Database type:** Bibliographic and News

Sustainable development is used as a descriptor term in this file and 290 records were recovered in this search of the database, which indexes over 100,000 articles per year which appear in over 500 Canadian Business periodicals and 10 newspapers.

**Coverage:** 1980 to present, with monthly updates

**File Size:** 1,647,683 records

**Provider:** Micromedia Ltd., Toronto, Ontario, Canada

### ► CURRENT CONTENTS SEARCH

**Database type:** Bibliographic

CURRENT CONTENTS SEARCH is the online version of the Current Contents series of publications. Current Contents is a weekly service that reproduces the table of contents from current issues of leading journals in the sciences, social sciences, and arts and humanities. CURRENT CONTENTS SEARCH consists of seven subsets based on Current Contents editions. In addition to providing access to the tables of contents of the journals covered, CURRENT CONTENTS SEARCH also provides a complete bibliographic record for each item. These items include articles, reviews, letters, notes, and editorials.

**Coverage:** Current six months to one year, with weekly updates

**File Size:** 1,477,528 records

**Provider:** Institute for Scientific Information,  
Philadelphia, Pennsylvania, USA

### ► ENERGY SCIENCE AND TECHNOLOGY

**Database type:** Bibliographic

ENERGY SCIENCE AND TECHNOLOGY (formerly DOE ENERGY), the database of the U.S. Department of Energy, is a source of literature references on energy and related topics. The database provides coverage of journal articles, report literature, conference papers, books, patents, dissertations, and translations. The following energy topics are included: nuclear, wind, fossil, geothermal, tidal, and solar. Related topics such as environment, energy policy, and conservation are also included.

**Coverage:** 1974 to present, with bi-weekly updates

**File Size:** 2,620,021 records

**Provider:** U.S. Department of Energy,  
Washington, D.C., USA

### ► ENVIROLINE

**Database type:** Bibliographic

ENVIROLINE covers worldwide environmental information and provides indexing and abstracting coverage of more than 5,000 international primary and secondary source publications reporting on the environment. Included are such fields as: management, technology, planning, law, political science, economics, geology, biology, and chemistry as they relate to environmental issues. Literature covered includes periodicals, government documents, industry reports, proceedings of meetings, newspaper articles, films, and monographs.

**Coverage:** 1971 to present, with monthly updates

**File Size:** 426,075 records

**Provider:** R.R. Bowker, New York, New York, USA

### ► ENVIRONMENTAL BIBLIOGRAPHY

**Database type:** Bibliographic

ENVIRONMENTAL BIBLIOGRAPHY covers the field of general human ecology, atmospheric studies, energy, land resources, water resources, and nutrition and health. More than 300 periodicals are indexed in ENVIRONMENTAL BIBLIOGRAPHY.

**Coverage:** 1973 to present, with bi-monthly updates

**File Size:** 426,075 records

**Provider:** Environmental Studies Institute,  
Santa Barbara, California, USA

### ► FINANCIAL TIMES FULLTEXT

**Database type:** News

FINANCIAL TIMES FULLTEXT contains the complete text of all articles published in the London and International editions of the Financial Times newspaper. The Financial Times provides in-depth information on industries, companies, and markets around the world. Areas covered include: company information (financial results, activities, etc.), government regulation, industry information and developments, labour issues, management issues, political developments, technology, and world trade.

**Coverage:** 1986 to present, with daily updates

**File Size:** 357,703 records

**Provider:** Financial Times Business Information, Ltd.,  
London, United Kingdom

### ► GEOBASE

**Database type:** Bibliographic

GEOBASE is a bibliographic database that covers the worldwide literature on geography. An updated version of the database was not available for 1992, but for 1991, 137 records were identified, mostly from academic and research journals.

Based on the criteria used, GEOBASE had the greatest number of records on sustainable development of all databases searched, 375. Sustainable development is also used as a descriptor term in this database.

**Coverage:** 1980 to present, with monthly updates

**File Size:** 431,591 records

**Provider:** Geo Abstracts Ltd., Norwich, United Kingdom

### ► INVESTEXT

**Database type:** News

INVESTEXT is a database of company, industry, topical, and geographic analysis. The INVESTEXT database comprises of more than 320,000 full-text reports written by analysts at 180 investments banks and research firms worldwide. Coverage includes 14,000 companies worldwide and 53 industry groups. All textual and tabular data contained in the reports are included in the database.

**Coverage:** 1982 to present, with monthly updates

**File Size:** 1,742,965 records representing 283,096 reports

**Provider:** Thomson Financial Networks,  
Boston, Massachusetts, USA

### ► LC MARK - BOOKS

**Database type:** Bibliographic

The LC MARK - BOOKS database contains complete bibliographic records for all books catalogued by the U.S. Library of Congress since 1968, beginning with books in English and adding coverage of books in other languages from 1970 through 1979. The LC MARK - BOOKS database provides online access to a comprehensive, worldwide collection of books that can be searched by author, title, subject, series, publication date, and other access points.

The LC MARK - BOOKS database also provides a powerful tool for library acquisitions and cataloguing departments to use in bibliographic verification and cataloguing.

**Coverage:** 1968 to present, with weekly updates

**File Size:** 3,931,162 records

**Provider:** U.S. Library of Congress, Washington, D.C., USA

## ► MAGAZINE INDEX

### Database type: Bibliographic

MAGAZINE INDEX offers broad coverage of general-interest magazines. MAGAZINE INDEX covers more than 500 popular magazines, and provides extensive coverage of current affairs, the performing arts, business, sports, recreation and travel, consumer product evaluations, science and technology, leisure-time activities, and other areas.

**Coverage:** 1959 to March 1970, 1973 to present, with weekly updates

**File Size:** 2,531,455 records

**Provider:** Information Access Company, Foster City, California, USA

## ► NEWSWIRE ASAP

### Database type: News

NEWSWIRE ASAP provides the complete text and comprehensive indexing of news releases and wire stories from many news organizations: Agencia EFE, PR Newswire, Kyodo, Newsbytes, Reuters, Tass, Tokyo Financial Wire, and Xinhua News Agency. Newswire records provide news releases from more than 10,000 companies, government agencies, and other organizations.

**Coverage:** PR Newswire, 1985 to present; Kyodo, 1987 to present; Reuters, 1987 to present; with daily updates

**File Size:** 1,059,879 records

**Provider:** Information Access Company, Foster City, California, USA

## ► NTIS

### Database type: Bibliographic

The NTIS database consists of government-sponsored research, development, and engineering, plus analyses prepared by federal agencies, their contractors, or grantees. It is the means through which unclassified, publicly available, unlimited-distribution reports are made available for sale from various agencies of the government of the USA. In addition, some state and local government agencies now contribute their reports to the database.

This database covers the following subjects: administration and management, agriculture and food, behaviour and society, building, business and economics, chemistry, civil engineering, energy, health planning, library and information science, materials science, medicine and biology, military science, transportation, and more.

**Coverage:** 1964 to present, with bi-weekly updates

**File Size:** 1,547,153 records

**Provider:** National Technical Information Service (NTIS), U.S. Department of Commerce, Springfield, Virginia, USA

## ► PR NEWSWIRE

### Database type: News

PR NEWSWIRE contains the complete text of news releases prepared by companies, public relations agencies, trade associations, city, state, federal and foreign government agencies, and other sources covering the entire spectrum of the news.

PR NEWSWIRE covers many categories of business and industry, with news releases on the following topics: dividends, mergers and acquisitions, earnings, new products, executive changes, new securities offerings, hostile takeovers, repurchases of stock, leveraged buyouts, restructuring, litigation, write-offs, and more. In addition, PR NEWSWIRE covers such non-financial subjects as: entertainment, travel and transportation, government agency announcements, medicine and science, politics, and more.

**Coverage:** 1987 to present, with continuous updates

**File Size:** 403,558 records

**Provider:** PR Newswire Association, Inc., New York, New York, USA

## ► PTS NEWSLETTER DATABASE

### Database type: Bibliographic

PTS NEWSLETTER DATABASE contains the full text of articles from over 500 business and trade newsletters covering nearly 50 industries (i.e., broadcasting and publishing, computers and electronics, materials), subject areas (i.e., research and development, the environment), and eco-political regions (i.e., Europe, Japan, Latin America, Pacific Rim).

**Coverage:** 1988 to present; selected titles with earlier daily updates

**File Size:** 722,656 records

**Provider:** Predicasts, Cleveland, Ohio, USA

## ► PTS PROMT

### Database type: News

PTS PROMT (PREDICASTS OVERVIEW OF MARKETS AND TECHNOLOGY) is a multi-industry database that provides international coverage of companies, products, markets, and applied technologies. PTS PROMT is comprised of abstracts and full-text records from more than 1,000 business publications.

PTS PROMT offers full-text articles from more than 300 leading trade and business sources.

PTS PROMT abstracts and full-text records cover the activities of public and private companies throughout the world. Information includes: market size/shares/trends, capital expenditures, mergers and acquisitions, research and development, new products and technologies, new and expanded facilities, product sales and consumption, financial reporting, market plans and strategies, management procedures, industry and business issues, and related topics.

**Coverage:** 1972 to present, with daily updates

**File Size:** 2,894,909 records

**Provider:** Predicasts, Cleveland, Ohio, USA

## ► REUTERS

### Database type: News

REUTERS contains the complete text of news releases from the Reuter Business Report and the Reuter Library Service (LBY) newswires. The file provides access to current (updated continuously around the clock) information on business and international news.

**Coverage:** 1987 to present, with continuous updates

**File Size:** 846,932 records

**Provider:** Reuters U.S., Inc., New York, New York, USA

## ► SCISEARCH

### Database type: Bibliographic

SCISEARCH is a multidisciplinary index to the literature of science and technology. Prepared by the Institute for Scientific Information (ISI), it contains all records published in Science Citation Index (SCI) and additional records from the Current Contents series of publications that are not included in the print version of SCI. Journals indexed are selected on the basis of several criteria, including citation analysis.

The ISI staff indexes all significant items (articles, reports of meetings, letters, editorials, correction notices, etc.) from approximately 2,600 major scientific and technical journals.

**Coverage:** 1974 to present, with weekly updates

**File Size:** 10,706,877 records

**Provider:** Institute for Scientific Information (ISI), Philadelphia, Pennsylvania, USA

## ► SOCIAL SCISEARCH

### Database type: Bibliographic

SOCIAL SCISEARCH is a multidisciplinary database indexing significant items from the 1,500 most important social science journals throughout the world, and from social science articles selected from 3,000 additional journals in the natural, physical, and biomedical sciences. SOCIAL SCISEARCH includes many important monographs as well, and covers every area of the social and behavioral sciences. It corresponds to the print Social Science Citation Index.

This database allows a search of the author's cited references. Subscribers to the ISI print index receive a reduced rate when searching SOCIAL SCISEARCH on DIALOG.

**Coverage:** 1972 to present, with weekly updates

**File Size:** 2,268,671 records

**Provider:** Institute for Scientific Information (ISI), Philadelphia, Pennsylvania, USA

## ► TEXTLINE

### Database type: News

TEXTLINE: UNITED KINGDOM NEWS is a collection of national and regional daily newspapers and major newswires originating in the United Kingdom and the Republic of Ireland. The collection provides coverage of domestic and home news, and in-depth coverage of international news. Types of news covered include international affairs, commentary, general, company, industry, political, economics, business, financial, social affairs, and commercial activities. The collection includes publications such as Times of London, Independent, The Guardian, Daily Telegraph, Glasgow Herald, Irish Independent, Yorkshire Post, Belfast Telegraph, Daily Post, and Lloyd's List.



**TEXTLINE: EUROPEAN NEWS** includes newspapers, newswire, and newsletters originating in many East and West European countries. Most sources are abstracted and translated to English. Countries of coverage include Austria, Belgium, Czechoslovakia, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, ex-Soviet nations, and Poland. The collection provides news and analysis reports on world and domestic news, home news, general news, industries, companies, politics, economics, business, international business, stock markets, markets, technology, products, art, government, and the European community. Publications in the file include Die Welt, Le Monde, Neve Zurcher Zeitung, Tozsde Kurir, Cinco Días, and Selskaya Zhizn.

**TEXTLINE: NORTH/CENTRAL/SOUTH AMERICAN NEWS** collection consists of U.S., Canadian, and Latin American newspapers and newswire. Coverage includes latest world and national news, industry, financial, investment, political, and general news. Example sources are PR Newswire, Business Wire, American Banker, Globe and Mail, Financial Post, and Gazeta Mercantil.

**TEXTLINE: ASIA/AUSTRALIA NEWS** is a collection of newspapers and newswire in the English language originating in Asia and Australia. Countries of coverage include Japan, Thailand, Korea, Hong Kong, Singapore, Malaysia, India, China, Australia, and New Zealand. The collection provides coverage of world, domestic, home, general, political, economic, financial, industry, company, and commercial news. Example sources are Jiji Press Newswire, South China Morning Post, Bangkok Post, Xinhua News Agency News Bulletin, Korea Economic Daily, The (Melbourne) Age, National Business Reviews, and New Zealand Herald.

**TEXTLINE: WORLDWIDE JOURNALS** is a collection of weekly and monthly journals originating primarily in the United Kingdom and the United States, but have worldwide subject coverage. This special collection provides coverage in the following specialty areas - finance and banking, insurance and investment, property and construction, marketing and retailing, electronics and computing, accountancy, engineering, chemicals, aerospace, and defence. Other special sources included are German-language databases, and Italian language databases. Publications include Euromoney, Financial Technology Bulletin, Insurance Age, and Management Today.

**Coverage:** 1980 to present, with daily updates

**File Size:** over 5,000,000 records as of January 1992  
(combined size of these and other TEXTLINE databases)

**Provider:** Reuters Limited, London, United Kingdom

## ► TRADE AND INDUSTRY ASAP

**Database type:** Bibliographic and News

TRADE & INDUSTRY ASAP provides the selective complete text and indexing for over 200 journals chosen from the more than 400 journals covered in TRADE & INDUSTRY INDEX, plus news releases from PR Newswire. The full text of each article is searchable, and complete articles may be retrieved.

**Coverage:** 1983 to present, with weekly updates

**File Size:** 1,273,412 records

**Provider:** Information Access Company,  
Foster City, California, USA

## ► TRADE & INDUSTRY INDEX

**Database type:** Bibliographic and News

Business journals relating to trade, industry, and commerce are indexed and selectively abstracted in TRADE & INDUSTRY INDEX, which provides indexing and selective abstracting of over 300 trade and industry journals, as well as coverage of business and trade information from nearly 1,200 additional publications. TRADE & INDUSTRY INDEX provides access to information in the following broad subject areas: banking, insurance, securities, agriculture, oil and gas, public utilities, taxation, wholesale and retail trade, construction, design and manufacturing, forestry and paper products, and many more.

**Coverage:** 1981 to present, with weekly updates

**File Size:** 3,649,835 records

**Provider:** Information Access Company,  
Foster City, California, USA

## Other Database Hosts or Suppliers

- BRS Information Technologies/ORBIT Search Service  
8000 Westpark Drive  
McLean  
Virginia 22102  
USA  
  
Telephone: 703-442-0900
- Canadian Institute for Scientific and Technical Information (CISTI)  
CAN/OLE  
Montreal Road  
Ottawa  
Ontario  
Canada K1A 0S2  
  
Telephone: 613-993-1210
- DIMDI (Deutsches Institut für Medizinische Dokumentation und Information)  
Weissshausstr. 27  
Postfach 420580  
D-5000 Cologne 41  
Federal Republic of Germany  
  
Telephone: 49-221-47241
- European Space Agency (ESA)  
Information Retrieval Services (IRS)  
Via Galileo Galilei  
C.P. 64  
I-00044 Frascati Rome  
Italy  
  
Telephone: 39-6-941801
- SilverPlatter Information, Inc.  
37 Walnut Street  
Wellesley Hill  
Massachusetts 02181  
USA  
  
Telephone: 617-239-0306

## Other Sources of Information

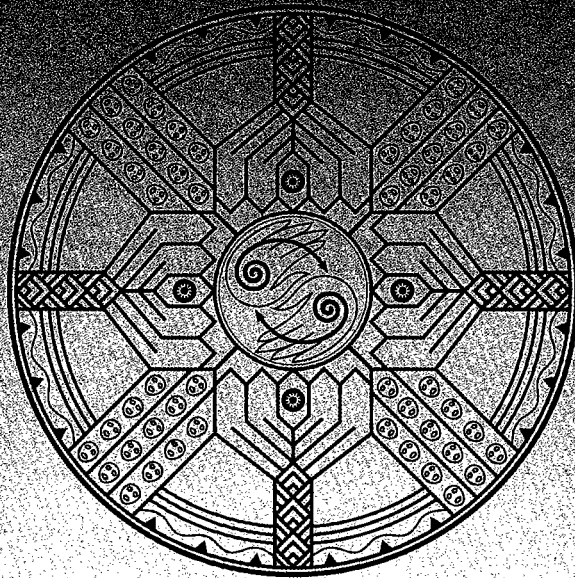
- Marcaccio, K.Y. Ed. 1990. *Computer readable databases: A directory and data sourcebook*. 6th edition. Detroit: Gale Research Inc. 1379pp.

