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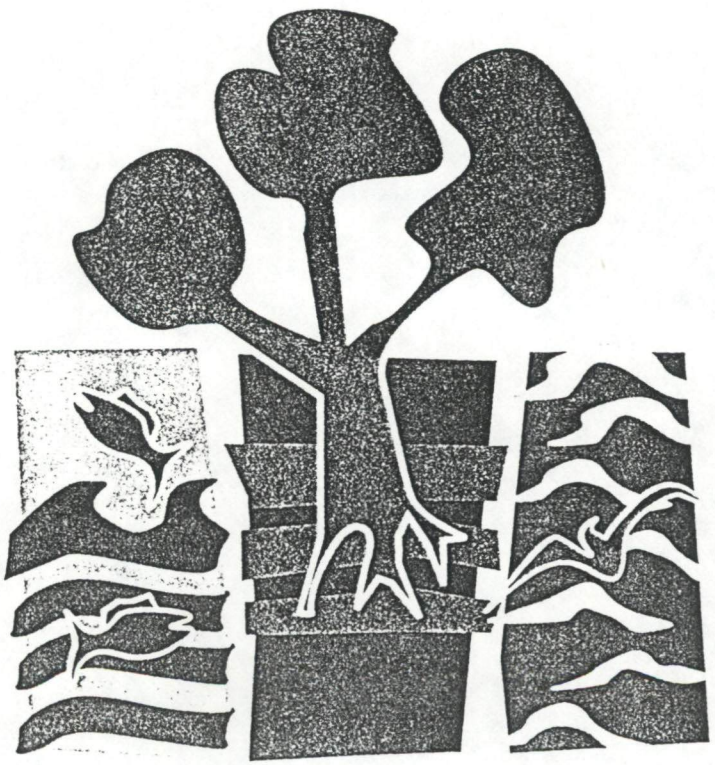
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U.S. COORDINATION CENTER FOR THE U.N. CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

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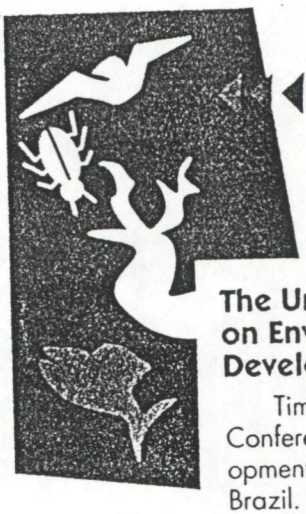
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J U N E 1 9 9 2



"THE INTERNATIONAL COMMUNITY WILL FACE FORMIDABLE ENVIRONMENTAL CHALLENGES IN THE COMING DECADE. MANAGING THE ENVIRONMENT CONTINUES TO BE A PRIORITY ISSUE FOR US. OUR ECONOMIC POLICIES SHOULD ENSURE THAT THE USE OF THIS PLANET'S RESOURCES IS SUSTAINABLE AND SAFEGUARDS THE INTERESTS OF BOTH PRESENT AND FUTURE GENERATIONS. GROWING MARKET ECONOMIES CAN BEST MOBILIZE THE MEANS FOR PROTECTING THE ENVIRONMENT, WHILE DEMOCRATIC SYSTEMS ENSURE PROPER ACCOUNTABILITY."

—THE LONDON ECONOMIC SUMMIT, 1991



The United Nations Conference on Environment and Development

Time nears for the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil. More than 160 nations and 8000 delegates will attend the conference June1 through 12, 1992. As the largest diplomatic conference ever held, it will mark the dramatic culmination of efforts to negotiate the principles and an agenda to guide the world's environmental and developmental strategies for decades to come. It should also be an opportunity to sign one or more conventions currently under negotiation in other forums.



The United Nations General Assembly decided in 1989 to convene UNCED "to elaborate strategies and measures to halt and reverse the effects of environmental degradation in the context of strengthened national and international efforts to promote sustainable and evironmentally sound development in all countries."

The Conference is a momentous and unique occasion to strive for a global consensus on how to advance simultaneously towards a goal of improving the development of human and natural resources while preserving and protecting the earth's precious environment.



U.S. OBJECTIVES

THE U.S. VIEWS UNCED AS AN EXCELLENT OPPORTUNITY TO SHAPE A NEW, PRACTICAL AND COMPREHENSIVE APPROACH TO INTERNATIONAL ENVIRONMENTAL COOPERATION AS WE ENTER THE 21ST CENTURY. THE PRINCIPAL U.S. GOAL FOR UNCED IS TO FACILITATE INTERNATIONAL COOPERATION IN PROGRAMS THAT BUILD ON THE CONCEPT OF SUSTAINABLE DEVELOPMENT AND THAT FULLY INTEGRATE ENVIRONMENTAL AND DEVELOPMENT STRATEGIES.

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Non-Governmental Organizations

Although UNCED is a negotiation among governments, the UN is making ample provisions for non-governmental organizations (NGOs) to participate. Interested organizations **must seek accreditation** from the UN by March 1992 to receive official observer status for the Conference. In addition, any organization may send representatives to Rio and attend NGO events. NGOs will hold their own parallel "Global Forum" also in Rio de Janeiro at the same time as UNCED with no fewer than 10,000 representatives from around the world.

Throughout the UNCED process, the U.S. government welcomes and encourages NGO involvement in meetings and through informal consultations. The U.S. delegation to the UNCED Preparatory Committee holds informal consultations to obtain NGO opinions on the full range of U.S. positions. Selected NGO representatives also serve as observers on the U.S. delegation to Preparatory Committee meetings.

U.S. UNCED Coordination Center

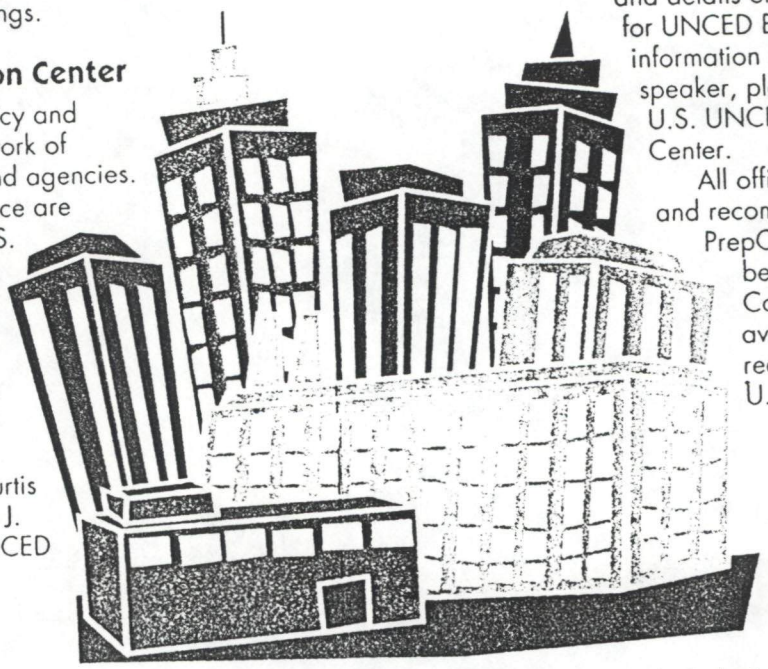
Development of U.S. policy and positions for UNCED is the work of many federal departments and agencies. Preparations for the conference are being coordinated by the U.S. Department of State through the U.S. UNCED Coordination Center. This is a special unit established within the Bureau of Oceans and International Environmental and Scientific Affairs (OES) under Assistant Secretary Curtis Bohlen. Ambassador Robert J. Ryan, Jr. heads the U.S. UNCED Coordination Center.

Policy Development and Public Affairs Programs

The U.S. encourages public dialogue in developing conference proposals and recommendations. From the beginning, the U.S. has gathered input from a large number of individuals and organizations both inside and outside of government in formulating U.S. positions for UNCED. This process contributes to the debate in reaching worldwide solutions to the environmental and development challenges to be considered at UNCED Brazil.

The Coordination Center welcomes the opportunity to exchange views with interested organizations across the U.S. Through this dialogue, groups contribute to the policy process and gain a broader and deeper appreciation of current U.S. proposals. Time and schedule permitting, Ambassador Ryan or one of his staff stand ready to address public or private organizations who seek an interchange on the issues and details on the preparations for UNCED Brazil. To request information or to schedule a speaker, please write or fax the U.S. UNCED Coordination Center.

All official U.S. proposals and recommendations to the PrepComs and statements before the U.S. Congress are also available by written request through U.S. UNCED.





UNCED

GLOBAL CHANGE NEWSLETTER

No. 11 SEPTEMBER 1992

THE INTERNATIONAL GEOSPHERE–BIOSPHERE PROGRAMME: A STUDY OF GLOBAL CHANGE (IGBP)
OF THE INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS

UNCED and Global Change Science

The United Nations Conference on Environment and Development, held in Rio in June of this year, raised greater expectations than could be satisfied. Agreements were to be reached covering biological diversity, the emissions of greenhouse gases, and the preservation of forests. But it was widely felt that the final texts of these agreements had lost their original vigour due to uncompromising approaches by some nations.

And yet governments agreed on the Rio Declaration, a set of principles designed to guide Agenda 21, the plan of action prepared for UNCED that should align global economic and social development with the planet's resources. The meeting was a success by its very importance, attracting top world-wide participation and intense world news coverage. And UNCED succeeded in moving the concept of environment linked with sustainable development into public consciousness and on to political agendas.



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The main outputs of UNCED

The Rio Declaration

Twenty seven principles that form a basis for an Earth Charter to be presented at the 50th anniversary of the UN in 1995.

Agenda 21

The major plan of action. It is a comprehensive programme aimed at reshaping human activities in order to minimize environmental damage and ensure sustainability in the development process.

The Framework Convention on Climate Change

Signed by 154 state representatives at Rio, and requires ratification by at least 50 states.

Convention on Biodiversity

Signed by 154 state representatives at Rio, and requires ratification by at least 50 states.



Forest principles

Statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests.

Desertification

A request to the UN General Assembly to prepare a convention to combat desertification, to be finalized by June 1994.

UN Commission on Sustainable Development

Recommendation to establish a Commission to monitor and review implementation of Agenda 21.

UNCED overview

The Conference showed that there is not yet an international consensus to make far-reaching global agreements feasible. Many countries are facing the dilemma posed by addressing both urgent national issues and the global ones.

Formally the results of UNCED constitute no more than recommendations to the General Assembly of the UN which meets later in the year. However, UNCED has provided a practical starting point for the road ahead, the implementation of Agenda 21 by governments and non-governmental organizations (NGOs), to be orchestrated by the "high level Commission on Sustainable Development". The 47th UN General Assembly is charged with the establishment of the Commission, and UN Secretary-General Boutros Ghali has appointed Edouard Saouma, Head of the UN Food and Agricultural Organization in Rome, to head the task force which will advise the General Assembly on the formation of the Commission.

Substantial new funds have not yet been committed for Agenda 21's implementation. This requires the scientific community to continue providing clear presentations of its findings about the status of the globe and the changes occurring in it. In general it can be said that UNCED calls for a stronger role of science in policy making, and better interaction with policy makers and the general public.

The first year after UNCED will be the critical one: will there be a general relaxation of effort and reorientation towards more immediate local issues, or will there be a period of gathering momentum towards implementation of Agenda 21?

The Rio Declaration

This declaration provides principles to help put Agenda 21 into practice. However, it does not contain specific reference to the essential role of scientific research on the Earth system to provide a basis for policies for sustainable development. It is in need of improvement before becoming the Earth Charter in 1995.

Agenda 21

The International Council of Scientific Unions, IGBP's parent organisation, participated in the preparations for UNCED, being asked in 1990 to be its principal scientific adviser, and assisted the preparatory process by providing names of experts, checking the scientific correctness of draft papers, and drawing the attention of its member academies to the importance of science for the national delegations to UNCED. Its largest contribution, however, was to the preparation of the science component of the Agenda 21 document. It was to this end that ICSU held the conference on an Agenda of Science for Environment and Development into the 21st Century: ASCEND 21 in Vienna in November, 1991.

Agenda 21 covers all areas where the environment and the economy intersect. Action-oriented proposals are grouped into 40 chapters and more than 100 programme areas which are described as the basis for action.

Agenda 21's first part addresses the social and economic dimensions of sustainable development and includes programme areas relating to combating poverty, changing consumption patters, addressing demographic dynamics and human settlement, promoting health, and integrating environment and development in decision making and international cooperation. However, it was recognized that it does not sufficiently address population issues.

> *"One role of the sciences should be to provide information to better enable formulation and selection of environment and development policies in the decision-making process"*
>
> AGENDA 21, CHAPTER 35.

Its second part, which encompasses 24 chapters, deals with conservation and management of resources for development, and contains recommendations for protecting the atmosphere, the oceans and the quality and supply of freshwater resources; combating deforestation as well as desertification and drought; promoting sustainable rural and mountain development; and conserving biological diversity. Also addressed is the environmentally sound management of biotechnology, of toxic chemicals, and of radioactive and hazardous wastes, including prevention of their illegal international traffic. The most important chapters for the scientific community are the following:

Science for Sustainable Development

The science plan described in Chapter 35 has amongst its objectives the vigorous implementation of the major on-going Earth system research and observation systems, as well as strengthening interdisciplinary co-operation among the natural, social, engineering and health sciences. It further calls for periodic objective scientific assessments of global issues and for clearly explaining scientific findings to the general public and to policy makers. Strengthening of partnerships with other NGOs, intergovernmental organizations and with industry is also advocated and the need for capacity building in science receives strong emphasis. Of special importance is the proposal for increased interaction between science and decision-making.

Scientific and Technological Community

Chapter 31, in addressing the scientific community, further elaborates the desired collaboration between science, policy-making and public information. It also calls for an examination of the ethical basis for conducting science and technology and the development of codes of practice, where appropriate, in addition to those already in existence.

International Institutional Arrangements

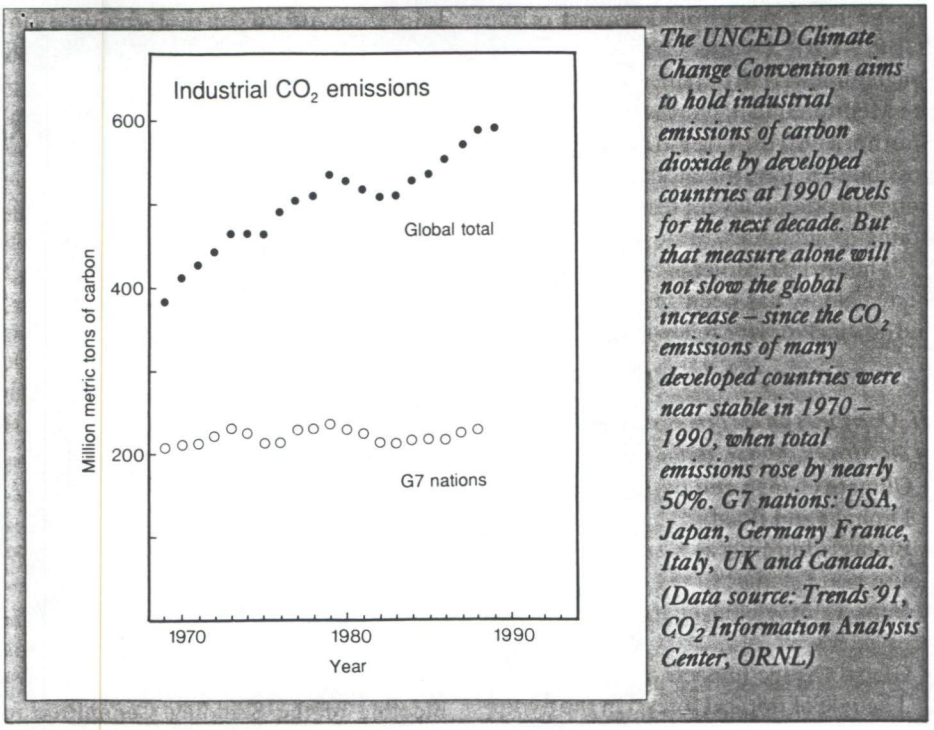
Chapter 38 in general advocates the use of existing mechanisms to ensure implementation of Agenda 21, although some new mechanisms are mentioned – in particular, a new secretariat support structure for the follow-up of the Conference. Emphasis was also included on a strengthened role for the United Nations Environmental Programme (UNEP) in regard to scientific research.

Convention on Biodiversity

The convention on biodiversity was adopted on 22 May after almost four years of deliberations by an Intergovernmental Negotiating Committee under the sponsorship of UNEP. The Convention considers biological diversity to mean all the Earth's species of plants, animals and micro-organisms, and the ecosystems of which they are part. It aroused problems of conflicting interests regarding intellectual property rights on research and products from areas that are rich in biological diversity. The text does not call for drawing up a global list of protected areas. Every country ratifying the Convention will put together its own list, that will eventually become a global one.

Convention on Climate Change

The Convention's aim is to protect the atmosphere from a build-up of anthropogenic gases that trap heat from the sun, causing an enhanced greenhouse effect. The Convention recommends that developed nations return to 1990 levels of greenhouse gas emissions by 2000, but does not indicate what



The UNCED Climate Change Convention aims to hold industrial emissions of carbon dioxide by developed countries at 1990 levels for the next decade. But that measure alone will not slow the global increase – since the CO_2 emissions of many developed countries were near stable in 1970 – 1990, when total emissions rose by nearly 50%. G7 nations: USA, Japan, Germany France, Italy, UK and Canada. (Data source: Trends'91, CO_2 Information Analysis Center, ORNL)

will happen then. It provides for the establishment of machinery, in the form of a Conference of the Parties with appropriate scientific advisory support, as does the Convention on Biodiversity, to take decisions regarding subsequent steps as needed. In the case of international measures to protect the ozone layer, a similar set of mechanisms for incorporating scientific findings into diplomatic negotiations was established in the 1985 Vienna Convention.

It is hoped that existing mechanisms will be relied upon as much as possible. An indication to this effect is the recent proposal to the Executive Council of the World Meteorological Organization to involve the Intergovernmental Panel on Climate Change as support to the Framework Convention on Climate Change.

Forests and Desertification

The Forest Principles call for a recognition of the vital role of all types of forests in maintaining the ecological processes and balance at the local, national, regional and global levels. These include protecting fragile ecosystems, watershed and freshwater resources and sources of genetic material for biotechnology products. Equal emphasis is, however, is on sustainable development opportunities for countries undergoing the process of transition to market economies, and an appeal to all countries, notably developed ones, to take action towards reforestation, afforestation and forest conservation. Further elaboration of these principles into conventions or other legal instruments will require firm scientific support.

Follow-up by ICSU and IGBP

ICSU is responsible for the policy-making of its global change programmes, including the IGBP. ICSU's Advisory Committee on the Environment will hold its next meeting in October, immediately followed by a meeting with the Chairmen and Directors of ICSU-sponsored and related global change research programmes and activities, to examine how the leaders of these programmes can contribute to the UNCED follow-up.

The Forum on Earth System Research that will take place on 24 January 1993 in Ensenada, Mexico, the day before the third Scientific Advisory Council for the IGBP, will present and discuss how ICSU's Earth system research activities can be incorporated into the policy-making process that was launched at UNCED.

Compiled from a Report on the Conference by J W M la Rivière and J Marton-Lefèvre, ICSU, the official summary in "Terra Viva" and reports in "Development Forum"

IGBP Activities

System for Analysis, Research and Training

START to Receive GEF Support

At its May meeting, the members of the Global Environment Facility (GEF) of the World Bank, United Nations Development Programme (UNDP) and United Nations Environment Programme (UNEP) decided to support a proposal submitted by the IGBP. Support in the order of US $8 million will be given to the inter-regional project "Global Change System for Analysis, Research and Training, START". The funds will be used to support the activities of the Inter-American Institute for Global Change Research (IAI), the early implementation of a Regional Research Network and Centre in Southeast Asia and pilot projects in Northern Africa.

UNDP has concluded that "the project will contribute to the development of human capacity able to deal with scientific issues linked to climate change. Additionally, through research and data collection and exchange, it will increase knowledge about global environmental issues in developing countries, where the need for more information is extremely great. It will help focus more attention on national and regional contributions to climate change, as well as on the potential consequences. This project will also have many secondary benefits, because climate change will affect practically all other major global and regional environmental issues such as biodiversity, water scarcity, and desertification, and on development issues such as sustainable agriculture".

The International START Secretariat is currently preparing the project document for UNDP, the executing body of GEF support for START. This is being done in close collaboration with the IAI, which is providing specific input for the substantive sections relating to Temperate South America, Tropical South America and the Caribbean. The section for Southeast Asia is be-

ing developed under the guidance of the Southeast Asian Regional Committee for START (SARCS). This recently established committee consists of one representative from each of the ASEAN nations (Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand) plus representatives of IGBP and Human Dimensions of Global Change Programme (HDP). The first meeting of SARCS was held in Jakarta, Indonesia on 28-29 July, 1992. The second meeting of SARCS will be held in Kuala Lumpur, Malaysia on 9-10 October. SARCS is using these meetings to finalize details of the GEF/UNDP proposal related to Southeast Asia. Details of the Northern Africa component of the proposal will be finalized at the regional workshop "Africa and Global Change" to be held in Niamey, Niger on 23-27 November 1992.

Regional Meeting for Africa

In Africa governments face particularly urgent decisions about whether the risks posed by global change processes warrant potentially costly policy responses. To assist the African scientific community to conduct coordinated research on critical unknowns related to global environmental change, IGBP START is organizing a workshop, "Africa and Global Change."

The first workshop is being arranged by the IGBP, the HDP, and the Joint Research Centre of the Commission of the European Communities in Niamey, Niger from 23 to 27 November 1992. The meeting is arranged in collaboration with the National Meteorological Service of Niger, International Crops Research Institute for Semi-Arid Tropics (IRCISAT) Sahelian Centre, the Agrometeorolgical-Hydrological Centre (AGRHYMET), the African Centre of Meteorological Applications for Development (ACMAD), the Observatory for the Sahara-Sahel (OSS), and other potential sponsors, including the Toulouse-based MEDIAS (Mediterranée et Afrique Subtropicale) programme, and the US National Science Foundation on behalf of the US Global Change Research Programme. The IGBP has previously conducted a number of regional workshops (Southern Hemisphere, in Swaziland, 1988: South America, in Brazil, 1989: Asia, in India and Singapore, 1991, and Southeast Asia, Thailand, January 1992).

The meeting objectives are to: (i) present current understanding of global change issues in relation to their importance for Africa, (ii) identify key areas of global change research in both natural and socio-economic sciences, (iii) review IGBP and HDP Core Projects and define needs and priorities for African scientific participation in the projects, (iv) discuss global change research networks as part of the IGBP/WCRP (World Climate Research Programme)/HDP initiative for START in the Mediterranean, Northern African, and Southern African regions, (v) review possibilities for strengthening collaboration with other relevant research and monitoring programmes.

The agenda, earlier presented in NewsLetter No. 9, has been further developed and now includes the following components:

I. Overviews on global change research

II. Overviews on the processes of global change in the African context, including:

- Climate change and desertification
- Drought and flood
- Biomass burning as a source of greenhouse gases
- Impacts of global change on savanna ecosystems
- Global change impacts on agriculture:
- The role of tropical forests in the hydrological cycle
- Land-surface processes and the climate system
- Past global changes in Africa
- Population growth and land-use change
- Political and social institutions and environmentally sustainable economic development:
- Energy systems and global change
- The human dimensions of global change in the Sahelian region

III. Developing global change regional research initiatives for Africa

- START
- Observatory for the Sahara-Sahel (OSS)
- Mediterranean and Subtropical African Programme (MEDIAS)
- African Centre of Meteorological Applications for Development (ACMAD)
- European Community initiatives

IV. Working-Group sessions . Working groups will address a number of topics including:

- Desertification and deforestation: impacts on climate and climate-change driven land-cover change
- Impacts of land use and climate change on large river basins and on coastal ecosystems
- Past global changes
- Human dimensions of global environmental change

Each working group will prepare a written report based upon its deliberations.

The reports will address the following: (i) Importance of the topic for Africa, (ii) Ongoing research in Africa, including an update of the draft IGBP/Commonwealth Science Council and OSS surveys of global change research, (iii) Monitoring needs, (iv) Availability of data bases, (v) Impediments to further regional and international collaboration, and (vi) Recommendations for action.

V. Working groups on the formation of START Regional Research Networks:

- Mediterranean region (MED)
- Northern Africa region (NAF)
- Southern Africa region (SAF)

For further information, please contact:

The International START Secretariat
1825 K Street, NW, Suite 1101 Washington, DC 20006, USA. Tel. (+1-202) 457 5840; Fax. +1-202-457 5859

The International START Secretariat

The International START Secretariat has recently been established in Washington, DC following a decision of the May 1992 meeting of the Standing Committee for START and generous financial support from the Consortium for International Earth Science Information Network. Additional funds for the START Standing Committee are being provided by France, Germany, Japan, Switzerland and the USA.

An announcement regarding the position of Director of the International START Secretariat is included on the back page of this issue. As was already mentioned in NewsLetter No. 10, Professor Thomas Rosswall serves as the interim Director until 1 September 1993. Dr. Hassan Virji is the Deputy Director for Natural Sciences and a similar position for social sciences is expected to be filled by mid-1993.

The address is given above.

International Global Atmospheric Chemistry Project

Global Atmospheric-Biospheric Chemistry is the subject of the first IGAC Scientific Conference that will be held in Eilat, Israel 18 to 22 April 1993.

This conference will review and present new results in the area of global atmospheric chemistry and its interactions with the bio-

sphere, highlighting the early achievements of IGAC. Conference foci include regional studies (marine, tropical, mid-latitude, boreal, and polar), global studies, and fundamental laboratory studies.

It is planned that approximately 12 invited papers (30 minutes each), and 45 contributed papers (15 minutes each) will be presented orally. Contributed poster papers will also be presented in special poster sessions.

The invited papers will be published in a book in the Oholo Conference Series (Plenum Press), which will come out approximately 6 months after the conference. All contributed oral and poster papers will be eligible for submission to a special issue of the *Journal of Geophysical Research*.

To submit a paper for presentation at the conference (specifying whether oral or poster presentation is preferred), a 1 to $1\frac{1}{2}$ page abstract should be sent to: Prof. Ronald Prinn, MIT Room 54-1312, Cambridge, MA 02139, Fax: +1-617-253 0354, E-mail: R.Prinn (Omnet), before 1 December, 1992. Authors will be notified regarding acceptance by 1 January 1993.

The session topics will cover:

- Atmospheric Impacts of Biomass Burning
- Marine Aerosol and Gas Exchange and Global Atmospheric Effects
- Atmospheric Chemistry of the East-Asian/Northwest Pacific Region
- Atmospheric Chemistry of the North Atlantic
- Global Measurements and Cycles for Carbon Dioxide
- Terrestrial Biosphere-Atmosphere Exchange in Middle and High Latitudes
- Polar Atmospheric Chemistry and Deposition
- Rice Cultivation and Trace Gas Exchange
- Global Emissions, Models and Measurements of Photochemically Active Compounds

The Organizing Committee is composed of Ronald Prinn, MIT, USA (Chair), Paul Crutzen, Max-Plank Institute Chemie, Germany, Pamela Matson, NASA-Ames, USA, Amram Golombek, Israel Institute for Biological Research, (Co-Chair for local arrangements), and Henning Rodhe, Stockholm University.

The Conference is the 37th in the Oholo Conference Series. The word "Oholo" means literally "his tent". For the first few years in the 1950s this Israeli conference was held in a large outdoor tent, and the name has remained, even if the venues have changed considerably. The 1993 conference will be in a hotel in Eilat, Israel's most popular resort, located on the shore of the Red Sea.

For further information contact Anne Slinn, IGAC Core Project Office, Massachusetts Institute of Technology Bldg. 54-1312, Cambridge, Massachusetts 02139 USA. Tel: (+1-617) 253 4902; Fax: (+1-617) 253 0354, E-mail: R.Prinn (Omnet), Telex 921483 mitcam.

Research categories

At its last meeting the IGAC-Scientific Steering Committee decided that IGAC should adopt for inclusion in its research the three-level structure first adopted by the Global Change and Terrestrial Ecosystems (GCTE) Core Project for its research. It is defined as:

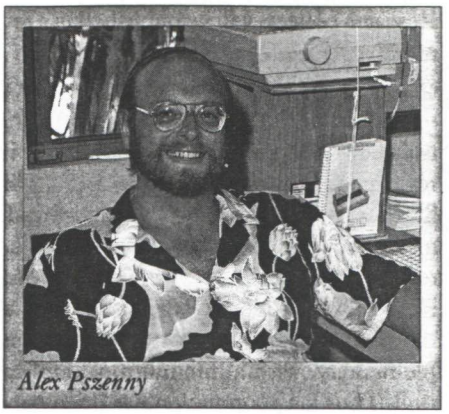
1. Large-scale, integrative projects that are international in scale and global in scope, and designed specifically to meet Core Project objectives.
2. Regional/National Research that arises from national IGBP committees or from other national or regional groups of scientists. This research is designed to meet Core Project objectives at the national or regional level. These are an important part in the overall Project providing critical links between global-scale research and regional-scale activities which are of immediate concern to individual countries and regions.
3. Research relevant to the Core Project that is carried out through many smaller, locally-specific research projects initiated by individual investigators or institutions. Although contributing to the broad knowledge base that underpins the overall effort, their management and funding is the responsibility of the individual investigator(s). Relevant research is referred to the appropriate IGBP national committee for consideration and subsequent action.

The Scientific Steering Committee reviewed the status of the 21 IGAC activities grouped under the main foci: Marine Focus, Tropical Focus, Boreal Focus, Mid-Latitude Focus, Global Focus and the Fundamental Focus. National programmes that include IGAC projects were presented to the IGAC-SSC from Australia, France, Germany, Japan, Sweden, the UK and the USA. In addition to the Oholo Conference in 1993, an IGAC science meeting is also planned for the meeting of the Commission on Atmospheric Chemistry and Global Change (CACGP) in Tokyo in 1994.

Two new members will be joining the IGAC-SSC: Prof. Barry Huebert, of the University of Hawaii, Honolulu, USA, and Prof. Stuart Penkett, of the School of Environmental Sciences, University of East Anglia, Norwich, UK.

New Core Project Officer

As of 1 January 1993 the IGAC Core Project Officer will be Dr. Alex Pszenny. Dr. Pszenny is an American citizen with a M.S. in chemistry from Boston College and a Ph.D.



Alex Pszenny

in oceanography from the University of Rhode Island. Since 1987 he has been a research oceanographer with the U.S. National Oceanic and Atmospheric Administration. His graduate work at Boston College included studies of acid rain, atmospheric deposition of fission products to forest vegetation, and trace metals in respirable aerosols. His doctoral and subsequent research has concerned the biogeochemical cycling of sulphur, nitrogen, and chlorine in the marine atmosphere. He helped to organize and served as chief scientist on several research cruises including, in June of this year, a cruise conducted as part of the IGAC/Marine Aerosol and Gas Exchange (MAGE) complement to the Atlantic Stratocumulus Transition Experiment (ASTEX).

On 1 January the address of the Core Project Office will also change. Still at the Massachusetts Institute of Technology, the address is: Dr. Alex Pszenny, MIT, Building 24-409, Cambridge, MA 02129, USA, Tel: (+1-617) 253 9887, Telex: 921483, Fax: (+1-617) 253 9886, E-mail: A.Pszenny (Omnet).

Global Change and Terrestrial Ecosystems



GCTE is now in its operational phase, and it is encouraging to note the world-wide interest from research groups wishing to become involved in and to contribute to the project. The contributions to category 1 (core research) have, of necessity, to be limited to a well-defined and restricted set of projects. However, the association of many other projects with GCTE in categories 2 (regional/national research) and 3 (other relevant research) make a necessary contribution to the overall global change research goals. The first compendium of GCTE Core

Research projects will be published in a few months.

Given the interest in global change, it is not surprising that there is an increasing number of organizations involved in research that is complementary to GCTE. This is to be welcomed since the magnitude of the problem is such that no one group could tackle it all. Nevertheless, the task now facing the various organisations is to develop programmes that are truly complementary, with a minimum of duplication. Thus far, cooperation has been good and GCTE's plans have developed in concert with those of the Scientific Committee on Problems of the Environment (SCOPE) and the International Union of Biological Sciences (IUBS) in particular; but also with a number of others, including the International Union for the Conservation of Nature (IUCN), the International Union of Forestry Research Organisations (IUFRO), the International Arctic Science Committee (IASC), and Alternatives to Slash and Burn (ASB).