This is a one-stop shopping centre for information on databases.

- United Nations. 1988. *Directory of United Nations databases and information services*. 4th edition. Compiled by the Advisory Committee for the Co-ordination of Information Systems (ACCIS). New York: United Nations. 484pp.

This is a useful tool listing 872 databases, many related to sustainable development.





## **APPENDIXES**

---

## Appendix I

### What Is Computer Communications?

Computer communications has been evolving during the past 20 years and has now reached the point where it is gaining widespread recognition as a cost-effective means of communication, with distinct advantages over the more traditional methods of regular mail, telephone and fax. Using this technology, people are able to exchange information stored on computers, quickly and inexpensively, via telephone lines.

There are three main kinds of computer communications: e-mail (electronic mail), computer conferencing, and online databases.

Using e-mail, people are able to send messages to either one or several individuals simultaneously, with delivery time ranging from a few minutes to a few hours, depending on the service used.

For sharing of information among many dozens or hundreds of members of a workteam or interest group, computer conferencing is useful. Participants can read and respond to messages at their leisure, over a period of weeks, months, or even years. (On some networks, mailing lists take the place of conferences.)

Online databases are much more structured since the information base is maintained by a single organization. Users search for specific items via keywords. Databases do not offer interactive, interpersonal communications.

#### ► What are the advantages to computer communications?

Computer networks save time and resources. Letters don't have to be printed out on paper, placed into envelopes (which also saves on trees) and then physically transported over long distances to their destination. They can be sent directly to the recipient's online address in a matter of minutes, to virtually any address. And the messages don't have to be sent one at a time to several people; a single message can be sent to dozens of correspondents simultaneously.

Computer conferences and mailing lists allow large numbers of people residing in a number of different locations, even across several continents, to have ongoing discussions and share information with each other, whenever they have the time. Often the messages remain on the network to provide an easily referenced record of group interactions. Policy and planning documents, proposals,

research reports, papers, budgets, meeting schedules and agendas are all easily planned and produced using this method of group interaction.

E-mail messages can be sent from your computer to any fax or telex machine, using the resources of some networks (such as the APC Networks), thus eliminating the need for the occasional sender to buy a fax or telex. Like e-mail, a single message can be sent to many recipients at the same time.

E-mail can be much more reliable and cost-effective than telephone calls or faxes, especially in the Third World where the telecommunications infrastructure is very poor. Unlike fax, the modem links have built-in error correction and can be set up to continually try to connect until a link is established, without human involvement.

A few minutes of searching through an online database can save hours or days of painstaking research in a library, and has a better chance of producing the information you need.

Perhaps most importantly, computer networks offer people the opportunity to share the fellowship of others with similar interests and concerns, no matter where they live. Small, dispersed groups of individuals with a particular vision today can evolve into a thriving community of people working together to make that vision a reality.

#### ► What are computer networks?

Computer networks have become the main vehicle for computerized information exchange. A computer network is generally thought of as an integrated system of host computers, each of which has a number of people using them, linked together over telecommunication lines through the use of a particular kind of software. Such networks, particularly the large ones with a great many computers linked to each other, have generally been defined by the type of software used by the host computers making up the network. Hosts on the Internet, for example, link up with software called TCP/IP, while UUCP network computers use UUCP software to transfer data.

In order for people to belong to a particular network, whether that network is a single, local, stand-alone BBS (Bulletin Board System), or an internationally-distributed network with thousands of linked host computers, they must have an account on one of the network computers. They can then use a modem – a device allowing their computer to send and receive data over the telephone – to connect to their account on that particular host computer, in order to use its facilities. It is possible for individuals to belong to several networks, though each network has different policies concerning who may have access.

There are several kinds of networks:

- **Packet Switching Networks** are common data carriers that route data from one computer to another, nationally and internationally. Usually a monopoly operated by a country's telephone company, these networks are mostly used by the business community for transmitting financial and accounting data. Increasingly though, they are used by individuals as a relatively inexpensive method to connect to a network host computer over long distances. They are sometimes called X.25 networks after the type of routing software they use. Some examples are: Datapac in Canada, SprintNet in the US, and RENPAC in Brazil.
- **Commercial Networks** are generally of three types: e-mail, database gateways, and information utilities. E-mail services, such as Dialcom in England, allow electronic message delivery to another user with an account on that system. Database gateways, such as iNet 2000 in Canada, provide online access to several database vendors, such as Dialog in the US. Information utilities, such as Minitel in France, offer most computer communications services, but are oriented toward the commercial vending of information and online services such as flight reservations and bank-at-home operations.
- **BBS Networks** are amalgamations of local bulletin board systems (BBSs). These local BBSs, numbering in the hundreds in most large cities in the North, and having some e-mail and conferencing capabilities, were set up by hobbyists for the exchange of software programs. The largest example of such a network is FidoNet, which has worldwide coverage.
- **Research Networks** are the largest kinds of networks, having been created primarily by computer communication scientists for the purpose of facilitating scientific research. They are non-commercial in nature and often have restrictions placed on who is able to use them. The largest ones, including Internet, Bitnet, and UUCP/Usenet, have thousands of hosts, and millions of users around the world.
- **Not-for-Profit Social Change Networks** are those that link national and regional networks serving people and organizations actively trying to improve social and environmental conditions. Offering e-mail, computer conferencing, and, increasingly, online databases, they facilitate communication on issues such as peace, environment, social justice, international development, health, and education. Examples include AlterNex in Brazil and Pegasus in Australia.

### ► Who has access?

For the most part, each network has its own policies regarding access to accounts on the system. Packet switching and commercial networks are open to anyone who can pay for the services. BBS networks are mostly free of charge (though the ones with the better services often require fees) and allow anyone to join. Research networks usually restrict access to academics and research personnel. The social change networks, while open to all, generally cater to progressive, grassroots organizations.

### ► How much does it cost?

The cost to the users of a network depends on the policies of the network administrations. Research networks and local BBSs usually don't charge users (the research institution or the BBS operator picks up the tab on everyone's behalf), though they often place restrictions on service usage. Packet switching networks, whose prices are mostly fixed by the government in consultation with the telephone company, usually charge between USD5/hour and USD30/hour depending on the country. A special account called an NUI (Network User Identifier), which is required in some countries, can sometimes cost several hundred dollars. Commercial and social change networks' charges vary, but an average user of e-mail and conferencing can expect to spend less than USD50 a month. (However, some commercial databases can cost upwards of USD300/hour.)

Costs are relatively higher for users in the Third World than in the industrialized countries. Equipment is more expensive, and the costs of operating a commercial computer communications service is high, so generally only the wealthiest organizations can afford to join a computer network. The Association for Progressive Communications (APC), however, is working to offer low-cost networking capabilities by establishing local networks in the Third World that utilize less-expensive appropriate technology.

### ► How do I get started?

The best way to get started is to make sure you have a computer, a modem, and some communications software (which usually comes with your modem and allows you to make use of it). Then you have to decide the computer network with which you would like to get an account. Usually this decision will be made on the basis of which network has the information and the community of interest that is right for you, or on the basis of which services are offered at the price you can afford.

Contacting a network representative is relatively easy in some cases, and harder in others. Telephone companies can usually be contacted for information on packet switching networks. Commercial networks can be found in the telephone books or through referrals from computer stores. Bulletin Board Systems are found mainly by contacting a local computer users' club, then getting on one system and finding online references to others. Research networks can be investigated by calling the computing services department of a local college or university, or a government or commercial research institution. (Many large computer equipment and software vendors also know about the research networks). Social change networks can be located by contacting a local grassroots environmental, peace, or international development organization's office that is computerized and which may have an account on one. Or, use the directory included in this publication.

For illustration, Appendix 14 contains samples taken from various computer conferences on the APC networks.

Computer networks are new worlds just beginning to open up. The people who make use of them will be the shapers of those worlds. If you are not daunted by the challenge, you will find that you have a great opportunity to make a difference in the way the future evolves. Happy networking!

## Appendix 2

### Glossary

**Account** ■ Your subscription to a network. Every user is said to have an “account” on his or her system. This refers to an account in the normal financial sense, but also to the account name and password under which all network services are charged.

**Account Name** ■ Your electronic name. This is the same as your log-in ID, user ID, or username – the word you type at the “Login:” prompt to gain access to your account. Unique account names and passwords ensure privacy for users.

**Address** ■ Like a postal address, a “network address” is used to locate another user for the purpose of directing mail. Different networks use different addressing methods, but each address is usually composed of an account name and a host identifier.

**APC** ■ The Association for Progressive Communications (APC) formed in 1990, is an international association of national and regional social change networks which facilitates international communications among organizations and individuals working in the peace, environmental, international development, health, education, and public interest communities.

**ARPANET (Advanced Projects Research Agency Network)** ■ A pioneering long-haul network funded by the U.S. government. It served as the basis for early networking research as well as a central backbone during the development of the Internet. The ARPANET consists of individual packet switching computers interconnected by leased data lines.

**ASCII** ■ American Standard Code for Information Interchange. The generic form in which text characters are handled in most computer systems and networks. ASCII text has no special characters for formatting, such as underlined or bold characters, font changes, etc. Network files of ASCII text can be viewed on the screen (as opposed to binary files, which cannot). Word processing programs often require special commands in order to save or load ASCII files – possibly as “TEXT ONLY” or “DOS-TEXT”.

**Baud Rate** ■ The speed at which data is transmitted over telephone lines. For example, a 1200 baud modem sends data at a rate of 1200 bits per second. Dividing the baud rate by 10 gives a rough estimate of the number of

characters (individual letters or digits) which it can transfer. Thus, a 2400 baud modem is capable of transferring 240 characters per second, maximum. Two modems can connect only if they can operate at the same baud rate.

**Binary File** ■ A file containing one or more strings of data bits which are not printable characters. Some binary files may be computer programs or other forms of data that contain no text characters at all. Binary files cannot be displayed on screen, but can be downloaded for use with appropriate applications on your computer.

**Bit** ■ The smallest unit of data used in a computer. Seven or eight bits are typically used to represent a single character of text.

**BITNET** ■ A university and college-based network with several thousand host systems in North America, Europe, Australia, Japan, and an increasing number in Third World countries. It allows e-mail and file transfer, and uses mailing lists for group communication.

**Bulletin Board System (BBS)** ■ A “bulletin board system” (or BBS) is a host computer which can be dialed and accessed by anyone with a modem. Usually BBSs are hobbyist-operated for local public access, often for the sharing of software programs.

The term “bulletin board” is sometimes used to refer to computer conferences because of its ability to be used for the posting of news items. The term does not, however, convey the interactive nature of true conferencing, which allows for following discussions.

**Byte** ■ Computer term for a string of eight bits. One byte is equal to a single character (a letter or digit).

**CC: – Carbon Copy** ■ The prompt in a mail program which allows a user to enter one or more user IDs in order to send copies of a message to them.

**Carriage Return** ■ The <ENTER> key on your keyboard. Generally, commands used on a network must be followed by <ENTER>. Also called <CR>, <RETURN> or Enter.

**Character** ■ Any symbol (usually alphabetic, numeric, or punctuation) that can be entered into your computer with a single keystroke.



**CMC (Computer Mediated Communications)** ■ Any communication between people that makes use of computers, particularly with reference to computer networks. E-mail, computer conferences and databases are three kinds of CMC.

**Communications Software** ■ Software programs that allow you to more easily make use of your modem and carry out up and down-loading when connected to a host.

**Conferences** ■ Conferences are electronic meeting places dedicated to a particular subject. Users visit conferences to participate in discussions or group projects, without having to communicate in the same place or at the same time. Conferences can be used to post many types of information, including news services, newsletters, statistics, etc. An “electronic conference” provides a many-to-many communication medium, as opposed to the person-to-person nature of electronic mail. Also called newsgroups, echoes, bulletin boards and forums.

**Database** ■ A structured collection of information that can be sorted and searched in a variety of ways, such as through ‘keywords’. ‘Online database’ refers to a database that is hosted on a single node of a computer network and can be accessed by the users.

**Default** ■ A software function or operation which occurs automatically unless the user specifies something else.

**Disks / Diskettes** ■ Magnetic medium for data storage. Either “floppy” diskettes (800k or 1.4k), or “hard” disks (usually upward from 20 megabytes) residing internally or externally and capable of “read/write”.

**DOS** ■ An abbreviation for “Disk Operating System”, the underlying system software utilized by most micro computers produced today. MicroSoft’s MS-DOS is the most common type of DOS.

**Domain Names** ■ The method of giving unique names and addresses to single host computers on a network, primarily Internet; of the form <user>@host.domain. Though there is a movement toward country domain names, e.g., .NZ for New Zealand, the older names representing organizational type are still prevalent: .EDU (educational) .COM (commercial) .GOV (government) .MIL (military) .ORG (organization)

**Downloading** ■ “Downloading” refers to the transfer of information from a host computer onto a user’s personal computer. This may be done for program files, or conference or mail messages which need to be printed out by the user, copied to diskette for transfer to other computers, or simply browsed at leisure off-line.

**Echos** ■ The forum for group communication on FidoNet are called echos.

**Editor** ■ An online network program to enter, correct or change your message. Editors are either ‘line editors’, or ‘full-screen editors’. In general computer terms, an editor may be considered a simple word processor.

**Electronic Mail – E-Mail** ■ Electronic mail is the transfer of messages between you and other users in a network, or by means of gateways to or from users in other network systems. E-mail is similar to an ordinary letter; you supply the address of the recipient(s) and the text of the message. It is different in that delivery takes place in minutes or hours rather than days. Electronic mail provides private communications, whereas electronic conferencing provides public (or, in some cases, restricted) communications.

**Enter** ■ The <ENTER> key on your keyboard. Almost all commands used on a network should be followed by <ENTER>. Also called <CR> or Carriage Return or <RETURN>.

**Facilitator** ■ A network user who is responsible for a managing a particular online conference. This may involve determining access to a private conference, facilitating discussion, and sometimes deleting unwanted or outdated material. Called ‘moderator’ on some networks.

**FIDONET** ■ This is a worldwide network of small host BBS networks based on the FidoNet software. It has a distributed e-mail capability, with rudimentary shared conferences (called echos).

**File** ■ A named group of characters or data bits in your computer or on a network host. Files in a computer are similar to file folders in a filing cabinet. Files can be textfiles or binary files (word processed documents, data sets, programs, etc.)

**FTP (File Transfer Protocol)** ■ The Internet standard high-level protocol for transferring files from one computer to another.

**Gateway** ■ A gateway is an electronic mail connection between one computer network and another.

**Gateway (Node)** ■ A special-purpose dedicated computer that attaches to two or more networks and routes packets from one network to the other. Gateways route packets to other gateways until they can be delivered to the final destination directly across one single network.

**GEONET** ■ A commercial network of host computers, mainly in Europe, that offer e-mail and databases. Poptel, the GeoNet host in England, offers a gateway to the APC Networks.

**Hardcopy** ■ A printout of a computer file; a printed version of anything. What makes it 'hard' is that it exists on paper, as opposed to 'soft' copy that exists in electronic format in a computer file.

**Hardware** ■ Physical electronic devices – such as computers, printers, keyboards, modems, or cables – as opposed to software, as in computer programs.

**Host** ■ A host is a single computer on a network (it may be the *only* computer in the case of a stand alone BBS), on which people have accounts. It has a unique name for addressing purposes.

**INTERNET** ■ A world-wide research network sharing a common addressing scheme and using the TCP/IP software protocol for data transfer between hosts. It is composed of many individual campus, state, regional, and national networks.

**Kilobyte (K)** ■ Storage size 1 K = 1000 bytes, about 1000 characters or 1/2 a screenful of a message.

**LAN (Local Area Network)** ■ Any physical network technology that operates at high speed over short distances (up to a few thousand meters). LANs link computers within offices, buildings, and multi-building sites like university campuses.

**Login** ■ Making the connection to a network host. A user usually "logs in" by typing their username, and then their password. Sometimes called "log on". A 'remote login' refers to dialling out or telnetting from one host computer and logging in to another.

**Log Off** ■ Leaving the network. Sometimes called "log out".

**Log-In Id** ■ Same as account name or user ID.

**Mail** ■ Refers to electronic mail, or e-mail.

**Mailing Lists** ■ A means by which a message from an individual can be sent to a large and widespread group of people sharing the same interest. A host computer maintains a list of all the addresses of that particular interest group and gives the list a name. Anyone wishing to add to the group discussion merely has to mail their message to the list name and the host computer automatically redistributes it to everyone individually.

**Megabyte** ■ 1 million bytes (or 1000 K) of data storage capacity.

**Menu** ■ A list of selectable network host functions, usually shown as a set of command options.

**Message** ■ The term 'message' refers to any message carried on a network, including conference topics and responses, and 'letters' sent by electronic mail.

**Modem** ■ A device used to connect a computer to another computer through the telephone system. A modem is similar to a telephone in that it can dial a number, answer a call, and hang up; but the 'conversations' it carries are strictly computer-to-computer. Modems have different maximum speeds, which are indicated by their baud rate. Modems enable your computer or terminal to communicate (read messages, exchange files, etc.) over telephone lines.

**Modem Setup / Configuration** ■ Refers to the various parameters which must be set on the modem, including modem speed and line settings.

**Moderator** ■ Someone who manages a conference online. Conversely, someone who acts as a filter for messages to be placed in a conference. Sometimes, for heavy-use conferences, a moderator will produce a 'digest' of the best postings.

**Network** ■ Specifically, a network is a set of linked host computers sharing the same software for data transmission (TCP/IP on Internet, for example). See LAN and WAN.

**Newsgroups** ■ The forums for group communication on Usenet are called newsgroups.

**Node** ■ A computer that is attached to a network; also called a host, or a site.

**Offline** ■ Refers to the state of being disconnected from a network. Longer messages are often prepared or read 'offline' by users.

**Online** ■ Refers to the state of being connected to a network.

**Packet** ■ The unit of data sent across a packet switching network.

**Packet Switching Network** ■ Any network that functions via transmission of packets of data, usually across leased lines. Most countries have their own public packet switching network operated by the telephone company; also called X.25 networks after the X.25 transmission protocol used.

**Password** ■ A group of characters known only to you, that must be entered as part of logging in to a network; the password guarantees that only you can access your network account. Users can (and are advised to) change their password every now and then, to ensure the security of their online accounts.

**Posting** ■ The act of sending e-mail or placing a message in a conference on a network. The noun 'posting' is sometimes used to refer to a conference message.

**Prompt** ■ What appears on the screen while the network is waiting for you to enter a command or option. Often prompts will give an indication of where you are in the online environment, or what commands are available at that point.

**Protocols** ■ A formal description of message formats and the rules two computers must follow to exchange those messages. Protocols can describe low-level details of machine-to-machine interfaces (for example: the order in which bits and bytes are sent across a wire) or high-level exchanges between allocation programs (eg: the way in which two programs transfer a file across the Internet).

**Return Key** ■ Sometimes labelled 'Enter', this key must usually be pressed after any command before it will be performed. It is also used to end each line of a message as it is entered in a 'line editor', just like the Carriage Return lever on a typewriter.

**Server** ■ A computer that shares its resources, such as printers and files, with other computers on the network.

**Session** ■ The period between when you 'log in' and 'log off' a network.

**SMTP (Simple Mail Transfer Protocol)** ■ The Internet standard protocol for transferring electronic mail messages from one computer to another. SMTP specifies how two mail systems interact and the format of control messages they exchange to transfer mail.

**Software** ■ Computer programs, wordprocessing programs, spreadsheet programs, or database programs are all software.

**Softcopy** ■ An electronic version of a file, usually in computer memory and/or on disk; as opposed to hardcopy, the paper printout.

**String** ■ Computer term for a series of two or more characters or data bits.

**Sys Ops** ■ System operators. Applies to BBS.

**System** ■ A synonym for a host computer on a network.

**TCP/IP (Transmission Control Protocol/Internet Protocol)** ■ A set of protocols, used by the Internet to support services such as remote login (TELNET), file transfer (FTP) and mail (SMTP).

**Telnet** ■ The Internet standard protocol for gaining access to an account on another host computer on Internet. Many hosts have public access accounts which anyone on Internet can use.

**Terminal** ■ A device attached to a computer to allow access for input (putting things in computer storage), processing (working with things), and output (getting things out of the computer). The terminals you will most often see have a keyboard similar to a typewriter (but with some extra keys) and some sort of display (often a video screen). Most terminals can do nothing by themselves. They must have a host computer to store information and to do the work.

**Terminal Emulation** ■ The type of terminal which your computer will simulate. Normally you would choose either VT-100 or VT-52, which are the industrial standards at present. The way that data is presented on your screen will depend on the terminal type you use, and that which the network supports.

**Text** ■ A string of characters. A text file should contain only characters that are letters, numbers, and punctuation. Plain text is also sometimes called ASCII or DOS text. It contains no formatting codes or commands.

**Uucp/Usenet** ■ A world-wide cooperative network of hosts using the UUCP data transfer protocol. UUCP generally refers to the e-mail function of the network, while Usenet provides a series of 'news groups' analogous to Network conferences.

**Users** ■ Refers to the people who use the network, i.e., those who have an account on the network.

**Username** ■ A unique identifier of a network user; also called user ID or account name.

**VT100** ■ A very common terminal type setting; with this setting the network assumes you are using a VT100 terminal or a computer program that acts like one.

**WAN (Wide Area Network)** ■ A synonym for a network that spans across a large area, usually city-size or larger.

**Word Processor** ■ A word processor is a program used to create or edit text information in personal computers. When using a network, a word processor is often used to create a file before it is uploaded to the network and may also be used to process text after it has been downloaded to your computer.

## Appendix 3

### APC Member Networks

#### AlterNex

**Sponsor** ■ The Instituto Brasileiro de Analises Sociais e Economicas (IBASE)

**Coverage** ■ Brazil and South America

#### **Contact Information**

IBASE

Rua Vicente de Souza 29

22251 Rio de Janeiro

Brazil

Telephone: 55-21-286-0348

Fax: 55-21-286-0541

e-mail: suporte@ax.apc.org

**Costs** ■ One-time subscription is USD20. Hourly connection is USD10. New users get 120 minutes with the USD20 subscription charge. Minimum cost is USD10/month.

Users are also charged for internode transfer (anything between USD0.04/minute and USD1/minute for e-mail, and the established costs for fax and telex transfer, probably the same as other APC systems).

#### Chasque

**Sponsor** ■ Instituto del Tercer Mundo (ITeM)

**Coverage** ■ Uruguay

#### **Contact Information**

ITeM

Miguel del Corro 1461

Montevideo 11200

Uruguay

Telephone: 598-2-496192

Fax: 598-2-419222

e-mail: apoyo@chasque.org.uy

**Costs** ■ Charges are USD10 a month (including one hour free usage) and USD3 per additional hour.

#### ComLink

**Sponsor** ■ ComLink is a collective of about 100 local bulletin board systems spread throughout Germany.

**Coverage** ■ Germany

#### **Contact Information**

Moorkamp 46

D(w)-3000 Hanover 1

Germany

Telephone: 49-511-350-3081

e-mail: support@oln.comlink.de

**Costs** ■ Monthly charges vary from 2.5 to 10 marks per month.

#### GlasNet

**Coverage** ■ Russia, Commonwealth of Independent States countries

#### **Contact Information**

Ulitsa Yaroslavskaya 8

Korpus 3, Komnata 111

129164 Moscow

Russia

Telephone: 7-095 217-6173

7-095 217-6182

e-mail: support@glas.apc.org

**Costs** ■ Registration costs are 1,000 rubles for individuals, and 2,500 rubles for organizations and sub-hosts.

Monthly charges are 455 rubles for individuals, 1,800 rubles for organizations, and 2,500 rubles for sub-hosts.

**IGC Networks (PeaceNet/EcoNet/ConflictNet)****Sponsor** ■ Institute for Global Communications**Coverage** ■ USA, Mexico**Contact Information**

18 de Boom Street  
 San Francisco, CA 94107  
 USA

Telephone: 415-442-0220

Fax: 415-546-1794

e-mail: support@igc.apc.org

**Costs** ■ USD15 Signup fee

USD10 per month (includes 1 hr of offpeak or direct-dial time) USD10 per hour peak (Monday – Friday, 7am – 6pm) via SprintNet USD5 per hour, off-peak via SprintNet

USD3 per hour by direct dial, Internet, pre-paid NUI

USD14 per hour by 1-800-777-9454

**GreenNet****Sponsor** ■ GreenNet**Coverage** ■ Great Britain, Western Europe, Africa, Asia**Contact Information**

23 Bevenden Street  
 London N1 6BH  
 United Kingdom

Telephone: 44-71-608-3040

Fax: 44-71-253-0801

e-mail: support@gn.apc.org

**Costs** ■ Individuals and non-commercial users are charged PST 15 for registration (those with low income, PST 5). Monthly subscriptions are PST 5. System usage is PST 6 per minute for those using PSS (public data networks) and PST 7 for those direct dialing. Telecommunications charges for those using GreenNet's PSS account in the UK are PST 3. e-mail storage is PST 2/page/month.

Public sector and commercial users are charged PST 30 for registration. Monthly subscriptions are PST 10. System usage is PST 10 per minute for those using PSS (public data networks) and PST 12 for those direct dialing. Telecommunications charges for those using GreenNet's PSS account in the UK are PST 5. e-mail storage is PST 4/page/month.

**Nicarao****Sponsor** ■ Coordinadora Regional de Investigaciones Economicas y Sociales (CRIES)**Coverage** ■ Nicaragua and Central America**Contact Information**

CRIES  
 Apartado 3516, Iglesia Carmen  
 1 cuadra al lago, Managua  
 Nicaragua

Telephone: 505-2-26228

Fax: 505-2-26180

e-mail: support@ni.apc.org

**Costs** ■ The initial fee is USD5.00, plus USD20 for the manual, and a USD25 deposit. Subsequently the user is charged USD5/month, USD0.01/minute for connection, and USD0.20 per message sent plus USD0.15/Kbyte.

**NordNet****Sponsor** ■ Swedish Peace and Arbitration Society  
Swedish Fellowship of Reconciliation**Coverage** ■ Scandinavia, Baltic States**Contact Information**

Huvudskaersvaegen 13, nb.  
 S-121 54 Johanneshov  
 Sweden

Telephone: 46-8-600-0331

Fax: 46-8-600-0443

e-mail: support@pns.apc.org

**Costs** ■ Individual accounts pay 100 SEK for a new user packet, followed by charges of 100 SEK/quarter.

Group accounts (more than 5 users) pay initial costs of 50 SEK/user, followed by quarterly charges of 1000 SEK for up to 20 members, plus 80 SEK for each additional member. There is a 20% discount on NordNet logged time charges, and a 50% discount on new user packets.

Access charges via direct dial or own NUA are 75 SEK/hour, and via Swedish Datapak they are 150 SEK/hour.

**Pegasus****Sponsor** ■ Pegasus Networks**Coverage** ■ Australia, Oceania, South-East Asia**Contact Information**

Pegasus Networks Earth Net  
 P.O. Box 424  
 The Epicentre, Border St.  
 Byron Bay 2481  
 New South Wales  
 Australia

Telephone: 61-66-856789

Fax: 61-66-856962

e-mail: support@peg.apc.org

**Costs** ■ Annual rates are AUD50 for individual mailboxes, and AUD150 plus AUD20/mailbox for groups of 5 or more. There are no monthly fees for regular users (10 or more days usage per month). Monthly fees for occasional users is AUD18, unused group mailboxes AUD10, and AUD25 for those using the Pegasus Business Network, HomeoNet, and the Music Network.

Per minute rates include telecommunications charges. Regular users during peak time pay 30 cents/min, 15 cents/min during offpeak. Occasional users pay 34 cents/min during peak, and 17 cents/min in offpeak hours. Peak hours are 8 am to 6 pm Monday to Friday.

Each account is allowed one hour of free offpeak time and 1/2 hour of peak time per month.

**Web****Sponsor** ■ Nirv Community Resource Centre**Coverage** ■ Canada**Contact Information**

Nirv Centre  
 401 Richmond St., Suite 104  
 Toronto, Ontario, M5V 3A8  
 Canada

Telephone: 416-596-0212

Fax: 416-596-1374

e-mail: support@web.apc.org

**Costs** ■ Individuals and nonprofit groups pay CAD180/year (CAD120/year if their income is below CAD30,000), with a CAD25 one-time membership fee, and CAD6.00/hour system usage charge (plus a CAD7.70/hour Datapac connect charge if outside of Toronto). Each user gets 2 free hours of system usage each month.

Government and affiliated agencies, and commercial organizations, pay CAD270/year, with a CAD40 one-time membership fee, and CAD10/hour system usage charge (plus a CAD9/hour Datapac connect charge if outside of Toronto).

Multi-user accounts are CAD340/year for individual and non-profit groups, and CAD510 for government and commercial organizations.

## Appendix 4

### APC Affiliated Networks

#### African Centre for Technology Studies

P.O. Box 45917  
Nairobi  
Kenya

Telephone: 254-2-744-047/095  
Fax: 254-2-743-995

**Contact** ■ Patrick Karani

**No. of users** ■ 2

**Description** ■ ACTS – African Researchers Network. Also hosting the NGONET Africa newsletter, *ECONews*, produced electronically and in hard copy, widely distributed amongst African Environmental NGO's and partners in the North.

#### ADRIANET

Ljubljana  
Ex-Yugoslavia

Telephone: 38-61-211-553  
Fax: 38-61-221-838

**Contact** ■ Boris Horvat or Dalibor Cerar

**Description** ■ ADRIANET is a network of FIDO/BBS's in Slovenia, Croatia, Serbia and Belgrade. It offers Email and conferencing services to users and has strong links with the (ex-)Yugoslavic Peace Movement.

#### Ainex-BBS

Ward Dossche  
Drubstraat 142  
2640  
Morstel  
Belgium

Telephone: 32-2-242-7267 or 32-3-449-7945  
Fax: 32-3-448-0880

**Contact** ■ Ward Dossche

**Description** ■ Ward Dossche was the founder of Greenpeace Belgium and runs the central system for European and worldwide environmental echo conferences.

#### ALDOCS

Arab League Documentation Centre  
Egypt

#### CAMELSNOSE PROJECT

PO Box 151  
2130 AD Hoofddorp  
The Netherlands

Telephone: 31-2503-32305  
Fax: 31-2503-32305

**Contact** ■ Rene Vreeman

**No. of users** ■ 50

**Description** ■ The Camelsnose Project is housed and funded by The Foundation for EcoDevelopment (Mondial Alternative), an internationally active, non-governmental, non-profit environmental organization.

#### CBR

Kampala  
Uganda

**No. of users** ■ 2

**Description** ■ CBR is based at the Centre For Basic Research, Kampala, Uganda.

#### Ceniai

Havana  
Cuba

**Contact** ■ Karen Wald

**No. of users** ■ 300

**Description** ■ Ceniai is a project of IDICT, an institution of the Cuban Academy of Sciences.

#### COSTECH

Dar es Salaam  
Tanzania

**Contact** ■ William Sangiwa

**No. of users** ■ 4

**Description** ■ COSTECH is based at the Council For Science and Technology, Dar es Salaam, Tanzania.



**Econnect**

Bubenska 6  
 Praha  
 Czechoslovakia

Telephone: 42-2-804521  
 Fax: 42-2-804521

**Contact** ■ Vasek Klinkera or Vojta Kment

**No. of users** ■ 120

**Description** ■ Econnect (Easy-Connection-Network), is run by the Association for Easy Connection and offers users an environmental echo feed and access to air pollution monitoring databases sourced from 4 regional monitoring stations.