Alternatives to Slash and Burn

The ASB planning workshop in the heart of the Amazon at Porto Velho, Brazil, in February 1992, produced a detailed programme to reduce the rate of tropical deforestation by developing and putting into practice sustainable alternatives to slash-and-burn agriculture. The programme will be a coordinated effort that emphasizes both socio-economic policy and biophysical issues. It will include global-scale components, including the development of common methodologies, the gathering of common data sets, and the GCTE-related research. It also includes regional components related to the specific problems and opportunities in each of the three regions (Africa, Asia and Latin America).

One of the overall objectives of ASB is to quantify the contribution of slash-and-burn practices and their alternatives to global environmental changes, particularly their impact on emission of CO_2 and other greenhouse gases, loss of biodiversity and the associated potential to diminish ecosystem stability, and soil erosion and fertility depletion.

GCTE has identified these issues as important parts of its research effort. More specifically, GCTE Task 1.2.1. (Changes in biogeochemistry in humid forests undergoing land-use change) aims to determine the effects of land clearing and agricultural intensification on quantities and pathways, both atmospheric and hydrological, of carbon and nutrient loss (and their regulation) in the major humid tropical regions of the world. This will contribute to both the emissions and fertility depletion objectives of ASB. GCTE will provide the scientific expertise for this research, while ASB will provide a framework through well-characterised sites, extant agroecological research, and support facilities, where appropriate.

Arctic/Boreal Research

Two developments have advanced considerably GCTE's research in the Arctic/Boreal region. The first is a proposal for a coordinated Scandinavian contribution to GCTE's Focus 2 on change in ecosystem structure, including a framework for contributions to other GCTE Foci in the future. The proposal first arose from a Norwegian national IGBP/GCTE meeting held at Oppdal in March 1992, and has been carried forward by two Trondhiem scientists, one of whom is Dr. Jarle Holten, interim officer for GCTE's Tundra/Boreal Regional Office located at the Norwegian Institute for Nature Research.

The geographical framework for the project is the Scandinavian Terrestrial Ecosystem Profile (STEP), a transect from the tundra and permafrost of Svalbard in the north to the temperate forests in the extreme south of Sweden, with possible extensions to the UK and continental Europe.

Both experiments and modelling will play important roles in the STEP project, whose overall objective is to understand and predict the dynamics of change in ecosystem structure, particularly at the tundra/boreal forest, the boreal forest/alpine and the boreal forest/temperate forest ecotones. At each major site a nested set of sub-sites will provide data for modelling at the patch and landscape scales, in addition to the regional perspective provided by STEP as a whole.

The proposed STEP project may also provide sites for a transect for biogeochemical research that would contribute to GCTE Task 1.2.1.(Changes in biogeochemistry in high latitude systems). A link could be made to the biogeochemical research component of the German contribution to GCTE which suggests an extension to the north.

The second development is the development of a number of arctic interdisciplinary core projects for a regional global change research programme by the International Arctic Science Committee (IASC) at its Workshop in Reykjavik, Iceland. Traditionally the geophysical and oceanographic sciences have been strong in the Arctic, but this workshop gave ecologists/biologists a chance to catch up and develop a strong GCTE-related component in the IASC global change plan. The major objectives of the IASC ecological programme are:

1. To determine the interactive effects of elevated CO_2, changing climate, enhanced UV-B, and altered nutrient availability on the functioning of arctic terrestrial and freshwater ecosystems.
2. To determine the effects of global change on the pools and fluxes of carbon and other elements, including the emission of trace gases to the atmosphere.
3. To determine the impact of global change on the distribution, composition and structure of arctic ecosystems.
4. To determine the impact of global change on the biological diversity of arctic ecosystems, including its relationship to ecosystem function, genetic variability and related issues.

Although much needs to be done to meet these objectives, there are already two large, existing programmes which can make important contributions. The first is the Arctic System Science (ARCSS) programme of the US Global Change Research Programme, which contains a component on Land/Atmosphere/Ice interactions. The second is the International Tundra Experiment (ITEX) which aims to determine the response of selected tundra species to elevated temperature at the network of circumpolar sites. The possibility of doing ecosystem-level elevated CO2 experiments at selected sites and the potential for modelling change in the composition of tundra ecosystems increase the value of ITEX to the GCTE programme.

Monitoring for terrestrial ecosystems

Of particular concern is the need to rationalize and implement a satisfactory global terrestrial monitoring programme. It is a daunting task that will require a great deal of common will and collaboration; yet a successful monitoring programme is absolutely necessary for the eventual success of the IGBP.

GCTE joined with the UNESCO Man and the Biosphere (MAB) Programme and the Observatory of the Sahara and Sahel (OSS) established by the French Ministry of Foreign Affairs, to organise the workshop that was held in Paris, 27-31 July 1992 to define and initiate a global terrestrial monitoring system for global change research needs.

GCTE requires a global monitoring system for three reasons: (i) to calibrate and validate ecosystem dynamics models at a variety of scales; (ii) to detect global change as evidenced by change in terrestrial ecosystems; and (iii) to record changes in agroecosystems as driven by new land-use practices.

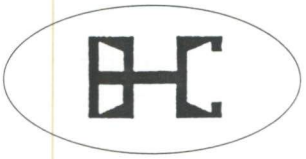
There are already several existing or

proposed terrestrial monitoring networks, and GCTE, MAB and OSS will collaborate so far as possible with these other efforts to avoid duplication. Of particular interest is the Global Climate Observing System (GCOS) which aims to establish a global climate change detection and response monitoring system by adding oceanic and terrestrial observing components to already established atmospheric networks.

The product of the workshop will be an operational plan for the terrestrial monitoring system, including an outline of parameters to be measured, the structure of the system (referenced to a global map), a detailed implementation strategy, management and funding arrangements, and linkages to other monitoring systems. A report of the meeting, incorporating the operational plan, will be available through the GCTE Core Project Office in Canberra.

Compiled from GCTE News, No. 3, August 1992.

Biospheric Aspects of the Hydrological Cycle



The First BAHC Open Meeting will be held 16-18 November 1992 in Toulouse, France. The meeting will be a Scientific Conference, hosted by the Centre National de Recherches Météorologiques.

The Issue

Water is the lifeblood of the terrestrial biosphere. The hydrological cycle, the terrestrial biosphere and human welfare are closely linked - as shown by the devastating effects of droughts and floods. But we know very little about the many other interactions between water, vegetation, soils and atmosphere. Whilst such effects could be critical for global climate models, they are not included, since the relationships are not yet sufficiently well described. The BAHC project is investigating those climate-water interactions with the land biosphere that are likely to be most critical under conditions of changing climate and land use.

Aims

The main aim of BAHC is to coordinate and stimulate related research activities on an international basis, and to develop interdisciplinary collaboration with other research programmes and projects, both within and outside of the IGBP. The research aims of BAHC are:

- to investigate the biospheric controls of the hydrological cycle
- to improve our understanding and capability to model the exchanges of water, carbon and energy transfer at the soil-vegetation-atmosphere interface for different types of landscapes and ecosystems, under the existing and changing conditions, on different temporal and spatial scales
- to quantify the dependencies of the exchanges of water, carbon and energy between land and air on vegetation, land surface and other features
- to describe changes at the continental scale that affect the interactions between the biosphere and the physical Earth system
- to provide improved parameter estimation techniques, which can be applied world wide, and make use of generally available data bases on ecosystems, soils and other related properties derived from conventional sources or remote sensing, in particular from satellites
- to validate model simulations.

The Draft Science and Implementation Plan for BAHC will be presented at the conference for discussion and further development. Conference participants will be invited to express their thoughts about BAHC, make proposals for the Science and Implementation Plan and participate in its finalization.

Scientific Programme

The conference will be organized in four scientific blocks, according to the four BAHC Foci:

Focus 1: Studies of Water, Energy and Carbon Transfer between Soil, Vegetation and the Atmosphere at Patch Scales. Chair: Steven Running, School of Forestry, University of Montana, USA

Focus 2: Regional-Scale Studies of Land-Surface Properties and Fluxes: Experiments, Interpretation and Modelling. Chair: Jean-Claude André, CNRM, Météo-France, Toulouse

Focus 3: Interactions among the Biosphere, Water Resources and Climate - Regional to Continental Scale. Chair: Christopher Field, Department of Plant Biology, Carnegie Institute, Stanford, USA

Focus 4: The Weather Generator Project. Chair: Hans-Jurgen Bolle, Chair of the Scientific Steering Committee for BAHC, Institute of Meteorology, Free University of Berlin, Germany.

Invited key reports and extended contributions on selected research topics will be given, and in addition a number of short contributions and poster presentations. There will be plenary meetings and working group meetings related to the BAHC Foci. The working group meetings will give the conference participants the opportunity to present their views on the planning of BAHC activities in a more detailed form, and to contribute directly to the finalization of the BAHC Science and Implementation Plan.

The conference will be held at the Centre International de Conférences of Météo-France, Toulouse. The official language will be English. On Sunday, 15 November, one day before the conference, an Informal Preparatory Meeting is foreseen in the afternoon on "Special Regional and National Tasks to be considered in the IGBP Core Project BAHC". Participants who want to present their proposals for discussion, as well as early arriving participants, are kindly invited to attend. Members of the BAHC Scientific Steering Committee and Core Project office will guide the discussion.

It is foreseen to publish a report on the results of the meeting with annexed scientific contributions and/or summaries of contributions to the meeting. Authors are requested to provide at the meeting manuscripts of contributions to be published.

Contacts:

Dr. Alfred Becker, IGBP-BAHC Core Project Office, Institute for Meteorology, Free University Berlin, Dietrich-Schäfer-Weg 6-10, D-1000 Berlin 41, Federal Republic of Germany, Tel: (+49-30) 838 711 84/94, Fax: (+49-30) 838 71185, E-mail: H.Bolle.IGBP (Omnet), Ephrat.Lahmer-Naim@geowiss.fu-berlin.dbp.de (Internet).

Prof. Jean-Claude André, Météo-France, Centre National de Recherches Météorologiques, 42 Avenue Coriolis, F-31057 Toulouse Cedex, France, Tel: (+33) 61 07 93 70, Fax: (+33) 61 07 96 00.

Land Surface Experiments in the Amazon Basin

The Joint Working Group on Land Surface Experiments, chaired by Dr. Jean-Claude André, was established as a collaborative activity between BAHC and the Global Energy and Water Cycle Experiment (GEWEX) of the World Climate Research Programme (WCRP). Field experiments on various spatial scales are needed by both BAHC and GEWEX to improve our understanding of atmospheric boundary-layer processes, soil-vegetation processes, and the effects of mesoscale inhomogeneities on land use and soil properties.

The Third meeting of the Working Group was held in Greenbelt, Maryland, USA, on 18-20 June. The purpose was to develop plans for a large scale land surface

experiment in the Amazon Basin. This region includes a high percentage of the global total of tropical rainforest, and is believed to play an important role in regulating the Earth's climate through feedback effects, operating through the water and carbon cycles.

Around 40 scientists from all over the world participated. The meeting was co-sponsored by IGBP-BAHC, WCRP-GEWEX, the International Hydrological Programme (IHP) of UNESCO, and the International Satellite Land Surface Climatology Project (ISLSCP). NASA also helped as the host organisation.

Participants were briefed on existing large scale meteorological, hydrological and ecological studies in the Amazon region and elsewhere, including the Anglo-Brazilian Climate Observational Study (ABRACOS) programme and the German-Brazilian project on Studies on Human Impact on Forests and Floodplains in the Tropics (SHIFT). Special attention was given to the investigation of large scale water and energy budgets, and to the relationship between evapotranspiration rates and different land use/land cover regimes.

Representatives of the IGBP core project on Global Change and Terrestrial Ecosystems (GCTE) attended the meeting and presented plans for GCTE research in the Amazon region.

The meeting had the challenging task of identifying relevant scientific issues and resource requirements, and deciding on the overall scale for the planned major international land-surface experiment in the Amazon. Better information on the fluxes of energy, water, carbon nutrients was identified as fundamental to the understanding of ecosystem and river-basin behaviour. Hydrological analysis at different scales, including erosion and sediment transport, must form a substantial component in the proposal for large-scale studies. Remote sensing is necessary to assess important land surface characteristics for such work, and as a basis for an improved modelling of land surface processes, in particular at the soil-vegetation-atmosphere interface, and the prediction of changes in case of changing climate or land use.

The planning document will be issued before the end of 1992. It will emphasize the two aspects of the proposed experimental programme: (i) a basin-wide budget experiment, extending over most of the Amazon, based on increased radio-sounding and hydrological measurements; and (ii) a mesoscale intensive land-surface experiment, where various studies aimed at documenting a number of physical and ecological processes will be conducted.

Other points to be addressed in the experiment plan include the following:

1. Study Area

To achieve greater predictive power for different types of land surfaces, the study area should be extended into the cerrado region of the Amazon. This region represents a considerable land area inside the Amazon region, and cerrado-type vegetation might replace the forest in a possible drying climate. Some attention should be given to the forest-cerrado border.

2. Errors of flux measurements

The ISLSCP field experiment provided some intercomparison of instruments, but the conclusions of that work were not followed-up. For example, it is important to know the absolute accuracy of net radiometers, and to estimate errors on the eddy correlation measurements of CO_2 and H_2O fluxes.

3. Conflicts between disciplines about site characteristics and scale

There are clear differences in the site characteristics required for different sorts of measurements, and these must be taken into account when experiments are designed. For example, small and medium sized catchments are better for hydrology, but larger units are best for aircraft based flux measurements.

4. Data capture and immediate quality checking

Attention should be given to using automatic data transmission from field instruments via a satellite link. This would enable more economical use to be made of researchers' time and a more immediate check to be made on data quality. The ultimate goal would be to run land-surface process and river-basin models in real-time during the main phase of the experiment, at least for one or two selected better-instrumented test basins.

5. Manpower

There is a shortage of trained researchers. Addressing the issue of human resources is necessary at this stage. Assistance to Brazilian and other Amazon countries' universities to train people at MSc/PhD level could be very useful.

6. Use of remote sensing

In addition to the work on forest clearance rates at the Brazilian Institute for Space Research (INPE), it seems desirable to develop the use of radar remote sensing by utilizing the resources of the European Space Agency to examine data from ERS-1. It may be possible to achieve a calibration for biomass at suitable test sites, and hence use this algorithm to monitor carbon accumulation in regrowth areas.

Based on a meeting report by A. Becker (BAHC Core Project Office), B. Brags (Brazil), and J.Grace (UK).

Joint Global Ocean Flux Study

J G F S

Towards a Model of Ocean Biogeochemical Processes was the title of a meeting held in the framework of the NATO Advanced Research Workshops on Global Change, at Château de Bonas, in Gascony, France, 4-8 May, 1992. The workshop was jointly organized by the JGOFS Core Project Office in Kiel, and Dr. Michael Fasham of the James Rennell Centre for Ocean Circulation at Chilworth, Southampton, UK. The meeting addressed the indispensable but as yet young science of modelling as applied to ocean processes and brought together 45 scientists from 16 countries to discuss this question and to explore the extent to which a common approach is possible.

Events of ocean biogeochemistry that take place in a fraction of a second and a fraction of a cubic centimetre can, in aggregate, affect interannual patterns of element flux over the whole ocean. Models are now under development to incorporate the smallest events into the largest scales. The Workshop explored the possibility of developing consensus on ways to move among scales and parameterize models; to develop satisfactory compromises between detailed accuracy and efficient implementation. It paid special attention to the distinctive role of ocean biology in separating things and creating gradients (whereas physical processes mix things and reduce gradients).

Lectures and working groups were held on four main themes: theoretical aspects of choosing an appropriate level of detail and moving between levels of detail; detailed descriptions of particular components; interactions with local physical processes; extending models and parameterizations to the global scale.

The modelling path should start out from the best physiology and best basic principles we have. But the model itself should not try to incorporate these principles explicitly. Rather, the aim should be to determine and incorporate the "appropriate" level of detail, and to minimize the difference between the detailed model and its efficient approximation - whether we are aggregating species, size classes (for sinking

particles or dissolved organic matter for example), or parameters and functions of a detailed model of internal workings. Parameterizing a model in one region of the ocean based on experimental work in another region is more likely to succeed of the extrapolation uses basic principles rather than empirical summaries.

A model agreed by the scientific community may be, at the moment, a less useful goal than a community modelling approach. Such an approach might be achieved through a modelling workbench - a set of computer programmes that simplify the construction of models to explore different scientific ideas and different ways to make compromises. As well as methods for simulating the solution of the evolution equations at the largest scale, there must be methods for collapsing the detailed knowledge of physiology into a set of evolution equations that are efficient enough to be simulated. Work in aggregation theory that has developed in other disciplines needs to be applied here. Even if incorporation into fine resolution general circulation models is the ultimate goal, there is much to be learned from experiments in simpler physical settings, and there is a much wider modelling community with the resources to perform such experiments.

International Group of Funding Agencies

The International Group of Funding Agencies for Global Change Research met for the fifth time in Toulouse, France from 2-4 September. Representatives from 14 countries, the European Community, and ICSU, IGBP, WCRP (World Climate Research Programme) and HDP (Human Dimensions of Global Environmental Chane) attended the meeting.

On the first day presentations were made of the different initiatives relating to regional networks, institutes and centres, in particular on the progress of START. A regional meeting in Japan was announced for December for which participation from science and government will be invited. The purpose is to hold a discussion on the setting up of a Southeast Asian Network for global change research. In September the EC will hold a meeting to discuss a possible initiative on its part for a European-African Network.

The director of the Global Change Observing System, Dr. Thomas Spence, briefed IGFA on the progress on the global climate observing system which is now in its planning phase. Active involvement of the scientific community, cooperating in the internationally coordinated earth science programmes IGBP, WCRP and HDP was considered essential by IGFA. IGFA also drew the attention to the magnitude of the funding needed to set up and operate the system. Operational entities, existing and yet to be created, will have to play an important role especially in the long term, along with science funding agencies.

The second day was devoted to the resource needs of international global change research programmes. A major exercise is ongoing to create an overview of resources allocated in the countries participating in IGFA and compare these with the needs expressed by IGBP, WCRP and HDP. Major progress has been made in collecting the data. It is expected that early next year a first analysis of bottlenecks can be made. With regard to the funding situation of international scientific coordination activities, the funding of the Stockholm office of IGBP was especially noted. Suggestions were made to address this problem for the longer term, and possible solutions for the short term.

A permanent item on the agenda of IGFA is the discussion on ways to foster the development of programmes for socio-economic and human dimensions research relevant to global change. The working group of IGFA will promote the development of research agenda for areas of common interest to the natural and the social sciences. Furthermore, it will address ways to strengthen the links between the HDP and national activities in these fields.

The next meeting of IGFA will take place in Taipei, Taiwan, from 29 September to 1 October 1993. This meeting will focus on the role of the industrialized Asian Pacific countries in global change research and in IGFA. Further points on the agenda include resource assessment, global observing systems, and socio-economic and human dimension research relevant to global change.

Report by John Marks

Announcements

New Regional Information Centres

The joint project of the International Association of Technological University Libraries (IATUL) and the IGBP on establishing Regional Information Centres has now been increased by five more centres, bringing the total list up to 50. We are particularly pleased to have enlarged the audience for IGBP Reports by the addition of impressive specialised libraries in several different regions.

Chile

Ana Maria Prat, Librarian for Scientific Information, CONICYT, Casilla 29/-V, Santiago. Fax: (56-2) 496 729, e-mail: amprat@uchcecvm (bitnet).

Colombia

Biblioteca Luis López de Mesa, Academia Colombiana de Ciencias Exactas, Fisicas y Naturales, Carrera 3a A No. 17-34, Piso 3, Apartado 44-763, Santafé de Bogota 1, D.C. Tel: (57-1) 341 4805; Fax: (57-1) 283 8552.

Finland

Prof. Manfred Lange, Arctic Centre, University of Lapland, PO Box 122, SF-96101 Rovaniemi. Tel: (+538-60) 324 271; Fax: (+358-60) 324 270.

Philippines

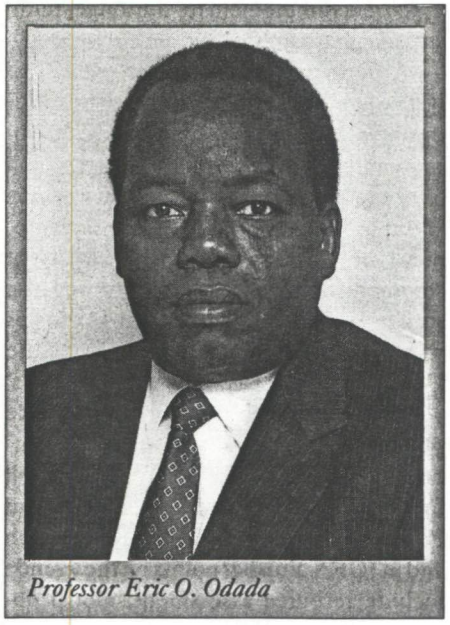
Mrs. Lourdes T. David, Head Librarian, College of Science Library, University of

the Philippines, Diliman, Quezon City 1101. Tel: (+63-2) 97 12 65.

USA

Robert Conrad, Carbon Dioxide Information Analysis Center, Oak Ridge National Laboratory, Central Research Library, MS 6191, Bldg. 4500N, Post Office Box 2008, Oak Ridge, TN 37831. Tel: (+1-615) 574 6744.

New Member of the Scientific Committee for the IGBP



Professor Eric O. Odada

From October 1992 the Scientific Committee has a new member: Dr. Eric O. Odada. Professor Odada, of the Department of Geology at the University of Nairobi, is a geologist with special interest in the use of African rift lake sediments as palaeorecords. He is a member of the Scientific Steering Committee for the IGBP Core Project on Past Global Changes (PAGES) since 1990.

Call for Proposals for the IIASA Research Programme

The International Institute for Applied systems Analysis (IIASA) in Laxenburg (near Vienna), Austria, is an interdisciplinary, non-governmental research institution sponsored by scientific organizations from 15 countries. Created in 1972 on the initiative of the USA and the former USSR, its membership now includes 11 European countries, Canada and Japan. The Institute's overall goal is to provide objective, authoritative, timely and relevant information on environmental and societal change by means of international, interdisciplinary and non-governmental scientific studies for the benefit of the public, the scientific community, and national and international institutions. The programme of substantive and methodological research covers global and regional environmental and demographic issues and their interrelations; technological and economic developments; systems and decision sciences; and international negotiations.

Research theme

Within the Global Environmental Change research theme, IIASA now calls for proposals to carry out research on how global change will affect regions of the globe in distinct ways, depending *inter alia* on ecosystem characteristics, population density, economic activities, and land use. Policies for managing the consequences of global change for environmental quality on the regional level should take these varying characteristics into account. Global changes will aggravate some regional changes, while others could be compensated. Systems analysis can be used for integrated assessment of environmental consequences of global change at the regional level. For this research area the following question should be addressed:

> *How would environmental quality at a regional level evolve if material flows through society and environment change under various scenarios of socio-economic, population and energy developments?*

To answer this question a policy-driven, integrated (air, water, soil, biota) assessment will be needed. The processes that lead to changes in material flows on the regional scale must be considered. These processes include developments of industry, agriculture, population, energy use and land use. The successful proposal will develop tools that can be used to carry out integrated assessment of major environmental problems. The integrated assessment can be used for assisting policy advisors to fully explore the consequences of global change on the regional level using an interesting range of energy-population-economic scenarios (e.g. Intergovernmental Panel on Climate Change, Convention on Long-Range Transboundary Air Pollution, Rhine Commission).

Research Project

A successful proposal would receive significant resources adequate to support an international team of 5-7 senior scientists to work at IIASA for a period of 2-3 years, starting between September 1993 and September 1994. Individual scientists participating in the team are expected to spend at least one year, but preferably more time, in residence in Laxenburg, Austria.

The proposals should, of course, be of high quality, originality and relevance. They should include both multiple disciplines and multiple nationalities in the composition of the scientific team. Proposals should be submitted to IIASA's Director before December 15, 1992. Review of the proposals will take place in January 1993 by the global Environmental Change Steering Committee. It is planned that unsuccessful applicants will be informed shortly thereafter.

The proposed project should be designed to produce publishable results in 1-3 years. It is anticipated that projects of this size would hold 1-2 conferences and a larger number of workshops during the course of the project.

Applications

Information should include:

1. A short description of the policy issues to which this project responds
2. The scientific issues and questions to be addressed
3. The four major products expected from the project
4. A project time-line
5. For each Principal Investigator (PI): a 2-page CV, a list of five publications relevant to the proposed project, a list of the five most significant publications, and a list of three references (name, address, telephone number).
6. A statement on the applicants' skills in managing projects in an international setting and participating in collaborative projects
7. A budget including: number of person months to be contributed by each PI; person-months for support staff; person-months for short-term visitors; and meetings to be held (including an estimate of the number of people to be invited and the length of the meeting).

Interested persons can obtain more information about IIASA and its Research Programme, as well as details of the application procedure, by contacting the IIASA Director at:

The International Institute for Applied Systems Analysis,
A-2361 Laxenburg, Austria. Tel: (+43-2236) 715210;
Fax: (+43-2236) 73147;
Telex: 079 137 iiasa a;
E-mail: dejanosi@iiasa.ac.at.

IGBP and Related Meetings

IGBP

1992

30 Sept-2 October, Durham, NH, USA
5th Meeting of the Scientific Committee for IGBP

8-9 October, Silsoe, UK
GCTE/IGBP-DIS Workshop on Global Soils Data Base

9-10 October, Kuala Lumpur, Malaysia
Southeast Asia Regional Committee for START

19-24 October, Taipei, Taiwan
JGOFS Scientific Steering Committee

24-25 October, Schloss Weidenberg, Bayreuth, Germany
GCTE Scientific Steering Committee, followed by:

26-30 October, Schloss Weidenberg
Design and Execution of Experiments on CO_2 Enrichment. Dr. E.-Detlef Schulze, Department of Plant Physiology, University of Bayreuth, Universitätsstrasse 30, D-8580 Bayreuth, Germany. Tel: (+49-921) 55 25 70, Fax: (+49-921) 55 25 64

8-10 November, Sioux Falls, South Dakota, USA
IGBP-DIS Land Cover Change Working Group

16-18 November, Toulouse, France
BAHC Open Meeting (see page 7)

20-22 November, Niamey, Niger
START Standing Committee

23-27 November, Niamey, Niger
IGBP-HDP (Human Dimensions of Global Environmental Change Programme) African Regional Workshop (see page 4)

1-2 December, Tokyo, Japan
Asian Symposium on Global Environmental Change, in conjunction with the IGBP National Committees in Asia. (see box)

16-18 December, Canberra, Australia
IGBP-DIS Standing Committee

1993

19-22 January, Charlottesville, Virginia, USA
GCTE Workshop: Use of Functional Types in the Modelling of Global Change. Prof. Herman H. Shugart, Department of Environmental Sciences, University of Virginia, Clark Hall, Charlottesville, VA 22903 USA, Tel: (+1-804) 924 7642, Fax: (+1-804) 982 2137

24 January, Ensenada, B.C., Mexico
Scientific Committee for the IGBP

25-29 January, Ensenada, B.C., Mexico
SAC III: Third Meeting of the Scientific Advisory Council for the IGBP

30 January, Ensenada, B.C., Mexico
Scientific Committee for the IGBP

12-15 April, Pack Forest, Washington, USA
GCTE Focus 3 Workshop: Global Change and Forested Ecosystems

18-22 April, Eilat, Israel
IGAC Open Meeting

23-27 August, Trondheim, Norway
GCTE International Conference: Anticipated Effects of Global Change on the Structure and Function of Terrestrial and Arctic Ecosystems. Jarle I. Holten, Coordinator, NINA, Norwegian Institute for Nature Research, Tungasletta 2, N-7004 Trondheim, Norway. Tel: (+47-7) 58 05 00, Fax: (+47-7) 91 54 33

Asia-Pacific Global Change Meetings

1-2 December, Tokyo, Japan

Asian Symposium on Global Environmental Change: National and Core Project Reports in the Asia-Pacific Region. The meeting will be chaired by Professor Masatoshi Yoshino, Aichi University. Contact: Secretary General of the Symposium, Dr. Shuzo Nishioka, Center for Global Environmental Research, National Institute for Environmental Studies, 16-2 Onogawa, Tsukuba, Ibaraki 305, Japan. Tel: (+81-298) 516 111, Ext. 380, Fax: (+81-298) 582 645.

3-4 December, Tokyo, Japan

The Government of Japan is organizing a workshop on the "Asia-Pacific Global Change Research Network" for the purpose of finding a way to develop an information network on global change research in the region. The workshop is scheduled to follow immediately the Asian-Pacific Global Environmental Change symposium on December 1-2. Contact: Mr. M. Namba, Scientific Affairs Division, Ministry of Foreign Affairs, Tokyo, Japan. Fax: (+81-3) 3597 7757.

IGBP-related Meetings

1992

27 September-11 October, Siena, Italy
Long-term Climatic Variations - Data and Modelling (NATO Advanced Study Institute). Prof. J-C Duplessy, Centre des Faibles Radioactivités, CNRS, Avenue de la Terrasse, F-91198 Gif-sur-Yvette, France

28 September-2 October, Kiel, Germany
The State of the Art in Ecological Modelling. Ecosystem Research Project Centre, Christian-Albrechts University, Schauenburger Strasse 112, D-2300 Kiel, Germany, Fax: (+49-431) 880 4083

5-8 October, Saint Malo, France
The Role of Regional Organizations in the Context of Climate Change (NATO Advanced Research Workshop). Dr. M. Glantz, National Centre for Atmospheric Research, Environmental & Societal Impacts Group, PO Box 3000, Boulder, CO 80307, USA

11-16 October, Davos, Switzerland
International Conference on Mountain Environments in Changing Climates. Martin Beniston, Director, ProClim - National Institute for Climate and Global Change, Box 7613, CH-3001 Bern, Switzerland, Fax: (+41-31) 21 32 91

13-17 October, Tsukuba, Japan
Disturbed Climate, Vegetation and Foods. Mr. S. Isobe, Secretary General, DCVF, National Institute of Agro-Environmental Sciences, 3-1-1 Kannondai, Tsukuba, Ibaraki 305, Japan.

25-29 October, Woods Hole, Massachusetts, USA
International Workshop on Biotic Feedbacks in the Global Climatic System. Working Group I, Intergovernmental Panel on Climate Change. Shelagh Varney, IPCC WG1 Secretariat, Meteorological Office, Hadley Centre, London Road, Bracknell, RG12 2 SY, UK. Tel: (+44-344) 856 888, Telex: 849801 weabka g, Fax: (+44-34) 856 912

26-29 October, Boulder, Colorado, USA
UN World Climate Impacts and Response Strategies, Scientific Advisory Committee

26-30 October, Beijing, China
Contribution to Global Change. Mr. A. Ghazi, Commission of the European Communities, Joint Reserch Centre, Rue de la Loi 200, B-1049 Brussels, Belgium. Fax: (+32-2) 235 0146.

28-29 October, Paris, France
CEOS Working Group on Data Policy. I. Revah, Centre National d'Etudes Spatiales, 2 pl. Maurice Quentin, 75039 Paris cédex 01, Fax: (+33-1) rt 08 78 33.

2-6 November, Accra, Ghana
Toward Sustainable Environmental and Resource Management Futures for Sub-Saharan Africa. Prof. Walther Manshard, Schwarzwaldstr. 24, D-7812 Bad Krozingen, Germany, Tel: (+49) 7633 3488

11-13 November, Harare, Zimbabwe
Eighth Session of the Intergovernmental Panel on Climate Change.

30 November-2 December, Paris, France
Scientific Symposium on the Human Dimensions of Global Environmental Change. Human Dimensions of Global Environmental Change Programme, Pomaret 21, 08034 Barcelona, Spain. Fax: (+34-3) 417 9309.