**ELCI**

Environment Liaison Centre International  
 Box 72461  
 Nairobi  
 Kenya

Telephone: 254-2-562-015/022  
 Fax: 254-2-562-175

**Contact** ■ Doug Rigby or Protus Muteshi

**No. of users** ■ 19

**Description** ■ ELCI is a large International Environmental NGO, currently hosting one of the NGONET nodes, and houses the WEDNET (Women Academic Research linkup in Senegal, Ghana, Burkina Faso, Nigeria, Sudan, Kenya, Zimbabwe, Zambia, and Canada.)

**ENDA-Arabe**

ENDA Inter-Arabe  
 6 Impasse de la mer Rouge  
 ARIANA  
 Tunis  
 Tunisia

Telephone: 216-1-718-3040

**Contact** ■ Michael Cracknell

**No. of users** ■ 3

**Description** ■ Enda-Arabe is a participating member of NGONET, being one of four regional prototype hosts, members being ELCI-Nairobi (East Africa), Mango-Harare (Southern Africa), ENDA-Dakar (West Africa).

**Enda-Dakar**

4BP 3370  
 Dakar  
 Senegal

Telephone: 221-21-6027 or 221-22-4229  
 Fax: 221-21-2695

**Contact** ■ Moussa Fall

**No. of users** ■ 6

**Description** ■ Enda is based at Environnement et Développement du Tiers-Monde, a non-profit international associative organization. Headquarters are based in Dakar with branch offices in Bolivia, Zimbabwe, Bombay, Santo Domingo, Colombia and Paris.

**EcuaNex**

INTERCOM  
 Casilla 1703596  
 Quito  
 Ecuador

Telephone: 593-2-505-074  
 e-mail: intercom@ecuanex.ec

**Contact** ■ Sally Burch

**No. of users** ■ 120

**Description** ■ INTERCOM is a non-profit association of non-governmental and academic institutions based in Ecuador. Its 21 members include universities and NGOs involved in development work, ecology, education, research, social promotion, human rights, and communications.

**Ghastinet**

Council For Scientific & Industrial Research  
 PO Box M32  
 Accra  
 Ghana

Telephone: 233-31-773-315  
 Fax: 233-31-773-068

**Contact** ■ Mohamed Alhaji Mohamed or John Villars

**No. of users** ■ 5

**Description** ■ Ghastinet is based at the Council For Scientific and Industrial Research (CSIR). CSIR is a national initiative for the collection and dissemination of scientific and technological information on Ghana.

**Mango**

PO Box 7069  
Harare  
Zimbabwe

Telephone: 263-4-726-052  
Fax: 263-4-732-735

**Contact** ■ Philip Nyahoda

**No. of users** ■ 42

**Description** ■ Mango (Micro Access For NGO's) is the initiative of 5 local NGO's: Africa Information Afrique, Ecumenical and Documentation Centre For Eastern & Southern Africa, IMBISA, Popular History Trust, and Southern African Research and Doc. Centre.

**MUKLA**

Computer Science Department  
Makerere University  
Kampala  
Uganda

**No. of users** ■ 3

**Description** ■ MUKLA is based at the University of Makerere, Kampala, Uganda, and acts as a host for the ESANET (East and Southern African Network) project and the HEALTHNET project.

**PADIS**

Pan African Information Development System (PADIS)  
Box 3001  
Addis Ababa  
Ethiopia

Telephone: 251-1-511-167  
Fax: 251-1-514-416

**Contact** ■ Lishan Adam

**No. of users** ■ 6

**Description** ■ The Pan African Development Information System (PADIS) is a regional development information system, created in January under the aegis of the UN Economic Commission For Africa (ECA) in Addis Ababa, Ethiopia.

**PHIL**

ANDROMEDA  
180 V. Luna Rd. Extension  
Sikatuna Village, Quezon City  
Manila  
Philippines

Telephone: 63-2-921-5165

**Contact** ■ Roberto Verzola

**Description** ■ PHIL (Phil Host International) is an email gateway running fido net software. It is operated as a small business venture by Andromeda Systems. Its system operator is Roberto Verzola, who is active in the Philippine NGO community and is a technical resource person amongst South East Asian NGOs.

**TinoRed**

Havana  
Cuba

**Contact** ■ Karen Wald

**No. of users** ■ 50

**Description** ■ TinoRed is a project of Red David, and the National Youth Clubs, and is given technical assistance from IDICT, an institution of the Academy of Sciences.

**TOPPSI**

Dublin  
Ireland

**Contact** ■ David Doyle or Martin Maguire

**No. of users** ■ 80

**Description** ■ TOPPSI is an environmental network based in a recycling centre in Dublin. It is currently offering e-mail and conferencing services throughout Ireland and is in the process of establishing nodes in Derry and Belfast.

**UNZA**

University of Zambia Computer Centre  
 Box 32379  
 Lusaka  
 Zambia

Telephone: 260-1-252-507

**Contact** ■ Mark Bennett

**No. of users** ■ 1

**Description** ■ UNZA is based at the Computer Science Dept at the University Zambia, which is the major university in the country.

**WORKNET**

WorkNet Electronic Network  
 86 High St  
 Berea  
 Johannesburg  
 South Africa

Telephone: 27-11-484-3777

Fax: 27-11-484-3557

**Contact** ■ Simone Shall or Mike Jensen

**No. of users** ■ 180

**Description** ■ WorkNet is a non-profit organization operating the WorkNet host for NGOs as its only service.

**ZANGONET**

Zambia Association for Research  
 and Development (ZARD).  
 Lusaka  
 Zambia

**Contact** ■ Mark Bennett

**Description** ■ ZANGONET is a network for NGOs, but is affiliated with UNZA, the network based at the University of Zambia.

## Appendix 5

### List of APC Conferences Directly Related to Sustainable Development

#### Network Conferences:

**conferences** ■ Contains a list of conferences by category, with brief descriptions of each.

**facilitators** ■ Help for conference facilitators, including instructions on creating a conference.

**gateways** ■ Contains instructions for sending e-mail to other computer networks, fax and telex. One topic per network.

**intlaccess** ■ Contains information on how to access the Networks from specific countries (one country per topic).

#### Air & Climate Conferences:

**climate.news** ■ Newsletters and news items pertaining to climate change and related issues. The conference is READ ONLY. Discussion can be directed to en.climate. To post items in this conference, e-mail Lelani Arris (larris) or Dan Yurman (ecixdy).

Since: Jun/91

Frequency of Postings: 5–15/mth

**en.climate** ■ Discussion of pollution, its effects on our world, and methods for dealing with it.

Since: Jan/88

Frequency of Postings: 2–4/day

**inc.climate** ■ This UNCED-related conference contains reports from the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change.

Since: Jan/9

Frequency of Postings: 15–20/session

#### Conflict Resolution Conferences:

**cn.general** ■ Announcements, news briefs and press releases for the conflict resolution movement.

Since: Feb/89

Frequency of Postings: 2–5/mth

**cn.journals** ■ Journals and newsletters in the field of conflict resolution; particularly the newsletter of the Public Disputes Network Program on Negotiation at Harvard Law School.

Since: Jan/90

Frequency of Postings: quarterly

**cn.resources** ■ Resources & materials for the conflict resolution field.

Since: Feb/89

Frequency of Postings: 5–6/two months

#### Development Conferences:

**at.general** ■ Worldwide news and networking dealing with the design and implementation of 'appropriate' solutions to ecological and international development problems; includes VIA newsletter.

Since: Jun/90

Frequency of Postings: 5–10/mth

**ax.fondad** ■ Forum on Debt and Development (FONDAD), following up on the problems of external debt in the Third World, including analyses and concrete actions within social movements.

Since: Jul/90

Frequency of Postings: 2–5/two mths

**ccn.capacity** ■ Info on U.S. carrying capacity issues and linkages among environmental, population, economic and social issues; Carrying Capacity Network's newsletter.

Since: Oct/90

Frequency of Postings: monthly

**dev.intrade** ■ International trade and its impact on development, including trading block trends, inequitable international trade practices, and laws and tariff policies.

Since: Apr/89

Frequency of Postings: 2–4/mth

**en.urban** ■ Environmental issues concerning towns & cities.

Since: Feb/88

Frequency of Postings: 2–5/mth

**intl.volunteer** ■ International volunteer work for peace and environment.

Since: Apr/91

Frequency of Postings: 1–2/mth

**ips.english** ■ Current, English-language news stories from Inter Press Service. Additional subscription required.

**ips.espanol** ■ Current, Spanish-language news stories from Inter Press Service. Additional subscription required.

**labor.newslite** ■ Published or non-published articles from labour press or articles relevant to labour.

Since: Mar/90

Frequency of Postings: 6–10/mth

**landmarks.doc** ■ Background documents, legislation, lists, and other material relative to the identification, preservation, and protection of cultural resources—historic and prehistoric artifacts, structures, or localities.

Since: Mar/92

Frequency of Postings: 10–20/mth

**nonviolence.to** ■ Contains bi-monthly publication 'Nonviolence Today' to increase the understanding and use of nonviolence.

Since: Jul/90

Frequency of Postings: bi-monthly

**nonviolent.act** ■ Current information on the practice of nonviolent civil disobedience, its consequences and news of current actions; magazines and bulletins.

Since: Jun/90

Frequency of Postings: 2–3/day

**population** ■ This conference is aimed at understanding the causes and possible solutions to the problem of overpopulation.

Since: Feb/92

Frequency of Postings: 10–15/wk

**safrica.drough** ■ This conference is for a discussion about the serious drought in southern Africa.

Since: Apr/92

Frequency of Postings: 25/mth

**transport** ■ Discussion of transport issues, ideas, discoveries and inventions.

Since: Nov/89

Frequency of Postings: 15–20/mth

**twr.nl** ■ Newsletter of annotated lists of Third World-related organizations, books, periodicals, pamphlets and audio-visuals. Sponsored by Third World Resources.

Since: Nov/86

Frequency of Postings: quarterly

### Disarmament Conferences:

**gn.armstrade** ■ Exchange of information between all groups and individuals that collect information about arms exports and military production.

Since: Jun/89

Frequency of Postings: 5–6/mth

**ipb.news** ■ Publications from, and news about, the International Peace Bureau. IPB's periodicals provide news about campaigns and actions around the world, and coverage on inter-governmental negotiations and UN reform.

Since: Apr/91

Frequency of Postings: 3–10/mth

### Economics Conferences:

**ax.fondad** ■ Forum on Debt and Development (FONDAD), following up on the problems of external debt in the so-called 'Third World', including analyses and concrete actions within social movements.

Since: Jul/90

Frequency of Postings: 2–5/two mths

**dev.intrade** ■ International trade and its impact on development, including trading block trends, inequitable international trade practices, and laws and tariff policies.

Since: Apr/89

Frequency of Postings: 2–4/mth

**greenbusiness** ■ Issues of socially and environmentally-responsible business.

Since: May/90

Frequency of Postings: 2–4/mth

**greenstore** ■ Environmentally-responsible products and services.

Since: Jun/90

Frequency of Postings: 10–15/two mths

**intl.economics** ■ Discussion of a variety of international economic issues.

Since: Oct/90

Frequency of Postings: 10–15/mth

**ips.pecna** ■ This conference contains the dispatches of the Organization of Petroleum Exporting Countries News Agency (OPECNA).

Since: Sep/91

Frequency of Postings: 10–12/day

**toes.general** ■ Discussion and information about The Other Economic Summit (TOES), including alternative economics.

Since: Feb/90

Frequency of Postings: 1–3/mth

**trade.news** ■ News updates on GATT and NAFTA from the Institute for Agriculture and Trade Policy.

Since: Apr/92

Frequency of Postings: 4/wk

### Education Conferences:

**en.enveducat** ■ General sharing of information on environmental education.

Since: Jun/87

Frequency of Postings: 8–10/mth

**edu.eastwest** ■ International collaboration on education with a focus on former Soviet Block countries.

Since: Jan/92

Frequency of Postings: 15–20/mth

### Energy Conferences:

**awea.windnews** ■ Back issues of the American Wind Energy Association newsletter, from 1987 to 1991.

Since: Sep/87

Frequency of Postings: n/a

**dams.general** ■ Discussion of broad issues related to hydro-electric dam projects around the world.

Since: May/91

Frequency of Postings: 5–10/mth

**en.energy** ■ Discussion, news and requests on all aspects of energy.

Since: Jun/87

Frequency of Postings: 10/wk

**en.toxics.inci** ■ Hazardous waste incinerators, waste-to-energy plants.

Since: Jun/89

Frequency of Postings: 1–4/mth

**ips.pecna** ■ This conference contains the dispatches of the Organization of Petroleum Exporting Countries News Agency (OPECNA)

Since: Sep/91

Frequency of Postings: 10–12/day

**wind.energy** ■ Developments in wind energy technology (primarily electric generation) and related issues.

Since: Apr/91

Frequency of Postings: 10–20/mth

### Environment – General Conferences:

**ccb.update** ■ Newsletter from the Centre for Conservation Biology at Stanford University.

Since: Apr/88

Frequency of Postings: quarterly

**earthday.genl** ■ Initial conference regarding planning and outreach for Earth Day and subsequent activities.

Since: Dec/91

Frequency of Postings: 20–30/mth

**econews.africa** ■ It is an initiative of Climate Network Africa (CNA) aimed at making local-global connections and giving people in Africa the chance to add their views on all aspects of environment and development in Africa.

Since: Apr/92

Frequency of Postings: 15–20/mth

**en.alerts** ■ Short and urgent announcements and alerts for the environmental movement.

Since: Apr/88

Frequency of Postings: 5–10/mth

**en.blueprint** ■ Primarily a reference conference, contains "Blueprint for the Environment" published in November 1988.

Since: Aug/89

Frequency of Postings: n/a

**en.consdigest** ■ Published by the Munson Foundation, this newsletter provides concise information about issues & activities in natural resource conservation.

Since: Nov/89

Frequency of Postings: 8 issues

**en.enveducatio** ■ List of selected publications, events & awards of interest to environmental educators.

Since: Jun/87

Frequency of Postings: 8–10/mth

**en.general** ■ General discussion of the environment and the impact on, and by, humankind.

Since: Jul/87

Frequency of Postings: 4–10/mth

**en.ussr** ■ Up-to-date forum on the growing numbers of U.S. and Soviet NGO activists pursuing the goal of global environment sustainability with an emphasis on the protection of Soviet eco-systems.

Since: Apr/90

Frequency of Postings: 5–8/mth

**en.wildlife** ■ Discussion, news and requests about wildlife species and habitats from around the world.

Since: Jun/87

Frequency of Postings: 8–10/mth

**ens.newsline** ■ Breaking environmental news supplies by the Environment News Service. Additional subscription required.

Since: Jan/91

Frequency of Postings: weekly summaries

**foe.press** ■ Press releases from Friends of the Earth, UK, covering all aspects of FoE's work in the environmental field.

Since: Sep/88

Frequency of Postings: 10–20/mth

**green.travel** ■ Information about environmentally and culturally-responsible travel and tourism.

Since: Oct/91

Frequency of Postings: 10–15/mth

**greenbusiness** ■ Issues of socially and environmentally-responsible business.

Since: May/90

Frequency of Postings: 2–5/mth

**greenstore** ■ Environmentally-responsible products and services.

Since: Jun/90

Frequency of Postings: 10–15/two mths

**sc.natnews** ■ Sierra Club National News Report: A summary of news concerning the U.S. environment.

Since: Aug/87

Frequency of Postings: bi-weekly

**Environment – Legislation Conferences:**

**elaw.public.in** ■ Public communications area for offices of the Environmental Law Alliance Worldwide, for purposes of discussing the development of assistance to grassroots environmental lawyers and their clients around the world.

Since: Mar/91

Frequency of Postings: 1–3/day

**europe.legis** ■ Legislation, actions and publications of the European Communities; newsletter of ECHO, the databank host of the European Commission.

Since: Oct/89

Frequency of Postings: monthly

**intl.envirolaw** ■ Newsletter of the International Environmental Law Interest Group of the American Society of International Law.

Since: Sep/91

Frequency of Postings: quarterly

**Food & Agriculture Conferences:**

**data.farmnet** ■ Collection of information on sustainable agriculture, rural land degradation, positive solutions, and ideas on transforming rural land use.

Since: Mar/90

Frequency of Postings: 2–4/mth

**en.agriculture** ■ Discussion and news on current trends in alternative agriculture, rural sociology, agroecconomics, and politics of agriculture.

Since: Aug/87

Frequency of Postings: 10–15/mth

**en.pesticides** ■ Information and discussion about the use of pesticides and their impact on health and the environment.

Since: Apr/89

Frequency of Postings: 7–10/mth

**hunger.general** ■ Issues, events and activities concerning world hunger.

Since: Aug/90

Frequency of Postings: 10–15/mth

**Forests Conferences:**

**rainfor.genera** ■ General information and discussion about global rainforest issues.

Since: Jul/90

Frequency of Postings: 6–8/wk

**rainfor.timber** ■ Information about the Rainforest Action Network's Tropic Timber Campaign and other information about the fate of wood products from our world's rainforests.

Since: Jul/90

Frequency of Postings: 8–12/mth

**rainfor.worldb** ■ Information about World Bank activities pertaining to rainforest issues.

Since: Jul/90

Frequency of Postings: 3–5/mth

**ran.ragforum** ■ Facilitates the gathering and dissemination of information for Rainforest Action Groups throughout the world.

Since: Sep/88

Frequency of Postings: 2–5/mth

**Green Movement Conferences:**

**gpn.green-foru** ■ Forum of the Green Party Network of Australia.

Since: Sep/89

Frequency of Postings: 15–20/mth

**gpty.general** ■ Discussion about the Green Party and green politics.

Since: Dec/88

Frequency of Postings: 4–6/mth

**green.general** ■ Discussion and information about the international Green movement.

Since: Feb/87

Frequency of Postings: 25–35/mth



**greenleft.news** ■ Newsletter of the Green Left Weekly (Australia), covering environment, politics, labour movement, socialism, women, gay/lesbian, international news, and progressive movements and causes generally.

Since: Sep/91

Frequency of Postings: weekly

### Health Conferences:

**ax.aids** ■ In Portuguese and Spanish, summaries of media coverage of AIDS issues in Brazil, from IBASE.

Since: Aug/89

Frequency of Postings: monthly

**oz.aids.marc** ■ AIDS issues and news in Australia, sponsored by the Mullumbimby AIDS Resource Centre of New South Wales.

Since: Oct/89

Frequency of Postings: 8–10/two months

### Indigenous Peoples Conferences:

**dams.general** ■ Discussion of broad issues related to hydro-electric dam projects around the world.

Since: May/91

Frequency of Postings: 5–10/mth

**gen.nativeam** ■ Discussion of Native American issues.

Since: Jan/87

Frequency of Postings: 4–6/mth

**gen.nativenet** ■ Discussion of issues related to indigenous peoples of the world.

Since: Dec/89

Frequency of Postings: 14–18/wk

**gen.racism** ■ Discussion of racism and other forms of color-based discrimination.

Since: Apr/89

Frequency of Postings: 10–15/mth

**native.1492** ■ Opinions and information about events and resources available for observing the quincentenary of the voyage of Columbus to America, from an alternative perspective.

Since: Sep/91

Frequency of Postings: 10–15/mth

**native.lang** ■ Discussion of traditional languages of aboriginal or indigenous peoples.

Since: Nov/90

Frequency of Postings: 4–6/mth

### Media Conferences:

**amarc.radio** ■ Discussion and information about community radio; information provided by the World Association of Community Radio Broadcasters.

Since: Jun/89

Frequency of Postings: 5–6/mth

**gen.media** ■ Discussion of mass media.

Since: Apr/89

Frequency of Postings: 4–6/mth

**media.issues** ■ Critical evaluation of individual media (as organizations) and news of interest to democratic communicators.

Since: Mar/88

Frequency of Postings: 1–4/day

### Military & Security Conferences:

**baseconv.news** ■ Contains the Center for Economic Conversion's newsletter on military base conversion.

Since: Nov/90

Frequency of Postings: quarterly

**dfax.process** ■ Headlines and extracts from Defense Daily and other news services, including environmental publications.

Since: Mar/91

Frequency of Postings: 50–70/wk

**military.index** ■ The contents pages from defense and military publications are posted here.

Since: Jul/91

Frequency of Postings: 2–4/day

**toxics.militar** ■ This conference contains information about toxics and environmental problems at military bases. Co-sponsored by Arms Control Research Center, Foreign Bases Project, and National Toxics Campaign Fund.

Since: Nov/90

Frequency of Postings: 4–5/mth

**wri.news** ■ News, announcements and information from War Resisters International, on all aspects of worldwide anti-militarist and nonviolent action.

Since: Nov/89

Frequency of Postings: 20/mth

### News Articles/Press Releases Conferences:

There are more than 100 conferences on APC that are for the posting of journalistic-style news articles and press releases. Almost half of them are strictly for news updates on specific countries and regions. Due to space restrictions, they are not listed here in their entirety, but a sampling of them follows.

**aia.news** ■ Frontline states. Posted weekly from Harare, Zimbabwe. Development news; political news; labour news; women, education and health news. Additional subscription required.

Since: Jan/91

Frequency of Postings: 8–10/wk

**glasnost.news** ■ News, information and discussion of political change in Eastern Europe.

Since: Aug/89

Frequency of Postings: 3–5/day

**ips.ginespanol** ■ Current news stories from Inter Press Service, in Spanish. Additional subscription required.

Since: Apr/91

Frequency of Postings: 15–20/day

**northwest.news** ■ North West News Agency, Leningrad, is a progressive news service for the north-western part of the USSR, concentrating on local news and developments.

Since: Mar/91

Frequency of Postings: 3–8/day

**worldp.news** ■ Daily alternative news from shortwave radio sources worldwide. Covers Third World, women's, environmental and labor issues, as well as covert actions, the arms race and disarmament, economics, etc. Additional subscription required.

Since: May/91

Frequency of Postings: 25–30/wk

### Seas & Waters Conferences:

**dams.general** ■ Discussion of broad issues related to hydro-electric dam projects around the world.

Since: May/91

Frequency of Postings: 5–10/mth

**en.coastal** ■ Coastal issues in California and elsewhere.

Since: Sep/88

Frequency of Postings: 2–4/mth

**en.marine** ■ Information and discussion about the marine environment, including seas: creatures that inhabit them, and impact of humankind on marine life.

Since: Jun/88

Frequency of Postings: 3–6/mth

**en.water** ■ Domestic and international information and resources regarding water pollution, coastal zone management, wetland protection, river conservation, fish & wildlife.

Since: Aug/88

Frequency of Postings: 5–6/mth

**icwe.water** ■ Preparatory documentation for the International Conference on Water and the Environment (ICWE), held in Dublin, Ireland, 26–31 January, 1992.

Since: Nov/91

Frequency of Postings: n/a

**Toxics & Waste Conferences:**

**en.pesticides** ■ Information and discussion about the use of pesticides and their impact on health and the environment.

Since: Apr/89

Frequency of Postings: 7–10/mth

**en.toxics** ■ Health and safety issues of toxic chemicals, their dangers, and their control.

Since: Jun/87

Frequency of Postings: 10–15/mth

**en.toxics.inci** ■ Hazardous waste incinerators, waste-to-energy plants.

Since: Jun/89

Frequency of Postings: 1–4/mth

**en.toxics.pulp** ■ Side effects of pulp & paper industry and its products.

Since: Jun/89

Frequency of Postings: 5–8/mth

**en.toxics.righ** ■ Community right-to-know issues involving toxic contamination, use of hazardous materials, and production of hazardous wastes.

Since: Feb/90

Frequency of Postings: 3–6/mth

**labor.toxics** ■ Discussion and information concerning toxics in the workplace.

Since: Sep/91

Frequency of Postings: 6–8/mth

**nuc.facilities** ■ Environmental effects of nuclear weapons production facilities, and actions organized against them.

Since: May/90

Frequency of Postings: 10–15/mth

**toxics.militar** ■ This conference contains information about toxics and environmental problems at military bases. Co-sponsored by Arms Control Research Center, Foreign Bases Project, and National Toxics Campaign Fund.

Since: Nov/90

Frequency of Postings: 4–5/mth

**United Nations Conferences:**

**cnu.informatio** ■ Information produced by, and related to, the US Citizens' Network on UNCED.

Since: Dec/90

Frequency of Postings: 3–6/mth

**cnued.document** ■ This conference contains UNCED documents in French.

Since: Mar/91

Frequency of Postings: 10–20/mth

**cnumad.documen** ■ This conference contains UNCED documents in Spanish.

Since: Mar/91

Frequency of Postings: 10–20/mth

**en.unced** ■ UNCED newsletters; press bulletins on Third PrepCom meeting. Only from March to September 1991.

Since: Mar/91

Frequency of Postings: n/a

**en.unced.binar** ■ Contains binary (formatted) files of UNCED documents.

Since: Mar/91

Frequency of Postings: sporadic

**en.unced.docum** ■ Contains, in full, official UNCED and related documents.

Since: Aug/90

Frequency of Postings: 50–75/PrepCom

**en.unced.gener** ■ Public forum for the sharing of ideas, plans, activities, and other relevant matters that organizations are involved in before, during, and after, the UNCED 1992 Conference.

Since: Jul/90

Frequency of Postings: 20–30/wk

**en.unced.infox** ■ This conference is for process; how to get information related to the UNCED from one corner of the planet to the other most efficiently, using the APC Networks as a long-haul communications tool.

Since: Dec/90

Frequency of Postings: 20–30/wk

**en.unced.news** ■ Contains newsletters that pertain to the 1992 UNCED meeting. Of particular interest to those wishing to stay up on general developments of the meeting preparation.

Since: Dec/90

Frequency of Postings: 20–30/mth

**en.unced.readi** ■ Schedule information concerning events related to UNCED; regional listings of events by quarter.

Since: Feb/91

Frequency of Postings: yearly

**en.unced.sched** ■ Information on the schedule of the UN Conference on Environment and Development and related meetings, as well as the detailed agenda of selected UNCED meetings.

Since: Aug/90

Frequency of Postings: sporadic

**en.unced.topic** ■ Structured access to information on the 1992 UN Conference on the Environment and Development according to the format of the UNCED agenda.

Since: Dec/90

Frequency of Postings: last posting Jan/91

**icwe.water** ■ Preparatory documentation for the International Conference on Water and the Environment (ICWE), held in Dublin, Ireland, 26–31 January, 1992.

Since: Nov/91

Frequency of Postings: n/a

**inc.climate** ■ This UNCED-related conference contains reports from the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change.

Since: Jan/91

Frequency of Postings: 15–20/session

**ngls.news** ■ Newsletter of the United National Non-Governmental Liaison Service

Since: Feb/90

Frequency of Postings: bi-monthly

**spc.ngoinun** ■ Nongovernmental Organization (NGO) influence in the United Nations.

Since: Aug/89

Frequency of Postings: 4–6/mth

**unced.agenda21** ■ Discussion of the agenda for the global environment for the 21st century coordinated with the UN Conference on Environment and Development, Brazil, June 1992.

Since: Jun/91

Frequency of Postings: 1/two mths

**unced.canada** ■ Conference for Canadian participation in the UN Conference on the Environment and Development.

Since: Mar/91

Frequency of Postings: 2–5/mth

**unced.dialogue** ■ Shares ideas and drafts of a series of position papers for the UNCED prepared by a network of Southern and Northern NGOs.

Since: Jan/91

Frequency of Postings: 5–8/mth

**unced.earthcha** ■ Discussion of the Earth Charter that will result from the UN Conference on Environment and Development, Brazil, June 1992.

Since: Jul/91

Frequency of Postings: last posting Dec/91

**unced.francais** ■ Discussion forum on UNCED for francophones.

Since: Apr/92

Frequency of Postings: 4/mth

**unced.ngoforum** ■ This conference is for announcements from the International Task Force – International NGO Forum for Rio.

Since: Apr/92

Frequency of Postings: 1/mth

**unced.treaties** ■ For the discussion of the 30 alternative treaties which will be signed by the NGO community in Rio parallel to the official UNCED event.

Since: Apr/92

Frequency of Postings: 7/mth

**uned.ukgovt** ■ Documents prepared by the British government for UNCED; especially PrepCom 3.

Since: Sep/91

Frequency of Postings: sporadic

**uned.usgovt** ■ This conference contains documents prepared by the U.S. Government for UNCED; especially PrepCom 3.

Since: Jul/91

Frequency of Postings: last posting Aug/91

**uned.women** ■ This conference will be the main information repository for the women's issues in preparation for the UNCED meeting in Rio.

Since: Oct/91

Frequency of Postings: sporadic

**unic.news** ■ Newsletter of the United Nations Information Center.

Since: Jul/90

Frequency of Postings: 10–15/wk

## Appendix 6

### Networks using TCN/ Electronic Village

There are more than fifty organizational groups which operate networks in the TCN Electronic Village. The ones most closely associated (or associable) with issues within the broad framework of sustainable development are:

- AINET** ■ Amnesty International Network
- AUDUBON** ■ National Audubon Society
- CARE** ■ Care International
- CGINET** ■ CGINET Services (Consultative Group for International Agricultural Research)
- CRS** ■ Catholic Relief Services
- CWANET** ■ Clean Water Action Network
- CWS** ■ Church World Services
- DASNET** ■ DA Systems Gateway
- EDF** ■ Environmental Defense Fund
- ERL** ■ Environmental Research Laboratory, University of Arizona
- FORDFND** ■ Ford Foundation
- FRIENDS** ■ Friends of the Third World
- GEMNET** ■ Global Education Motivators Network
- GIN** ■ Global Information Network/Interpress U.S.A
- GPE** ■ Global Perspectives In Education
- HIVNET** ■ Global Program On Aids
- INT-IPS/USA** ■ Interpress News Service—USA
- LUTH** ■ Lutheran World Relief
- MARYKNOLL** ■ Maryknoll Fathers
- NGLSNY** ■ Non-Governmental Liaison Service – New York
- NRDC** ■ Natural Resource Defense Council
- PPFA** ■ Planned Parenthood Federation of America Network
- THP** ■ The Hunger Project

- UNCJIN** ■ United Nations Criminal Justice Information Network
- UNDP** ■ United Nations Development Programme
- UNCED** ■ United Nations Conference on Environment and Development (document service only)
- UNFPA-HQ** ■ United Nations Fund for Population Activities
- UNICEF** ■ United Nations Childrens Emergency Fund
- UNIENET** ■ United Nations International Emergency Network
- UNINET** ■ United Nations Information Network
- UNISER** ■ United Nations Information Service
- WCC** ■ World Council of Churches
- WINROCK** ■ Winrock International
- WRI** ■ World Resources Institute

In most cases, a subscriber on one network does not have access to the specific services of another network, although they all have access to the standard services available to all users of the Electronic Village.

Many of the networks listed above operate bulletin boards and internal database services. It is possible for a subscriber to one network to be granted access, on request, to these information services on another network. In some cases, such inter-network access has been formalized, so that a subscriber to, for example, the UNIENET network, can access the UNICEF or LUTH networks. It should be noted that the bulletin board services do not, generally speaking, encourage dialogue, debate or discussion among users, being often restricted to a “read only” status.

The following are of special value in the area of sustainable development:

- ▶ **UNIENET** ■ United Nations International Emergency Network
- UNIENET provides extensive and well-maintained bulletin boards on the activities and services of several international organizations concerned with disaster mitigation and relief. These include details of early warning systems, publications, training programs, situation reports, disaster emergency contacts, lists of experts and the services of their many partners in this field. Among the organizations whose activities are listed are:
- UNDR0** ■ Office of the United Nations Disaster Relief Coordinator

**UNHCR** ■ United Nations High Commissioner for Refugees

**FAO** ■ Food and Agriculture Organization

**WHO** ■ World Health Organization

**OAS** ■ Organization of American States

**PAHO** ■ Pan-American Health Organization

**PCDPPP** ■ Pan-Caribbean Disaster Preparedness and Prevention

**AIT** ■ Asian Institute of Technology

**IDNDR** ■ International Decade for Natural Hazard Reduction

**OSRO** ■ Office of Special Relief Operations

Asian Disaster Preparedness Centre, Bangkok, Thailand  
Disaster Management Center, University of Wisconsin, USA  
Emory University, Atlanta, USA

International Health Exchange

International Committee of the Red Cross, Geneva, Switzerland

International Agricultural Centre, Wageningen, The Netherlands

Institute of Child Health, London, U.K.