5-11 December, Nairobi, Kenya
International Conference of the African Meteorological Society. Prof. L. Ogallo, c/o Principal, Meteorological Research and Training, P.O. Box 30259, Nairobi, Kenya

14-17 December, Madras, India
Indian National Symposium on the International Geosphere-Biosphere Programme. Dr. A P Mitra, FRS, National Physical Laboratory, Dr. K. S. Krishnan Road, New Delhi 110 012, Telex: 31-77384 rsd in, Fax: (+91-11) 575 2627

1993

24 January, Ensenada, BC, Mexico
ICSU Global Change Forum on Earth System Science

1-4 March, Taipei, Taiwan
COSTED-Asia Regional Meeting and Workshop on Environment and Sustainable Development. R. R. Daniel, Scientific Secretary, COSTED, 24, Gandhi Mandap Road, Madras 600 025, India, tel: (+91-44) 419 466; 416 614, Fax: (+91-44) 414 543; 411 589

Early 1993 (dates and venue to be announced) East Africa
International Symposium on the Limnology, Clima-

tology and Palaeoclimatology of the East African Lakes. International Decade for the East African lakes. Dr. Eric Odada, IDEAL International Symposium, c/o Unesco-ROSTA, PO Box 30592, Nairobi, Kenya, Telex: 11175 unesco, Fax: (+254-2) 215 991

Publications:

IGBP Reports

No. 23

Joint Global Ocean Flux Study: Implementation Plan. Jointly published with the Scientific Committee on Oceanic Research (SCOR). (1992). 78 pp.

The Report describes how the aims of JGOFS are being, and will be, achievd through global synthesis, large scale surveys, process studies, time series studies, investigations of the sedimentary record and continental margin boundary fluxes, and the JGOFS data management system.

National Global Change Programmes

Australia

Global Change: A Research Strategy for Australia 1992-1996. Canberra, The Australian Academy of Science (1992). 178 pp.

Canada

Canadian Global Change Program. Ottawa, Royal Society of Canada (1992). 20 pp.

Finland

The Finnish Research Programme on Climate Change. Progress Report. Markku Kanninen and Pia Anttila (eds.). Helsinki, SILMU (1992). 308 pp. (Publications of the Academy of Finland 3/92)

Germany

Das Internationale Geosphären-Biosphären Programm (IGBP). Ergebnisse des zweiten nationalen IGBP-Kolloquiums, Berlin, Oktober 1991, (ed) S. Lütkemeier. Deutsche Forschungsgemeinschaft (1992). 138 pp.

Conceptual Framework for Research on Global Change 1992-1995. Federal Minister for Research and Technology (1992). 77 pp.

Norway

Global Change and Terrestrial Ecosystems (GCTE). Report from the Norwegian Symposium in Oppdal, 26-27 March 1992. Oslo, Norwegian Research Council for Science and the Humanities (1992). 46 pp.

START DIRECTOR

The Standing Committee on START of the International Geosphere-Biosphere Programme invites applications and nominations for the position of Director of the International START Secretariat, currently based in Washington, DC. The position will become available September 1, 1993, for a term of three years and is renewable.

The Global Change SysTem for Analysis, Research and Training (START) is an evolving, global system of research networks focusing on the regional origins and implications of global environmental changes. Special emphasis is being given to the establishment of networks and centres in developing country regions. START is being organized by the major international global environmental change programmes: IGBP, in cooperation with WCRP (World Climate Research Programme), and HDP (Human Dimensions of Global Environmental Change Programme).

The Director of the International START Secretariat will be responsible for implementation of the START effort, including development of research networks and assisting in raising funding for these networks and centres, for linking the research agendas of the international research programmes to the regional research programmes, for organizing interregional planning and research activities, and for creating an effective global network of regional research efforts. The Director is responsible for the office and a staff of 6-8 people. The Director will report to the START Standing Committee.

Candidates should be internationally recognized individuals with extensive research and science management background. Necessary factors include:

- Advanced degree, or equivalent experience
- Executive level scientific administrative experience
- Fluency in English: basic knowledge of one or more of the other official UN languages is an advantage.
- Experience in international scientific collaboration
- Willingness to travel

Professional experience in any field of global environmental change research is necessary.

Salary and social benefits will be comparable to similar functions in international research programmes. Those wishing to apply should include detailed curriculum vitae, complete information on past relevant experiences, plus names and addresses of three references.

If you wish to nominate a candidate for the position, please send a letter giving reasons why this person should be considered, giving the nominee's relevant experience and capabilities, with the current address and telephone number.

The START Standing Committee will make an initial assessment of candidates at its meeting in mid-November.

Materials must be posted by **1 November 1992** to:

Dr. Werner Menden, Federal Ministry for Research and Technology (BMFT),
Heinemannstrasse 2,
D-5300 Bonn 2, Germany
Fax (+49-228) 59 36 01.

For further information, you can also contact:

Prof. Thomas Rosswall,
International START Secretariat
1825 K Street, NW, Suite 1101,
Washington, DC, 20006, USA
Tel. (+1-202) 457 5840 ,
Fax. (+1-202) 457 5859

Global Change (IGBP) Newsletter
Editor: Suzanne Nash
NewsLetter requests and change of address information should be sent to the
IGBP Secretariat,
The Royal Swedish Academy of Sciences,
Box 50005,
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Compendium of Items

UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (UNCED)

Compiled by
David A. Burack
CH2M HILL International, Ltd.
12/31/91

Official UN and World Bank UNCED Newsletters and Press Releases

These provide fairly complete background and a story of the sequence of events leading up to and through the third preparatory committee meeting (PrepCom III). ~~Reverse~~ Chronological order.

UNCED Network News No. 3 indicates a number of areas where consensus has yet to be achieved.

I've also included a brief news item from a "green" wire service that seems to be relevant.

In 1991, the Preparatory Committee and the Working Groups will convene from 18 March to 5 April and from 12 to 30 August, in Geneva. Both meetings may be extended by one week. The final session will take place in New York in February/March 1992.

In preparation for the Conference, meetings are also being held regionally. The first took place in Bergen, Norway, in May 1990 for European countries. This was followed by a gathering in Bangkok, Thailand, in October 1990 for Asia and the Pacific. A meeting will take place in Mexico City in March 1991 for Latin America and the Caribbean. Others, with time and place still to be finalized, will take place in Africa and Western Asia.

National Reports

As part of preparations, reports are being prepared by Member States to reflect national experiences and perspectives on environment and development. Guidelines for the national reports were adopted by the Preparatory Committee in August 1990.

Non-governmental organizations (NGOs) and citizens groups are expected to participate in the preparation of the reports, which should be submitted to the UNCED secretariat no later than July 1991.

Developing Country Participation

Developing countries have an important stake in the Summit: their participation in the Conference and its preparations is critical for its success. They fully share the hazards resulting from global environmental damage, although the prob. m has been caused mostly by the activities of industrialized countries which have also gained most of the economic benefits.

The co-operation of developing countries is essential if the integrity of the environment is to be secured. Such co-operation can be expected only if the development of these countries is given new impetus and direction.

Supplementary funding and technology must be made available to developing countries to enable them to integrate environmental concerns into development programmes, and make the transition to sustainable development. Agreement on this will be the most important challenge confronting the 1992 Conference.

Non-governmental Participation

The Earth Summit will be a conference of leaders of Governments but its success will largely depend on the interest and support of peoples and their active participation in NGOs and citizens groups which will contribute to its preparations. Provision has been made for relevant NGOs to participate in meetings of the Preparatory Committee. A parallel event will be held by non-governmental groups in Rio de Janeiro at the time of the Summit.

For information on UNCED contact:

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United Nations Conference on Environment and Development (UNCED)
Case postale 80, Conches
Switzerland
Tel: 41-22-789-1676
Fax: 41-22-789-3536

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IN OUR HANDS

EARTH SUMMIT

United Nations Conference on Environment and Development

Rio de Janeiro
Brazil
1-12 June 1992

UNITED NATIONS

EARTH SUMMIT

United Nations Conference on Environment and Development

The first-ever "Earth Summit"—the United Nations Conference on Environment and Development (UNCED)—will take place in Rio de Janeiro, Brazil, from 1 to 12 June 1992.

"The primary goal of the Summit will be to lay the foundation for a global partnership between developing and more industrialized countries, based on mutual need and common interests, to ensure the future of the planet," states Maurice Strong, Secretary-General of the Conference. "We need to find a viable and equitable balance between environment and development."

A highlight of the Conference will be the observance of World Environment Day on 5 June 1992, the twentieth anniversary of the opening of the United Nations Conference on the Human Environment, held in Stockholm, Sweden, in 1972.

In Stockholm, environment was placed on the world agenda. The Brazil Summit will ensure that the issue becomes central to policy-making and -implementation in almost every sector of economic life. It will seek agreement on concrete measures to reconcile economic activities with the need to protect the planet and ensure a sustainable future for all people.

The General Assembly has decided that Member States should be represented at the Conference by Heads of State or Government. It is expected to be the largest summit meeting to date. International organizations, non-governmental groups and private-sector interests will also take part in an unprecedented attempt to mobilize people to set a new and more hopeful course for the future of humanity.

Background

The relationship between economic development and environmental impact was recognized at the Stockholm Conference. It was also the focus of *Our Common Future*, the 1987 report of the United Nations World Commission on Environment and Development.

However, between 1972 and 1987, too little was done to integrate, in practical terms, concerns for development and the environment in economic planning and decision-making. Progress was made in specific instances but overall the environment of the planet deteriorated. Ozone depletion, global warming and other major environmental problems grew more serious.

In December 1989, the United Nations called for a conference that would take steps to reverse trends and establish the basis for a sustainable way of life on the planet as we move into the twenty-first century.

The Issues at Stake

In an effort to maintain the quality of the environment and achieve environmentally sound, sustainable development in all countries, the Conference will address:

- protection of the atmosphere (climate change, depletion of the ozone layer, transboundary air-pollution);
- protection of land resources (combating deforestation, soil loss, desertification and drought);
- conservation of biological diversity;
- protection of freshwater resources;
- protection of oceans, seas and coastal areas, and the rational use and development of their living resources;
- environmentally sound management of biotechnology and hazardous wastes (including toxic chemicals);
- prevention of illegal traffic in toxic products and wastes;
- improvement in the quality of life and human health;
- improvement in living and working conditions of the poor by eradicating poverty and stopping environmental degradation.

The Conference will look at underlying patterns of development which cause stress to the environment. Poverty in developing countries, levels of economic growth, unsustainable patterns of consumption, demographic pressures and the impact of the international economy are development issues that will be addressed.

Earth Summit Objectives

The Conference is expected to produce:

- an Earth Charter that will embody basic principles which must govern the economic and environmental behaviour of peoples and nations to ensure "our common future";
- Agenda 21, a blueprint for action in all major areas affecting the relationship between the environment and the economy. It will focus on the period up to the year 2000 and extend into the twenty-first century;
- the means to carry out the agenda by making available to developing countries the additional financial resources and environmentally sound technologies they require to participate fully in global environmental co-operation and to integrate environmental considerations into development policies and practices;
- agreement on strengthening institutions in order to implement these measures;
- conventions on climate change, biological diversity and, perhaps, forestry may be negotiated prior to the Conference and signed or agreed to in Brazil.

The Road to Brazil

A Preparatory Committee, open to all Member States, has been established to oversee preparations for the 1992 Conference, under the chairmanship of Ambassador T. Koh of Singapore. Following an organizational session in March 1990 in New York, the Committee held its first substantive session in August in Nairobi, Kenya. Two Working Groups have been set up to assist the Committee and a third is to be established.

UNCED NETWORK NEWS

Published periodically by the World Bank for the United Nations Conference on Environment and Development, Brazil, 1992

February 1991 • No. 1

What is UNCED?

The United Nations Conference on Environment and Development (UNCED) will be held in Rio de Janeiro, Brazil, June 1–12, 1992. The World Bank will be involved in a variety of ways, and through this newsletter we will keep the Bank community informed as preparations proceed.

By 1992, twenty years will have elapsed since the Stockholm Conference on the Human and Natural Environment. UNCED will enable heads of state, and development and environmental specialists to take stock of the past two decades and to identify strategies for dealing with environmental issues that are inseparable from social and economic development.

Background

The conference will be held against a background of sharp controversy about how development can take place in ways that support and sustain the environment. In particular, developed and developing countries differ profoundly, sometimes bitterly, about issues and priorities—about trade-offs between the needs of present and future generations.

To find agreement on such points will be one of the aims of the conference. In calling for it to take place, the U.N. General Assembly underlined the need to identify and agree on integrated strategies to prevent further degradation of the environment and to reverse the damage that has already been done. Such strategies are needed to underpin the efforts of individual countries and environmentally sound development.

Objectives

The specific objectives of the conference include:

1) To take stock of the changes in the global environment that have taken place since the 1972 Stockholm Conference.

2) To formulate global and regional strategies for action to deal with environmental issues arising from the social and economic development process in all countries.

3) To identify actual commitments that governments and international organizations could make to restore the global environment and prevent further deterioration. Example: a commitment to limit or ban the use of certain pollutants (most of which, incidentally, originate in developed countries).

4) To examine measures by which governments can promote support for environmentally sustainable development in all countries without placing new conditions on aid or development financing or creating barriers to trade. Examples: measures to combat poverty and improve the quality of life.

5) To promote international environmental law and examine the possibility of codifying State's rights and obligations to the environment.

6) To consider problems of drought and desertification and examine ways to increase cooperation between neighboring countries in order to protect the environment.

7) To identify ways of providing developing countries with access to environmentally sound technology.

8) To identify ways of providing additional resources to solve global environmental problems and to support countries which cannot shoulder the burden themselves. Example: The tri-partite Global Environmental Facility being launched by UNDP, UNEP, and the World Bank.

UNCED Information Network

To facilitate the exchange of information between the participants in the preparation of the Conference, UNCED Secretariat makes information available through electronic media. Further information will be given in the next issue.

9) To identify ways of developing and strengthening institutions to deal with the environment.

10) To evaluate the capacity of the United Nations to prevent and settle disputes about the environment; to promote cooperation in monitoring, assessing, and anticipating threats to the environment; and to give emergency assistance.

The conference is also expected to:

- Ratify legal agreements already under consideration by international bodies. Examples: conventions to protect the atmosphere and preserve the earth's biological diversity.
- Approve measures to extend or speed up the implementation of existing programs such as the action plan to combat desertification.
- Agree to finance programs for sustainable development, the transfer to technology, and institution building.
- Determine the priorities, the timetable, and the assignment of responsibilities for the international community's environmental work program for 1992 and beyond.

Getting Organized

To ensure the smooth running of the conference—a key factor in the success of a large international gathering of this kind—a Secretariat has been set up in Geneva, with Mr. Maurice Strong as Secretary General. Mr. Strong, a Canadian, is Under-Secretary-General of the United Nations, served as Secretary General of the United Nations Conference on the Human Environment from 1970–72. Mr. Strong was also the first Executive Director of UNEP, and has continued to play a leading role in the fields of both environment and development.

Supporting offices have been set up in Nairobi and New York. Three working groups will prepare background material on the issues to be addressed by the conference and this material will be the basis of the agenda.

The first working group will address the following:

- Protection of the atmosphere (climatic change, ozone depletion, air pollution across national boundaries)
- Land resources (deforestation, soil loss, desertification), biodiversity, and biotechnology.

The second working group will prepare material on

- Protection of the oceans (global aspects of marine and coastal pollution, and the use of living marine resources)
- Protection of freshwater resources
- Waste management (including management of hazardous wastes and toxic materials, and the prevention of illegal international traffic in such materials).

The third working group, which has yet to be formed, will cover matters that have a generalized impact on environmental management, such as

- Financial resources and economic instruments to address environmental problems
- Technology transfer
- Legal and institutional aspects
- Measures to underpin and support the whole environmental effort (data collection, monitoring, education and training, and public awareness).

The Bank has designated Focal Points responsible for our contributions in each of these issue areas; and special Focal Points have been appointed to coordinate our work with constituencies of special relevance (See Box).

Through its involvement in the preparations as well as in the conference itself, the Bank will benefit immeasurably by learning what other organizations are doing and by working with them on the increasingly urgent quest for solutions. The team producing the *World Development Report 1992* on the environment is even now at work on what promises to be a substantive intellectual contribution to the global debate in 1992 and in the years that follow. In recognition of the importance of the conference, publication of the *World Development Report 1992* has been brought forward from the usual July date to May.

For questions about UNCED, please contact Ms. Jane Pratt, EXTDR.

"We're going to need a transformation from thinking about the environment as a side issue to realizing that environmental security is fully as important as military security, and putting the level of effort that has long gone into defense into environmental issues, including population."

Dr. Paul Ehrlich, Professor of Population Studies at Stanford University
in an interview with "Calypso Log" of The Cousteau Society.

Cross-Cutting Issues: Poverty and Environmental Degradation

A UNCED working party is preparing a paper on the linkages between poverty and environmental degradation. Bank Focal Point, Stephen Mink, is contributing to the group's draft report. It states:

"The link between poverty and environmental degradation is multifacetted and complex, and the underlying causes have to be seen in terms of the macroeconomic context within which development is taking place, demographic development, and access to means of livelihood and sustenance".

The study attempts to analyze the poverty-environment linkage in this context.

Critical Issues

The draft paper identifies critical factors fueling both poverty and environmental degradation.

- The economic recession of the 1980s resulted in a net flow of resources from developing to developed countries—a trend which has exacerbated poverty in the developing countries and forced the poor to pursue environmentally unsound activities.
- The poorest of the poor live in the most ecologically vulnerable areas: arid lands, areas with low soil fertility, steep slopes, urban slums. These areas are often neglected in the development process.
- High population growth rates fuel both poverty and environmental degradation. Specific impacts include fragmentation of holdings, reduction of fallow periods, increased demand for fuelwood, and cultivation of marginal lands. In urban areas, increasing population density strains basic infrastructure, including water systems and waste disposal, resulting in urban pollution and disease.
- Some sectors of society—women, for example—are disproportionately denied access to natural resources such as cultivable land, which forces them to cultivate marginal lands and hilly tracts.

Integration into Mainstream Development

The study also notes that, at present, measures to provide a livelihood base for the poor and to protect the resource base in ecologically disadvantaged areas are rarely integrated into the mainstream of development. Instead, a piecemeal, "welfare" approach is taken. To achieve long-term solutions to poverty and environmental degradation, the study recommends an alternative approach which would generate adequate employment opportunities and develop related infrastructure, marketing systems, and credit systems; increase resource productivity and ensure that the local population benefits directly from resource use; and rehabilitate degraded resources.

According to the draft report, the major challenge we face is to achieve a compromise between an "environmental policy that focusses mainly on the conservation and protection of resources without regard to the livelihoods of those who depend on that resource" and a "development policy which focusses mainly on increasing the production of goods without concerning itself with the long-term potential of the resource on which production is based".

Next Steps

A number of agencies, including the World Bank, are undertaking further research into the poverty-environment linkage. Such research will

- Evaluate anti-poverty programs focussing on resource management issues
- Analyze the impact of low and high agricultural productivity on environmental degradation (FAO);
- Identify the links between food security, poverty, and environmental degradation (IFAD)
- Examine the role of employment in promoting sustainable development (ILO)
- Study the links between health indicators, with a particular focus on women and children, and poverty and environmental degradation (WHO)
- Elicit the views of field-oriented NGOs on the issue of poverty, environmental degradation, and development (UNDP)
- Examine the links between demographic developments, poverty, and environment (UNFPA).

In addition, Swedish SIDA is developing a paper focussing on linkages between freshwater availability, poverty, environment, and development.

This study is only one of many under preparation for UNCED. Future issues of this newsletter will report on other preparatory research.

"...it took Britain half the resources of the planet to achieve its prosperity; how many planets will a country like India require...?"

Mahatma Gandhi in response to a colonialist asking him if, after independence, India would attain British standards of living.

NGO Involvement in UNCED

NGO attendance at Preparatory Committee meetings has been agreed to by the UN General Assembly. The UNCED Secretariat welcomes inputs from NGOs in areas where they have special expertise. A consortium of national and international NGOs has established an International Facilitating Committee in Geneva to:

- Assist organizations and networks in defining their roles in the UNCED process
- Promote participation in UNCED
- Provide a forum for dialogue among the "independent sectors"
- Facilitate dialogue between NGOs and national governments.

IFC has already initiated publication of an informational newsletter, *Network '92* (contact: IFC Administrator, c/o The Centre For Our Common Future, 52 rue des Pâquis, 1201 Geneva, Switzerland).

World Bank Focal Points
UNCED Coordinator: Jane Pratt

Atmosphere:	Mohan Munasinghe (202) 473-3204
Land & Agriculture:	Jitendra Srivastava (202) 473-8975
Forestry:	Michel Petit (202) 473-0340
Oceans & Coastal Areas:	Jan Post (202) 473-3400
Freshwater:	Guy Le Moigne (202) 473-0342
Biodiversity:	Maritta Koch-Weser (202) 473-3286
Hazardous & Toxic Waste:	Bernard Baratz (202) 473-2333
Economics:	Andrew Steer (202) 473-2924
	Jeremy Warford (202) 473-3299
Poverty Linkages:	Stephen Mink (202) 473-2935
Technology Transfer:	Francisco Sagasti (202) 473-1837
Information Systems:	Jane Pratt (202) 473-1865
NGOs:	David Beckmann (202) 473-1766
UN:	Carlston Boucher (202) 473-1773
Business & Industry:	Martyn Riddle (202) 473-0661
Women in Development:	Barbara Herz (202) 473-3483

As we go to press

Over forty top world business leaders have joined forces to propose new policies and actions on sustainable development. The Business Council For Sustainable Development (BCSD) has been formed by Mr. Stephan Schmidheiny, a key advisor to Mr. Maurice Strong. Mr. Martyn Riddle, World Bank Focal Point for Business and Industry, will serve as contact between BCSD and the World Bank.

United Nations

Press Release

Department of Public Information • News Coverage Service • New York

Round-up of Session

ENV/DEV/49
8 April 1991

PREPARATORY COMMITTEE FOR 1992 CONFERENCE ENDS CURRENT REVIEW OF DEVELOPMENT ISSUES RELATED TO ENVIRONMENT

Committee to Hold Further Session Later This Year

GENEVA, 5 April (UN Information Service) -- The Preparatory Committee for next year's United Nations Conference on Environment and Development concluded its second substantive session in Geneva today, by adopting a number of decisions relating to the Committee's next session. The Conference, the first "Earth Summit", is scheduled to take place at Rio de Janeiro, Brazil, from 1 to 12 June 1992.

Strategies for dealing with environmental issues arising within the process of socio-economic development were among the topics considered by the Preparatory Committee, which has been in session since 18 March. The Committee examined the underlying patterns of development which cause stress to the environment, and sought agreement on measures to reconcile economic activities with the need to protect the Earth.

The Committee reviewed preparations for the forthcoming Conference, discussing the activities of the Conference secretariat and recent actions of intergovernmental and other bodies of relevance to the preparatory process.

The Committee also considered such issues as poverty and environmental degradation; resources for financing sustainable development; training and transfer of environmentally sound technology to developing countries at affordable prices; environmental health aspects of development; and education and public awareness. The secretariat will continue to prepare progress reports on these and other substantive themes for consideration by the Conference, taking into account observations and suggestions made at the current session.

Three working groups met during the session: one on protection of the atmosphere and land resources, conservation of biological diversity and environmentally sound technology; another dealing with waste management and protection of oceans, seas, coastal areas and fresh water resources; and the third concerned with legal, institutional and all related matters.

(more)

For information media—not an official record

The Preparatory Committee decided to hold its third session in Geneva from 12 August to 4 September, with the first part devoted to the activity of the three working groups and the last eight working days for the consideration of plenary items, to include issues related to human settlements and urban poverty.

The Committee requested the Secretary-General of the 1992 Conference to continue to develop his proposals on "Agenda 21" for discussion by the Committee in August, taking into account the views expressed and the conclusions of regional preparatory conferences.

Noting with appreciation the reports and proposals on environment and development, and cross-sectoral issues, by the Secretary-General of the Conference, the Preparatory Committee requested him to continue to develop these reports for discussion at its third session, taking into account General Assembly resolution 44/228 and relevant decisions of the Committee.

It also asked the Secretary-General, in preparing reports for the future sessions of the Committee, to take into account such questions as the traditional knowledge and practices of indigenous people and other local communities for the sustainable use, conservation, management and development of natural resources and their special relationship to the environment; ways of strengthening the viability and sustainability of those practices in the context of economic growth and development; and the relevance of those practices to the issues of environment and development under consideration by the working groups and the plenary. The Preparatory Committee invited Governments, international organizations and non-governmental organizations to contribute information to the secretariat on those issues, in order to help the Committee in the preparation of reports.

Also during the session, the Preparatory Committee recommended the accreditation of an additional 23 non-governmental organizations to participate in its work, bringing to 198 the total number thus far accredited.

Addressing the Committee before it ended the session, Helen Denham, of the European Youth Trust Action, said youth organizations were very excited about the unprecedented potential represented by the Conference preparatory process. However, she said, despite the global significance and implications of the United Nations Conference on Environment and Development, eastern European and southern nations, accounting for some 80 per cent of the world population, were represented by less than 20 per cent of the non-governmental organization delegates at the Committee's second session. The Conference process had also so far failed to address environment and development in a fully integrated manner. She said the Governments of northern countries should come to the next session with significantly developed positions on the debt issue, on new and additional resources, and on the reduction of energy consumption.

(more)

Action on Protection of Natural Resources

On the question of climate change, the Preparatory Committee requested the Conference Secretary-General to continue his efforts to follow the work on estimating the cost of adopting measures to limit possible climate change and mitigate its adverse effects; to identify ways and means for ensuring funding and technology; and to investigate further the interrelationship between the issues of climate and the environment and development issues. The Conference Secretary-General was asked to report to the Preparatory Committee at its third session.

On biological diversity, the Committee received with appreciation a progress report on the negotiating process for a convention on biological diversity. It requested the Secretary-General to investigate further and to report to the Committee's next session on the operational requirements for the conservation and sustainable use of biological resources and on the relationships between biological diversity and relevant aspects of biotechnology, climate change and forests.

The Committee took note of a progress report on the environmentally sound management of biotechnology, and called for further investigation and potential areas.

As for land resources: soil loss, the Committee called for the development of proposals for an integrated approach to the protection and management of land resources and for alternative sustainable systems of production. It requested the Conference Secretary-General to develop these proposals in greater depth for the Committee's next session and called for a report on the role of financial institutions in the development of sustainable agriculture.

The Committee noted a progress report on conservation and development of forests. It noted the diversity of concerns regarding forests, and that there were currently ongoing negotiations on biological diversity and climate change conventions which would address, inter alia, forestry issues linked to those negotiations.

Action on Waste Management and Protection of Water Resources

The Preparatory Committee took note of a progress report on the environmentally sound management of hazardous wastes, and asked the Conference Secretary-General for a report on proposed areas of action.

On the question of hazardous wastes, the Preparatory Committee took note of the summary progress report on decisions taken at its first session on illegal international traffic in toxic and dangerous products and wastes. The Secretary-General was asked to bring to the Committee's attention any further information on the subject which might become available from the United Nations Environment Programme (UNEP) and the regional commissions.

(more)

On environmentally sound management of solid wastes and sewage-related issues, the Committee requested the Secretary-General of the Conference, in close cooperation with the United Nations Centre for Human Settlements (Habitat), the World Health Organization (WHO) and other United Nations organizations, to elaborate on potential areas for action.

In a third decision on hazardous wastes, the Committee asked the Secretary-General for information on potential areas for action towards an international strategy for environmentally sound management of toxic chemicals. The Committee invited WHO, the UNEP and the International Labour Organisation (ILO), in cooperation with the Food and Agriculture Organization (FAO) and other relevant organizations, to report on ongoing activity.

On the protection of oceans and seas, the Committee requested the Secretary-General to complete the comprehensive report envisioned for its next session and to elaborate the potential areas for action, drawing on the views of delegations and others expressed on the issue during the current session.

On the protection of freshwater resources, the Committee requested the Secretary-General for a report on progress in the preparations for the International Conference on Water and the Environment, to be held at Dublin in January next year. The Secretary-General was also asked to identify the main elements of an action programme, including an implementation plan, which could be reviewed for use as a basis for "Agenda 21". The Committee invited Governments, intergovernmental bodies and other interested organizations to engage actively in the preparatory process leading to the International Conference on Water and the Environment.

Action on Legal and Institutional Matters

The Committee adopted the report of its working group in this area, on the group's activity at the current session.

Committee Background

In December 1989, the General Assembly decided to convene an international forum to devise strategies that would fully integrate the relationship between environment and development into every aspect of economic life and behaviour. The resultant United Nations Conference on Environment and Development is to take place in Rio de Janeiro, Brazil, from 1 to 12 June next year and the Assembly established the Preparatory Committee to lay the groundwork for the Conference, which is expected to be held at the level of Heads of State or Government. The Committee consists of all Member States of the United Nations and of the specialized agencies. At its first session, in Nairobi last August, the Committee laid the foundations for "Agenda 21" and an "Earth Charter". Both documents are expected to be adopted at the 1992 Conference.

Objectives of 1992 Conference

The Environment and Development Conference is expected to produce:

-- An Earth Charter that will embody basic principles which must govern the economic and environmental behaviour of peoples and nations to ensure "our common future";

-- Agenda 21, a blueprint for action in all major areas affecting the relationship between the environment and the economy, to focus on the period up to the year 2000 and extend into the twenty-first century;

-- The means to carry out the agenda by making available to developing countries the additional financial resources and environmentally sound technologies they require to participate fully in global environmental cooperation and to integrate environmental considerations into development policies and practices;

-- Agreement on strengthening institutions in order to implement these measures; and

-- Conventions on climate change, biological diversity and, perhaps, forestry may be negotiated prior to the Conference and signed or agreed to in Brazil.

Conference-related Activities

A voluntary fund has been opened to support the participation of developing countries, especially the least developed, in both the preparatory process and the Conference itself.

Reports are being prepared by Member States, with the participation of non-governmental organizations, to reflect national experiences and perspectives on environment and development. A related series of regional conferences will also be held prior to Earth Summit, for the purpose of formulating each region's position on related questions. Regional conferences have already taken place in Bergen and Bangkok; the most recent was held in Mexico City, from 4 to 7 March, for the Latin American and Caribbean countries.

An electronic bulletin board, called the Global Electronic Information Network, is being operated by the United Nations Department of Public Information (DPI) to provide information on Conference preparations.

Committee Officers, Vice-Chairmen

Tommy Koh (Singapore) is the Committee Chairman and Ahmed Djoghlaf (Algeria) its Rapporteur. The three working groups are chaired, respectively, by Gantcho Gantchev (Bulgaria), Bukar Shaib (Nigeria) and Bedrich Moldan (Czechoslovakia).

The 39 States elected Vice-Chairmen are: Argentina, Australia, Bangladesh, Barbados, Byelorussia, China, Colombia, Costa Rica, Djibouti, Egypt, France, Germany, India, Indonesia, Italy, Jamaica, Japan, Kenya, Kuwait, Malaysia, Mauritania, Mexico, Mozambique, Norway, Pakistan, Papua New Guinea, Peru, Poland, Senegal, Togo, Tunisia, Uganda, USSR, United Kingdom, United States, Venezuela, Yugoslavia, Zaire and Zambia. Brazil, as the host country for the 1992 Conference, is an ex officio Vice-Chairman.

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EARTH SUMMIT NEWS

Rio de Janeiro, 1-12 June 1992

IN OUR HANDS

MARCH 1991, NO.1

AGENTS OF CHANGE

by Maurice F. Strong, Secretary-General

Information is the basis for public awareness; public awareness is the source of political will; political will is the key to the success of the Conference. With 15 months to go until the **Earth Summit**, the time has come for the UNCED Secretariat to establish a channel for providing information on preparations for the Conference on a regular basis. Our task as the Secretariat is to ensure that the Preparatory Committee and the Working Groups are provided with the best possible support for, and contributions to, their work.

In the intervening period, **Earth Summit** News, making its first appearance today, will seek to inform those who are interested and elicit the interest of those who should be.

In launching our newsletter I would like to pay tribute to the Centre for Our Common Future which has been publishing Network' 92 since August last year and the United Nations Non-Governmental Liaison Service (NGLS) which began issuing E & D File 1992 even earlier. These two publications will continue to play an important role, particularly vis-à vis our dynamic partners in the non-governmental sector, and both can count on our continued cooperation. There are many areas of activity in which the United Nations and voluntary agencies are disseminating information material to their respective constituencies in parallel. In fields as wide-ranging and in some cases as controversial as environment and development, such diversity of expression is welcome. Only with support at all levels - governments, non-governmental organizations, representatives of business and trade unions, citizen groups and the public at large will the **Earth Summit** fulfil its ambitious objectives.