Liverpool School of Tropical Medicine, Liverpool, U.K.  
MSF (Medecins Sans Frontieres)-NL, Amsterdam, Netherlands  
MSF (Medecins Sans Frontieres)-B, Bruxelles, Belgium  
MSF (Medecins Sans Frontieres)-F, Paris, France  
University of Uppsala, Uppsala, Sweden

► **UNDP** ■ United Nations Development Programme

The UNDP network on the TCN/Electronic Village provides possibilities for electronic mail links with most UNDP offices in the world. In addition, it provides sources of information on current United Nations exchange rates, and the travel plans and engagements of UNDP staff.

► **UNEP** ■ United Nations Environment Programme

The UNEP network enables electronic mail with most UNEP offices, and details of official statements and speeches by senior UNEP officers. Access is available to the UNEP's Clean Technologies System, its regional information systems, and the AMBIONET information network. Highly significant is the expectation that access will be available in the second half of 1992 to the United Nations databases on the United Nations' internal computer systems (ICC – International Computing Centre, in Geneva, and NYCS – New York Computer Service)

► **UNET** ■ Unicef Electronic Information Network

The United Nations Children's Fund (UNICEF) UNET network is the most comprehensive of the eight UN agency networks which are operated on public systems. As well as electronic mail among a wide network of UNICEF offices, contacts, and national committees, UNET offers extensive bulletin boards and database services.

The UNET Bulletin Boards provide detailed materials on the activities, research work and publications of several UNICEF linked programs, such as the Extended Programme of Immunization. They also provide schedules of UNICEF meetings and related events, United Nations exchange rates, and DSA (daily subsistence allowance) rates.

Internal database services include full text facilities on UNICEF press releases.

► **UNISER** ■ United Nations Information Service

The UNISER network is operated by GEMNET (Global Education Motivators) in cooperation with the United Nations Department of Public Information (UNDPI). It features access to the regular materials of the United Nations Information Service:

- the UN database with daily news from and about the UN, in English, French and Spanish
- full text versions, some by request only, of official UN press releases
- a full, searchable index of resolutions passed by the General Assembly in the past two years. The full text of a resolution can be requested and delivered by electronic mail, for a small charge which is included in the TCN billing.

► **CGINET** ■ Consultative Group for International Agricultural Research

The CGINET is a service of the CGIAR, (Consultative Group for International Agricultural Research), which is a network of 16 research centres worldwide, mainly in Africa, Asia/Pacific, and Latin America. It operates extensive electronic mail and data exchange, and provides access and search facilities to the databases operated by the individual centres. The network is operated on another Dialcom Host, system 57.

► **IPS-USA** ■ Inter Press Service

IPS-USA Database is a wide-ranging database of news articles focusing on the Third World. Updated daily with seven to nine full-text articles, IPS-USA offers coverage of political, economic, human rights, environmental, development and women's issues from the under-reported nations of the world. Articles are held online for one month and indexed by "key-words" so that subscribers can quickly locate articles of interest.

The IPS-USA Database is primarily a selection of news from the Inter Press Service, daily English language news cast. IPS copy is selected and re-edited with the needs of a U.S.-based audience in mind, and augmented with free-lance features.

Inter Press Service Third World News Agency is a non-profit international cooperative of journalists, which specializes in coverage of regional, political, environmental and development issues. Based in Rome, IPS is represented in 70 countries in Africa, Asia, the Caribbean, Central and Latin America, Europe, and North America.

► **UNCED** ■ United Nations Conference On Environment And Development

While UNCED does not operate a full network on the TCN/Electronic Village, it does maintain a full document service. This includes updates, schedules, reports, and a library of the PrepComm documentation.

► **Databases**

The TCN/ Electronic Village also provides access to a number of external databases for news retrieval, research services, and a wide variety of commercial services. There is a surcharge imposed by the sponsor host. The databases, provided by the host system BRS, cover issues related to sustainable development.

Databases include:

*AGRICOLA* (AND BACKFILE) (BRS)

*BIOBUSINESS* (BRS)

*CAB* – Economics, Development And Education (brs)

*CAB* – Human Nutrition (BRS)

*CAB* – Veterinary And Medical (BRS)

*CAB ABSTRACTS* (BRS)

CURRENT CONTENTS: Agriculture (BRS)

CURRENT CONTENTS: Engineering (BRS)

CURRENT CONTENTS: Life Sciences (BRS)

CURRENT CONTENTS: Physics (BRS)

*ELECTRONIC MATERIALS INFORMATION SYSTEM* (BRS)

*HAZARDLINE* (BRS)

*INDUSTRY AND INTERNATIONAL STANDARDS* (BRS)

*MEDLINE* (AND BACKFILES) (BRS)

*NATIONAL ENVIRONMENTAL DATA REFERRAL SERVICE* (BRS)

*NTIS BIBLIOGRAPHIC* (BRS)

*POLLUTION ABSTRACTS* (BRS)



## Appendix 7

### GeoNet Databases Relevant to Sustainable Development

(Host system is shown in parentheses; the system MCR1 means that the database is held locally by Geonet system MCR1)

*AGRICOLA* ■ (DIALOG)  
*AGRIS INTERNATIONAL* ■ (DIALOG)  
*AIDOC* ■ (Amnesty International) (MCR1)  
*AIDS DATABASE* ■ (DATASTAR)  
*APTIC* ■ (Air Pollution) (DIALOG)  
*BIOBUSINESS* ■ (DIALOG)  
*BIOCOMMERCE ABSTRACTS* ■ (DIALOG)  
*CAB ABSTRACTS* ■ (DIALOG)  
*CHEMICAL PLANTS WORLDWIDE* ■ (DATASTAR)  
*ECOBASE* ■ (MCR1)  
*ENERGYLINE* ■ (DIALOG)  
*ENERGYLINE* ■ (DIALOG)  
*ENVIROLINE* ■ (DIALOG)  
*ENVIRONMENT DIGEST* ■ (MCR1)  
*ENVIRONMENTAL BIBLIOGRAPHY* ■ (DIALOG)  
*FOOD SCIENCE AND TECHNOLOGY ABSTRACTS* ■ (DIALOG)  
*FT BUSINESS REPORT - TECHNOLOGY* ■ (PROFILE)  
*IALINE: FOOD & AGRICULTURE LITERATURE* ■ (QUESTEL)  
*INFOLIFE* ■ (MCR1)  
*LABORDOC* ■ (OTHER HOST)  
*MEDLINE* ■ (DIALOG)  
*OVERSEAS DEVELOPMENT INSTITUTE* ■ (MCR1)  
*P/E NEWS: PETROLEUM & ENERGY LITERATURE* ■ (DIALOG)  
*POLLUTION ABSTRACTS* ■ (DATASTAR)  
*POPULATION BIBLIOGRAPHY* ■ (DIALOG)

*REGISTRY TOXIC EFFECTS OF CHEMICAL SUBSTANCES* ■ (DIALOG)

*SUSTECH: SUSTAINABLE DEVELOPMENT TECHNOLOGIES* ■ (MCR1)

*TROPICAL AGRICULTURE* ■ (OTHER HOST)

*ULIDATA: ENVIRONMENTAL LITERATURE* ■ ECHO)

*UNCED: FULL UNCED OFFICIAL DOCUMENTATION*

#### ■ Bulletin Boards

*Host* ■ Bulletin board ■ scope

*GEO2* ■ AIDS-ACTION-ONL AIDS ■ AIDS Action newsletter of AHRTAG

*GEO2* ■ AIDS-ISSUES ■ Issues relating to HIV and AIDS

*GEO2* ■ ANTI-APARTHEID ■ Anti Apartheid News/Discussion

*GEO2* ■ DATABASES ■ Database descriptions

*GEO2* ■ DEBT-CRISIS ■ News/Discussion on Third World Debt

*GEO2* ■ ENVIRONMENT ■ News/discussion on Environmental Issues

*MCR1* ■ ETHI-CONSUMER ■ Ethical Consumer magazine

*GEO2* ■ FONDAD-BULLETIN ■ Forum on Debt and Development BBS

*GEO2* ■ GATT-INFO ■ Informations sur GATT / GATT Information

*GEO2* ■ GLOBAL-DIALOG ■ Global Dialog Association

*GEO2* ■ GREEN ■ Information/Discussion of Green Issues

*GEO2* ■ HAZARDS-BBS ■ Trade Unions/Community Hazards Campaigns

*MCR1* ■ HAZARDS-NEWS ■ Health and Safety Information

*GEO2* ■ HUMAN-RIGHTS ■ Human Rights Alerts/Appeals

*GEO2* ■ INTERDOC-BBS ■ Interdoc global NGO Network BBS

*GEO2* ■ LABOUR ■ News/Discussion about Labour Issues

*GEO2* ■ LIFELINES-IOCU ■ International Organization of Consumers Unions BBS

**GEO2** ■ NGO-HOSTS ■ News/Information NGO e-mail  
Hosts

**MOS1** ■ RIA-SCIENCE ■ Science and technologies news  
from RIA Russian Information Agency (ex-TASS)

**GEO2** ■ SATIS-THESAURUS ■ SATIS Thesaurus  
Development

**GEO2** ■ SATISFACTION ■ SATIS Sustainable  
Technology News

**GEO2** ■ SATISFILE ■ Discussion on Software for Info  
Centres

**GEO2** ■ SATISNEWS ■ Satis news - text of Satis journal

**GEO2** ■ TRIBAL-SURVIVAL ■ News/Discussion on  
Indigenous Peoples

**GEO2** ■ TWN ■ Third World Network

**GEO2** ■ UNCED ■ News and information on UNCED

**GEO2** ■ UNCED-DOCS-E ■ UNCED Documentation -  
Espanol

**GEO2** ■ UNCED-DOCS-F ■ UNCED Documentation -  
Francais

**GEO2** ■ UNCED-DOCS-GB ■ UNCED Documentation -  
English

**GEO2** ■ WOMEN ■ Women's Bulletin Board

## Appendix 8

### Internet Mailing Lists Related to Sustainable Development

#### ► Biotechnology

##### ■ BIOTECH%UMDC.BITNET@CUNYVM.CUNY.EDU BIOTECH@UMDC.UMD.EDU

The Biotechnology mailing list is open for:

- Software/hardware issues
- Announcements
- Submission of bulletins
- Exchange of ideas and data

Previous bulletins are archived on BIOSERVE server disk. The server accepts commands from the subject line of a message. The request for information and previous bulletins can be sent to:  
BIOSERVE%UMDC.BITNET@CUNYVM.CUNY.EDU or  
BIOSERVE@UMDC.UMD.EDU.

All requests to be added to or deleted from this list, problems, questions, etc., should be sent to  
BIOTECH%UMDC.BITNET@CUNYVM.CUNY.EDU or  
BIOTECH@UMDC.UMD.EDU.

Coordinator: Deba Patnaik  
<DEBA%UMDC.BITNET@CUNYVM.CUNY.EDU>

##### ■ EBCBBUL%HDETUD1.BITNET@VM1.NODAK.EDU

EBCBBUL is short for EBCB BULLETIN board, a facet of the European Bank of Computer Programs in Biotechnology (EBCB). EBCB is a non-profit organization mainly funded by the European Community (EC). The main goal of EBCB is to stimulate and facilitate the use of computers in biotechnological training and research in Europe. EBCBBUL will not only promote user/user communication, but will also provide users with up to date information (e.g. about courses/congresses).

Items accepted for the bulletin board will be distributed via electronic mail (e-mail) to all participants and will also be retained for future reference.

EBCBBUL is public, and anyone with access to EARN can participate. Before you gain access to EBCBBUL through EARN or a related system, however, you must issue one of the following commands:

- For EARN nodes operating with VM/CMS systems type the following:

TELL LISTSERV AT HDETUD1 SUBSCRIBE EBCBBUL  
(followed by your name)

- For EARN nodes operating with VAX/VMS systems type the following:

SEND LISTSERV @ HDETUD1 SUBSCRIBE EBCBBUL  
(followed by your name)

- On other systems send mail to  
LISTSERV@HDETUD1  
(or LISTSERV@HDETUD1.TUDELFT.NL,  
or for Internet users  
LISTSERV%HDETUD1.BITNET@VM1.NODAK.EDU)  
with the body/text of the mail containing the  
command: SUB EBCBBUL yourfirstname yourlast  
name

As soon as your request for access has been accepted, you will receive, by e-mail, confirmation of this fact. Because of limitations imposed by e-mail (traffic volume etc.) this may take several hours. After that you will be able to search EBCBBUL using LDBASE or LSVTALK (these are programs available within the EARN node that make interactive searching possible).

Coordinator: Arie Braat  
<RCSTBRA%HDETUD1.TUDELFT.NL@VM1.NODAK.EDU>  
<RCSTBRA@HDETUD1.TUDELFT.NL>  
<EBCBBUL%HDETUD1.BITNET>

#### ► International

There are 16 lists on specific countries, regions and continents, including: Africa, Baltic republics, Canada, Croatia, Poland, Eastern Europe, European Community, Hungary, India, Mexico, Malaysia, Pacific Ocean and Islands, Pakistan, Russia, Slovenia, and Greece. Too lengthy to list here, specific information on how to access these lists can be obtained from the previously mentioned List of Lists.

#### ► Environmental

##### ■ BIOSPH-L%UBVM.BITNET@VM1.NODAK.EDU

Anything relating to the biosphere: pollution, CO<sub>2</sub> effect, ecology, habitats, climate, etc., can be discussed—anything that exerts an influence of some kind or another on the biosphere.

- To subscribe send the following command to  
LISTSERV@UBVM.BITNET:

SUBSCRIBE BIOSPH-L Your\_full\_name.

- To leave or signoff the list send:  
SIGNOFF BIOSPH-L

- Non-BitNet users can [un]subscribe by sending the commands in the body text of a message to  
LISTSERV%UBVMS.BITNET@VM1.NODAK.EDU.

Coordinator: Dave Phillips  
<V184GAVW%UBVMS.BITNET@VM1.NODAK.EDU>

#### ■ ENVST-L on LISERSV@BROWNV.M.BITNET The Environmental Studies Discussion List

The purpose of this list is to exchange information about Environmental Studies (ES) programs generally including course designs, successful student projects, important information sources, etc. Open to all who have a serious interest in ES at the undergraduate and graduate levels, some topics that might be of interest are: the balance between science/social science/humanities in our degree programs; the role of project classes and individual applied projects in programs and relations with more traditional departments and disciplines.

Entries to this list will be restricted to items of general interest. This list will not be used for personal exchanges or dialogues.

- To subscribe to this list, send the following command in the body of a message or mail to:  
LISTSERV@BROWNV.M.BITNET SUB ENVST-L  
yourfirstname yourlastname.

You will receive acknowledgement from listserv, together with a more detailed description of the list.

Owner: Sandra Baptista <ST802218@BROWNV.M>

#### ■ URBANITES@PSYCHE.MIT.EDU

The purpose of this mailing list is to discuss and promote self-sufficiency in everyday life in many forms. This includes, but is not limited to, basic needs such as food, shelter, health, and safety. A unique aspect of this list, however, unlike many others, is that it concentrates on the city and urban/semi-urban applications of traditional self-sufficiency technology. Thus, discussions on raising fish in a small backyard pool or a large aquarium instead of in cage-culture rafts on a farm pond; raising vegetables and small-tree fruits in containers on the patio or under grow-lights at work instead of in a 20 x 40 garden plot.

- Send requests to be added directly to  
urbanites-request@psyche.mit.edu and include  
"urbanites-request" in your subject line.

Coordinator: sgw@silver.lcs.mit.edu (Stephen G. Wadlow)

## ► Development

#### ■ DEVEL-L@AUVM DEVEL-L@AUVM.AMERICAN.EDU [Last Updated 12-October-1991]

A public discussion list for all persons interested in technology transfer in international development. The list is sponsored by Volunteers in Technical Assistance (VITA), a private, nonprofit, voluntary organization for humanitarian assistance. Subscribers discuss their shared interests in the list's subject, which can include current news, new books, computers and communications in development, other new technologies, personal experiences, entrepreneurship, relationships between technology and the amelioration of poverty in Third World countries, projects, organizations, and educational programs. Other topics for discussion are open to suggestion. Subscribers automatically receive VITA's monthly newsletter.