What differentiates the **Earth Summit** from the Stockholm Conference of 1972? The Stockholm Conference put environment on the international agenda. The **Earth Summit** will move it into the centre of economic policy and decision making.

- It will address the linkages between the various sectoral issues to an extent not yet attempted. Whether we are dealing with climate change, land resource management or biodiversity to name but a few of the individual topics, there will be an unrelentingly integrated approach. Complex and demanding though this may be, it will, I am convinced, yield results of great practical value. We will strive to ensure the rigor of this approach throughout the preparations for the Conference.

- It will incorporate the environmental dimension into the dialogue on development. Out of this must come a new global partnership in which developing countries share more fully and equitably in the responsibilities and benefits of shaping our common future.

- It will formulate a plan of action for the remaining years of this century and the 21st Century - Agenda 21 - which will establish programmes, define targets and fix objectives against which progress can be measured in the years and decades ahead. This bold initiative will give the international community a policy blue print for promoting sustainable development.

- It will address the technological, financial and institutional means of implementing what is agreed upon both at the level of universal principles (Earth Charter) and in specific conventions.

What is of utmost importance in all this is that the **Earth Summit** and Agenda 21 be seen as agents of profound change. We are, if we are successful, looking forward to a whole new vision whos dimensions may surprise even us. The behaviour not only of governments but of individuals everywhere will be altered. My colleagues and I in the UNCED Secretariat are privileged to be on the cutting edge of what I am convinced will be recognized both as a sea change in relations between countries and peoples and an exciting example of international cooperation. In **Earth Summit** News we look forward to sharing with you this unfolding story.

SECOND PREP.COM.
ACCENT ON LINKAGES

by Nitin Desai, Deputy Secretary-General

The Agenda for the **Earth Summit** includes a wide range of issues which are already the subject of some process of analysis, discussion or negotiation in the UN system. The strength of the '92 process is that it addresses all of these issues simultaneously and therefore takes into account linkages between issues, the integration of environmental and developmental considerations, and the provision of cross-sectoral means for tackling subjects like finance, technology transfer and institutional development.

If one single word were to be used to characterize the work process of the Secretariat that has been established in function of this unique universality of scope, it would be "networking":

- between UN agencies and other intergovernmental organizations to make full use of ongoing work processes;
- with research institutions and experts;
- with NGOs and interest groups.

The task of preparing the documents for the Preparatory Committee is thus organized through a set of Working Parties which include representatives of all these partners. A special effort is being made to ensure that experts and institutions from developing countries are well represented on the Working Parties. At present, such Working Parties have been constituted for the following areas:

Working Group I of Prep.Com.

Atmosphere Issues — Biodiversity
Land and Agriculture — Biotechnology
Forestry

Working Group II of Prep.Com.

Oceans
Toxic Chemicals and Hazardous Wastes

In the case of freshwater issues, the inter-secretariat group preparing for the 1992 Conference on Water and the Environment is acting as the coordinating group. Additional Working Parties are being constituted as the work programme develops. One on environmental education has already been established. Two in the pipeline at the moment relate to data and monitoring, and technology transfer. As for health, the WHO's Commission on Health and Environment is expected to provide the major input. The Secretariat is also using fully the work being done in other parallel processes like the Intergovernmental Panel on Climate Change, the negotiations on the Framework Convention on Climate, the Ad Hoc Group on Biodiversity, the Dublin Conference on Water and Environment and the FAO/Netherlands Conference on Sustainable Agriculture, to name some. Several NGO networks are organizing major events to provide coordinated inputs into the '92 process. What promises to be the largest of these this year will bring together 1,000 participants from all geographical regions in Paris under the aegis of ELCI in December. The International Council of Scientific Unions (ICSU) is organizing a major event in November 1991 to put together an agenda for science for consideration by UNCED.

The Secretariat also organizes more broad-based consultative meetings. An example of such consultation is a meeting on poverty and environmental degradation which was held in mid-December 1990. More such meetings will be held in the course of 1991.

The work process has been designed in order to ensure that the consideration of individual issues is combined with a close analysis of linkages between issues so that programmes of a trans-sectoral character are developed effectively. Each of the Working Parties dealing with the sectoral issues has been asked to provide inputs for Agenda 21 and to identify the requirements by way of financial transfers and technology transfer and institutional development that may be required for effective implementation of the programmes identified by it.

The Secretariat has a work programme, based on the Preparatory Committee's decisions at the first substantive session in Nairobi, which deals with environment and development. Four major sets of linkages are being examined:

- between poverty and environment;
- between growth patterns, consumption standards, demographic pressures and environment;
- between certain international economic problems like debt, deterioration in terms of trade, reverse resource flows and environmental degradation;
- between policy instruments and institutions and sustainable development.

A major initiative on the issue of environment and development links is a project entitled "Sustainable Development: from concept to action". The basic purpose of this study is to provide the policy guidelines for sustainable development. Individual experts from the world over are being asked to contribute papers on specific themes. These will be discussed in a seminar and will be synthesized into a report which will be considered by a larger meeting to be held in the Netherlands towards the end of November 1991. The hope is that this exercise will move the concept of sustainable development from the theoretical to the more practical level.

Another undertaking which is expected to contribute significantly to the design of the Agenda 21 - the agenda for action emerging from the Conference - is a study of linkages between different issues being conducted by the International Institute of Applied Systems Analysis (IIASA). It will utilize much of the ongoing work in the Institute and use it to analyze more completely and in more quantitative terms linkages like those that obtain between climate change and forestry, food production and water resources.

The means for implementing Agenda 21 - finance, technology and institutions - constitute a major area of work for the Secretariat. Specific proposals with regard to this will emerge partly from the programmatic suggestions

CLIMATE CHANGE
ELEMENTS OF GLOBAL STRATEGY

The importance of the climate change issue could not have been underlined more forcefully than in Maurice Strong's address to the Second World Climate Conference held in Geneva in November. He termed accelerated climate change "the primary risk to the human future — the most serious and challenging threat ever to global security. All the more so because like a cancer spreading through the body of our global society its effects are likely to be irreversible by the time the symptoms have become so acute as to be painful. There can be no environmental issue in respect of which it is more important to proceed on the basis of the - 'precautionary principle'. We cannot afford to wait for the kind of confirming diagnosis which only a post-mortem could provide".

It is against the background of such a sobering warning that the UNCED Preparatory Committee begins to focus on appropriate response strategies for the world community on this issue, taking into consideration the development dimension and cross-sectoral linkages. Its deliberations follow on the heels of the start of another key process in the form of the first meeting of the Intergovernmental Negotiating Committee in Washington from February 4 to 14.

New Stage in International Debate

In his statement to the Intergovernmental Negotiating Committee, Mr. Desai, UNCED Deputy Secretary-General, said the opening of negotiations on a Climate Change Convention in Washington represented a new stage in the international debate on this issue. "The discussion is no longer limited to diagnosis and analysis. Specific commitments by governments to resolve the problem are the subject of these negotiations."

Mr. Desai went on to note that "the possible responses to the issue also mark a major transition. The actions required are not merely environmental in nature. They go to the core of the economy and impinge on the mainsprings of the growth mechanism. Indeed, while carbon dioxide emission and greenhouse gas targets, energy efficiency goals, biomass sinks, and similar measures are important, they will have to be accompanied by a deeper reconsideration of allied areas of policy. The debate on climate change has given new relevance to the classical problems of the development debate - global equity, indebtedness, poverty, terms of trade, protectionism, life styles, consumption patterns, and population growth."

UNCED's main task will be to formulate actions and programmes that will support the convention that is expected to emerge from the Intergovernmental Negotiating Committee. This set must reflect environmental as well as developmental concerns. The UNCED paper on climate change (A/CONF.151/PC/22) identifies a number of elements that the Preparatory Committee might consider. One of these is the national assessment of greenhouse gas emissions and sinks called for by the Second World Climate Conference. On greenhouse gas emissions the hope is to arrive at targets for consideration at the **Earth Summit**. The Ministerial Declaration at the World Climate Conference did not endorse any particular targets, limiting itself to saying that the ultimate global objective should be to stabilize greenhouse gas concentrations at a level that would prevent dangerous anthropogenic i.e. man-made interference with climate. The UNCED document stresses that the individual country objectives and targets could be coordinated and perhaps agreed upon at regional and global levels. A key consideration in such an exercise will be to take into account the different methods of calculating and accounting for greenhouse gas emissions - for example per capita or per land area, present or cumulative. While suggesting that comprehensive accounting tools such as the one developed by the Stockholm Environment Institute will need to be used, the UNCED document points out that sophisticated monitoring and accounting methodologies are at present not widely available in developing countries, thus pointing up the need for transfer of technology in this field and training of experts in these countries.

On the question of measures to improve energy efficiency, which it notes have been recognized as essential to any plan to bring down CO_2 emissions world-wide, the UNCED document holds that notwithstanding major differences between industrialized and developing countries, a comprehensive global energy strategy should be developed by the time of **Earth Summit**. This could provide an important supporting element for a protocol dealing with energy-related topics to the climate change convention.

Elements of the Strategy

This global climate strategy could involve two major assessment exercises. One could determine in specific terms the potential for energy efficiency in individual countries with a view to setting national and, where possible, sectoral targets for progress in this field in order to attain an increase in global energy efficiency of, for example, 2% per year. At the same time the strategy would need to assess what developing countries will need in the way of additional energy and how this could be provided for example by using the most efficient and environmentally sound technologies, putting particular emphasis on new and renewable energy sources as well as on advanced fossil-fuel conversion systems.

The strategy could address the key role of the transport sector as a major source of carbon dioxide emissions and other pollutants. Among the central aims of national, regional and global programmes intended to reduce climate change could be increasing the efficiency of automobile fleets, encouraging a switch from private to

Continued on next page

public transport and planning human settlements in ways which would result in lower overall greenhouse gas emissions.

While noting that increasing forest cover simply to slow down climate change is not the major cure for the problem, the UNCED document identifies a number of areas for further work. These include assessment of national opportunities for biomass-based carbon sinks, for improving biomass management, for accelerating research and for new monitoring systems. Also suggested is an instrument on conservation and development of the world's forests, linked to both the climate and biodiversity conventions.

The UNCED document makes the point that past releases of greenhouse gases have already brought about climate changes and that their full effect has yet to be felt. Thus while pursuing strategies designed to limit climate change in the future, countries must start developing programmes to deal with the effects of change already in the pipeline. There are special concerns of the vulnerability of island states, coastal areas and arid regions. The particular vulnerability of island states, coastal areas, and arid regions need to be taken into account.

The Negotiating Process

Implementation of the actions and programmes which evolve in the UNCED negotiating process will probably depend on voluntary initiatives undertaken on a cooperative basis in many of the same areas that will ultimately be covered by the mandatory provisions of the convention now being developed by the Intergovernmental Negotiating Committee (INC). They will thus constitute an important contribution to the negotiating process.

The UNCED Secretariat will monitor the negotiating process and work closely with the ad hoc Secretariat that has been established in Geneva by the General Assembly. A particular responsibility of the UNCED will be to ensure that the negotiating process incorporates adequate provision for the cross-sectoral linkages of the issues that are subject to negotiation, as well as their development dimensions. Also UNCED will wish to ensure close co-ordination between the climate negotiations and those on other closely related subjects such as forestry and biodiversity.

PLANS ADVANCE FOR LARGEST INTERNATIONAL NGO MEETING OF 1991

Plans for what promises to be the largest international conference of NGOs of the year related to Earth Summit - bringing together in Paris 1,000 participants from all regions of the world under the aegis of the Environmental Liaison Centre International (ELCI) from December 17-20 with the financial and logistical support of the French Government - advanced considerably at a meeting of the Steering Committee for the event held in Paris in January.

President François Mitterand is expected to address the December Conference which will be attended by 850 delegates from areas outside France - 30% from developed and 70% from developing countries - and 150 from France including government officials and media representatives.

Proposals for the agenda and structure of the Conference have been submitted by the 19 members of the Steering Committee, and a co-chairman to serve with Roberto Smeraldi of Friends of the Earth International is to be named in the course of March.

The main result of the Paris Conference will be a tentative "Brazil Document" giving an NGO perspective on environment and development. A first draft is to be ready by May and a second in September. A video tape based on the Document will be produced in order to reach the widest possible audience.

A management group has been established to deal with certain organizational matters until the next meeting of the Steering Committee in May.

INTERNATIONAL FACILITATING COMMITTEE

EXECUTIVE DIRECTOR ELECTED

Beatrice Olivastri (Canada) was elected Executive Director of the International Facilitating Committee at a meeting of IFC steering committee held in Geneva in February. The head of her own consulting firm in the field of environmental policy, she has devoted most of her time since last year to the Geneva-based foundation, the Center for Our Common Future which was established to stimulate discussion of the Brundtland Report.

The IFC, which was created to raise the level of international debate around the **Earth Summit** beyond the traditional pursuit of sectoral and national interests, is composed of 25 individuals from the "independent sectors". It includes representatives from such varied constituencies as NGOs, women's organizations, trade unions, the scientific and academic communities and the media. The IFC's self-defined mandate is four-fold: To assist organizations and networks in the independent sectors to define their roles vis-à-vis UNCED on request; to promote fair and effective participation in the Conference on behalf of these sectors; to provide a forum for dialogue among these sectors and to undertake such programmes of activities aimed at strengthening the capacity of these sectors to work globally on issues of sustainable development. The IFC is providing financial support to enable some 20 developing country NGOs to attend the UNCED March Prep. Com. The chairman of IFC is Askok Kohsla of Development Alternatives in New Delhi.

UNCED INFORMATION SYSTEM BREAKS NEW GROUND

The size, scale and complexity of the **Earth Summit** led to an early decision by the UNCED Secretary-General to establish a state-of-the-art computerized information system to provide instantaneous access to UNCED documents and information on various aspects of the preparatory process. This tool, parts of which are already operational, will endow the **Earth Summit** with an electronic dimension not previously enjoyed by any UN Conference.

The first component of what is known as the UNCED Information System, the Global Electronic Network, was already in place at the time of the first preparatory committee meeting in August. Through it, all documents could be called up by anyone with fairly simple computer and modem equipment, through several existing electronic networks, notably the Association for Progressive Communications (APC), itself a network of ten networks (EcoNet, PeaceNet, ConflictNet, GreenNet, Pegasus, Web, Altenex, Ecua Nex, Nicarao, BolNet, HomeNet), Telecommunications Co-operative Network (TCN) and the GeoNet network, itself a network with 28 country nodes world-wide. These "read-only" electronic conferences had the effect of virtually eliminating document distribution time for those equipped to tap the network.

Parallel to this, a group of NGOs came forward to create a "read-and-write" conference system on the APC networks allowing conferencing (dialogue and exchange of comments). A large number of individuals, organizations and NGOs in various parts of the world are benefiting from this facility, literally keeping the airwaves humming with a lively back and forth.

Meanwhile UNCED has been actively developing another component of its information system, the Data Base. Information on what is being done in the way of preparation for the **Earth Summit** covers the activities, existing and planned, of members of the United Nations system, inter-governmental bodies, research institutes and relevant NGOs. It is organized by the name of the sponsoring entity and by the main issues and cross-sectoral objectives set out in General Assembly resolution 44/228 and contains the full text of reports resulting from the activities listed. As time goes by, the focus of the material will shift from ongoing activities to elements of the intended outcome of the Conference as expressed in Agenda 21. Janos Pasztor, the UNCED staff member responsible for conceiving and establishing the system, is planning to hold demonstrations of the ways in which the Data Base can be used during the upcoming session of the Preparatory Committee. One feature to be introduced in the course of the year will be a "gateway" to enable users of the Global Electronic Network to have direct access to the Data Base.

Apart from enabling documents to be dispatched virtually anywhere in the world, the computerized information system facilitates the rapid receipt of comments and amendments. It also serves to put UNCED's branch offices in New York and soon Nairobi on the same footing as Geneva with regard to access to information.

"In bringing to bear the power of computers and electronics in preparations for the **Earth Summit** to such an extent", Mr. Pasztor said, "we are breaking new ground. The result in our view will be more effective concentration of effort on the substantive issues before the Conference and maximization of the use of the time available for preparing the **Earth Summit** agenda."

The UNCED information system was made possible by financial contributions from the UNCED Trust Fund, and in particular from ECO FUND '92 and from the Canadian Government.

Anyone wishing to access the UNCED Information System may contact either the networks themselves or the UNCED Secretariat.

Maurice Strong at the World Economic Forum in Davos in February: "In talking to CEOs and presidents of companies in all the industry forums I was struck by their growing commitment to the concept of sustainable development. At that level there is a general recognition that sound environment management can be good business."

Maurice Strong termed the Gulf oil slick: "One of the great environmental tragedies of our time. I am appalled that the environment should become an instrument of war in this way. It demonstrates that the international community needs to pursue environmental disarmament."

NATIONAL REPORTS
DEADLINE APPROACHES

A sharp acceleration in the tempo of the preparation of national reports, one of the key processes in the build-up to the **Earth Summit**, has been urged by the UNCED Secretariat. As of the end of February, some 70 countries were actively engaged in preparing their reports on national perspectives and experience together with information on policy activities at the national level, but only four reports had actually been received. Lars Hyttinen, who is responsible for National and Regional Activities in UNCED, warned that only four months remained until the July deadline fixed by the Preparatory Committee in Nairobi.

The reports are expected to take fully into account the progress made at the national level since the 1972 Conference and address the concerns and interests of member States. Relevant background information is to be provided concerning problems that have emerged since 1972 and the progress made in dealing with them.

As compared with 1972, it is intended that the 1992 reports will be much more comprehensive, with more data. Out of the process, it is hoped that indicators for measuring sustainable development will emerge. As the volume of reports increases in the next few months, researchers will be taken on temporarily as needed to aid in the processing of the data.

"Though the information is coming from many different sources", Mr. Hyttinen said, "we hope that this kind of analysis will lead to a significant measure of comparability. But equally important is the establishment and/or strengthening of a process at the national level that takes into serious consideration the environmental factors as governments prepare their development plans and actions. Sound environmental management makes economic sense."

Mr. Hyttinen notes that the network of 113 UNDP field offices with their Resident Representatives also acting as UNCED Representatives has been mobilized to support developing countries in the preparation of the reports.

Funding for this task is coming from a number of sources: national budgets, UNDP programme funds, the World Bank or Regional Development Banks, and bilateral resources made available directly or through UNCED/UNDP as well as non-governmental organizations.

UNDP at the request of its Governing Council has in addition approved a special "umbrella project" specifically for assisting developing countries prepare for the **Earth Summit** in 1992. Sweden was the first major contributor, and is still the most generous, with a sizeable addition to UNCED funds aimed specifically at helping developing countries. Other contributions have also been received and more are expected.

The national level activities are often linked to regional and sub-regional actions which are well under way. In the Asia and Pacific region (ESCAP) a ministerial level conference in Bangkok last fall is to be followed by a senior officials meeting in February. The regions covered by ECA and ESCWA are also engaged in preparations leading to separate meetings in Egypt before mid-1991. The ECLA region will have its meeting in Mexico in March. ECE is following up on the Bergen Conference and is particularly active in the field of "energy efficiency" an area where considerable environmental and economic benefits can be reaped especially in Eastern and Central Europe but also elsewhere in both the industrialized and developing world.

Likewise sub-regional activities in support of preparations for UNCED 1992 are under way in the CARICOM countries as well as the Pacific Island Developing Countries. The latter group is strongly supported by grant assistance from the Asian Development Bank through the UNDP offices in the region.

The OECD has meanwhile launched a major preparatory process for UNCED, building on the January meeting of the OECD Environment Committee convened at ministerial level and the separate work of the OECD Development Assistance Committee.

SECOND PREPCOM

emerging from the Working Parties and partly from assessments of existing mechanisms.

A major element in the '92 process is the preparation of national reports on environment and development, for which guidelines have been issued and assistance provided, where needed. In many countries a broad-based consultative process has been set up to guide this operation. Another important set of inputs will come from the regional conferences being organized by the UN regional commissions and other bodies.

The work process set up by UNCED utilizes all relevant inputs from the UN system and elsewhere and then shapes these into documents for consideration by the Preparatory Committee. The documentation for the Nairobi Session of the Prep.Com. helped to identify major areas of concern. The Geneva session now deals in greater detail with the issues and puts forward some potential areas for action. The discussions in this Forum will provide the Secretariat with guidance on the next phase of work, which is to prepare proposals for Agenda 21.

UPCOMING EVENTS

13-15 March 1991	5th Plenary Session of the Intergovernmental Panel on Climate Change (IPCC)	Geneva
18-22 March 1991	2nd Meeting of the WHO Commission on the Health and the Environment (WHO)	Geneva
18-27 March 1991	International Conference on Food Standards, Chemicals in Food and Food Trade (FAO, WHO)	Rome
18 March-5(12) April 1991	Second Session of the Preparatory Committee for the UnitedNations Conference on Environment and Development (UNCED)	Geneva
8-12 April 1991	African Regional Preparatory Conference for UNCED (ECA)	Cairo
10-12 April 1991	Second World Industry Conference on Environment Management - (WICEM II) (ICC, UNEP)	Rotterdam
15-19 April 1991	Conference on Agriculture and Environment (FAO & theNetherlands Govt.)	's Hertogenbosch, the Netherlands
29 April-8 May 1991	HABITAT Commission on Human Settlements (30th session)	Harare, Zimbabwe
13-16 May 1991	ESCWA Regional Preparatory Conference	Cairo
13-15 May 1991	"Strategies for the Least Developed Countries in the 90s" (United Nations Capital Development Fund)	Tokyo
20-31 May 1991	Sixteenth Session of the UNEP Governing Council (UNEP)	Nairobi
27-30 May 1991	Symposium "Women and Children First" (UNCED)	Port of Spain, Trinidad
6-7 June 1991	Organization of African Unity, summit	Abuyah, Nigeria
3-26 July 1991	United Nations Economic and Social Council (ECOSOC)	Geneva
12-30 August (or 6 September) 1991	Third Session of the Preparatory Committee for the United Nations Conference on Environment and Development (UNCED)	Geneva
17-26 September 1991	10th World Forestry Congress (FAO)	Paris
24-29 November 1991	International Council of Scientific Unions (ICSU) Conference on Agenda of Science for Environment and Development into 21st Century (ASCEND 21)	Vienna
17-20 December 1991	NGO Conference under the aegis of ELCI with financial support of French Government Cité des Sciences et des Techniques de la Villette	Paris
26-31 January 1992	International Conference on Water and the Environment (WMO)	Dublin
February/March 1992	Fourth Session of the Preparatory Committee for the UnitedNations Conference on Environment and Development (UNCED)	New York
1-12 June 1992	United Nations Conference on Environment and Development(UNCED)	Rio de Janeiro

DOCUMENTS FOR THE SECOND SESSION OF THE UNCED PREPARATORY COMMITTEE

Plenary Session

Adoption of the Agenda and other Organization matters: Annotated provisional agenda - A/CONF.151/PC/13

Report of the Secretary-General of the Conference, including annex on Proposal for Agenda 21 - A/CONF.151/PC/14

Progress Report on Poverty and Environment Degradation - A/CONF.151/PC/15

Progress Report on Environment and Development - A/CONF.151/PC/16

Progress Report on Transfer of Technology - A/CONF.151/PC/17

Progress Report on Financial Resources - A/CONF.151/PC/18

Progress Report of the Secretary-General on Institutions -A/CONF.151/PC/36

Environmental Health Aspects of Development - A/CONF.151/PC/19

Progress Report on Environmental Education - A/CONF.151/PC/21

Summary Progress Report of the Secretary-General on Decisions adopted by the Preparatory Committee at First Session - A/CONF.151/PC/20

Working Group I

Protection of the Atmosphere Climate Change/Synthesis Paper - A/CONF.151/PC/22

Protection of the Atmosphere Report on the Costing Exercise - A/CONF.151/PC/23

Integrated Management of Land Resources - A/CONF.151/PC/24

Report of the Secretary-General on Alternative Sustainable Systems of Production - A/CONF.151/PC/25

Progress Report on FAO/Netherlands Conference on Sustainable Agriculture -A/CONF.151/PC/26

Progress Report of the Secretary-General on Conservation and Development of Forests - A/CONF.151/PC/27

Progress Report on Conservation of Biological Diversity -A/CONF.151/PC/28

Progress Report on Environmentally Sound Management of Biotechnology - A/CONF.151/PC/29

Working Group II

Progress Report on Protection of Oceans, all kinds of seas including Enclosed and Semi-closed Seas, Coastal Areas - A/CONF.151/PC/30

Report on London Dumping Convention - A/CONF.151/PC/31

Progress Report on Protection of the Quality and Supply of Freshwater Resources - A/CONF.151/PC/32

Sustainable Use of Water Resources in Agriculture - A/CONF.151/PC/33

Environmentally Sound Management of Wastes, particularly Hazardous Wastes - A/CONF.151/PC/34

Environmentally Sound Management of Toxic Chemicals -A/CONF.151/PC/35

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TOMMY KOH

CHAIRMAN OF THE PREPARATORY COMMITTEE

Tommy Koh (Singapore) was elected chairman of the UNCED Preparatory Committee in March 1990. His distinguished career had at that point included having served as his country's Ambassador to the United Nations (1984-1990), as president of the Third UN Conference on the Law of the Sea (1981-1982) and for two terms (1966-1971 and 1974-1984) as permanent representative to the United Nations. At present Ambassador-at-large, in June 1990 he was named Director of the Institute of Policy Studies in Singapore.

WHO'S WHO IN UNCED

The following list includes both staff members funded by the regular budget and those seconded from or made available through other organizations.

MAURICE F. STRONG

(Canada), is Secretary-General of the 1992 United Nations Conference on Environment and Development. He also served as Secretary-General of the United Nations Conference on the Human Environment held in Stockholm in 1972 and subsequently became the first Executive Director of the United Nations Environment Programme. During 1985 and 1986, he served as Executive Co-ordinator of the United Nations Office for Emergency Operations In Africa and was a member of the World Commission on Environment and Development.

Mr. Strong has served his own Government in various capacities, including President of the Canadian International Development Agency, Chairman of the International Development Research Centre and Chairman and President of PetroCanada, Canada's national oil company. His early career was spent in industry in which he served as President and Director of a number of Canadian, US and international corporations. He is currently President of the World Federation of United Nations Associations, Chairman of the Council of the World Economic Forum and has been associated with various other organizations dealing with development, environmental, humanitarian and public policy issues.

NITIN DESAI

(India), Deputy Secretary General of UNCED, spent most of his prior career with the Planning Commission of India. In this context, he came to be responsible for overseeing a wide range of developmental projects, and as Special Secretary of the Planning Commission he ultimately directed all its analytical work. From 1985 to 1987 he served as Senior Adviser in the Secretariat of the World Commission on Environment and Development and was a key drafter of the resultant Bruntland Report which is widely credited with having triggered enhanced awareness of sustainable development issues throughout the international community. He then returned to India to become Secretary and Chief Economic Adviser to the Ministry of Finance

LUCAS DE AZEVEDO ASSUNCAO

(Brazil), a programme officer, wears three hats: Secretary of the Management Committee, the decision-making organ of the UNCED Secretariat; adviser on environmental economic issues, and Liaison Officer with the Brazilian Government for all matters related to the organization of Earth Summit. He was previously a Regional Program .e Officer in the Division for Regional Projects in Latin America and the Caribbean at UNDP headquarters in New York. In this capacity he worked closely with environmental non-governmental organizations, both international and Latin American, as well as with the Environment Departments of the World Bank and the Interamerican Development Bank in identifying and formulating environment projects.

Maribel Bahia

(Brazil), who heads UNCED's Media Office, had been Director of International Affairs at Radio France Internationale. Prior to that she had been Media Marketing Executive for Europe for Reuters for two years and Director of the International Federation of Newspaper Publishers (FIEJ) in Paris for six years.

Alicia Barcena Ibarra

(Mexico), has had extensive experience in her national government as the first Under-Secretary of Ecology in the Ministry of Urban Development and Ecology and as the General Director of the National Institute of Fisheries. In the regional development field she served for two years as an external consultant to the Interamerican Development Bank on environmental issues and was also president of Cultura Ecologica, an NGO particularly concerned with small-scale sustainable development projects in rural and indigenous communities. At UNCED as a principal programme officer she is responsible for oceans, coastal area development and living marine resources.

May Davidson

(United Kingdom), after working ten years for Ralph Bunche served for 15 years as the special assistant of Brian Urquhart who succeeded him as Under Secretary for Special Political Affairs. The first staff member recruited for UNCED in February 1990, she has since then been Mr. Strong's special assistant.

Richard Helmer

(Germany), served for eight years as a senior scientist with WHO on drinking water and health issues, coastal pollution control and global freshwater issues before being seconded to UNCED as a principal programme officer to head the freshwater and health sectors and maintain liaison with WHO's Commission on Health and Environment. From 1979-1981 he had been Deputy Director of UNEP's programme on ocean pollution.

Kevin Hill

(Jamaica), associate adviser on various UNCED programmes, recently researched linkages on economic policies and environmental management, after working as Project Co-ordinator at the Petroleum Corporation of Jamaica.

Nay Htun

(Myanmar), is Director of Programmes and Special Adviser. His responsibilities include coordinating Working Group I, maintaining liaison with industry and supervising UNCED's work in the fields of biodiversity, biotechnology, hazardous wastes and toxic chemicals. From 1976 to 1990 he had been with UNEP first as Senior Programme Officer in the Industry and Environment Office in Paris and then as Regional Director and Representative for Asia and the Pacific based in Bangkok. Before joining UNEP he was Department Manager with a major transnational energy corporation, as well as Professor of Environmental Engineering at the Asian Institute of Technology, a regional post graduate university in Thailand.

Lars Hyttinen

(Finland), a principal programme officer, directs UNCED's national and regional activities with particular responsibility for national reports (see article on page 6). He was most recently in charge of environmental issues in the UNDP European Office in Geneva and before that had served in New York with UNDP as Principal Adviser to the UN Capital Development Fund and the Bureau for Programme Policy and Evaluation. His earlier senior management positions included serving as Director, Special Assistant to the Deputy Executive Director of UNICEF.

Asa Jonasson Granados

(Sweden), in her previous post as Chief of the Clearing House for Technical Cooperation at UNEP was responsible for mobilizing resources and coordinating the development and implementation of technical cooperation activities financed from extra-budgetary resources. As such she was involved in formulating projects in a number of environmental sectors, including hazardous waste management and pollution control. At UNCED she is a senior programme adviser currently working in the field of hazardous waste and toxic chemicals.

Yolanda Kakabadse

(Ecuador), who is the UNCED focal point for relations with non-governmental organizations, served for 12 years as Executive Director of Fundacion Natura, the largest environmentally oriented NGO in her country. In this capacity she was primarily responsible for the design and implementation of projects in sectors such as environmental education, conservation and reforestation. She also supervised project evaluation, fund raising and the production of educational and public awareness material.

Kerry ten Kate

(United Kingdom), formerly a practicing barrister and environmental consultant, has joined UNCED as associate adviser in Mr. Strong's office. She has also worked as a journalist and broadcaster and has been active in voluntary work of a humanitarian and environmental character.

Panchapakesan Krishnamurty

(India), served for 22 years in the personnel and administrative services of the United Nations Conference on Trade and Development (UNCTAD) before joining UNCED in a similar capacity.

Louise Lassonde

(Canada), has joined UNCED as population adviser on secondment from UNFPA. Her past experience has been focused on field work in several countries of Latin America, the Maghreb and Sub-Sahara Africa where she undertook research and acted as consultant as regional director for a Canadian NGO and most recently as UNFPA country Director for Togo-Benin. At UNCED as a senior programme officer she will be working on the linkages between population dynamics and environment issues as they condition development.

Jean Louis Lawson

(Benin), principal executive officer in charge of UNCED administration, has served in related capacities at UN Headquarters, New York, UNEP, Habitat, ECA and UNCTAD. His duties include administering two extra-budgetary funds for preparatory activities related to the Earth Summit. He is also the focal point for Human Settlement questions.

Kazuo Matsushita

(Japan), had been in his government's Environment Agency since 1972 before joining UNCED. He had also worked at the OECD Environment Directorate in Paris as an environmental economist for three years. His most recent responsibilities included having served as Executive Secretary in the office charged with preparing the Tokyo Conference on Global Environment in 1989. He then become a Director in the Office of Overseas Environmental Cooperation. A senior programme officer at UNCED, he is concentrating on the issue of transfer of environmentally sound technology and capacity building in developing countries.

Andrea Matte-Baker

(Chile), has been involved in environmental and developmental issues since 1975, mainly with UNEP in Nairobi. Her fields there included human settlements and programme evaluation and she served as Special Assistant to the Executive Director. At UNCED her specific responsibilities as a programme officer include coordination of the development of Agenda 21 and Management of Land Resources.

Michael Monaghan

(United Kingdom), came to UNCED after fifteen years with the United Kingdom Department of the Environment. He played a major part in the drafting of the United Kingdom Government's response to the WCED Report "Our Common Future" as well as in the United Kingdom's follow-up publication "Sustaining our Common Future". Most recently he looked after relations with Eastern European and EFTA countries on environmental protection issues. At UNCED as a senior programme adviser he will be working primarily on a number of cross-sectoral issues, as well as on biodiversity and on environmental threats and emergencies.

Janos Pasztor

(Hungary), a senior programme officer, is responsible both for the UNCED Electronic Information System (see article on page 5) and for UNCED's work on Atmosphere, Energy and Transport. He came to UNCED from the Boston Centre of the Stockholm Environment Institute where he concentrated on the development of computerized tools and the manner in which they could be applied in integrated energy and environment planning projects. Prior to that he was responsible for UNEP's Energy Unit where he had been developing methodologies to incorporate environmental considerations into energy policy and planning at both technical and institutional levels.

Hao Qian

(China), senior programme adviser for science and technology, had served from 1986 to 1990 as Deputy Department Director and Senior Economist in his country's State Planning Commission. During the previous four and half years he had been first secretary (Science and Technology) in the Chinese Embassy in Washington.

Peter H. Sand

(Germany), is principal programme officer responsible for legal matters, with focus on air pollution and climate change. He brings to the Secretariat twenty years of experience in the negotiation and implementation of international environmental agreements, having served as senior legal officer with FAO; assistant director-general of the World Conservation Union (IUCN); chief of UNEP's Environmental Law Unit in Nairobi; and since 1986 as senior environmental affairs officer and chief of the Air Pollution Section in the UN Economic Commission for Europe.

Graham Shanley

(USA), is responsible for Earth Summit News. He served for 11 years as Senior Press Officer and Spokesman at the United Nations Conference on Trade and Development (UNCTAD) and before that for 20 years in the information service of the United Nations High Commissioner for Refugees (UNHCR).

Filomena Chioma Steady

(Sierra Leone), an expert in women's studies who has focused in particular on the topic of women and sustainable development, is a senior programme adviser charged with ensuring that women's interests are adequately reflected in the treatment of all the issues covered by the UNCED preparatory process. Over the six years preceding her appointment at UNCED, she had been successively Director of the International Women's Research and Consulting Institute (I.W.I.) in Madison, Wisconsin; Deputy Director in the Branch for the Advancement of Women in the United Nations Secretariat in Vienna and Director/Professor of the Women's Study Program at California State University in Sacramento. She is also a research fellow at the University of Sierra Leone.

Andrey M. Vavilov

(USSR), UNCED's head of External Relations, was Deputy Director for Science and Technology and Head of the Environmental Department in the USSR Foreign Ministry for two years. In this capacity he was engaged in analysis and formulation of foreign aspects of national environmental policy and was responsible for both coordination among government agencies and parliamentary liaison. Prior to that he served as Deputy Soviet Representative to the Geneva Conference on Disarmament. He also took part in negotiating the Environmental Modification Convention of 1978.

Joseph C. Wheeler

(USA) is Director, Programme Integration, with particular responsibility for the coordination of Working Group II and for financial resources. He served as an administrator in United States foreign aid programmes for more than 30 years rising to the position of Deputy Administrator of AID two years before his retirement in 1982. In 1983 he was appointed Deputy Executive Director of UNEP and continued until 1985 when he was elected Chairman of the OECD Development Assistance Committee, the DAC, through which 18 donor countries and the EEC coordinate policy affecting most of world aid. Mr. Wheeler held this post for five years until January 1991.

Bernardo Zentilli

(Chile) has become UNCED's senior programme adviser for forestry after having spent virtually his entire professional career working in the environmental aspects of forestry, most recently as Chief of Forests and Other Ecosystems Unit in UNEP from 1985-1990. For five years prior to that he had been regional officer for Latin America and the Caribbean with the International Union for Conservation of Nature and Natural Resources (IUCN). In 1972 he had been Chile's first director of National Parks and Forest Reserves.

UNCED / NEW YORK

Arba Diallo

(Burkina Faso), is the Secretary-General's special representative at United Nations Headquarters. He is charged specifically with coordination of work relating to desertification, drought, soils and land resources. From 1988-89 he served as Ambassador of his country to China, Japan and India respectively and prior to that he had been Technical Adviser to the president of Burkina Faso (1985-87) and Minister of External Affairs (1983-84).

Jean-Claude Faby

(France), is the Director of the New York office. Before joining UNCED had been Deputy Director of the UNEP North American office carrying out similar responsibilities in the field of liaison with headquarters, delegations, NGOs and media. Earlier in his career he had served in the Department of Public Information in New York.

Yoko Eguchi

(Japan) is a programme officer who had been a coordination officer in UNDRO's New York office from 1989-1990 and from 1985-89 had been a programme officer in the UNEP Clearing House in Nairobi.

UNCED / NAIROBI

Jean-Jacques Graisse

(Belgium), had been the UNDP resident representative in Kenya. By common accord between UNDP and UNCED he was designated UNCED representative in that country.

Wanjiku Mwagiru

(Kenya), programme officer. Prior to joining UNCED she had been Director, kenya National Environment Secretariat, and earlier had been an energy advisor in the Ministry of Energy.

FORESTRY

IDEA OF INSTRUMENT POSED FOR DISCUSSION

In an incisive critique of the world community's failure to deal effectively with deforestation, UNCED's progress report to the Preparatory Committee on the conservation and development of forests warns of the serious dangers of allowing the present piecemeal approach to this key issue to continue.

Fuelwood Crisis Worsens

For example the shortfall in fuelwood and charcoal, which constitute the main sources of energy for most households and rural industries in the rural areas of developing countries, will reach 960 million cube meters by the year 2000 unless the present trend of transfer of forested lands to other uses is arrested. UNCED's paper (A/CONF.151/PC/27) notes that this deficit is the energy equivalent of 240 million tons of oil a year worth, at a price of $30 a barrel, over $45 billion. At that point a staggering total of 2.4 billion people will either be unable to obtain their minimum energy requirements or will be forced to consume wood faster than it is being grown. Yet there has been little action in response to the recommendation contained in the Nairobi Plan of Action adopted in 1982 at the UN Conference on New and Renewable Sources of Energy which called for a five-fold increase in the annual rate of tree planting in developing countries by the end of the century.

UNCED sees the crisis persisting into the 21st century "unless there is serious re-thinking of the crisis on the part not only of the assisting community but also on the part of the developing countries themselves, giving a significantly higher priority to this issue in their overall development plans".

The strategy thus far followed for overcoming the shortage has consisted of establishing firewood plantations, be they small or large, but UNCED says neither has been successful. Rather the situation should be addressed "by focusing on the role that trees play in the socio-economic and cultural life of rural people. Community forestry approaches should help develop locally appropriate solutions that give due attention to the demand side and markets and pricing structures". Moreover the report holds out little prospect that technology-intensive alternative energy sources such as solar energy, wind energy and biogas will make inroads into low income rural areas "without intensive governmental intervention including the supply of equipment, subsidies and training".

Throughout the tropics deforestation has accelerated in the period 1981-1990 attaining an annual rate as high as 16.8 million hectares, with the expansion of the agricultural frontier being the most important overall single factor in this trend.

In the temperate and boreal zones deforestation rates have not been systematically assessed, but the damage has been limited in comparison with the tropics and is often compensated by afforestation and reforestation.

Impact of Forests on Other Subjects

In propounding the logic of a more integrated approach to forestry, the UNCED paper notes the extent to which forests impact on other subjects such as use of land, pollution, soil erosion and storage of greenhouse gases. "Forest activities cannot be designated or implemented purely as a sectoral matter. The institutional arrangements for forest policy and planning at the national level must integrate forestry with other land uses activities, particularly agriculture", the document states. However, it goes on to argue that "The integration of land use management in one organization is of course by itself not enough. It has to be accompanied by the development of appropriate methodologies for land capability analysis and balancing of different objectives".

For one, the departure from the sectoral approach implies important changes in the financing of forestry activities: there must be a significant grant element reflecting the fact that much of the benefit realized from forests does not redound to those who bear the costs of reforestation and forest management, and the time frame must be long enough to take into account the years required to realize a return. Greater emphasis must also be given to the demand side i.e. to trading conditions in forest products with examination of such matters as implicit or explicit subsidies, tariff structures and policies on substitutes for forest products. It is against this background of causes and effects that transcend national boundaries and are regional in character that the Preparatory Committee will be considering options for action at various levels put forward by the UNCED Secretariat.

Possible Action at National Level

At the national level UNCED suggests that countries should enhance their capacity to carry out forest assessment and evaluation in the broad sense of the term encompassing not only forest cover and timber production but detailed information on such elements as forest types, the composition and distribution of flora and fauna composition and biomass productivity. An effort should be made to achieve better management of existing forests and to ensure compatibility of afforestation and reforestation programmes with local cultural, economic and environmental needs within the context of rural development planning. The importance of securing the fullest participation of populations for the community or

POVERTY/ENVIRONMENTAL DEGRADATION
A MAJOR CROSS-SECTORAL ISSUE

People, not resources or production, should be the starting point for an effective strategy to tackle problems of poverty,development and environment simultaneously in developing countries.

This in a nutshell is the thrust of the UNCED secretariat's paper on poverty and environmental degradation (A/CONF.151/PC/15) prepared for the Second Session of the UNCED Preparatory Committee.

In addressing one of the main cross-sectoral issues that will be considered by the **Earth Summit**, the paper argues that "an environmental policy that focuses on the conservation and production of resources without regard to the livelihoods of those who depend on that resource" will only aggravate poverty. "Equally", it maintains "a development policy which focuses mainly on increasing the production of goods without concerning itself with the long-term potential of the resources on which production is based will sooner or later run into problems of declining productivity" with the same negative result.

The document cites United Nations figures indicating that in developing countries 1 billion people live in absolute poverty defined as the income level below which a minimum nutritionally adequate diet plus essential non-food requirements are not affordable. Of this number, 64% are in Asia, 24% are in Africa and 12% in Latin America and the Caribbean. However, the UNCED paper stresses the need to go beyond income levels and take into account other dimensions of poverty such as lack of access to education, health services, , safe water and sanitation. United Nations data show that 1.5 billion people in developing countries do not have access to health services, 1.75 billion lack safe water and 2.8 billion are without sanitation. Moreover 870 million adults in developing countries are illiterate, 150 million children are malnourished and 240 million who ought to be at school are not.

Another dimension of poverty shown by the paper - and this is where the environmental link becomes important - is the fact that the poor tend to settle in disaster prone areas, more vulnerable to floods and landslides, since these are often the only areas available to them. Further, the cultivation and grazing practices induced by conditions of poverty may make the poor more susceptible to drought and other natural disasters by decreasing the productivity of marginal lands which they cultivate of necessity.

At the national level, poverty and environmental degradation, may be aggravated in a macroeconomic context where"incomes are declining, investible resources are reduced, and the terms of trade are moving in an adverse direction". Sustainable development may thus require national and international policies that ensure stability, promote efficiency and reduce vulnerability.

Some of the underlying causes for the tenacious link between poverty and environmental degradation have been identified in this paper as a macro-economic environment in which growth and investment were constrained, as well as demographic development and issues of access to means of livelihood. The demographic focus highlights the impact of the rate of growth of population, as distinct from size, on the poverty environment syndrome. High rates of population growth strain the adaptive capacities of socio-economic systems and thus increase the vulnerability of the poor, and of the environment. Unequal access to natural resources and employment opportunities lead to poverty and the consequent environmental degradation, and in this paper issues of landlessness and declining access to common property resources have been shown as examples of the link between the two.

Programmes which simultaneously tackle both environment degradation and poverty must focus on the target groups of anti-poverty programmes and combine this with resource management initiatives of area development programmes. Some of the objectives of such an integrated programme are listed below:

1. The generation of remunerative employment and productive occupational opportunities (farm and non-farm) on a scale sufficient to take care of prospective increases in the labour force and to cover backlogs from the past;
2. The development of infrastructure, marketing systems, technology systems, credit systems, etc., to support this as also to ensure a widening of options for resource poor households;
3. Substantial increases in resource productivity and measures to ensure that the local population benefits in adequate measure from resource use;
4. Rehabilitation of degraded resources and policy measures to prevent unsustainable resource use.
5. Development of mechanisms for public participation, particularly by poor households, to ensure sustainable development.

The Preparatory Committee, which at its first session last August addressed this topic in a preliminary manner, will now be considering the sustainability of these various programmatic approaches bearing in mind the conceptual link between poverty and environment degradation and the need to coordinate them with sectoral programmes.

HOW UNCED CAME TO BE IN CONCHES

UNCED's good fortune in having been invited to pitch its tent on a patrician estate of 40,000 square meters in Conches onthe out skirts of Geneva is a spin off from a two-year legal battle between educational and banking interests vying for one of Geneva's choicest properties.

One spacious farmhouse ensemble circa 1810 built around a courtyard and an elegant turn of the century manor house have been artfully transformed into offices, in addition to which there are two smaller bungalow-type structures, but without the tenacity of Geneva University and the generosity of both theGeneva and Federal authorities, UNCED would never have had it.

Up to 1988 the International Management Institute (IMI)owned the entire property which includes two more large buildings some 200 meters away from what is now the UNCED cluster. At that point, it was decided that IMI would be merged with the International Management Development Institute in Lausanne, and the Conches property came on the market. The first bidder was the Group of Geneva Private Bankers and the Group of Geneva Credit Institutions which planned to establish an advanced banking school on part of the land with an option to undertake commercial building at a later stage. The University of Geneva then joined the fray invoking an article in IMI's Foundation Charter to the effect that the property should be used for an institute for industrial management, a condition which the banking groups did not fulfill. The University planned to offer an expanded MBA programme in public and private administration,but the distinctive aspect of its proposal was to create an International Environment Academy. This reflected the conviction of Professor Bernard Giovannini, vice rector of the University,that environment was an integral part of public and private management training. The Geneva authorities welcomed the idea of the Academy as serving to reinforce the city's claim to be the environment capital of Europe, and they intervened decisively to ensure that the magnificent Conches property would be saved for that purpose.

Meanwhile, the question had arisen as to where the UNCED Secretariat would be based. Among the countries expressing interest in hosting it, Switzerland had come forward with the Conches site, the Geneva authorities having agreed that UNCED would be a particularly appropriate temporary neighbour for the embryonic Environment Academy. In its bid, the Swiss Federal Government, besides offering the premises rent free and underwriting utilities and maintenance costs, noted the cluster of environment-oriented organizations already located in or around Geneva. In April 1990, the General Assembly voted to accept the Swiss offer, setting the stage for a most cordial relation between UNCED and its hosts.

district up to the provincial, regional and national level is stressed. Finally it is proposed that governments may wish to consider the setting of specific targets to arrest and reverse deforestation and ensure conservation and development of forests.

Action at the International Level

While noting the creation of additional mechanisms in recent years intended to improve coordination within specific areas of forestry, the paper perceives the need for more effective coordination at the macro level. "In particular," it states, "the approaches followed on the negotiations on the climate convention and the convention on biological diversity must be harmonized with any potential instrument on forests."

A key consideration in any international mechanism for promoting forest conservation and development will be the magnitude of the financial resources required. In 1987 the FAO estimated the amount needed for forest development in developing countries at $13-17 billion per year. The UNCED document suggests that this matter could be discussed by the Preparatory Committee in the context of discussions on financial resources.

Undoubtedly the subject of most intense interest to be considered by the Preparatory Committee could be a possible international instrument for the conservation and development of forests. The Committee may wish to discuss the need for such an instrument and how it could provide the mechanism to address the problem of deforestation while including aspects of conservation and management of forests in developed and developing countries.

Among the key aims of such an instrument could be to ensure the incorporation of the concept of sustainable management of forests and its relation with food, fuel, shelter and timber; to provide a framework for increased national efforts and to bring together both the ecological and economic approaches to the use of forest resources; and to provide a mechanism to monitor implementation, to assess progress and to co-ordinate international action.

ONE WORLD GROUP OF BROADCASTERS

MASSIVE TV EFFORT IN SUPPORT OF THE EARTH SUMMIT PLANNED

A meeting of the One World Group of Broadcasters in Geneva from February 25-27 has led to a further crystallization of plans for an unprecedented campaign of TV programmes on development and environment to be broadcast in support of the **Earth Summit** in May1992. Made up of 28 companies covering Western and Eastern Europe, Japan and parts of Southeast Asia, as well as Brazil, the One World Group convened under the joint auspices of UNCED UNDP, UNEP and with the European Broadcasting Union as host. It was the third meeting devoted to preparations for the special effort,and at its conclusion Rolf Seelmann-Eggebert of the Norddeutscher Rundfunk, the founding chairman of the Group since its inceptionin 1988, stated that a core of some 20 films ranging in length from 30 to 90 minutes would be shown by all the members over a period of two to four weeks.

Among these would be seven 50-minute **"Developing Stories"** that have been selected from 80 projects that were submitted by directors in developing countries. Co-produced by BBC-Television and the Television Trust for the Environment in London, the series is seen by Mr. Seelmann-Eggebert as being unique in giving outstanding directors from developing countries an opportunity to make "powerful and passionate films about issues which they believe are important and which are seen from their perspective." Those chosen include dramas from Burkina Faso and the Philippines and documentaries from Brazil, China, India and Papua New Guinea.

"Happy Families", on the other hand, will focus on households in four developed countries as they try to change their lifestyles. They cut down on the use of private cars, relying instead on public transport. They save energy at home. They choose their daily diet more carefully. They start to sort out their garbage. The material from four networks is intercut to make a programme or series of programmes on the pain and joys of living an "environmentally friendly" life. Done with wit andhumour, it will illustrate the kind of choices that will increasingly face consumers as realization of the need for sustainable development takes hold.

Apart from the core films, there will be another 20 optional productions of international scale and an as yet undetermined number of nationally produced programmes. All the films will be intended to stimulate interactive viewing and a sense of involvement with efforts to find solutions for the problems portrayed.

The participation of developing country TV companies is sought even if they cannot pay normal fees.* Educational materials will be available by January 1992 in the form of teachers' videos and viewers' packs. Cooperation between the One World Group and NGOs will be promoted at an NGO workshop in Paris in mid-April.

In addressing the February meeting, Nitin Desai, DeputySecretary-General of UNCED, welcomed the initiative of the OneWorld Group. He called on the broadcasters to focus on the linkages between development and environment and underlined the need to aim their programmes at the younger generation "those people who will be responsible for implementing Agenda 21 once itis adopted at the Conference.

"The earth is not something we inherited from our forefathers but something we borrowed from our children", he said.

The next meeting of the One World Group on the May 1992 undertaking will be in May of this year in Warsaw.

** Mr.Seelmann-Eggebert can be contacted at NDR, Gazellenkamp 57, 200 Hamburg 54, fax 040 560 4579.*

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MEDIA OFFICE - SERVICE DE PRESSE

5 June 1991

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SWEDEN, HOST TO 1972 ENVIRONMENT CONFERENCE, "PASSES THE TORCH" TO BRAZIL, SITE OF 1992 CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

Ingvar Carlsson, Prime Minister of Sweden, which hosted the United Nations Conference on the Human Environment in 1972, Fernando Collor, President of Brazil, where a year from now the United Nations Conference on Environment and Development (UNCED) will be held, and Maurice Strong, Secretary-General of both conferences, today (June 5) signed a joint declaration "solemnly pledging to spare no effort to make the UNCED conference a success."

The signing of the declaration was the highlight of a "passing the torch" ceremony held in Stockholm in the presence of His Majesty King Carl XVI Gustav and Queen Silvia on the occasion of World Environment Day.

The text noted that the results of the 1972 conference "were of capital importance. The Stockholm Declaration laid down principles for the responsibilities of states which have never been challenged. The environment was firmly placed on the international agenda and its relationship to development acknowledged. The United Nations Environment Programme was created. Important conventions were signed in the follow-up to the Conference. A new awareness of the fragility of the world's ecological system began to influence minds and policies."

Looking ahead to the UNCED Conference in June 1992, it stated that the world today was "very different from that of 1972. Tremendous political and economic changes have taken place. But the impact of the Stockholm Conference has been felt throughout the period; environmental damage at the local and regional level has been checked in many parts of the world, where progress, wealth and advanced technologies allowed countries to take effective action."

However the declaration warned that "all these efforts cannot conceal the fact that the planet's future is still at risk. Over the last decade, new and global threats have been perceived: ozone layer depletion, climate change, pollution of the oceans at a global scale, reduction of biological diversity and degradation of land resources.

"The realization of those problems, whose consequences go far beyond national boundaries", the declaration contends, "leads to the realization of a sense of common responsibility toward the conservation of the planet's environment. The international community has to act as one and tackle those problems in all their interrelated aspects if we are to keep alive the hope of a better environment for the generations to come."

Need for Global Development Action Stressed

"Furthermore, we have begun to understand better that global environment action requires global development action. Poverty is in itself both a cause and a consequence of environmental deterioration. The gravity of the detrimental effects of this vicious circle is particularly evident in the fast-growing cities of the developing world, in which living conditions have been continuously deteriorating, sometimes to levels well below the minimum requirements of human dignity. Individual responsibility for the environment, which is the basis for efficient action, cannot be expected from men and women who see no hope of a better life. Solidarity at the international and national level is a prerequisite for sustainable development."

Explaining the genesis of the UNCED Conference, the declaration states "Following the 1987 report of the World Commission on Environment and Development, all these strands came together in the resolution by the United Nations General Assembly to convene the UNCED Conference in Rio de Janeiro in June 1992. If the Stockholm Conference consolidated the inclusion of the environment in the international agenda, the Rio de Janeiro Conference is to be seen as a bridge between global environmental concerns, the many different initiatives already under way to face them and a joint and concerted action by the whole international community, aimed at the promotion of new and environmentally sound models of economic development."

"The unique amplitude and comprehensiveness of the agenda set forth for the 1992 Conference stand as a signal of the high hopes of the whole international community", the declaration affirms.

In conclusion, it sounds a note of promise for the future. "As the torch is now being passed from Stockholm to Rio de Janeiro, from the Baltic to the Atlantic, from North to South, Sweden and Brazil are united in a joint commitment to the cause of environment and development. The President of Brazil and the Prime Minister of Sweden together with the Secretary-General of the UNCED Conference solemnly pledge to spare no efforts to make the Conference a success and to cooperate closely in order to achieve decisions on concrete action in Rio de Janeiro. The conference is firmly placed in the perspective of the 21st century. On this World Environment Day 1991 we look towards the UNCED Conference as the dawn of a new era of international cooperation, a global partnership for environment and development."

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EARTH SUMMIT NEWS

Rio de Janeiro, 1-12 June 1992

IN OUR HANDS **JULY 1991, NO.2**

AN IDEA WHOSE TIME HAS COME

by Maurice F. Strong, UNCED Secretary-General

In the past few months, I have been travelling extensively to North, South, East and West. Among the highlights were the seminar on the themes of Earth Summit convened by the Prince of Wales on the Britannia at the mouth of the Amazon in April, the OAU Summit Meeting in Abujah, Nigeria and a "Passing the Torch" ceremony at Stockholm on World Environment Day in which Prime Minister Carlsson of Sweden and President Collor of Brazil affirmed the links between Stockholm '72 and Rio '92. I also participated in the Hansa Environment Conference in Helsinki, a public forum in Moscow organized by The Centre for Our Common Future and a ministerial-level consultation in Beijing. In a particularly active week in Japan in July, I was impressed and encouraged by the mounting tide of interest in tackling environmental and development problems that I encountered at the highest political levels on a completely non-partisan basis, in business and non-governmental circles and in the media. There are encouraging signs that Japan with its technological progress, its excellent domestic environmental record, its financial clout and its determination to excel in things pacific is primed for a key leadership role at the Earth Summit.

My visit to Brazil gave me a chance to check on preparations for our Conference. I was impressed by what I saw. Brazil and Rio are sparing no effort to make the Earth Summit a unique event. Our Brazilian hosts are planning to receive some 6,000 participants including NGO and media representatives while estimates for the parallel NGO Citizens Conference are 3,500. This would make it the largest United Nations related gathering ever. It is also shaping up as the largest earth summit ever with at least 100 Heads of State expected. Pele, the legendary Brazilian soccer star, has agreed to act as a green ambassador to visit 35 countries before the Conference, explaining why the Earth Summit will be so important, especially to the young. Everywhere I went in Brazil, I was struck by an infectious desire to be part of the event. There was already excitement in the air. The welcome mat will be out for us all.

The main impression I have from all my travels and consultations is a tremendous upsurge of hope and expectation with regard to the Earth Summit. The mutuality and complementarity of environment and development is a concept whose time has come. There is growing recognition on the part of political leaders at all levels and in all regions that, as my friend James Gustave Speth of the World Resources Institute told the Senate Committee on Foreign Relations in May, "the 1992 Earth Summit presents an extremely important once-in-a-generation opportunity for the world community." And as the Conference approaches, this realization will certainly take hold on a much wider basis. Thanks in large part to the catalytic activity of non-governmental organizations, we can look forward to a mounting groundswell of support from the grass roots for the objectives of the Earth Summit.

But what will Earth Summit's objectives be?

The last session of the Preparatory Committee was of particular importance because it marked the transition from analysis of issues to the identification of areas for action. The upcoming one in August will see the fashioning of Agenda 21, with the specific action proposals to be presented to the Conference itself. The specific programmes and policy guidelines which it contains will have well-defined goals and a structure of responsibility and accountability for reaching these goals together with estimates of costs and a time profile for implementation of the measures set out. Perhaps its salient characteristic is its practical recognition that the world is "a seamless web of interacting parts" through its emphasis on linkages - those that are sectoral (e.g. energy and climate), those that span over-arching spheres (environment and development) and those of still broader scope, such as between economic efficiency and social equity. The dozen Agenda 21 documents represent the distillation of a prodigious volume of inputs from many different sources and point up the important linkages amongst the key issues. *(Continued on next page.)*

Agenda 21 might on first glance seem little different from the action plans endorsed by past United Nations Conferences. Like those, it will be non-binding in the legal sense. But with the high-level political sanction it will receive at the Conference its potential for influencing and guiding the subsequent policies and programmes of governments and organizations charged with implementing it will be substantial. This will be significantly enhanced by certain key differences from the standard action plan - differences in format and manner of presentation dictated by the exigencies of Resolution 44/228, the "source resolution" for the Earth Summit, subsequently reaffirmed by the Preparatory Committee. These requisites are:

(i) That the environment and development aspects of each issue must be dealt with on an integrated basis;

(ii) That cross-sectoral aspects of each issue must be examined separately and the results of these reflected in the comprehensive consideration of cross-sectoral issues;

(iii) That the important linkages between each issue and other issues which affect or are affected by it must be identified in each case and its implications made clear.

Here I would like to interject a word of explanation about the role of computerization in Agenda 21 because I have sensed certain misgivings on this score. Our purpose here is purely to use the capabilities of the computer and telecommunications to facilitate presentation of the content of Agenda 21 and dissemination of information concerning it as well as to render it as useful as possible to all the actors and constituencies that are concerned with its implementation. At the touch of a key, for example, an industrialized country will be able to call up a precise statement of what Agenda 21 asks it to do with respect to a given sector or group of sectors. Or, taking a given sector, one can instantly see what various types of actors are committing themselves to.

Agenda 21's usefulness could, moreover, extend beyond the Earth Summit itself. If governments so decide, it could provide a means of monitoring and reviewing implementation of decisions taken at Rio. It could give guidance to all the actors concerned in the on-going decisions that they are called upon to take in the period up to 2000 and beyond in furtherance of Agenda 21's objectives.

Thus this third meeting of the Prepcom will represent a particularly crucial acceleration of the considerable momentum that has already built up for the preparatory process.

DEEPER GRASP OF POSITIONS SEEN IN CLIMATE CHANGE NEGOTIATIONS

The results of the June session of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change gave rise to varying perceptions.

Jean Ripert (France), the chairman of the Committee, told a windup press conference on June 28 that the main result had seen a deeper grasp on the part of all 125 participating countries of the issues and positions of importance to the main actors in the negotiations, especially the developed countries. "We are on our way" he stated. "What was said among the delegates in their unofficial consultations was more important than what was written". Mr. Ripert, who for many years was United Nations Director General of the organization's economic and social programmes, was confident that a convention to which would be attached precise commitments on such matters as the level of CO2 emissions would be ready in time for the Earth Summit.

He viewed the "pledge and review" approach advocated by several developed countries such as Japan and the United Kingdom as a modus operandi that could serve as a compromise between developed countries in Europe and the United States. Under this formula countries do not initially negotiate with one another, but individually announce what they intend to do subject to later review.

On the other hand, Paul Hohnen of Greenpeace in his press conference detected no progress in comparison with the Committee's preceding session in February. He charged that some countries had "flirted with retreat" from earlier positions.

"Overall, we are back to where we were six months ago", he asserted, ruling out developing country support for a convention until "the principal polluters are seen to be moving".

He did not share Mr. Ripert's confidence in securing commitments, especially from the United States, given what he viewed as the absence of change in US opposition to CO2 reduction. Indeed, he found the administration even more resistant to accommodation on this matter than before.

EARTH SUMMIT NEWS IN JAPANESE

Kyoto Forum, a Japanese NGO, has taken the initiative of printing 10,000 copies of the first issue of Earth Summit News in Japanese for distribution to its membership. Fumihiko Nishioka, the organization's programme director, explained "in this way we will reach nearly all our 1.5 million members who constitute a very well informed group with high commitment to environmental and development goals. They will thus better be able to understand the issues at the Earth Summit and grasp the importance of the preparatory process leading up to it". Mr. Nishioka noted that it was the first time that Kyoto Forum has given such wide distribution to a newsletter related to a United Nations conference.

SECOND PREPCOM IDENTIFIES AREAS FOR ACTION

Working Group I

Among the topics considered by Working Group I, chaired by Ambassador Bo Kjellen (Sweden), the issue that gave rise to the most protracted discussion was **forests** (A/CONF.151/PC/27 and Corr.1). While a number of countries felt that early action should be taken to start negotiations on an international agreement on this subject, others considered that the various options needed further clarification before final decisions were taken. An ad hoc sub-group was formed to discuss the whole subject and ultimately a draft decision was submitted to the full Working Group and adopted. This requests the Secretariat to provide considerably more information for the third session of the Preparatory Committee including "an analysis of the impact of the loss of boreal, temperate, sub-tropical and tropical forest world-wide on global environmental degradation as well as an analysis and quantification of the economic values of these types of forests". Working Group I will then "be in a position to examine all steps towards and options for a global consensus on the management, conservation and development of all types of forests." The Chairman commented that this decision marks an important step forward in the international discussion on the entire range of development and environment problems related to forests.

Another important issue discussed in Working Group I was **climate change**. Drawing on the two documents prepared by the UNCED Secretariat, one a synthesis paper (A/CONF.151/PC.22) and the other a report on the costing exercise (A/CONF.151/PC.23), speakers noted that a new situation had been created by the establishment of the Intergovernmental Negotiating Committee (INC) whose purpose is the negotiation of a framework convention on climate change. The need for close cooperation between the INC and the Preparatory Committee was stressed by many speakers and was explicitly included in the decision that was adopted. This asked the UNCED Secretary-General to continue to monitor the ongoing processes, to provide guidance on the issues that are central to the Conference and in particular to investigate further the linkages between the issue of climate and others such as forests, biodiversity, oceans and agriculture. He was moreover requested to prepare action proposals on sustainable policies in sectors based on work on these linkages, such as energy, transport, agriculture and industry. Finally, the decision requested him to continue to monitor the major intergovernmental activities in the area of atmosphere and climate change, and to report to the Preparatory Committee at a future session.