- To subscribe, send mail text or interactive message to  
LISTSERV@AUVM or LISERSV@AUVM.AUVM.EDU  
that reads as follows: SUB DEVEL-L <your full name>.
- You may leave the list at any time by sending a  
"SIGNOFF DEVEL-L" command to LISERSV@AUVM.  
To post a message to all subscribers, use the address  
DEVEL-L@AUVM.
- For editorial correspondence concerning the  
newsletter or for messages to VITA, use the address  
VITA@GMUVAX; please don't use it for other purposes.

Coordinator: R. R. Ronkin, VITA Volunteer,  
VITA@GMUVAX.

## ► Disarmament

#### ■ DISARM-L%ALBANYVM1.BITNET@ CORNELL.CCS.CORNELL.EDU

DISARM-L provides discussions of military and political strategy, technology, sociology, and popular peace activism involved in accelerating disarmament of nuclear, conventional, chemical, and biological weapons.

Also, discussion of other destabilizing actions such as superpower intervention and exploitation of the Third World. Soviet, European, Asiatic and Latin American participants are welcomed.

Also see DISARM-D for a monthly-Digest form of the list.

- Those with interactive BITNET communication can subscribe and also access the monthly logs by issuing the command: TELL LISTSERV@ALBANYVM1 INDEX DISARM-L and the command: TELL LISTSERV@ALBANYVM1 GET DISARM-L LOGgyymm.
- Those without interactive BitNet access should send requests to the moderator by e-mail.

Moderator: Donald Parsons  
<DFP10%ALBANYVM1.BITNET@CORNELL.CCS.CORNELL.EDU>

#### ■ DISARM-D%ALBANYVM1.BITNET@CORNELL.CCS.CORNELL.EDU

The list that stores and distributes the monthly digests. Interactive users can obtain these directly as disarm-d loggyymm.

Also see DISARM-L for an immediate-redistribution (mailing list) form of the Digest.

- Those with interactive BITNET communication can subscribe and also access the monthly logs by issuing the command: TELL LISTSERV@ALBANYVM1 INDEX DISARM-D and the command: TELL LISTSERV@ALBANYVM1 GET DISARM-D LOGgyymm.
- Those without interactive BITNET access should send requests to the moderator by e-mail.

Moderator: Donald Parsons  
<DFP10%ALBANYVM1.BITNET@CORNELL.CCS.CORNELL.EDU>

#### ► Economy

##### ■ ECONOMY@TECMTYVM.MTY.ITESM.MX ECONOMY@TECMTYVM.BITNET

The economy and economic problems of Less Developed Countries (LDCs) have become real laboratories for both the economic discipline, and economic policy measures. This discussion list is aimed at analyzing economic problems, theories, policies, social conditions, political settings, etc., of LDCs and their relationship with the industrial world.

- BITNET users can join by issuing the following command: TELL LISTSERV AT TECMTYVM SUBSCRIBE ECONOMY Your\_full\_name  
  
Example: TELL LISTSERV AT TECMTYVM SUBSCRIBE ECONOMY Jane Doe  
or the equivalent for sending messages, if your operating system is not VM/SP.

- Non-BITNET users can join by sending a message to LISTSERV@TECMTYVM.MTY.ITESM.MX with the one-line command "SUBSCRIBE ECONOMY. Your\_full\_name" in the body/text (\*NOT\* in the Subject: field).

Coordinator: Alejandro Ibarra  
<5343TBIT@TECMTYVM.MTY.ITESM.MX>  
<5343TBIT@TECMTYVM.BITNET>

#### ► Law

##### ■ INT-LAW on LISTSERV@UMINN1.BITNET or LISTSERV@VM1.SPCS.UMN.EDU [Last updated 28-January-1992]

INT-LAW (Foreign and International Law Librarians) is a list on BITNET for librarians and others interested in exchanging information related to foreign, comparative, and international legal materials and issues.

Selected topics in the six months since INT-LAW began include the READEX CD-ROM Index to United Nations documents, databases containing information on foreign and international law, the "European Court Reports", sources of information on careers in international law, GATT panel reports, and the "National Trade Data Bank" CD-ROM, etc. INT-LAW came up on April 31, 1991.

- There are approximately 185 subscribers to INT-LAW at present, mainly from the U.S. Other countries represented include Canada, Mexico, and Germany. To subscribe to INT-LAW, send the following message to LISTSERV@UMINN1.BITNET or LISTSERV@VM1.SPCS.UMN.EDU (Internet address) Subscribe INT-LAW Firstname Lastname.

Send any questions, comments, etc. to the moderators of the list:

Lyonette Louis-Jacques (L-LOUI@UMINN1) or  
Mila Rush (M-RUSH@UMINN1).  
Mila Rush is the listowner.

#### ► Education

##### ■ DEOS-L on LISTSERV@PSUVM.BITNET or LISTSERV@PSUVM.PSU.EDU [Last updated 12-October-1991]

The American Center for the Study of Distance Education at Pennsylvania State University has opened DEOS-L, an international discussion forum for distance education. Initially, the intention is to facilitate discussion of some of the issues presented in DEOSNEWS. It will also work to promote communication among distance educators, and disseminate information and requests about distance education around the world.

DEOS-L will be open for everyone who wants to subscribe, and all subscribers may post information to the list. However, to enhance the quality of DEOS-L, the notes posted will be reviewed.

- To subscribe to DEOS-L, just post the following command to `LISTSERV@PSUVM` or `LISTSERV@PSUVM.PSU.EDU`: `SUBSCRIBE DEOS-L Your Full Name`

#### ■ **EDISTA on `LISTSERV@USACHVM1.BITNET` Distance Education**

[Last updated 28-January-1992]

The University Distance Program (UNIDIS) at the University of Santiago (Chile), has started a discussion list to serve as a forum on distance education, `EDISTA@USACHVM1.BITNET`

New research findings, UNIDIS activities and announcements, and discussions on distance education will be the main topics of the list.

- To sign up on the list, send a mail message with the content of the message in the form of: `SUBSCRIBE EDISTA "your_full_name"` to the following BITNET address: `LISTSERV` at `USACHVM1.BITNET`
  - To send a contribution to the list via mail, use the following bitnet address:  
`EDISTA@USACHVM1.BITNET`
- These contributions will then be sent to everyone on the list.
- To sign off the list, send a message in the form of:  
`SIGNOFF EDISTA to: LISTSERV@USACHVM1.BITNET`

### ► **Medical**

#### ■ **`AIDS-STAT@WUBIOS.WUSTL.EDU`**

Mailing list for the distribution of AIDS statistics from various agencies. The prime information being distributed will be the Atlanta-based Center for Disease Control's monthly AIDS Surveillance Report.

- Requests to be added to or deleted from the list should be sent to `AIDS-STAT-REQUEST@WUBIOS.WUSTL.EDU`. Questions about the list, or subscription problems can also be reported to `ddodell@stjhmc.fidonet.org` or `ATW1H@ASUACAD.BITNET`.

Coordinator: David Dodell  
(`ddodell%stjhmc.fidonet.org@VM1.NODAK.EDU`)

#### ■ **`AIDSNEWS%RUTVM1.BITNET@CUNYVM.CUNY.EDU`**

The AIDSNews Forum is used for the discussion of any issue relating to AIDS/ARC. AIDS Treatment News reports on experimental and alternative treatments, especially those available now. It collects information from medical journals, and from interviews with scientists, physicians, health practitioners, and persons with AIDS or ARC; it does not recommend particular therapies, but seeks to increase the options available. The ethical and public-policy issues around AIDS treatment research will also be examined. AIDS Treatment News, Northern Lights Alternatives, and many other publications are also distributed to this list.

A library of files is also available. Send or mail the following command to `LISTSERV@RUTVM1.BITNET` for a current listing of available files: `INDEX AIDSNEWS`

- BITNET users may subscribe to the list by entering:  
`TELL LISTSERV at RUTVM1 SUBSCRIBE AIDSNEWS Your_Full_Name where Your_Full_Name is your real name (not your userid). From a VMS BITNET site use the SEND/REMOTE command.`
- Users outside BITNET should use the appropriate gateway to send mail to `LISTSERV@RUTVM1.BITNET`. The text of the message should be the single line:  
`SUBSCRIBE AIDSNEWS Your_Full_Name`

To protect privacy the subscriber list is kept confidential. If you have any problems subscribing to the list send mail to the coordinator.

Coordinator: Michael Smith  
<`MSMITH@CS.UMASS.EDU`>  
<`MSMITH@UMAEC.S.BITNET`>

#### ■ **`MEDNEWS%ASUACAD.BITNET@CUNYVM.CUNY.EDU`**

The MEDNEWS `LISTSERV` list is for distribution of the Health Info-Com Network medical newsletter. It is distributed weekly and contains the latest MMWR from the Center for Disease Control, weekly AIDS Statistics, FDA bulletins, medical news from the United Nations, and other assorted medical news items. Submissions for the newsletter are welcomed; please contact the editor if you have any questions or newsletter submissions.

- To subscribe send the following command to `LISTSERV@ASUACAD` (non-BITNET users send mail to `STSERV%ASUACAD.BITNET@CUNYVM.CUNY.EDU` with the command in the message body): `SUBSCRIBE MEDNEWS Your_Full_Name` where `Your_Full_Name` is your real name, not your userid. To unsubscribe, send:  
`UNSUBSCRIBE MEDNEWS`

Editor: David Dodell  
<`ATW1H%ASUACAD.BITNET@CUNYVM.CUNY.EDU`>

## Appendix 9

### List of Internet Information Services

#### Distance Education Online Database

ICDL  
c/o The Open University, Walton Hall  
Milton Keynes, MK7 6AA  
United Kingdom

e-mail: nismail@vax.acs.open.ac.uk or  
kwharry@vax.acs.open.ac.uk

Telephone: 44-908-653537  
Fax: 44-908-653744  
Telex: 825061 OUWALT G

**Description** ■ The International Centre for Distance Learning (ICDL), based at the British Open University, has an online database on Distance Education.

#### Science and Technology Information System (STIS)

STIS  
National Science Foundation  
Office of Information Systems (Room 401)  
1800 G Street NW  
Washington, DC 20550  
USA

e-mail: stis-request@nsf.gov (Internet)  
stis-req@NSF (BITNET)

Telephone: 202-357-7555 (Voicemail)  
Fax: 202-357-7663  
TDD: (202) 357-7492

**Description** ■ STIS is an electronic dissemination system that provides fast, easy access to National Science Foundation (NSF) publications.

Publications currently available include:

The NSF Bulletin

- Program announcements and "Dear Colleague" letters
- General publications and reports
- NSF Directions
- Press releases
- NSF organization charts and phone books
- NSF vacancy announcements
- Award abstracts (1989-now)

The goal is for all NSF printed publications to be available electronically.

[See information on the Global Change Research Program, sponsored by the Committee on Earth and Environmental Sciences of the Federal Coordinating Council for Science, Engineering and Technology. Working with about a USD1 billion budget, it has a goal "of establishing the scientific basis for national and international policy related to natural and human-induced changes in the global Earth system".]

**Network Access** ■ Via Anonymous FTP.  
ftp.stis.nsf.gov or 128.150.195.40

Via Telnet  
telnet.stis.nsf.gov or 128.150.195.40 (Login: public)

Direct electronic mail.

You can request that STIS e-mail send you an electronic copy of every document that is added to the system. This is particularly effective for periodic and time-sensitive publications, such as the Bulletin.

**Who Can Use the System?** ■ STIS is available to the public. There is no charge for any of the services and no need to register for a password.

## Appendix 10

### BITNET Mailing Lists Related to Sustainable Development

Network-wide ID	Full address	List title
'EDUCATIONAL-...	ERL-L@TCSVM	Educational Research List (TCSVM)
'SINOECOL'	SINOECOL@MIAMIU	(Peered) Sino-Ecologists Club Overseas Forum
AG-ECON	AG-ECON@ERS	Agricultural Economics and ERS Test List
AIDS	AIDS@EB0UB011	(Peered) Sci.Med.AIDS Newsgroup
	AIDS@RUTVM1	(Peered) Sci.Med.AIDS Newsgroup
	AIDS@USCVM	(Peered) Sci.Med.AIDS Newsgroup
AIDS_INTL	ICECA@RUTVM1	Intl Committee for Elec Comm on AIDS
AIDSNEWS	AIDSNEWS@EB0UB011	(Peered) AIDS/HIV News
BIOSPH-L	BIOSPH-L@UBVM	Biosphere, ecology, Discussion List
CLIMLIST	CLIMLIST@OHSTVMA	CLIMLIST Climatology Distribution List
COASTGIS	COASTGIS@IRLEARN	Coastal GIS Distribution List
COMDEV	COMDEV@RPIECS	Communication & international development
CONSLINK	CONSLINK@SIVM	Discussion on Biological Conservation
CREAD	CREAD@YORKVM1	Electronic Network for Distance Education
CREAD-D	CREAD-D@YORKVM1	Digest for the Electronic Network for Distance Education
DEOS-L	DEOS-L@PSUVM	DEOS-L - The Distance Education Online Symposium
DEOSNEWS	DEOSNEWS@PSUVM	DEOSNEWS - The Distance Education Online Symposium
DEVEL-L	DEVEL-L@AUVM	Technology Transfer in International Development
DISTED	DISTED@UWAVM	Online Journal of Distance Ed. and Communication
EBCBBUL	EBCBBUL@HDETUD1	Computers in Biotechnology, Research and Education
EBCBCAT	EBCBCAT@HDETUD1	Catalogue of 'Biotechnological' software
ECONOMY	ECONOMY@TECMTYVM	Economic Problems in Less Developed Countries
ECO92-L	ECO92-L@BRUFMG	Grupo de discussao da ECO 92
EDISTA	EDISTA@USACHVM1	"Educacion a Distancia"
ENERGY-L	ENERGY-L@TAUNIVM	Energy List
ENVBEH-L	ENVBEH-L@POLYGRAF	Forum on Environment and Human Behavior
ENVST-L	ENVST-L@BROWNVN	Environmental Studies Discussion List
GLOBALED	GLOBALED@UNMVM	Global Classroom
GLOSAS-L	GLOSAS-L@UOTTAWA	GLOBal Systems Analysis and Simulation List
GPTEAM	GPTEAM@POLYGRAF	The Green Pages Team Discussion
GREEN	GREEN@INDYCMS	Green movements
NAT-1492	NAT-1492@TAMVM1	NATIVE-L Columbus Quincentenary Mailing List
NATIVE-L	NATIVE-L@TAMVM1	NATIVE-L Issues Pertaining to Aboriginal Peoples
PBDLIST	PBDLIST@SUVM	Paradigms for Boosting Development - Network
RECYCLE	RECYCLE@UMAB	Recycling in Practice
RURALDEV	RURALDEV@KSUVM	Community and Rural Economic Development
SIIN-L	SIIN-L@UNBVM1	UPEI Inst. of Island Studies-Small Islands
		UN UN@INDYCMS United Nations
WU-AIDS	AIDS@WUVMD	Sci.Med.AIDS Newsgroup



## ► UNCED 92 Communication and Information Net

In order to promote the widest range of communication and information sharing before, during, and after the United Nations Conference on Environment and Development (UNCED), several mailing lists have been established on BITNET and Internet. These lists are sponsored by the National Research Net of the National Research Council of Brazil. The five initial lists are:

- ECO92-L** ■ General information. Beginners list, to which generic and logistic questions shall be addressed.
- THEM92-L** ■ Thematic conference. Provides information and promotes discussions on the scientific and technical aspects of UNCED92, as well as their consequences. It is addressed to the national and international scientific community.
- UNCE92-L** ■ Official program. Provides information about the official event – its preparation, follow-up and decisions.
- GLFR92-L** ■ The NGOs Global Forum. Provides information on the parallel event, organized by nongovernmental organizations – its preparation, follow-up and decisions.
- NEWS92-L** ■ News - Read-only list with journalistic information on the event, stories on subjects related to UNCED92, comments, international reactions, editorials, etc.