Emphasis on the need for cooperation with a negotiating process was also evident in the discussions in Working Group I on **biological diversity**, i.e. life forms in all their variety. The Secretary-General of the Conference was requested to maintain the close links already established between the Secretariat and the negotiating process being carried out on a convention on biological diversity under the auspices of UNEP. He was further requested to transmit a copy of his Progress Report (A/CONF.151/PC/28), together with the decision of the Preparatory Committee, to the Chairman and the secretariat of the negotiating process and to report on the progress of the negotiations at the next session of the Preparatory Committee in August of this year.

The decision goes on to request the Secretary-General of the Conference to investigate further and to report to the Preparatory Committee at that session on the operational requirements for the conservation and sustainable use of biological resources and on the relationships between biological diversity and the relevant aspects of biotechnology, as well as with climate change and forests. The views of the Preparatory Committee on a range of cross-sectoral issues are to be taken into account in this work.

The same Working Group considered the related subject of environmentally sound management of **biotechnology**. A progress report submitted by the Secretariat (A/CONF.151/PC/29) focused on the issues of risk assessment and risk management as well as and on the promotion of a wide range of biotechnology applications including control of pests and diseases and biomass production. Given the linkages to the negotiation of a convention on biological diversity, the decision asks that the report be transmitted to that negotiating process. It also requests the Secretariat to investigate further the potential areas of action in the light of the comments made on the progress report so that the Preparatory Committee can have a full discussion of the environmentally sound management of biotechnology at its next session.

The issue of **soil loss** was handled expeditiously. The decision that was adopted after brief discussion notes with satisfaction the Secretariat's reports on the protection and management of land resources (A/CONF.151/PC/24 and A/CONF.151/PC/25) and welcomes the proposals they contain for the development of an integrated approach to the protection and management of land resources and for alternative systems of production. The Secretary-General of the Conference was requested to develop them in greater detail for the next session. He was also asked to prepare for that session a report on the role of financing institutions in the development of sustainable agriculture. Of particular importance was the request that he forward the two UNCED documents mentioned above to the major FAO/Netherlands Conference on Agriculture and Environment which was held in mid-April at Herzogenbosch's. Indeed one of the UNCED documents (A/CONF.151/PC/26) was devoted to a progress report on preparations for that conference. The Secretariat will report on the results of that conference at the next meeting of the Preparatory Committee.

Working Group II

In addressing the issue of the **environmentally sound management of wastes**, particularly hazardous wastes (A/CONF.151/PC/34), Working Group II, chaired by Dr. Bukar Shaib (Nigeria), tackled a problem of particular relevance to developing countries as they strive to cope with an exponential increase in their urban concentrations in the decades ahead. Discussion on solid

(Continued on next page)

wastes and sewage-related issues centred on ways of diminishing the creation of these wastes through changes in lifestyles and consumption patterns. In the immediate, the challenge is to develop and make available technologies of waste treatment that are relatively inexpensive. The decision of this item mentioned inter alia "the need to promote information exchange on the siting and management of landfills, waste treatment centres, including waste incineration, methods for clean technologies, waste recycling and other relevant technologies." The Preparatory Committee calls upon the UNCED Secretariat to submit a report with recommendations "relating to a comprehensive review of existing difficulties encountered by developing countries in funding human waste treatment facilities and suggestions regarding ways and means of overcoming them."

As regards the quantitatively smaller but in some ways even more acute problem of **hazardous wastes**, such as those resulting from industrial activities, agriculture (pesticides) or medical centres (radioactive wastes), the decision accents the need for the "optimal use of existing and new technologies for clean production." It recalls an earlier recommendation of the Preparatory Committee urging early entry into force and full implementation of the Basel Convention on the transboundary Movement of Hazardous Wastes and their Disposal. At that time there were 10 ratifications with a further 10 needed to bring it into force. Similar support was expressed in the decision of the recent Bamako Convention, signed on 30 January of this year, on the Ban on the Import of all Forms of Hazardous Wastes into Africa. The decision flags the need for a protocol on liability and compensation to both instruments. Another priority underlined is the "need to help developing countries strengthen their financial and technical capacities, their institutions and personnel, *inter alia*, through appropriate training, for the management of their domestically produced hazardous wastes". At the same time, exporting countries are asked to fully assume their responsibilities towards transit and recipient countries and to adopt normative measures to protect the interests of all countries, particularly developing countries, against illegal or unwarranted export of hazardous wastes.

On **toxic chemicals**, the decision adopted by Working Group II asks the UNCED Secretary-General to elaborate for the Preparatory Committee's third session the potential areas for action proposed in the Secretariat's progress report for this session (A/CONF.151/PC/35) which would form the framework for an international strategy for environmentally sound management of toxic chemicals. The decision also cites the need to build upon and strengthen the existing FAO International Code of Conduct on the Distribution and Use of Pesticides. The Preparatory Committee invites WHO, UNEP and the ILO, in cooperation with the FAO and other relevant organizations, to report on ongoing work linked to possible proposals for an intergovernmental mechanism for chemical risk assessment and management.

Another key topic before Working Group II was the protection of **oceans, seas and coastal areas** as well as **the protection, rational use and development of their living resources**. Discussion was based to a large extent on the progress report submitted by the UNCED Secretariat (A/CONF.151/PC/30). This focused on four main areas: coastal development and closed seas, combining both development and environmental elements considerations; marine pollution both land-based and that generated by shipping and maritime operations; the conservation and sustainable use of living marine resources, e.g. fishing through an ecosystemic rather than individual species approach; and the impact of climate change on the seas, including the sea level rise, particularly as it affects low-lying countries.

The decision that was adopted requests UNCED's Secretary-General to present a comprehensive report for the Preparatory Committee's third session and to elaborate the potential areas for action proposed in the present report. It also adds new concerns such as "the need to articulate the linkages between environment and development, for example by exploring the relationship between trade and protection of living marine resources, taking into account regional ecological specificities and differences and to consider the impacts of tourism."

The main focus of the discussion of **freshwater resources** (A/CONF.151/PC/32) was on the International Conference on Water and the Environment to be held in Dublin in January 1992 and the UNCED input to it. This was reflected in the decision which flagged issues such as the need to support the efforts of developing countries, particularly those in arid and semi-arid areas such as the Sahel and small island states suffering from chronic water shortages, towards sustainable development and utilization of scarce freshwater resources including rainwater harvesting, water re-use and desalination.

Working Group III

Working Group III chaired by Bedrich Moldan (Czechoslovakia) was established and began work during the second session. Its tasks include preparing the Earth Charter, a statement of environment and development principles to govern the conduct of nations and people towards each other and the Earth which is intended to be signed at the Earth Summit, evaluating existing instruments in the fields of international environment law and examining institutional arrangements required for the effective implementation of the conclusions of the Conference in the UN system. The initial meetings of the working group were devoted to a general exchange of views and the adoption of the agenda for its next session.

In a number of sectors the PrepCom asked the secretariat to elaborate on its proposals or provide further information; meeting these requests and at the same time producing the separate series of Agenda 21 papers has resulted in an unusually large volume of documentation for the third session - 52 documents, double the number for the previous session. By the fourth session (March 92) the primary focus will be on the action component of Agenda 21.

LIST OF DOCUMENTS FOR THIRD PREPCOM

A. Plenary

1. Adoption of the Agenda and other Organizational Matters. Annotated Provisional Agenda (A/CONF.151/PC/39)
2. Note by the secretariat transmitting part A of the Resolution 1 (XI) adopted by the Intergovernmental Committee on Science and Technology for Development at its eleventh session (A/CONF.151/PC/40)
3. Report of the Secretary-General on Activities of the Conference Secretariat (A/Conf.151/PC/41) (Agenda Item 2 A and B for third session of PrepCom)
4. The structure and orientation of Agenda 21 (A/CONF.151/PC/42)
5. Organizational Issues for the 1992 Conference (Agenda Item 2 D for third session of PrepCom) (A/CONF.151/PC/43)
6. Recommendations of the Regional Commissions (in response to decision 1 of Organizational Session of PrepCom) (Agenda Item 2 B for third session of PrepCom) (A/CONF.151/PC/44)
7. International Trade and the Environment (prepared by UNCTAD) (GA resolution 45/210 of 21 December 1990) (Agenda Item 2 B for the third session of PrepCom) (A/CONF.151/PC/48)

The following eleven reports address Cross-Sectoral Issues (Agenda Item 2 C for third session of PrepCom)

8. Poverty and Environmental Degradation (decision 1/25 of first session of PrepCom) (A/CONF.151/PC/45)
9. Relationship between demographic pressures, unsustainable consumption patterns, lack of growth and environmental degradation (decision 1/25 of first session of PrepCom) (A/CONF.151/PC/46)
10. International Economy and the Environment: Issues for discussion (A/CONF.151/PC/47)
11. Environmental Accounting (decision 1/25 of first session of PrepCom) (A/CONF.151/PC/49)
12. Economic Instruments (decision 1/25 of first session of PrepCom) (A/CONF.151/PC/50)
13. Financial Resources (decision 2/6 of second session of PrepCom) (A/CONF.151/PC/51)
14. Science for Sustainable Development (decision 2/6 of second session of PrepCom) (A/CONF.151/PC/52)
15. Technology Transfer (decision 2/6 of second session of PrepCom) (A/CONF.151/PC/53)
16. Environmental health aspects of development (decision 2/6 of second session of PrepCom) (A/CONF.151/PC/54)
17. Environmental Education (decision 2/6 of second session of PrepCom) (A/CONF.151/PC/55)
18. Human Settlements (decision 2/6 of second session of PrepCom) (A/CONF.151/PC/56)

B. Working Group I

Protection of the Atmosphere

1. Climate Change (decision 2/8 of second session of PrepCom) (A/CONF.151/PC/57)
2. Ozone Depletion (decision 2/8 of second session of PrepCom) (A/CONF.151/PC/58)
3. Transboundary Air Pollution (decision 2/8 of second session of PrepCom) (A/CONF.151/PC/59)
4. Sectoral Issues (decision 2/8 of second session of PrepCom) (A/CONF.151/PC/60)
5. Atmosphere: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.1)

Protection and Management of Land Resources

6. Agriculture, Environment and Development (decision 2/11 of second session of PrepCom) (A/CONF.151/PC/61)
7. Desertification (decision 1/15 of first session of PrepCom) (A/CONF.151/PC/62)
8. Integrated Management of Land Resources (decision 2/11 of second session of PrepCom) (A/CONF.151/PC/63)
9. Land: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.2)
10. Forests: Background (decision 2/13 of second session of PrepCom) (A/CONF.151/PC/64)
11. Forests: Principles (decision 2/13 of second session of PrepCom) (A/CONF.15/PC/65)
12. Forests: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.3)

Conservation of Biological Diversity

13. Biodiversity: Background (decision 2/9 of second session of PrepCom) (A/CONF.151/PC/66)
14. Biodiversity: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.4)

Environmentally Sound Management of Biotechnology

15. Biotechnology: Background (decision 2/10 of second session of PrepCom) (A/CONF.151/PC/67)
16. Biotechnology: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.5)

C. Working Group II

Protection and Management of Oceans, Seas, Coastal Areas and the protection and rational use and development of marine living resources

1. Oceans: Coastal Development and Enclosed Seas, Marine Pollution, Living Marine Resources, and Impacts of Climate Change (decision 1/20 of first session of PrepCom) (A/CONF.151/PC/69)
2. Oceans: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.6)
3. Global Ocean Observing System (decision 1/20 of first session of PrepCom) (A/CONF.151/PC/70)
4. Land-based sources of marine pollution (decision 2/18 of second session of PrepCom) (A/CONF.151/PC/71)
5. Environmental Assessment of the Gulf Crisis (decision 2/18 of second session of PrepCom) (A/CONF.151/PC/72)

Protection of the quality and supply of Freshwater Resources

6. Freshwater: Background (decision 2/20 of second session of PrepCom) (A/CONF.151/PC/73)
7. Freshwater: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.7)

Environmentally sound management of wastes, particularly hazardous wastes and of toxic chemicals and prevention of illegal international traffic in toxic and dangerous products and wastes

8. Toxic Chemicals: Background (decision 2/17 of second session of PrepCom) (A/CONF.151/PC/74)
9. Toxic Chemicals: Options for Agenda 21 (building block of Agenda 21 (A/CONF.151/PC/42/ADD.8)
10. Hazardous Wastes: Background (decision 2/15 of second session of PrepCom) (A/CONF.151/PC/75)
11. Hazardous Wastes: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.9)
12. Solid Wastes: Background (decision 2/16 of second session of PrepCom) (A/CONF.151/PC/76)
13. Solid Wastes: Options for Agenda 21 (building block of Agenda 21) (A/CONF.151/PC/42/ADD.10)

D. Working Group III (decision 2/3 of second session of PrepCom)

1. Survey of existing agreements (A/CONF.151/PC/77)
2. Elements for the Earth Charter (A/CONF.151/PC/78)
3. Progress Report on transboundary waters (A/CONF.151/PC/79) (decision 2/20 p of second session of PrepCom)
4. Institutional Issues (A/CONF.151/PC/80)

RIO BRIEFS

Hotel prices in Rio during the Earth Summit will be divided into 4 categories ranging from US $35 to 140 per day. The Brazilian Association of Hotel Industries stresses that reservations accompanied by an advance deposit should be made **at least three months before the Conference**. Requests should be forwarded to either of the following addresses to the attention of **The housing committee**.

- *In Rio de Janeiro:*
  RIO 92
  Rua Pacheco Leao, 915
  22462 Rio de Janeiro R.J.
  Tel: (21) 294 7722
  Fax: (21) 294 9897 - Telex: (21) 30008
- *In Brasilia:*
  Carlos M. Garcia
  Secretaria de Administraçao
  Esplanada dos Ministerios
  70150 Brasilia D.F.
  Tel: (61) 211 1460/211 1462
  Fax: (61) 226 5636 - Telex: (61) 1451

– A transatlantic liner with 600 cabins for 800 passengers will be anchored in the port of Rio to serve as an alternative to first-class hotels in the city.

– Indian nations from all over the world will be represented in an Indian village to be created in Rio's celebrated Tijuca Forest during the conference.

MEDIA ACCREDITATION

Application forms can be obtained, **after 15 January 1992**, from:

- Media Accreditation and Liaison for UNCED
  Department of Public Information / United Nations
  Room S-250 - New York, NY 10017, USA
  Tel. 212/963-6934
- Media Liaison Officer, UNCED Secretariat
  Case Postale 80, CH-1231 Conches, Switzerland
  Tel. 41-22/789 1676 - Fax 41-22-789-3536
- UN Information Centres and field offices of the UN Development Programme worldwide

Completed forms, together with a letter of assignment on official letterhead from the Editor or Bureau Chief, should be mailed, **before 30 April 1992**, to:

- Media Accreditation and Liaison for UNCED
  Department of Public Information / United Nations
  See above

After 30 April 1992

- Media Accreditation Officer for UNCED
  UN Information Centre / Palacio Itamaraty
  Av. Marechal Floriano 196
  20060 Rio de Janeiro, Brazil

DPI will notify applicants if accreditation has been approved. Information regarding accommodation and procedures for completing accreditation in Brazil will be forwarded at that time.

UNCED WHO'S WHO

LAWRENCE ANUKAM (Nigeria), was a principal environment scientist in the Department of Planning and Evaluation of the Federal Environmental Protection Agency. He joined UNCED as an associate adviser working in the area of global freshwater issues. He also assists the secretariat of the International Conference on Water and the Environment (Dublin, January 1992).

SHARON DUGUID (Canada), an associate adviser in the external relations unit, is responsible for environmental education and acts as a liaison officer for youth programmes. She was previously an independent consultant in both public and private sectors specializing in environmental policy, communication and education, wilderness preservation and management and species biodiversity.

TAHAR HADJ-SADOK (Algeria), principal adviser on economic issues, focuses on questions such as economic growth, consumption patterns, international economy and their relation to the environment. He is responsible for preparing the major symposium on sustainable development being organized by UNCED, UNDP and the Dutch Government in The Hague in November. He interacts with organizations of an economic character within the United Nations system and with international and regional financial institutions. Prior to joining UNCED, he was Chief, Fiscal and Financial Branch in the UN Department of Economic and Social Affairs in New York.

ANDREA PETZNEK (Austria), comes from Austrian Ministry for Environment where she specialized in national legislation and implementation of international legal obligations. She is now working as an associate adviser with the principal programme officer for legal matters, focusing in particular on the evaluation of existing international agreements in the environmental field.

DARIUSZ PRASEK (Poland), joined UNCED as an associate adviser specializing in solid waste management, hazardous waste treatment and transfer of technology. Before he was executive director of the International Environmental Service Centre in Poland. Previously he had been on the faculty of the Institute of Environmental Engineering at Warsaw University of Technology.

Two specialists on loan from other organizations.

ANNE PARK (Canada), has been made available by the Canadian Finance Ministry where she was a Director General, with the cooperation of the World Economic Forum. She advises the Secretariat on economic and fiscal measures, focusing on pricing mechanisms, environmental taxes and other economic instruments as well as related international finance and trade measures for achieving environment and development objectives.

NICHOLAS SONNTAG (Canada), is senior partner in a consulting firm in Vancouver and Toronto (ESSA Ltd.) which specializes in the development, implementation and evaluation of resource management strategies and policies for development issues in domestic and international contexts. He was on a leave of absence with the International Institute for Sustainable Development (IISD) in Winnipeg who made him available to UNCED in April to work on the question of linkages between issues and on the presentation of the output of the Conference.

BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT (BCSD) AT FULL STRENGTH

The Business Council for Sustainable Development, a blue-ribbon group of 50 eminent business leaders from all regions of the world, held its first meeting in April in The Hague under the chairmanship of Stephan Schmidheiny, the Swiss industrialist. In September of last year, Dr. Schmidheiny was appointed by Maurice Strong as his Principal Advisor for Business and Industry with the primary task of promoting a clear understanding of and commitments to environmentally ***sustainable development*** within the private sector at the highest corporate level. He is also mandated to challenge business to examine its own performance in progressing towards this goal on a global basis.

In the past eight months Dr. Schmidheiny, who expanded his family's construction materials firm into a diversified company with a wide range of manufacturing activities, has devoted most of his time to the Business Council recruiting like-minded chief executive officers and board chairmen to serve with him, launching the Council's programme, meeting with captains of industry to obtain their support and involvement in promoting sustainable industrial development, and together with them identifying and defining what this concept implies at the enterprise level. In his emissarial role, he keeps boardrooms informed as to the decisions and recommendations of the Preparatory Committee which may have an impact on international business; at the same time he provides guidance to Maurice Strong on initiatives and activities undertaken by business during the preparatory process for the Earth Summit.

At the April meeting the Council members endorsed the BCSD's mission and adopted a work programme including *inter alia* full cost pricing of natural resources, trade and environment technology cooperation, optimal products and manufacturing processes, corporate governance, and economic and development issues. In addressing the meeting, Mr. Strong stressed the role of the business community as a whole in achieving sustainable development and the particular contribution that he was confident would be made by the Council.

The BCSD has established a full-time professional secretariat headed by the Hon J. Hugh Faulkner and located in the World Trade Center in the Geneva Airport complex.

The next meeting of the Council will be hosted by Dupont in Wilmington in November. Meanwhile a liaison group composed of senior corporate officers designated by the Council members met in Geneva from 19-21 June to review the BCSD work programme, including case studies on sustainable development.

The members of the Council are: Stephan **Schmidheiny** (Chairman), UNOTEC, Zurich; Torvild **Aakvaag**, Norsk Hydro, Oslo; Naim Abou-Taleb, Mohandes Bank, Cairo; Percy **Barnevik**, ABB Asea Brown Boveri, Zurich; Eliezer **Batista**, Rio Doce International, Rio de Janeiro; Ignacio **Bayon**, Espasa Calpe, Madrid; Gabriele **Cagliari**, ENI Ente Nazionale Idrocarburi, Rome; Eugenio **Clariond Reyes**, Grupo IMSA, S.A., Monterrey (Mexico); Roberto **de Andraca**, CAP Compañia de Acero del Pacifico, Santiago de Chile; Edouard **de Royere**, L'Air Liquide, Paris; Kenneth T. **Derr**, Chevron Corporation, San Francisco; Maurice R. **Greenberg**, American International Group Inc., New York; Carl **Hahn**, Volkswagen AG, Wolfsburg; Paul **O'Neill**, Alcoa, Pittsburgh; James **Onobiono**, La Compagnie Financière et Industrielle, Douala; Anand **Panyarachun**, Saha Union Corp. Ltd., Bangkok; Frank **Popoff**, Dow Chemical Company, Midland; Fernando **Romero**, International Machinery Co., La Paz; William D. **Ruckelshaus**, Browning-Ferries Industries, Houston; Mrs. Elisabeth **Salina Amorini**, SGS Société Générale de Surveillance, Geneva; Helmut **Sihler**, Henkel KGaA, Duesseldorf; Paul G. **Stern**, Northern Telecom Ltd., Mississauga (Canada); Ratan **Tata**, Tata Industries Ltd., Bombay; Lodewijk Christian **Van Wachem**, Royal Dutch Shell, The Hague; Sir Bruce **Watson**, Mount Isa Mines Pty Ltd., Brisbane; Edgar S. **Woolard**, E.I. Du Pont de Nemours, Wilmington; Toshiaki **Yamaguchi**, Tosoh Corp., Tokyo; Federico **Zorraquin**, Grupo Zorraquin, Buenos Aires.

Case study: Coastal Forests in Brazil Reclaimed

This case study, one of 60 being prepared by the Council, describes how Aracruz Celulosa, the world's largest exporter of bleached eucalyptus pulp, successfully introduced a large-scale sustainable development project encompassing its own planted forests, pulp mill and port into an area of southeastern coastal Brazil that had been suffering from severe economic stagnation.

In 1967 when the company, in cooperation with the National Government and the State of Espirito Santo, launched an ambitious forestation programme aimed at meeting 100% of its wood needs, large sections of the area were deforested and had been clear cut.

On the extensive acreage it had acquired, Aracruz started developing and then cloning a fast growing species of eucalyptus tree which reached maturity in just seven years. Remaining forests of native species (27% of the land purchased) were set aside for preservation. A million and a half trees, including 60,000 fruit trees, were replanted.

Beginning in 1975 the company undertook construction of a large pulp mill - 500,000 metric tons of product per year - which matched environmental standards in Europe and North America. The company also built a specialized port to handle exports and a network of roads which are also available to the public. They replant 100,00 eucalyptus seedlings and rooted cuttings each day and harvest sufficient eucalyptus to meet all of their needs. No native species are cut.

The plant was so successful that a second unit has now been added for a total production of 1,025,000 metric tons per year. The company has invested $ 15 million in four recreational centres, six elementary schools, three vocational training centres, three hospital additions and five health care clinics. These facilities are available to the community at large as well as to company employees.

This case offers the following insights:

1. Enlightened environmental stewardship can be combined with corporate profitability.
2. The most effective antidotes to socio-economic and environmental problems are as multi-dimensional and inter-related as the issues themselves.
3. Partnership between government and the private sector is most effective if each partner focuses on what he is best equipped to contribute.

WOMEN AND CHILDREN FIRST

An UNCED/UNICEF/UNFPA symposium on "Women and Children First" held in Geneva (May 27-30) which benefited from major financial support from the governments of Denmark and the Netherlands, underlined the key contribution that these two groups could make to sustainable development, and stressed the need to take full account of their interests in formulating development and environmental strategies, particularly those that might emerge from the Earth Summit.

Eighty-eight participants (experts from developing countries, UN officials and NGO representatives), noted that women and children are disproportionately represented among the victims of environmental degradation and poverty.

Yet speakers repeatedly called attention to the conspicuous absence of women from key decision-making fora with the result that the human and social dimensions of development issues were not receiving the important attention they deserved. A key decision adopted by the symposium states that "gender issues should be addressed at UNCED as a distinct topic in addition to being horizontally integrated into all discussions. Furthermore, representation at UNCED meetings, in all technical working groups and delegations should be gender balanced and proportional representation should be recommended as a requirement for programmes proposed under the Earth Charter and Agenda 21." Moreover, arguing that "to date no organization deals adequately with environmental issues as they affect women and children," the symposium recommended that whatever institutions might be set up as a sequel to the Earth Summit should include a monitoring mechanism to ensure the integration of women and children in environmental and developmentally linked activities.

Among the pervasive macro trends addressed by the symposium was the negative impact of consumption patterns of the North on environmental destruction and poverty in the South to the detriment of women. A strong view was expressed that if development is to be sustainable, it is necessary to focus more on the resource users — human beings — than on the resources alone. Concern was also expressed at the tendency to proceed from recognizing the impact of population pressures on the environment to blaming women's fertility for environmental degradation whereas this is in fact a resource issue. A number of speakers noted that in many parts of the world, it is not the number of people, but how they consume resources and relate to their environment that is paramount.

Dr. Filomina Steady, UNCED's special adviser on women's issues, stated that the convening of such a wide-ranging symposium so early in the preparation for the Conference would give governments ample opportunity to take account of its recommendations. "There is every reason for us to believe that at the Earth Summit, women and children will indeed be first", she said.

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Issue of NGO participation in PrepCom settled

In an important decision at the outset of its deliberations, PrepCom II adopted by consensus a proposal put forward by its chairman Tommy Koh for determining the basis for non-governmental organizations participation in the work of the PrepCom. In the first meeting of the PrepCom, in August 1990, the agreed criteria had been "competence and relevance" without specifying how this determination would be made. The Preparatory Committee decision vested responsibility in the Conference Secretariat for recommending accreditation to the Preparatory Committee which will decide on all cases within 24 hours of the Secretariat's recommendations being made available to delegations. Where accreditation is not granted, the Preparatory Committee would be expected to state its reasons. In practice, during the March session, all 193 NGOs recommended for accreditation were approved.

New Logo Available for NGO Use

The new logo for the Earth Summit appearing in this issue of **Earth Summit News** was developed in conjunction with Dentsu Inc, a Tokyo advertising agency which donated its services and all rights to the logo to UNCED.

NGOs accredited to UNCED are free to use it without prior request, but should include the following disclaimer: "The use of the UNCED logo/slogans does not necessarily constitute UNCED endorsement of the programme or specific purposes of the organization involved". Those that are not, must ask UNCED for explicit permission. Finally, corporations and businesses should address themselves for information on using the logo in a commercial context to Ecofund '92 - 1709 New York Avenue, N.W. Suite 800, Washington DC - Fax 202-638 0016 (attention Ben Read).

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UNCED NETWORK NEWS

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UNCED

(For those unfamiliar with UNCED, this first section recaps key goals and outputs)

Deep concern over "degradation of the global life-support systems" drove the U.N. to convene an "Earth Summit" (the U.N. Conference on Environment and Development, UNCED), to be held in Rio de Janeiro, Brazil, in June 1992.

Heads of state and heads of government will gather to attempt to build political consensus for concerted global action on sustainable development.

The objectives of UNCED are fundamental to the mandate and work of the World Bank Group. Other participants recognize that the Bank has a comparative advantage in forging links between the environment and the development parts of UNCED's agenda. In the conference itself, the Bank will be represented by a high-level delegation, led by its president.

The Canadian Maurice Strong, UNCED Secretary-General, has proposed that UNCED's output be organized into six main components:

- An "Earth Charter", or declaration of basic principles for the conduct of nations and peoples with respect to environment and development.
- Agreements on specific legal measures, including conventions for the protection of the atmosphere and biological diversity.
- An agenda for action, "Agenda 21", establishing the environmental work program agreed by the international community for the period beyond 1992, and into the 21st century.
- New and additional financial resources.
- Transfer of technology.
- Strengthening of institutional capacities and processes.

National Reports

Each country will prepare a National Report on Environment and Development for delivery to UNCED's Secretariat late this summer. The reports will provide the Bank and others with a basis for extending the dialogue with governments on environmental issues, and to incorporate their results into the countries' Environmental Action Plans (EAPs). These Bank-required EAPs, which are expected to be completed, at the latest, by June 1993, will integrate environmental considerations into the country's economic and social development plans, and will form the basis of a comprehensive national environment policy. Bank staff will coordinate EAP activities with the UNDP resident representatives, who are responsible within the U.N. system for monitoring the preparation of UNCED National Reports by developing countries.

Preparatory Committee Meetings

As with any conference convened by the U.N., one of the first steps was the establishment of a Preparatory Committee (PrepCom) of the General Assembly, consisting of the member states of the U.N. and members of the specialized agencies. Other participants, including the "independent sectors" (NGOs and other private organizations), will also be represented at the conference and in its preparations. At the first meeting of UNCED's PrepCom held in Nairobi, Kenya during August, 1990, 76 member nations were present, plus a number of observers and 10 specialized agencies including the World Bank, ILO, WHO, and FAO. The second meeting of PrepCom was held in Geneva in March/April, 1991. The third and fourth meetings are scheduled for August, 1991, and April, 1992.

The UNCED Information System

The UNCED secretariat is developing an electronic information service as an important part of conference preperations. The UNCED Information Service (UIS) includes information about ongoing and planned activities, and conference documentation, categorized by issues and objectives.

"To pour out water is easy, to gather it up is difficult."

Old Chinese proverb

UNCED Second Preparatory Committee Meeting

PrepCom II

The second preparatory committee for UNCED (PrepCom II), met in Geneva in March/April, 1991, chaired by Ambassador Tommy Koh (Singapore). Present were representatives of 135 member countries and of all concerned U.N. agencies and, for the first time, a wide spectrum of NGOs.

This session marked the transition from issue analysis, which characterized the work of PrepCom I held in August, 1990, to identification of areas of action to be considered at PrepCom III in August, 1991.

An important outcome of this meeting was the establishment of working group III, to consider cross-cutting issues, including legal and institutional matters.

An International Facilitating Committee, for the "independent sectors" has been set up to:

a. Assist organizations and networks from the independent sectors to define their roles in respect to UNCED.

b. Promote their effective participation in the UNCED process.

c. Provide a forum for dialogue among the independent sectors.

d. Strengthen the capacity of the independent sectors to work globally on issues of sustainable development.

Another significant development in PrepCom II was the participation of the Business Council for Sustainable Development (BCSD), comprising some fifty top business leaders from both North and South whose goal is to provide leadership to the international business community in the area of sustainable development. The council's preparations for UNCED include documents on the role of the private sector in sustainable development, case studies of the private sector's success in sustainable development, and on the council's commitment to developing countries. Council representatives visited Washington on May 14, 1991, and met with International Finance Corporation staff to discuss BCSD's activities and explore ways in which the corporation could contribute to achieving its objectives.

PrepCom II Working Groups

Working Group I (chaired by Bo Kjellen, Sweden). Issues include forests, climate change, biodiversity/biotechnology, and sustainable agriculture/soil degradation.

- ***Forests***. Forests triggered sharp differences between developed and developing countries. Developing countries were doubtful whether a forest convention could be completed by the time of UNCED, and saw the burden of conservation on tropical forest countries as disproportionate. Led by Malaysia, they stressed the environmental importance of non-tropical forests, and the need for "new, additional, and concessional" resources for the protection of tropical forests. They argued for the recognition of the role that forests can play as a development resource, and called for a deeper analysis of these issues. A decision was approved calling on the secretariat to provide more information on all kinds of forests (not just tropical) and their environmental effect, for the next meeting of PrepCom.

Of particular relevance for the Bank is the likelihood that the Earth Summit will adopt resolutions calling for major donors to set up coordinated systems for monitoring resource bases, changes in stocks, and for increased use of economic tools both to conserve remaining natural forests, and to stabilize stocks of managed forests.

- ***Climate Change***. After intense debate a compromise decision instructed the secretariat to investigate further the links between climate and issues like forests, biodiversity, oceans and agriculture and, based on the findings, to prepare action plans in sectors such as energy, transport, agriculture, and industry. Delegates also agreed to continue to monitor ongoing activities in the areas of atmosphere and climate change, and report on all of these in the next session. This compromise recognizes both the primacy of ongoing technical negotiations, and the need for UNCED to keep abreast of new developments. At the same time, it shifts UNCED's focus away from climate

International Environment Policy Meeting

The Aspen Institute is organizing a meeting of senior international policymakers in Aspen, Colorado, from 18-28 July, 1991, in connection with UNCED.

This high-level working group will deal with institutional, legal, financial, and technological issues concerning the intensification of international cooperation on environmental and economic development policy. A similar and very successful program was conducted by the institute before the Stockholm Environment Conference in 1972, again in collaboration with Secretary-General Maurice Strong. Ms. Jane Pratt (UNCED Coordinator, EXTDR) and Mr. Francisco Sagasti (EXTDR) have been invited.

The working group's report will be presented on July 25-28, 1991, to a meeting of senior policymakers, including Mr. Ibrahim Shihata (LEGVP).

change *per se*, to an emphasis on the environmental and development consequences of climate change, and what actions are needed in various sectors.

• ***Biodiversity/biotechnology.*** The compromises reached in this area are similar to those for climate. In particular, they recognized the need for involvement with negotiations in other fora, especially with the UNEP convention on biodiversity.

• ***Sustainable agriculture/soil loss.*** Discussions were relatively short, in part because of the excellent quality of the documentation reviewed, for which the Bank received full marks (thanks especially to the active involvement and contributions of AGRPS's Jitendra Srivastava). The decision noted the group's satisfaction with the reports, and adopted the proposals for an integrated approach to protection and management of land resources, and for alternative production systems. From the Bank's perspective, the call for an additional report on the role of financing institutions in the development of sustainable agriculture was of special relevance.

Working Group II (chaired by Dr. Bukar Shaib, Nigeria). Issues: environmentally sound management of waste, toxic and hazardous waste, oceans, seas and coastal areas, and freshwater resources.

• ***Environmentally sound management of waste.*** Participants agreed to concentrate first on reducing the creation of wastes through changes in lifestyles and consumption patterns, particularly in industrialized countries. They recognized the need for a much greater stress on recycling, together with better management of waste. Implementation of these recommendations will require a country-based identification of priorities, and preparation of cost estimates in order to mobilize support for action. The Bank is likely to be asked to play a key role in these undertakings.

NGOs and World Bank Representatives Meet in Washington

Representatives from 64 environmental NGOs and World Bank staff met in Washington on April 23 and 24, 1991, for talks on the Bank's draft forest policy paper, on the Global Environmental Fund, and on the Bank's Environmental Assessment Directive. This is the first time that the Bank has undertaken such a broad consultation with NGOs in the preparation of a policy paper.

Among the issues discussed were (a) the economics of forest-based activities; (b) sustainable management; (c) forest-dependent peoples; (d) biodiversity and equity implications of industrial plantation development; (e) Bank-funded logging in primary forests; (f) process issues; and (g) an agenda for the future.

In spite of fundamental disagreements that surfaced during the meetings, many NGO representatives were pleased that the consultation took place. Their views were listened to and were extremely valuable for the subsequent extensive revision of the forest policy paper (see box on Forest Policy).

• ***Toxic and hazardous wastes (including agricultural, industrial, medical and radioactive).*** The group reiterated an earlier call of the PrepCom for full implementation of the Basel Convention on Transboundary Movement of Hazardous Wastes and their Disposal, and of the Bamako Convention on the Ban on the Import of all Forms of Hazardous Wastes into Africa. Exporting countries are asked to take full responsibility toward transit and recipient countries, and to adopt tough measures against illegal or unwarranted exports of hazardous wastes.

• ***Oceans, seas and coastal areas.*** The report of the Secretariat covered on-going activities and issues in four basic areas: environmental protection and economic development affecting coastal areas and enclosed seas; marine pollution; the impact of climate change on seas, including sea level rise and potential impacts on low-lying countries; and use of living marine resources having regard to sustainability of ecosystems, rather than preservation of individual species. The group discussed an agenda for action on oceans, with the purpose of incorporating it into Agenda 21.

• ***Freshwater resources.*** Issues of water scarcity dominated the agenda. Water management, including rainwater harvesting, reuse of water, and desalination, were seen as the main arenas for action.

Working Group III (chaired by Mr. Bedrich Moldan, Czechoslovakia). This new group received a complex mandate. It is designed to address "cross-cutting" issues, including institutions, financial and legal matters, technology transfer, and the Earth Charter. The first meeting was limited to an "exchange of views", and authority for the group to make decisions was deferred until the next PrepCom in August. Lively and interesting discussions focused on the options for formulating agreements on forestry, biodiversity, and climate, on possible institutional alternatives for implementation of decisions taken at the Earth Summit, and on the possibilities for adoption of an Earth Charter.

"Cheap things are of no value. Valuable things are not cheap."

Old Chinese proverb

Working Parties: Focus on Substantive Issues

1. Urban: Excerpts from *Economics and Finance of Urban Waste Management*. Preliminary Paper by Mr. Carl Bartone, INURD

Although financing of urban environmental services (municipal solid wastes' collection and disposal, municipal sewage collection, treatment, and disposal) is a crucial determinant of the quality of the service provided and the degree of environmental protection achieved, the municipal agencies that provide waste management services in developing countries are seldom financially sound. This problem is often exacerbated by fragmented responsibility and lack of accountability.

The result is that few people receive the service, service levels are low, and pollution results.

Action should focus on three main areas:

- Reduction in the amount of waste generated by producers and consumers
- Resource recovery and recycling
- Appropriate waste treatment and disposal.

To improve waste management, the following actions are recommended:

- Urban management capacity has to be improved, including strengthened systems to generate local revenue and better institutional arrangements.
- The costs of providing environmental services need to be lowered by selecting appropriate, least-cost, technologies, and by making operations efficient.
- Appropriate pricing policies for services should be introduced, since they give the greatest incentive to reduce waste and environmental damage.
- Coordinated environmental pollution standards, to be complied with over time, should be established for both municipalities and industries. For this, adequate monitoring and enforcement capacity are essential.
- Implementation of national programs to strengthen local governments' ability to treat and dispose of waste, and to provide finance for necessary investments. The Bank has been particularly involved in this in borrowing countries.
- Resource recovery and recycling whenever it makes economic sense. In developing countries, the informal sector may have a role to play in recycling which should be encouraged.

2. Human Settlements: Reports of Working Party and UNCHS meetings

The Working Party meeting, held in Geneva on April 15-17, and chaired by Mr. Joseph Wheeler (former Chairman of OECD/DAC, now Senior Adviser to UNCED), was attended by experts from governments, universities, NGOs and international agencies. The World Bank was represented by Mr. Carl Bartone, INURD.

This working party will assist UNCED in drafting a position paper on human settlements issues, including identification of priorities and a recommended action agenda. It will also draft corresponding resolutions for consideration and endorsement by the Earth Summit, and identify key actions to be reflected in Agenda 21.

Two predominant matters were addressed: housing and environmental health (both urban and rural) and the links between urban management and environmental conditions in cities. The Bank had the opportunity to summarize the urban management program's environmental component, which aims to:

a. Describe the growing urban environmental crisis

b. Define the nature and extent of specific problems, especially impacts on health and economic development

c. Identify the underlying causes of urban environmental degradation

d. Establish priorities for actions to address the problems and select the instruments that can be used

e. Suggest actions that can yield lasting environmental improvements, including policy options, programmatic responses, and institutional arrangements

f. Propose strategies for countries and external support agencies to implement the recommended actions.

The working party agreed that key messages to be sent to the political leaders at the Earth Summit include:

- The importance of protecting the urban environment
- The need for cities to function effectively and for close attention to the links between urban poverty, environment, and productivity
- Strategies to empower communities to plan, decide on, and implement local actions for improvements in shelter and the environment
- The need for investments in human capital
- Collaborative urban research with the active involvement of local institutions and NGOs.

A working party report will be ready for the August PrepCom. It

will incorporate discussions from the May meeting of the U.N. Commission on Human Settlements (UNCHS) that was held in Harare, since this year's meeting was devoted to UNCED. Presentations by many countries revealed growing consensus on such issues as land management, the urban environment, poverty, and municipal management.

The UNCHS executive director requested the Bank to participate in preparations for the next meeting of the commission, on municipal and metropolitan management, and to prepare jointly a special workshop to be held in Egypt later this year on housing indicators.

3. Technology Transfer: Working Group meeting sponsored by IIASA in Abisco, Sweden

It was clear from this meeting, at which the Bank was represented by Mr. Francisco Sagasti (EXTDR), that the UNCED secretariat had involved an unusually large array of participants, including various agencies of the U.N. system, multilateral financial institutions, the GATT, scientific and professional NGOs, government officials, academics, and the private sector in constructive discussions of environmentally sound technology transfer. According to Sagasti, this broad participation may be the key to reaching substantial and sensible agreements.

Of special relevance for the Bank was the likelihood that some sort of new financing mechanism "along the lines of CGIAR" will be proposed or created at UNCED to finance the development of science and technology capacities in developing countries to enable them to choose, adapt, and/or develop environmentally sound technologies.

4. Forests: Excerpts from UNCED's Draft Paper

Natural forests and woodlands are important not only because of the woody species and wild animals they contain, but also because of the great variety of other species actually or potentially valuable, including microorganisms and wild relatives of crop species. Forests also play an important part in reducing the rate of global climatic change by absorbing and storing atmospheric CO2, thus acting as an effective carbon "sink".

Although the loss of tropical forests has created alarm in the past 10 years, forests other than tropical are also at risk.

Concern over worldwide deforestation, forest degradation, and desertification has given rise, since the mid-1980s, to international and regional initiatives such as the Tropical Forestry Action Plan launched in 1985 by FAO, UNDP, the World Bank, and the World Resources Institute; and the International Conference on Forests and Trees organized by the French government in 1986. Very little has been done, however, to prevent further forest loss or to take national or local measures to protect forests.

Tropical forests are disappearing at an ever-increasing rate. According to FAO's 1990 tropical forest resources assessment, the annual deforestation rate in the tropical areas between 1981 and 1990 was about 17 million hectares—about 1 percent a year, out of an estimated tropical forest area of some 1.75 billion hectares. In 1980 this rate was estimated at 11.4 million hectares a year.

Deforestation rates in the temperate and boreal areas have not been systematically assessed, but deforesta-

Bank's New Forest Policy Strategy

Before FY78, overall Bank commitments for forestry had been $117 million for a total of nine projects. Since the 1978 publication of the *Forestry Sector Policy Paper*, commitments increased substantially, to $2.3 billion for 73 projects, mostly in forestry production. The need for protection and conservation of natural forests led to a substantial review of Bank's policies, and to the development of a new forest policy paper issued in May, 1991, following consultations with NGOs in April.

The forest policy paper identifies two key challenges: to slow the alarmingly rapid rates of deforestation, especially in the tropical moist forests (TMFs), and to ensure adequate planting of new trees to meet the rapidly growing demand for fuelwood in developing countries. The Bank's aim is now to actively promote conservation of natural forests, and the sustainable development of managed forestry resources.

The policy paper recommends departing from the past project-by-project approach to adopt a *multi-sectoral* initiative integrating socio-political, economic, institutional, and agricultural aspects.

Broad objectives include:

a. Support of international efforts, including the adoption of international legal instruments to promote forest conservation and sustainable development of forest resources

b. Assistance to governments in policy reform and institutional strengthening

c. Expansion of the Bank's efforts to finance the creation of additional forest resources

d. Support for initiatives for the preservation of intact forest areas.

A key provision of the new policy is that "the Bank Group will not under any circumstances finance commercial logging in primary TMFs."

tion appears to be less than in the tropics, although in the southern Mediterranean countries and the near east, forest degradation, mainly through overgrazing, overcutting, and fires, has led to large-scale deforestation and sometimes complete denudation.

All over the world, in both developed and developing countries, forests are subjected to continual degradation caused by unsustainable utilization of forest resources, such as indiscriminate logging and over-exploitation for fuelwood, overgrazing, forest fires, air and water pollution, and wars.

Deforestation and forest degradation are likely to threaten the food security and welfare of present and future generations. The effect of forest damage in sensitive areas such as mountain ecosystems is particularly serious, affecting water cycles, soil and snow stability, sedimentation in rivers, lakes, and reservoirs, agricultural productivity, global climate changes, and the loss of genetic diversity.

Another critical issue in relation to forests is their role as a source of energy for rural communities, particularly in developing countries, where more than 2 billion people depend on the use of wood for domestic heating and cooking. Unless immediate action is taken both by donors and by the affected developing countries shortages will become more severe, as fuelwood requirements increase and forests dwindle.

Alternative sources of energy, such as solar, wind, and biogas, once considered the key to solving the rural energy crisis, have not so far resulted in any significant decrease of fuelwood consumption in rural areas. Options that call for intensive use of technology cannot penetrate low-income rural areas unless the government supplies equipment, spare parts, and training.

The role that land and trees play in the socioeconomic and cultural life of rural people is the key. Community forestry approaches should help develop locally appropriate solutions to ensure that fuelwood supplies are adequate and can be obtained by the rural poor, and also that they are used efficiently. Appropriate energy pricing structures are essential to prevent wasteful of energy use.

Nationally, the institutional arrangements for forest policy and planning must integrate forestry with other land use activities, particularly agriculture.

Finally, an international legal instrument for the conservation and development of forests should:

- Fully integrate all aspects of environmental protection and economic development as they relate to all forests whether boreal, temperate, or tropical
- Ensure a vital increase in international cooperation for policies and programs aimed at forest conservation and sustainable use
- Complement other international initiatives with forestry implications, notably the climate change and biodiversity conventions
- Ensure the incorporation of the concept of sustainable management of forests and its relation with fuel, shelter, and timber
- Provide a framework for increased national efforts, and bring together both the ecological and economic approaches to the use of forest resources
- Provide a mechanism to monitor its implementation, to assess progress, and to coordinate international action.

5. Sustainable Agriculture / Land Use. From a report to the working party by Mr. Jitendra Srivastava, AGRPS

Over the past decade, environmental protection and sustainable agriculture have been increasingly represented in Bank/IDA lending. A recent review of the Bank's support for environmentally sustainable agriculture for the period FY86-FY90, shows that the Bank has made considerable progress by ensuring that sustainable agricultural elements were incorporated into as many project designs as possible. For instance, 87 percent of the agricultural projects approved in FY90 contained specific sustainable agriculture elements. Overall, the study indicates that about 80 percent of the Bank's agricultural portfolio is currently financing sustainable agriculture. The volume of lending will almost certainly become even larger, since it is likely that in the future there will be an increased need for financing for sustainable agriculture projects, as borrowers become more aware of the importance of environmental protection and sustainable development.

Mohamed El-Ashry became the new director of the Environment Department. Mr. El-Ashry joined the Bank June 1, 1991, having previously been senior vice president of the World Resources Institute. He succeeds Mr. Ken Piddington, who became senior advisor to the 1992 World Development Report on environment and development. Mr. El-Ashry will represent the Bank at several key UNCED preparatory meetings and has agreed to take on focal point responsibilities personally for the Science and Technology working party.

UNCED Regional News

Asia

1. The Chinese government sponsored a Developing Countries' Ministerial Conference on Environment and Development in Beijing June 14–19, 1991. The conference, attended by 41 ministers, responds to developing countries' expressed needs for consultation and coordination among themselves. The Bank was represented by Mr. Visvanathan Rajagopalan, PRSVP.

The conference adopted the Beijing Declaration on Environment and Development, with the reservation that it is non-binding and that several of its clauses will be further negotiated at a subsequent meeting.

This declaration:

- Warns about the degradation of the global environment that results from unsustainable development models and life-styles
- Calls for immediate action to protect the global environment, including efforts to strengthen developing countries' institutional and technical capacities
- Reiterates the poorest and most vulnerable developing countries' need for special help from the industrialized countries in order to break the vicious circle of poverty and environmental degradation
- Calls for developed countries to do more to stabilize and reduce their emissions of greenhouse gases.

Mr. Rajagopalan's address emphasized that it is important to act soon to protect the environment, as the costs of remedial action can be far greater than the cost of preventive action. Prices should encourage more efficient resource use. Using the market has the advantage of minimizing administrative costs and of reducing the opportunities for corruption and favor-seeking that are often the consequences of regulation. Some degree of regulation or government intervention, however, particularly in setting environmental standards and preserving natural resources, can also be very effective, especially if it ensures that the *polluter pays*.

Mr. Rajagopalan stressed the need to *involve* NGOs in the process of environmental and development decision-making, and to encourage international cooperation. He highlighted the Bank's increasing role in promoting environmental protection and sustainable development. FY91 loan allocations to free-standing environmental projects are about $1 billion, twice the amount in FY90. More than half of all the Bank's loans now contain significant environmental components. Finally, he stressed that UNCED's objectives are fundamental to the Bank's mandate and work, and that the Bank is deeply committed to the conference.

2. A network of NGOs from Southeast Asia, SEACON (Southeast Asia Consortium), has been established to promote environment and sustainable development. The group is composed of three Asian NGO networks: Asian Cultural Forum on Development (ACFOD–Thailand), the Asian NGO Coalition (ANGOC) and the Asian Alliance of Appropriate Technology Practitioners (APROTECH ASIA), both based in the Philippines, and two national networks: the Management Institute for Social Change (MINSOC) of Malaysia, and Wahana Lingkungan Hidup Indonesia (WAHLI).

Among the main objectives of SEACON are:

- To catalyze, consolidate, strengthen, and support national and local initiatives on sustainable development
- To hold regional/sub-regional consultations to create broad-based consensus on sustainable develop-me-
- To develop environmental guidelines and sustainable development strategies for policymakers to consider in national plans and programs

Schedule for some Working Group/Working Party Upcoming Meetings

Working Group	*Dates*	*Place*
Oceans	4–7 June, 1991	Conches, Switzerland
Biotechnology	20–21 June, 1991	London, U.K.
Forestry	13–14 September, 1991	Paris, France
Biodiversity	9–10 September, 1991	Conches, Switzerland
Toxic/Hazardous Waste	last 2 wks. Oct., 1991	Switzerland
Steering Group on Sustainable Development	25–27 November, 1991	Netherlands
Science and Technology	10–15 December, 1991 (for 2 days during this period)	Conches, Switzerland

• To document and disseminate successful stories of grassroots initiatives in sustainable development, and

• To prepare NGO inputs into UNCED to reflect grassroots perspectives, concerns, and aspirations.

French-Speaking Countries Adopt "*Tunis Declaration*"

3. A conference of the Environment Ministers of the French-speaking countries was held in Tunis, April 19-23, 1991.

The conference, which was organized by the Agence de Cooperation Culturelle et Technique (ACCT) to prepare for UNCED, was attended by representatives from 38 French-speaking countries and of various international agencies, including UNESCO, ONUDI, UNDP, the World Bank (represented by Mr. François Falloux, AFTEN), WMO, OUA, Greenpeace, IUCN, and Worldwatch/Panos Institute.

The main objectives of the conference were to:

• Define and implement a dynamic strategy of cooperation in the environment among the French-speaking countries, and

• Elaborate appropriate mechanisms for the French-speaking community to contribute to meeting global environmental challenges.

As a result of this conference, the "*Tunis Declaration*" was adopted by the 38 countries represented, together with an associated action plan.

In the Tunis Declaration, the 38 Environment Ministers:

• Restate the necessary link between conservation and development for the welfare of present and future generations, and the need for increased solidarity among French-speaking countries

• Adhere to a set of basic principles, including the need for community involvement in environmental decision-making, for assessing the environmental impact of development activities, and for implementing the polluter-pays principle

• Recognize the links between environmental degradation, population, and poverty in developing countries, and emphasize the need to mobilize additional resources to assist them, including debt-reduction schemes

• Decide to prepare and implement the *National Environmental Action Plans* (NEAPs)—a necessary step to promote sustainable development—and to mobilize national and international resources for this purpose

• Decide to set apart collectively at least 5 percent of their national territories to protect biodiversity and ecosystems within the framework of sustainable development

• Decide to strengthen national environmental institutions, to facilitate NGO participation, and to stimulate environmental training and education.

Africa

4. The Economic Commission for Africa (ECA) set up an interdisciplinary task force to formulate an African perspective for the Earth Summit. ECA will hold four subregional preparatory meetings (in eastern and southern Africa, west Africa, central Africa, and north Africa), and a regional preparatory meeting at the ministerial level to be held in Cairo in July, 1991. Mr. Ismail Serageldin (AFTDR) will represent the Bank.

An additional subregional proposal is being prepared in southern Africa by SADCC. The Bank maintains close working relations with SADCC, and plans to strengthen its collaboration on environmental issues.

Latin Americans Issue "Tlatelolco Declaration"

5. Government experts from member countries of the Economic Commission for Latin America and the Caribbean (ECLAC) met in Mexico, 1-6 March, 1991.

This ECLAC meeting, in which the Bank was represented by Mr. Edilberto Segura (LATDR), was part of the Latin American and Caribbean regional preparatory meeting for UNCED. Participants emphasized the growing awareness and concern shared by the countries of the region over the deterioration of the environment and the decline in the quality of life of their people. They recongnized the importance of the close relation between the environment and development and acknowledged the need to define common goals and measures to foster economic and technological cooperation, and to identify mechanisms for obtaining the resources required to finance sustainable development.

Mr. Larry Summers, the Bank's vice president for development Economics and chief economist, was recently nominated to serve on the high-level UNCED steering group on sustainable development. Mr. Summers already had a special responsibility within the World Bank for the 1992 World Development Report on environment and development, and for increased integration of environment issues into the Bank's economic and sectoral work. The steering group will meet in the Netherlands in November.

The meeting revolved around two ideas:

1. The environment has to be integrated into economic development, removing it from pure ecology and making it a pivotal and vital issue.
2. The environment can not be dealt with in isolation but has to be regarded as part of the agenda for international economic cooperation.

Although the subject of drug trafficking and its impact on the environment was not included in the final document, since it was not considered to be among the points covered in the U.N. General Assembly resolution (44/228) on environment and development, the Peruvian delegation expressed concern, shared by a number of other delegations, that the cultivation, processing, trafficking, and illicit consumption of coca caused irreparable damage to the environment, in particular through soil and water contamination and deforestation. The Peruvian representative stressed that replacing coca with other crops was essential in any attempt to solve this complex issue.

Paraguay noted the urgent need to reverse the current degradation of forest resources and to promote forestation programs, for which technical and financial resources would be needed.

Many delegations drew attention to the importance of the issue of population and increasing demographic pressures on the environment.

The conference adopted the "*Tlatelolco Platform*" on environment and development as its official contribution to UNCED preparations.

The Tlatelolco platform expresses "deep concern that 20 years after the adoption of the Stockholm Declaration, there has been a severe deterioration of the state of the environment and a serious degradation of global ecosystems," and adds that "such degradation is closely linked to the unsustainable models of development that have prevailed mainly in developed countries".

The document emphasizes that "without a just and lasting solution to the external debt problem, the countries of Latin America and the Caribbean will be unable to achieve lasting and environmentally sustainable economic and social development," and stresses that "the fundamental contribution to this international effort should be made by the most highly developed and affluent regions, in view of their greater responsibility for the global process of environmental degradation." It also expresses the region's commitment to "avoid continued environmental degradation in the interests of present and future generations." Sound management of the natural patrimony is recognized as "essential for economic growth and sustainable development."

The platform raises concerns about environmental and economic conditionalities, the denial of access to certain technologies, and the potential use of environmental issues as unjustified barriers to international trade.

On participation, Tlatelolco recognizes that "in view of the urgent need for active commitments on the part of all sectors of society in promoting environmental protection and enhancement and sustainable development, opportunities must be given to the coordinated participation of NGOs and other sectors of society in the preparation of, and during, UNCED and in the execution of its mandates." The platform also emphasizes the need for full recognition of the importance of indigenous cultures, "since they have accumulated extensive knowledge of the natural world and have developed modalities for its sustainable use and management."

Finally, the following environmental issues were identified as most critical for the LAC region:

- Protection of the atmosphere and minimization of the human causes of climate change.
- Conservation and sustainable management of the region's ecosystems, in order to protect its biological diversity.
- Protection and management of land-based resources, including measures to deal with deforestation, forest degradation, and with soil degradation due to acidification, erosion, and salinization.
- Protection and management of oceans, seas and coastal zones.
- Protection of fresh-water quality and supply.
- Eradication of poverty in human settlements.
- The relationship between urban development and the environment.
- Environmental management of waste, especially of hazardous and toxic wastes.

"One cannot make a desert and call it development. The peoples of the developing world cannot thrive if their rivers are poisoned, their forests denuded, their soil degraded, and their cities overcrowded. As a development agency whose mission is to reduce poverty and improve social conditions, the World Bank, therefore, must also be an environmental agency."

Barber B. Conable
President,
The World Bank Group
London, U.K., March 19, 1991

6. The Inter-Agency Consultative Support Group of the Action Plan for the Environment meets in Washington on July 23-25, 1991. The Bank will be represented at this meeting by Ms. Doreen Crompton (LATEN).

7. The Inter-American Development Bank hosted the Third Consultative Meeting on the Environment, in Caracas, Venezuela, June 17–19, 1991. This year's meeting allowed further contact between the IDB, member country officials and NGOs working on environmental issues. In light of UNCED, the discussions centered on the principal environmental problems facing the region and strategies to deal with them. Participants included staff from various operational and technical departments within the IDB, executive directors, government officials from the environmental and planning sectors of the 25 borrowing member countries, and representatives of their national NGOs. There were also observers from other member countries, international organizations, and NGOs from other IDB member countries.

Central Europe and the USSR

8. As part of the preparatory activity planned for UNCED, 35 NGOs in the Soviet Union, whose representatives met in Moscow on February 21, 1991, agreed to cooperate and coordinate their efforts. They decided to establish the Soviet non-governmental preparatory committee for UNCED. Membership is open to all Soviet NGOs concerned with topics to be discussed at the conference. Government organizations can participate in the work of the committee only as observers. The committee plans to help organize UNCED-related activities in the USSR and actively participate in the government's preparatory committee for UNCED.

9. The Soviet association, Ecology and Peace, held a press conference for foreign and Soviet journalists on "Ecological Disasters in the USSR: Facts, Causes, and Consequences". The conference touched on some of the most severe ecological catastrophes in the Soviet Union, including the drying up of the Aral Sea, and Chernobyl. The conference was held as a contribution to the preparatory process for UNCED. The association conducts research into the most ecologically dangerous development projects in the region, and tries to form public opinion to promote new, environmentally sustainable, ways of development for the USSR.

10. The Czechoslovak Federal Committee for the Environment invited environment ministers of the U.N. ECE region and Japan to Prague June 21–23, 1991, to discuss an environment policy for Europe. The Czechoslovak authorities saw this conference as an important milestone in the preparations for UNCED, coming just before the deadline for national reports, and at a time when many western countries and international organizations are trying to assess the best way to support environmental improvement policies and economic restructuring in Eastern Europe. Mr. Anand Seth, EMTEN, and Ms. Maritta Koch-Weser, ENVAP, represented the Bank.

U.S. Senate Committee Holds Hearings on UNCED

11. On May 15, 1991, the U.S. Senate Committee on Foreign Relations heard testimony presented by Mr. James Gustave Speth, president of the World Resources Institute and chairman of the Environmental and Energy Study Institute Task Force on International Development and Environmental Security.

Mr. Speth warned the committee that although "earth's geopolitical systems may be faring better, its ecological systems are in deep trouble." To deal with this situation he suggested ten key initiatives that could have a large impact on the most serious environmental problems and could be adopted in time for 1992.

The ten initiatives concern international actions that the community of nations can take together at the Earth Summit, and which he considers the United States government "can and should be promoting in the preparatory work for the 1992 conference."

According to Speth, many of these actions "are aimed at building a North-South partnership for economic progress and environmental protection.' Furthermore, "they seek to address the needs of the developing world for access to finance and technology, for debt relief, and for other cooperation and support, while also addressing the need shared by all countries to protect the global biosphere.

"Business must demonstrate its involvement—in its own self-interest—by genuinely contributing to solving these problems. We need to convince people that business can make an essential contribution. And we will do so."

Stephan Schmidheiny
Chairman, BCSD

The ten initiatives proposed are:

1. To adopt an international convention to protect the earth's climate from global warming, including an agreement among OECD members to cap emissions of carbon dioxide, the main "greenhouse gas," at 1990 levels by the year 2000.

2. To launch a global biodiversity strategy and decade action plan to protect, understand, and make adequate use of the earth's diversity of plant and animal species, "which are now being committed to extinction at rates—about 100 species a day—unprecedented in 65 million years."

3. To adopt a world forests agreement aimed at halting the destruction of mature natural forests—whether high latitude (boreal), temperate, or tropical—and complement it with agreement on a new program of international partnerships to save tropical forests.

4. To create a multilateral authority to reduce developing countries' external debt—both official and commercial—while promoting policy reforms and other programs for sustainable development.

5. To establish an international capacity-building initiative to help both low- and middle-income developing countries shift to environmentally and economically sustainable development paths.

6. To establish "sustainable development facilities" within the multilateral development banks to catalyze an increase in the quality and number of projects aimed at conserving natural resources and improving their productivity.

7. To create a center for training and research on energy efficiency and renewable energy in each of the major developing country regions, and establish an international solar energy agency.

8. To substantially strengthen the U.N. system and its relevant agencies in order to cope with the environment and the development challenges of the 1990s and beyond.

9. To promote population programs to meet global demand for family planning services, and launch an international initiative to raise the social and economic status of women in developing countries.

10. To agree to a new funding mechanism to provide the financial support needed for these and other initiatives aimed at supporting sustainable development and environmental protection in developing countries.

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As we go to press...

G-7 London Summit Declaration, July 17, 1991, states "Industrial countries should set an example and thus encourage developing countries and Central and East European nations to play their part." The Declaration underscores commitment to UNCED.

By the time of UNCED, G-7 leaders aim to achieve:

- A framework convention on climate change.
- Agreement on principles for management, conservation and sustainable development of all types of forest, leading to a framework convention.
- Negotiation of a framework convention on biodiversity, by end-1992 if possible.

They also seek to promote, in the context of UNCED:

- Mobilization of financial resources to help developing countries tackle environmental problems. The GEF is mentioned as the potential mechanism for this purpose.
- Improved flow of "beneficial technology to developing countries, making use of commercial mechanisms".
- A comprehensive approach to oceans, including regional seas.
- Further development of international law of the environment.
- Reinforcement of international institutions concerned with the environment, including UNEP.
- Development of cost-effective economic instruments, such as taxes, charges, and tradable permits for protecting the environment.

Summit leaders expressed concern about destruction of tropical forests, and recognized the need for greater international capacity to prevent and respond to environmental disasters.

They called for greater efforts in science and technology, especially for research on global climate, including satellite monitoring and ocean observation, the development and diffusion of energy and environment technologies, and energy pricing which fully reflects environmental and other costs.

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Press Release

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Background Release

ENV/DEV/55
8 August 1991

PREPARATORY COMMITTEE FOR 1992 CONFERENCE ON ENVIRONMENT AND DEVELOPMENT TO HOLD THIRD SUBSTANTIVE SESSION IN GENEVA, 12 AUGUST-4 SEPTEMBER

Proposals for action that will sustain global economic growth and conserve the environment will be the focus of debate when the Preparatory Committee for the United Nations Conference on Environment and Development meets in Geneva from 12 August to 4 September.

The Committee will consider the set of proposals as part of a comprehensive plan for economic development that will not rely on the poisoning or depletion of the world's natural resources: air, water and earth.

In December 1989, the General Assembly called for the Conference to devise strategies for dealing with environmental issues that arise in the course of economic development. The Conference, which is known as the Earth Summit, is to be held in Brazil, 1-12 June 1992. The Secretary-General of the Conference is Maurice Strong.

The strategies are being formulated as options for action for consideration by the Committee which will present a draft programme of action to the Brazil Conference as Agenda 21, a blueprint for action in all areas where economic activity impacts on the environment.

At its first two sessions, held in Nairobi (6-31 August 1990) and Geneva (18 March-5 April 1991), the Committee began to discuss the issues underlying environment and development.

During this session, the Committee, under the Chairmanship of Tommy T.V. Koh (Singapore), is expected to narrow options for Agenda 21 for sustainable practices relating to land use, energy, freshwater, oceans, hazardous wastes including toxic chemicals, and forests. It will also consider proposals in the areas of health, education, human settlements, food and environmental emergencies, among others.

The Committee will meet in Working Groups from 12-23 August and in plenary from 26 August to 4 September to consider cross-sectoral issues.

(more)

For information media—not an official record

Working Group I, chaired by Bo Kjellen (Sweden), is considering options for action for protection of the atmosphere, land resources, the conservation of biological diversity and the environmentally sound use of biotechnology. Working Group II, chaired by Bukar Shaib (Nigeria), is dealing with waste management and the protection of oceans, seas, coastal waters and freshwater resources, while Working Group III, chaired by Bedrich Moldan (Czechoslovakia), is examining legal, institutional and related matters.