Instructions for new lists users:

- The official languages are Portuguese, English, Spanish, and French.
- To subscribe to any list send the following message to:  
LISTSERV@BRUFMG.BITNET  
SUB list\_name (complete\_user\_\_name)

example:

```
SUB ECO92-L John Denver Smith
-----
```

- To sign off any list send the following msg to:  
LISTSERV@BRUFMG.BITNET  
SIGNOFF list\_name

example:

```
SIGNOFF ECO92-L
-----
```

- To sign off all lists at one time send the following msg:

```
SIGNOFF * (NETWIDE
-----
```

To send msgs to the lists use the specific address:

ECO92-L@BRUFMG.BITNET

THEM92-LBRUFMG.BITNET

UNCE92-LBRUFMG.BITNET

GLFR92-LBRUFMG.BITNET

DO NOT use these addresses to ask for subscriptions or to signoff your subscription

UNCED92 COMMUNICATION AND INFORMATION NET

Coordinator: Evaristo E. de Miranda

CP 491

CEP 13001 Campinas - SP BRASIL

e-mail:mir@nma.embrapa.ansp.br

Phone: 55-192-52-5977

Phone : 55-192-53-1363

Fax : 55-192-54-1100

## Appendix II

### UUCP Mailing Lists

#### act-up

**Contact** ■ act-up-request@wprld.std.com (Lenard Diggins)

**Purpose** ■ Act-up was set up for the discussion of the work being done by the various act-up chapters worldwide, to announce events, to exchange ideas related to AIDS activism, and, more broadly, to discuss the politics of AIDS and health care.

#### aids

**Contact** ■ aids-request@cs.ucla.edu (Daniel R. Greening)

**Purpose** ■ A distribution list for people who can't read sci.med.aids. Covers predominately medical issues of AIDS. Some discussion of political and social issues. Postings to AIDSNEWS and Health InfoCom News mailing lists are also carried.

Unlike info-aids, postings to aids@cs.ucla.edu are NON-confidential. The average number of postings to aids is about 2 per day. The average size of articles is very large (statistics, news summaries, etc.) sci.med.aids and aids@cs.ucla.edu are moderated. (see also "info-aids" mailing list)

#### AIDS-stat

**Contact** ■ aids-stat-request@wubios.wustl.edu (David Dodell)

**Purpose** ■ AIDS-STAT is a moderated mailing list whose sole purpose is for the distribution of AIDS statistics from various agencies.

The prime information being distributed will be the monthly AIDS Surveillance Report of the Center for Disease Control located in Atlanta, Georgia, USA.

#### info-aids

**Contact** ■ info-aids@rainbow.UUCP —or—  
{pacbell,apple,hoptoad,ucbvax}!well!rainbow!info-aids  
(Ken Davis).

**Purpose** ■ To act as a clearinghouse for information, and discussion about AIDS, including alternative treatments, political implications, etc. Exchanges files with AIDNEWS@RUTVM1.BITNET.

Open to anyone with the time and inclination to participate. Mailing list will be confidential and known only to the members.

Anonymous postings will be accepted. (See also "aids" mailing list)

#### wildnet

**Contact** ■ wildnet-request@access.usask.ca —or—  
access!wildnet-request (Eric Woodsworth)

**Purpose** ■ This list is concerned with computing and statistics in fisheries and wildlife biology. Relevant topics include G.I.S., ecological modelling, software, etc.

## Appendix I 2

### Usenet Newsgroups

**Newsgroup** ▪ Description

**comp.infosystems.gis** ▪ All aspects of Geographic Information Systems

**comp.society.development** ▪ Computer technology in developing countries

**sci.energy** ▪ Discussions about energy, science & technology

**sci.environment** ▪ Discussions about the environment and ecology

**sci.geo.geology** ▪ Discussion of solid earth sciences

**sci.geo.meteorology** ▪ Discussion of meteorology and related topics

**sci.med.aids** ▪ AIDS: treatment, pathology/biology of HIV prevention (Moderated)

## Appendix 13

### CompuServe

► Selected databases available on CompuServe, via the IQUEST database query service along with annotations<sup>1</sup>.

**ACIDOC** - Includes bibliographic references on acid rain, including sources and control of acid precipitation, environmental effects, social aspects, etc.

**Air/Water Pollution Report** - Monitors developments in air and water pollution, emphasizing the Clean Air and Clean Water Acts. Records are full text copies of the reports.

**Business and the Environment** is the full text of the newsletter covering green companies.

**Energyline** offers selected articles and abstracts addressing energy issues.

**Enviroline** contains abstracts of environmental articles.

**Global Environmental Change Report** contains the full text of scientific, legislative and other articles, reports on global warming, acid rain, ozone depletion, deforestations, etc.

**Green Marketing Report** contains the full text of a newsletter that covers trends in environmentally aware products and packaging.

**Indoor Air Quality Update** is a full text database on indoor air problems.

**Multinational Environment Outlook** is a full text database that addresses international environmental and resource management issues

► Other databases

ABSTRACTS OF TROPICAL AGRICULTURE (ORBIT)

AGRICOLA (BRS)

AGRIS INTERNATIONAL (DIALOG)

AIDS DATABASE (DATASTAR)

AIR POLLUTION TECHNICAL INFORMATION CENTER (DIALOG)

AIR/WATER POLLUTION REPORT (NEWSNET)

APPLIED GENETICS NEWS (NEWSNET)

AQUATIC SCIENCES AND FISHERIES ABSTRACTS (DIALOG)

■ ■ ■

<sup>1</sup> Galvin, C.J. 1992. A forum for the planet. *CompuServe Magazine* 11(2):10-19.

ASBESTOS CONTROL REPORT (NEWSNET)

BIOLOGICAL & AGRICULTURAL INDEX (WILSON)

BUSINESS AND THE ENVIRONMENT (NEWSNET)

CAB ABSTRACTS [COMMONWEALTH AGRICULTURAL BUREAU] (DIALOG)

CHEMICAL ENGINEERING & BIOTECHNOLOGY ABSTRACTS (CE (DATASTAR))

CHEMICAL REGULATIONS AND GUIDELINES SYSTEM (DIALOG)

CHEMICAL SAFETY NEWSBASE (DATASTAR)

COMLINE JAPAN DAILY: BIOTECHNOLOGY (NEWSNET)

CURRENT BIOTECHNOLOGY ABSTRACTS (DATASTAR)

ENERGY BIBLIOGRAPHY & INDEX (ORBIT)

ENERGY CONSERVATION NEWS (NEWSNET)

ENERGYLINE (DIALOG)

ENHANCED ENERGY RECOVERY NEWS (NEWSNET)

ENVIROLINE (ORBIT)

ENVIRONMENT WEEK (NEWSNET)

ENVIRONMENTAL BIBLIOGRAPHY (DIALOG)

ENVIRONMENTAL COMPLIANCE UPDATE (NEWSNET)

FINANCIAL TIMES BUSINESS REPORTS: ENERGY (PROFILE)

FOOD SCIENCE AND TECHNOLOGY ABSTRACTS (DIALOG)

FOREST PRODUCTS (ORBIT)

GENETIC TECHNOLOGY NEWS (NEWSNET)

GLOBAL ENVIRONMENTAL CHANGE REPORT (NEWSNET)

GOLOB'S OIL POLLUTION BULLETIN (NEWSNET)

GREEN MARKETING REPORT (NEWSNET)

INDUSTRIAL ENVIRONMENT (NEWSNET)

INTER PRESS SERVICE INTERNATIONAL NEWS (NEWSNET)

MEDLINE (BRS)

NATIONAL TECHNICAL INFORMATION SERVICE (BRS)

OCEANIC ABSTRACTS (DIALOG)  
PLASTIC WASTE STRATEGIES (NEWSNET)  
POLLUTION ABSTRACTS (DIALOG)  
POPULATION BIBLIOGRAPHY (DIALOG)  
SOLID WASTE REPORT (NEWSNET)  
TOXLINE (DIALOG)  
WASTE TREATMENT TECHNOLOGY NEWS (NEWSNET)  
WATER RESOURCES ABSTRACTS (DIALOG)  
WATERNET (DIALOG)  
WORLD BANK WATCH (NEWSNET)  
WORLDWIDE DATABASES (NEWSNET)  
WORLDWIDE ENERGY (NEWSNET)

## Appendix I4

### Computer Conference Samples

#### ► What does a computer conference look like and what can I find in it?

Consider the conference en.announcements on the APC networks. This conference announces environmental events.

Conf? >

en.announcements - en.announcemen

```

10/10/91 642*EcoNet News Of Note 95 igc:econet
4/28/92 749*California Earthquake Reports igc:econet
4/30/92 750*MAY 3 Jerry Mander at UC Davis igc:econet
751*Radio Program from Earth Summit igc:econet
5/01/92 752*Rodney King Trial Related Info igc:econet
753*NAPEC Conference Oct. 8-9 igc:econet
754*Six Goldman Env. Prize Winners igc:econet
5/05/92 755*For Women: Timber Day of Action igc:econet
756*Advocacy Institute Fellowships igc:econet
5/06/92 757*EcoNet Volunteer Needed igc:econet
758*Goto <greenstore> - Great Info! igc:econet
759*Green Builder Program, Austin, TX igc:econet
760*EcoNet Looking For Volunteers 1 igc:econet
5/07/92 761*Concordare News In <cn.journals> igc:econet
5/11/92 762*NEW CONFERENCE: <biodiversity> igc:econet
763*Millenium PBS - Tribal Wisdom igc:econet
5/12/92 764*Radio Japan Environment Phone-In igc:econet
5/13/92 765*Radio Japan: Environment Phone-In igc:econet

```

\*\*\*\* End of Topics \*\*\*\*

#### ► EcoNet News of Note for May 11-12, 1992.

One of the topics in the conference - topic 642 EcoNet News of Note - is printed here. This topic contains information on information, in this case, a list of noteworthy topics in other APC conferences.

Topic 642 EcoNet News Of Note Response 95 of 95

igc:econet

en.announcemen 7:36 am May 11, 1992

```

----- EcoNet News Of Note - May. 11 - 12, 1992-----
Indonesian Govt. Threatens To Strike Against NGOs Autonomy ..... en.alerts
New Conference Relating To Issues Of Biol. Diversity ..... biodiversity
Fresh ECONews From Behind The Redwood Curtain ..... ecotopia.news
Killer Bees In May Issue Of Apicultural Newsletter ..... en.agriculture
H.R.4255 Wetlands Reform Act Alert ..... gan.ecosystems
How To Get Publicity For Your Newsletter ..... gen.newsletters
Real Goods Alternative Energy Sourcebook, 7th Edition ..... greenstore
ECO Newsletters From Final INC Meeting, New York ..... en.climate
Bay Area Progressive Directory ..... pn.ca
Survey - Meeting The Needs Of Macintosh Users ..... micro

```

Watch for updated "EcoNet News Of Note" three times a week.  
Send your suggestions or comments to 'econet'.

► Dialogue in a computer conference. Topic 161 Chlorine risks, systems wide from user igc:ato is a response to an ongoing discussion on the effect of chlorine on the ozone layer. Any other subscriber can contribute a response, i.e. participate, in this discussion.

Conf? 161

Topic 161 chlorine risks, systems wide  
 igc:ato en.climate 7:57 am May 13, 1992

Craig, it is true that only a small amount of chlorine production goes into fluorochemicals. It is also true that it is "chlorine" which degrades ozone in the stratosphere. However, the chemistry of fluorochemicals is such that their long life and volatility enable them to diffuse upward over a very long time period allowing the chlorine to be "presented" in a reactive form within the stratosphere, directly. The presentation of a free chlorine ion is complex, therein. Other organochlorines which are volatile also diffuse upward but tend to be degraded into non-reactive chlorine compounds, captured in rain or clouds, condensed on particulates, or otherwise impeded from entering the stratosphere and thereupon reacting with ozone. To deal with this general situation the concept of Ozone Depletion Potential (ODP) and chlorine loading potential (CLP) was created to rank various chlorine fluorine compounds in significance to ozone influence over the very long term. The Montreal Protocol and The US's Clean Air Act phaseout schedules are based upon this understanding. By the way, studies have been performed to evaluate how residual chlorine in drinking water may be reacted with organic material in the human gut, creating small amounts of chlororganic compounds. The risk evaluated by those studies was obviously related to chronic health effect from direct dose of chloro-organic, not to UV impact resulting from cumulative burps of US citizens drinking chlorinated tap water. Likewise, chlorine is added to drinking water to control a very real risk of water borne disease. My point is that there are many risks and benefits to be evaluated in a human "systems" context. The stratosphere is only one part of the planetary system we should be looking at. Europeans tend to use ozone to disinfect drinking water. That approach has it's own risks and benefits. But it does deserve examination in this context.

► Announcement in a computer conference. Cultural Survival announces the airing of "Millenium: Tribal Wisdom and the Modern World" in conference en.announcements.

Topic 763 Millenium PBS - Tribal Wisdom  
 igc:econet en.announcement 12:58 pm May 11, 1992

From: Institute for Global Communications <econet>  
 Subject: Millenium PBS - Tribal Wisdom

Date: Mon, 11 May 92 11:26:08 PDT  
 From: Cultural Survival <cultsurv>

"Millenium: Tribal Wisdom and the Modern World", a 10-hour TV series, journeys across the globe to tell the stories of people in 11 tribal cultures and in our own. The PBS series airs across the USA on Monday night, May 11 at 9:00-11:00 pm and on four subsequent Mondays (5/18, 5/25, 6/1, 6/8) at the same time.

Hosted by Cultural Survival founder and president, David Maybury-Lewis, "Millenium" conveys a fundamental Cultural Survival message: interchanges between the modern world and indigenous peoples are two-way, and both parties can benefit in the encounter.

To coincide with the airing of this series Cultural Survival has published "At the Threshold: An Action Guide for Cultural Survival," (USD5.00 from Cultural Survival, 53A Church Street, Cambridge, MA 02138 (617) 495-2562). This special issue of "Cultural Survival Quarterly" features activist projects and success stories, extensive resource listings, reprintable fact sheets, and profiles of the indigenous groups in "Millennium." Maybury-Lewis has also written a companion volume, Millennium, which is available from Cultural Survival and bookstores around the country. Other spin-offs include an in-store promotion campaign by Body Shop International, the major underwriter of the series, and a national high-school education effort developed by KCET in Los Angeles. Please contact Cultural Survival for more information.





Dear Reader,

Thank you for taking the time to point out omissions and to list possible additions for the next edition of the *Sourcebook on Sustainable Development*. These will be considered for inclusion in the next revision. Please include a complete postal address and other coordinates with the description(s).

Organization Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Organization Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Organization Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

With thanks.

Yours sincerely,

Arthur J. Hanson  
President & CEO  
IISD

Please mail to  
International Institute for Sustainable Development  
161 Portage Avenue East - 6th Floor,  
Winnipeg, Manitoba, Canada, R3B 0Y4

Or fax: (204) 958-7710

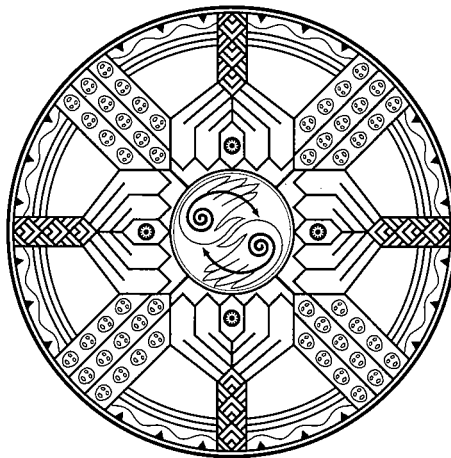
The **International Institute for Sustainable Development (IISD)** is a private non-profit corporation established and supported by the governments of Canada and Manitoba. Its mandate is to promote sustainable development in decision making - within government, business and the daily lives of individuals. Its scope is international, in recognition of the fact that local, national and global development issues are interconnected and impact upon each other.

IISD believes sustainable development will require new patterns of investment and enhanced understanding of the linkages between sustainability, competitiveness and prosperity.

These challenges require new knowledge and new ways of sharing knowledge. IISD engages in policy research and communications to meet those challenges, focusing on programs in international trade, business strategy, national budgets and new institutions to support sustainable development.

The issue of poverty eradication is a fundamental theme linking IISD's research and communications.

The interconnectedness of the world's environment, economy and social fabric implies that collaborative efforts are needed to bring about changes. IISD works through and encourages the formation of partnerships to achieve creative new approaches to the complex problems we face.



**IISD**

INTERNATIONAL INSTITUTE  
FOR SUSTAINABLE DEVELOPMENT  
INSTITUT INTERNATIONAL  
DU DÉVELOPPEMENT DURABLE

**IIDD**

161 Portage Avenue East  
Winnipeg, Manitoba, Canada R3B 0Y4

Phone: (204) 958-7700  
Fax: (204) 958-7710