Cross-Sectoral Issues

Before the Committee when it meets in plenary will be 11 reports addressing the "cross-sectoral aspects of environmental issues". These reports also analyse the impact of the international economy, poverty and population on sustainable development practices.

Also to be considered will be reports on integrated economic-environmental accounting, the transfer of technology, financial resources and science for sustainable development.

In a report on human settlements, the Conference Secretary-General examines the impact of poverty, urbanization and large urban agglomerations on human settlements and makes proposals for action (document A/CONF.151/PC/43).

Urban areas in the developing world will be populated by 2 billion people by the year 2000. With such a surrounding environment, it is the poor who suffer most. Priorities are to improve housing and provide basic water and sanitation services at affordable costs.

Growing populations place unsustainable demands on natural resources -- pollution of water, land and air -- which cause poor health, deteriorating quality of life and environmental degradation.

The Committee will consider seven areas for action: provision of shelter for all by the year 2000, strengthening the United Nations Urban Management Programme, integrating land-resource management, taking inventory of national resources, developing national plans, and encouraging land-tenure for low-income urban dwellers.

It is also proposed to establish a United Nations Plan of Action on Poverty; to develop integrated planning on population and resources management; identify ecologically endangered zones and monitor the impact of global environmental change on populations, particularly in the coastal zones where more than two-thirds of the world's people will live by the year 2000.

Other options for action include: launching a programme to coordinate water, sanitation, drainage and solid waste management; developing national action for renewable energy technologies, energy conservation, and reducing the demand for transportation; and implementing policies on the sustainable management of construction resources and control of the impact of the construction industry.

(more)

Proposals for intervention to alleviate demographic pressures, poverty and unemployment are also before the Committee (document A/CONF.151/PC/45). They include: promoting sustainable livelihoods, ensuring a balance between population and resources, developing human capabilities and ensuring a habitable living environment for the poor, among whom women, indigenous peoples and refugees are the target groups.

It is proposed that more sources of employment, especially in the informal, non-agricultural sector, be created; successful credit schemes be replicated; better use of sustainable local resources be encouraged; and environmentally compatible technologies for ensuring food security be provided.

With regard to the need to finance environmentally sound development practices in the developing countries, the Conference Secretary-General's report (document A/CONF.151/PC/51) states that the right of those countries to develop must not be compromised by environmental conditions placed on flows of financial resources. It proposes that, while some funds can be provided by re-deployment within existing national budgets, developing countries will, in the near-term, require substantial additional amounts of highly concessional financing for dealing with environmental issues.

The report details the funding required to carry out Agenda 21, to implement environment-related conventions and protocols, and to build capacity in developing countries, as well as to meet additional needs of those countries. An estimate of $150 billion by the year 2000 for environmental protection is given.

Six methods for raising the money are proposed: debt relief, including debt-for-nature agreements; a "Chapter 11" process by which old debt would be subordinated to new debt; creating a "multilateral authority" to reduce developing countries' external debt in exchange for implementing sustainable development programmes; funding linked to special drawing rights (SDRs); and taxing the use of the global commons (air, sea and outer-space).

Selling "Earth Stamps", instituting a non-renewable energy or "carbon" tax, and "trading" critical load permits in acid rain and air pollution are also discussed.

A report on the impact on human health of a deteriorating environment states that underdevelopment is linked to poor maintenance and inadequate management of the environment (document A/CONF.151/PC/54). This causes disease. If present rates of population growth continue, most, if not all, efforts to reduce environmental degradation and its effects on human health will be undermined.

Lack of development, paradoxically, contributes to increased population growth. It forces the continued use of increasingly scarce biomass and increases the risk of exposure to respiratory disease, while nutritional deficiencies caused by lack of food crops or access to food supplies increase vulnerability to infectious diseases.

The report proposes options for Agenda 21: meeting basic health needs related to the environment; control of communicable diseases; addressing the urban health challenge; and reducing health risks from environmental pollution and hazards.

A report on the relationship between demographic trends, economic growth, unsustainable consumption patterns and environmental degradation (document A/CONF.151/PC/46) states that consumption patterns in developed countries play a major role in the global depletion of non-renewable mineral and fuel resources, in ocean pollution, land overuse and "greenhouse" gas emissions. It describes how human activities in agriculture, forestry, fisheries, industry, transportation, energy, settlements, tourism and military activities impact on the environment.

With regard to the international economy and the environment, the Committee will consider a report on the impact on sustainable development of deteriorating terms of trade, the transfer of financial resources out of developing countries, and structural adjustment programmes (document A/CONF.151/PC/47).

Proposals for devising a satellite system of integrated environmental and economic accounting are summarized in a further report (document A/CONF.151/PC/49). A background paper on the role of economic instruments and market mechanisms in sustainable development programmes is also before the Committee (document A/CONF.151/PC/50).

Science for sustainable development, the transfer of technology, and education for sustainable development are dealt with in separate reports (documents A/CONF.151/PC/52, 53 and 55, respectively).

Working Groups

Working Group I is dealing with options for action for the protection of the atmosphere, land resources, conservation of biological diversity and environmentally sound management of biotechnology.

With regard to the protection of the atmosphere, the Committee will have before it six reports of the Conference Secretary-General.

A report on climate change (document A/CONF.151/PC/57) reviews the work of the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change (INC), the Intergovernmental Panel on Climate Change (IPCC), the World Meteorological Congress and the UNEP Governing Council.

The INC is preparing a draft text on reducing greenhouse gas emissions and addressing the problems of small island developing countries, low-lying coastal areas and areas threatened by erosion, flooding, desertification and high urban atmospheric pollution. The IPCC is assessing national net

greenhouse gas emissions and countries' vulnerability to sea-level rise, making predictions of regional climate change and studying economic implications.

Options for action in the energy sector, key to the issue of climate change, are outlined in a further report (document A/CONF.151/PC/42/Add.1). Objectives include limiting greenhouse gas and ozone-depleting emissions and reducing air pollution. The transition to a more sustainable energy future will be achieved by developing national energy-environment accounts, adopting least-cost energy planning, implementing pricing and other economic mechanisms to achieve energy-related objectives, and by setting up new mechanisms, such as a high-level energy efficiency commission under the auspices of the United Nations.

A report on sectoral issues relating to the atmosphere (document A/CONF.151/PC/60) analyses possible responses in the energy and transport sectors, the most important as far as atmospheric issues are concerned. It proposes the establishment of international institutions for sustainable energy: a global energy efficiency mechanism, a network of international research centres on new and renewable sources of energy, an international renewable development agency and a United Nations agency for sustainable development.

A report on ozone depletion (document A/CONF.151/PC/58) evaluates the need for additional action by the Preparatory Committee to support existing treaties and discusses the effectiveness of provisions in those agreements concerning financial cooperation and transfer of technology to developing countries.

The report also presents recent scientific findings on the stratospheric ozone issue. A new assessment of available scientific information, the impact on the environment, and technical and economic implications of atmospheric ozone depletion will be available in January 1992.

International cooperation for monitoring and assessing transboundary air pollution is discussed in another report (document A/CONF.151/PC/59) which states that there is insufficient information on environmental damage caused by such pollution outside Europe and North America.

A review of air pollution in the world's megacities concludes that the problem is getting worse because of increasing motor vehicle emissions. Inadequate assessments of the adverse health effects of urban air pollution have contributed to a lack of appreciation of how serious the problem is. Stringent emission control strategies and innovative development schemes, such as better mass transit, combined heat and power stations, better treatment of waste and urban planning, are required, the report concludes.

(more)

Land Resources

In connection with land resources, Working Group I has been asked to analyse various approaches to the problems of deforestation, soil loss, sea water damage, pest infestation, environmental threats to agriculture and desertification and drought.

On deforestation, the Group is to address the loss of boreal, temperate, subtropical and tropical forests world-wide; recent initiatives in the management, conservation and sustainable development of forests; the role of forests in soil and water conservation and in socio-economic development; the world timber trade and the economic value of forests; the role of women, especially in developing countries, in forest conservation and sustainable development; and the interlinkages with efforts to deal with climate change and to promote biodiversity.

Discussion will be based on two reports on principles relating to forests (documents A/CONF.151/PC/64 and 65) and a proposal for a global objective and programme (document A/CONF.151/PC/42/Add.3). Among the steps recommended for promoting the rational use of forests are increasing the availability of remote sensing facilities, establishing an intergovernmental global forest monitoring panel, setting up a global funding mechanism for tree planting and reforestation, assessing the impact of climate change on forests and studying the carbon cycle in various types of forests. Another programme area would involve the expansion of community and social forestry in developing countries by dovetailing tree plantations into rural development schemes along with special training in small-scale forestry.

Three reports before the Working Group deal with soil loss issues. The first (document A/CONF.151/PC/63) concerns the elements of an integrated approach to land resources protection and management, covering the causes of land degradation and the main linkages between land resources and environmental, economic and social factors. The core of the suggested approach is to determine the most appropriate uses, based on land capability, and to make the most efficient tradeoffs between competing uses and requirements.

Relevant actions that can be taken on the policy level and in the planning and management process are proposed in a report on land resources: options for Agenda 21 (document A/CONF.151/PC/42/Add.2). Three major clusters of programme areas are proposed: the protection and management of fragile ecosystems, an integrated approach to planning and management of land resources and sustainable agriculture and rural development.

The rural development proposals are aimed at decentralizing rural development policies and diversifying rural incomes. Water programmes would include efforts at all levels to reclaim waterlogged and saline areas, protect against the intrusion of sea water and recharge aquifers. To ensure

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biodiversity, the report recommends developing plant and animal genetic resources for use in agriculture through the creation of animal gene banks and multiplication/propagation facilities for planting materials.

As for pest control, the report states that while world food demand is projected to increase by 50 per cent by the year 2000, crop losses caused by pests are estimated at between 25 and 50 per cent. Integrated pest management, which combines biological techniques, genetic resistance and appropriate farming practices, is seen as the best option for the future, along with pesticide regulation and control.

The impact of environmental degradation on world agriculture is outlined in the Conference Secretary-General's third report on soil loss (document A/CONF.151/PC/61). Among the issues covered are the effects of climate changes, ultraviolet radiation, air and water pollution, soil degradation and hazardous waste. Consumption patterns, poverty, economic and trade patterns, and management practices related to the intensification of agriculture are also reviewed.

The second part of the report summarizes the outcome of a Conference on Agriculture and Environment, co-sponsored by the Food and Agriculture Organization (FAO) and the Netherlands Government, that was held in 's-Hertogenbosch from 15 to 19 April. The "den Bosch Declaration and Agenda for Action", which was adopted at the Conference, sets out prerequisites for sustainable agriculture based on the premise that "by the year 2025, the world will have to feed an additional 3.2 billion people from a natural resource base which is already seriously threatened".

The Agenda calls on Governments to review their macroeconomic and agricultural policies, accelerate the development of rural organizations and provide support services and training aimed at minimizing external needs. It urges the development of data collection methods, drawing up codes of conduct and standards, and the modification of rules applicable to international trade.

The report outlines proposals for following up on the den Bosch Conference and discusses the role of international and regional financial institutions in the development of sustainable agriculture. It states that recent trends show a move towards some interventions at the macroeconomic level, including pricing policy, taxation and marketing reform, but that planners must go further and address social issues and impacts more forcefully. Evaluation is also needed of the long-term sustainability of current programmes and of the relative role of agriculture in the overall development process, according to the report.

As for desertification and drought, discussion will be based on a report (document A/CONF.151/PC/62) that reviews the main questions concerning land degradation, desertification and drought, as well as their linkages to other Conference topics. It offers pragmatic proposals for desertification control

for inclusion in Agenda 21 and describes current United Nations work in that area including United Nations Environment Programme (UNEP) actions and drought monitoring and research activities of various United Nations entities.

Biological Diversity

Working Group I will also consider two reports on the conservation of biological diversity. The first (document A/CONF.151/PC/66) sets out the background and discusses the issues, while the second (document A/CONF.151/PC/42/Add.4) proposes the relevant options for Agenda 21 with the aim of reinforcing the negotiating process for a convention on biodiversity.

Four principal conservation objectives for biodiversity are proposed for inclusion in Agenda 21: establishing a global programme to ascertain the extent of the earth's biological resources, moving biodiversity concerns into the mainstream of national and international policy-making, stabilizing the depletion of biological resources in both non-tropical and tropical regions and promoting the use of biological resources to enhance sustainable development.

Among the activities proposed are national surveys to establish baseline information on biological resources, establishing a global system for monitoring changes in biodiversity and incorporating national commitments on biodiversity into development policies. Other suggestions are enlarging the global network of protected areas to reach 10 per cent of the earth's land surface and launching large-scale regional interdisciplinary projects to enhance national capacity for managing biodiversity.

Biotechnology

Background information and key issues of environmentally sound management of biotechnology are discussed in another Secretariat report (document A/CONF.151/PC/67), with relevant options for Agenda 21 outlined in a separate paper (document A/CONF.151/PC.42/Add.5). The latter proposes an integrated package of programmes aimed at meeting several objectives.

To increase plant and animal productivity by 25 per cent by the year 2000, and to reduce dependence on pesticides in food and fibre production by 25 per cent, the report proposes developing transgenic (genetically modified) plants and using traditional technologies to improve nitrogen fixation efficiency. It suggests that communicable and non-communicable diseases can be combated by the year 2000 through universal immunization, the use of new diagnostics and the development of new growth-promoting agents, population control agents, drugs and treatment methods.

Environmental degradation would be halted by recycling and upgrading organic wastes and biomass and developing safer production technologies, while safety procedures for biotechnology would be made available to all countries. Finally, the report proposes establishing by the year 1994 a biotechnology

consortium or corporation to enable developing countries to make use of environmentally sound biotechnologies.

Protection of the Oceans

Working Group II of the Preparatory Committee is mandated to consider strategies for the protection of the oceans and freshwater resources and for the environmentally sound management of hazardous wastes.

On coastal development and enclosed seas, the Group will have before it a report (document A/CONF.151/PC/69) which sets out the linkages, problems and opportunities of coastal and ocean management. Long-term management and sustainable development of the world's resources, it says, must be based on a sound understanding of the role of the ocean in shaping global conditions and on a proper evaluation of the benefits of the marine resource base for development. Environmental linkages to ocean problems include atmospheric processes, effects of ozone depletion and the loss of biodiversity. Important linkages of ocean issues with economic and development sectors include fisheries, transport and human settlements, while population, food security and the role of women are important social linkages.

The report calls for integrated coastal-zone management, prevention of marine pollution from all sources and management of shared living resources in the high seas. It suggests a precautionary and ecosystem approach and stresses the need for capacity building and the exchange of information.

A report identifying options for action on protection of the oceans (document A/CONF.151/PC/42/Add.6) notes that oceans play a dominant role in shaping the bio-geochemical processes of the earth, the global energy system, climate, weather and other processes. Ocean management is constrained by critical uncertainties about the exact role of the marine environment in maintaining the global life support system. In relation to development, the traditional uses of oceans for transportation of goods, fishing, recreation and waste disposal have critically expanded in recent years.

With regard to the coastal zone, the report continues, two-thirds of the world's cities with populations of 2.5 million or more are located near tidal estuaries, with increasing sewage contamination. The report calls for a stronger commitment by Governments in order to obtain the benefits of marine development opportunities and to adopt a new approach to ocean management.

Another report (document A/CONF.151/PC/70) states that a global ocean observing system is necessary for the adequate analysis and prediction of the state of the marine and coastal environment and its interaction with processes essential to life on this planet. Information on emerging environmental problems and the ability to address potential environmental impacts is virtually non-existent at present in most parts of the world.

The types of oceanic changes that serve as environmental indicators and may produce adverse impacts include sea-level change, changes in upper ocean

temperatures affecting fish stocks, changes in locations of upwelling zones affecting fish stocks, changes in storm paths and storminess, changes in sea ice distribution and possible changes in major ocean currents, the report states.

In considering land-based sources of marine pollution, the Working Group will have before it a paper (document A/CONF.151/PC/71) which examines developments in international cooperation for the protection of the marine environment against such pollution. The report notes the international community's increasing interest in developing effective control strategies, particularly for enclosed and semi-enclosed areas, and sets out the action to implement or respond to the Montreal guidelines for marine protection.

A report on environmental assessment of the Gulf crisis (document A/CONF.151/PC/72) states that in view of the particular circumstances of the oil spill in the Persian Gulf, it would not be wise to make recommendations on how to deal with oil pollution in the future. However, in the best of circumstances, a spill of that magnitude would have severely challenged the best prepared country or region.

The report recommends enhanced cooperation and utilization of resources of both United Nations agencies and willing Governments. It calls for immediate surveys to identify all smoke emission sources, ascertain damage and suggest remedies. It further recommends a contamination survey of all known nuclear, biological and chemical warfare manufacturing production centres in the area and the location and clearing of all mine fields within three years. National environmental monitoring centres should be set up in each country to ensure that data are fed into each Government's planning processes.

Freshwater Resources

In connection with the protection of freshwater resources, the Working Group will have before it a report of the Conference Secretary-General on preparations for the International Conference on Water and the Environment, to be held in Dublin in January 1992 (document A/CONF.151/PC/73). The report offers background information on the Conference, its objectives, programme, expected outputs and preparatory process. Freshwater: options for Agenda 21 (document A/CONF.151/PC/42/Add.7) proposes action programmes and objectives for six component areas of the freshwater sector. They are water resources assessment, protection of water quality, drinking water supply and sanitation, water and sustainable urban development, water for sustainable agricultural development and integrated water resources management.

Waste Management

Concerning the environmentally sound management of toxic chemicals, discussion will be based on a report (document A/CONF.151/PC/74) which outlines the issues faced and the relevant international activities in response to them. A prerequisite for such management is a reliable assessment of health and environmental risk. Among the activities discussed are chemical

risk assessment and management, information exchange, harmonization of labelling systems and prioritization of efforts for risk reduction.

The Working Group will also discuss Agenda 21 options for toxic chemical management (document A/CONF.151/PC/42/Add.8), including programmes for improving the assessment and management of chemical risks, which represent urgent needs irrespective of the establishment of an intergovernmental mechanism for chemical risk assessment and management. The five proposed programme areas are expanding and accelerating the international assessment of chemical risks, harmonization of classification, labelling of chemicals, information exchange on toxic chemicals, establishment of risk reduction programmes and strengthening of national capabilities and capacities for chemicals management.

With regard to hazardous waste management and the prevention of illegal international traffic in toxic and dangerous products and wastes, the Working Group will have before it a report of the Conference Secretary-General (document A/CONF.151/PC/75) which describes the principal issues, identifies some of the major constraints and gaps in knowledge and delineates future needs and current approaches.

While generation rates are not well known for the developing countries, the report estimates that for each $1 million of annual gross domestic product (GDP), the quantity of hazardous wastes generated falls in the range of 2.5 to 4.5 tonnes. Thus, on average, a country with a GDP of $1 billion is likely to have to manage some 35,000 tonnes of hazardous waste annually.

A related report, on hazardous wastes: options for Agenda 21 (document A/CONF.151/PC/42/Add.9), in defining the principal programme areas, recognizes that environmentally sound waste management must go beyond safe disposal, and seek to change the unsustainable patterns of production and consumption which are the root causes of the problem.

Concerning the management of solid wastes and sewage-related issues, the Working Group will consider a report (document A/CONF.151/PC/76) which provides the background and basis for an action programme. It focuses on solid wastes, human excreta and sewage. Today, even in the more advanced developing countries, sewage services are available to only about half the population, and the proportion decreases to less than 15 per cent in the case of low-income countries. The report proposes a wide range of cheaper alternative sanitation technologies which use less water and also considers the collection, storage, treatment and disposal of solid wastes. Education, training, institutional reform and information exchange are some of the means by which local and national Governments can build up the capacity to manage wastes, according to the report.

On solid waste management: options for Agenda 21, the Conference Secretary-General's report (document A/CONF.151/PC/42/Add.10) considers four overall sector-wide objectives: to stabilize waste production, to ensure that the living and working environment of all people is isolated from all forms of

waste, to ensure that waste-related surface and ground-water pollution is eliminated, and to ensure that all wastes are safely re-utilized. The report proposes four major waste-related areas which constitute an environmentally responsive framework for future waste management (minimizing wastes, maximizing waste reuse, promoting safe water disposal and extending waste disposal coverage) and details activities to attain the objectives.

Other Legal, Institutional and Related Matters

Working Group III of the Preparatory Committee will address other legal, institutional and related matters, including the further development of international environmental law, the development or strengthening of appropriate institutions and measures for the prevention and settlement of disputes in the environmental sphere.

Among the documents before the Group will be a survey of existing agreements and instruments in the environmental field, and criteria for evaluating their effectiveness (document A/CONF.151/PC/77). The draft list is essentially concerned with environmental protection against man-made risks, and includes instruments dealing with general environmental concerns, nature conservation, atmosphere, marine environment, marine living resources, hazardous substances, nuclear safety and work environment. Twenty-three questions are proposed as criteria for identifying gaps and possible areas for the further development of international law.

An annotated check-list of principles on general rights and obligations of States and regional economic organizations (document A/CONF.151/PC/78) will be used by the Working Group in considering the feasibility of formulating an appropriate legal instrument, or possibly a section of the "Earth Charter" to be adopted at the 1992 Conference. The check-list -- which summarizes 25 principles drawn from such sources as the United Nations Charter, the Stockholm Declaration and the Brundtland Legal Principles -- is broken down into three categories: basic duties, principles of decision-making and principles of transnational relations.

The Group will also consider legal and institutional aspects of cross-sectoral issues, based in part on a progress report on the development of legal instruments for transboundary waters (document A/CONF.151/PC/79). The report takes into account recent developments in the International Law Commission and in the United Nations Economic Commission for Europe (ECE) regarding a draft convention on the protection and use of transboundary watercourses and international lakes.

An updated progress report on institutional issues (document A/CONF.151/PC/80) states that the extensive range of institutional issues involved in the Conference preparatory process must be considered in the context of the broader need for organizational reforms of the United Nations system. In addressing the question of which unit in the Secretariat will have overall responsibility for overseeing the implementation of Agenda 21, it concludes that there is no need for creation of a separate new

organization to deal with the integration of environment and development but that existing structures must be strengthened.

Recent Actions of Intergovernmental and Other Bodies

In reviewing recent actions of intergovernmental and other bodies relevant to the preparatory process for the 1992 Conference, the Preparatory Committee will examine a report of the United Nations Conference on Trade and Development (UNCTAD) on environment and international trade (document A/CONF.151/PC/48). The report discusses both the environmental impact of trade and development policies, as well as the implications for development of trade measures taken for environmental purposes. It also describes the UNCTAD trade control measures information system, the most comprehensive computerized database on such measures applied in developed and developing countries.

The report states that in order for trade to serve sustainable development, end-user prices must reflect the real costs of measures necessary to protect and conserve environmental resources in both the countries of origin and the countries of destination. Without appropriate incentives to enhance the efficiency of resource use, there is scant hope of achieving sustainable environmental conditions. If the "polluter-pays" and "user-pays" principles are applied, trade liberalization will induce shifts in production conducive to that goal. It must, however, be accompanied by appropriate technical and financial assistance, by the removal of distortionary trade barriers and by the use of environmentally related non-distortionary trade instruments. The UNCTAD none the less stresses that environmental protection should not be used as a conditionality by donor countries in granting preferential trade terms to developing countries.

In addition, the Group will consider a letter from the Permanent Representative of Peru on options for an institutional mechanism for the environment (document A/CONF.151/PC/81), which would permit the participation of transnational corporations in instruments to be set up by the Conference. It proposes that the Conference establish either a bipartite or a tripartite executive committee, composed of representatives of Governments, transnational corporations and non-governmental organizations. Peru has also suggested elements for inclusion in an "Earth Charter" (document A/CONF/151/PC/83).

Committee Background

The Preparatory Committee, which was established by the General Assembly in December 1989, consists of all Member States of the United Nations and of the specialized agencies. It is mandated to draft the provisional agenda for the 1992 Conference, adopt guidelines for States in the preparations for the Conference and prepare draft decisions for consideration and adoption by the Conference. Another of its tasks is to define the funding and technology needs of developing countries so that they can include environmental considerations in their development policies, and to agree on how those needs can best be met.

At its previous session, in Geneva (18 March to 12 April), the Committee decided that human settlements and urban poverty would be considered at the present session along with the other cross-sectoral issues. It requested the Secretary-General of the Conference to continue developing his proposals on Agenda 21 for discussion at this session. In addition, the Committee recommended the accreditation of an additional 23 non-governmental organizations to participate in its work, bringing the total number thus far accredited to 198.

Objectives of 1992 Conference

The Earth Summit is expected to produce:

-- an Earth Charter that will embody basic principles which must govern the economic and environmental behaviour of peoples and nations to ensure "our common future";

-- Agenda 21, a blueprint for action in all major areas affecting the relationship between the environment and the economy, which will focus on the period up to the year 2000 and extend into the twenty-first century;

-- The means to carry out the agenda by making available to developing countries the additional financial resources and environmentally sound technologies they require to participate fully in global environmental cooperation and to integrate environmental considerations into development policies and practices;

-- Agreement on strengthening institutions in order to implement these measures; and

-- Conventions on climate change, biological diversity and, perhaps, forestry, which may be negotiated prior to the Conference and signed or agreed to in Brazil.

Conference-Related Activities

A voluntary fund has been opened to support the participation of developing countries, especially the least developed, in both the preparatory process and the Conference itself.

Reports are being prepared by Member States, with the participation of non-governmental organizations, to reflect national experiences and perspectives on environment and development. A related series of regional conferences will also be held prior to the Earth Summit, for the purpose of formulating each region's position on related questions. Regional conferences have already taken place in Bergen, Bangkok, Cairo and Mexico City.

An electronic bulletin board, called the Global Electronic Information Network, is being operated by the Secretariat to provide information on preparations for the Conference.

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Committee Officers, Vice-Chairmen

Tommy T.V. Koh (Singapore) is the Committee Chairman, and Ahmed Djoghlaf (Algeria) is its Rapporteur. Bo Kjellen (Sweden) chairs Working Group I and Bukar Shaib (Nigeria) chairs Working Group II, while Working Group III is chaired by Bedrich Moldan (Czechoslovakia).

The 39 States elected Vice-Chairmen are: Argentina, Australia, Bangladesh, Barbados, Byelorussia, China, Colombia, Costa Rica, Djibouti, Egypt, France, Germany, India, Indonesia, Italy, Jamaica, Japan, Kenya, Kuwait, Malaysia, Mauritania, Mexico, Mozambique, Norway, Pakistan, Papua New Guinea, Peru, Poland, Senegal, Togo, Tunisia, Uganda, USSR, United Kingdom, United States, Venezuela, Yugoslavia, Zaire and Zambia. Brazil, as the host country for the 1992 Conference, is an ex officio Vice-Chairman.

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UNCED NETWORK NEWS

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UNCED

(For those unfamiliar with the Earth Summit, this section repeats UNCED's key goals and outputs)

The "Earth Summit," as the U.N. Conference on Environment and Development (UNCED) to be held in June 1992 is known, will bring together heads of state and heads of government in Rio de Janeiro, Brazil, in an attempt to build political consensus for concerted global action on sustainable development. The Bank will be represented at the conference by a high-level delegation, led by its president.

The Canadian Maurice Strong, UNCED Secretary-General, has proposed that UNCED's output be organized into six main components:

- An "Earth Charter," or declaration of basic principles for the conduct of nations and peoples with respect to environment and development.
- Agreements on specific legal measures, including conventions for the protection of the atmosphere and biological diversity.
- An agenda for action, "Agenda 21," establishing the environmental work program agreed by the international community for the period beyond 1992, and into the 21st century.
- New and additional financial resources.
- Transfer of technology.
- Strengthening of institutional capacities and processes.

Preparatory Committee Meetings

As with any U.N. conference, one of the first steps was to establish a preparatory committee (PrepCom) of the General Assembly, consisting of the member states of the U.N. and members of the specialized agencies. Other participants, including the "independent sectors" (NGOs and other private organizations) will also be represented at the conference, and are already taking an active role in its preparation. The first UNCED preparatory committee meeting was held in Nairobi, Kenya during August, 1990; the second in Geneva in March/April, 1991; and the third also in Geneva in August/September, 1991. The fourth and last meeting is scheduled for March 1992 in New York.

Women at UNCED

One of the most important accomplishments of PrepCom III was the adoption by its plenary of a draft decision on women in environment and development (PC/L.40), which requests the Secretary-General to:

- Ensure that key elements relating to women's critical economic, social, and environmental contributions to sustainable development be addressed by UNCED *as a distinct cross-cutting issue*, in addition to being mainstreamed in all the substantive work and documentation, particularly Agenda 21, the Earth Charter, and the conventions.
- Establish mechanisms for:
  - including a global goal in Agenda 21 to promote the effective participation of women in knowledge generation, decisionmaking, and management at all levels;
  - recommending specific actions needed in each of the sectoral and cross-sectoral areas of Agenda 21 to make sure that measures for sustainable development with beneficial impacts for women are adopted; and
  - identifying human and material resources and infrastructure needed from international, regional, and national agencies to promote the participation of women in all UNCED activities.
- Ensure that recommendations on women from relevant NGO, inter-governmental organization, and government meetings are made available to the PrepCom.

UNCED Third Preparatory Committee Meeting

PrepCom III

The third preparatory committee for UNCED (PrepCom III) met in Geneva from August 12 to September 4, 1991, chaired by Ambassador Tommy Koh (Singapore). Over 140 countries participated, as well as all concerned agencies of the U.N. system, and some 500 representatives from about 230 NGOs.

At this session, debate shifted to the action-oriented phase of the preparatory process, with the aim of framing agreements for decision at the fourth and last PrepCom, to be held in New York in March, 1992.

Early negotiations focussed on Agenda 21 (an action agenda for the 21st century). Negotiations were protracted and difficult on almost every item. Progress has been made in the identification of main program elements, but much remains to be agreed.

A key outcome of this PrepCom was the adoption of a draft decision on women in environment and development (see box on page 1).

For the World Bank, two other issues of special concern—financing and institutional arrangements—are emerging from the preparatory process for UNCED.

Developed countries recognized the need for additional financing, but expressed some skepticism about expanding funds to cover a growing list of environmental issues without a clear definition of purpose and priorities. Developing countries are anxious to avoid "green conditionality," and are concerned that existing aid might be reallocated for environmental purposes at the expense of traditional—and pressing—development goals.

The use of environmental action plans (EAPs) as a basis for mobilizing resources for developing countries' own sustainable development priorities is increasingly seen as a way to overcome the impasse over financing and to facilitate agreement on this issue at the Earth Summit.

While EAPs may serve to coordinate financial support for environmental actions at the national level, a restructured Global Environment Facility (GEF) is being urged to organize funding for actions at the global level (see box on the GEF, page 14).

PrepCom III considered all aspects of the UNCED agenda. Fifty-two technical reports and studies requested by the working groups at PrepCom II, and prepared by the UNCED secretariat, were reviewed. Bank staff commented on and/or provided technical input for much of this documentation.

Despite progress on many issues, the insistence of most G-77 countries on specifying funding requirements and mechanisms precluded final agreement on actions under Agenda 21, leaving the decision language in brackets to indicate continuing disagreements.

World Bank Approves an Environmental and Natural Resources Sector Adjustment Program for the Philippines

In its first project to combine policy-based lending with a GEF-supported investment component, the Bank approved earlier this year an environment and natural resources sector adjustment loan for the Philippines (US$158 million from the Bank and US$66 million from IDA). The project aims to preserve what remains of biological diversity in areas where natural resources have been degraded or destroyed, rehabilitate them where possible, introduce sustainable land-use practices by strengthening the institutions concerned, and promote a community-based resource management approach.

The program includes a package of legislative and administrative actions, together with studies to identify what areas need to be preserved, and the specific actions required. The project's investment component includes:

- The design of an integrated protected areas system, within an appropriate legislative framework.
- Program support for the management of ten priority protected areas.
- Monitoring of logging operations to ensure compliance with forestry laws and regulations.
- Capacity building at the local level in four regions, to generate and service small-scale, community-based, resource management projects in watershed areas.

Financing for the program will also be provided by the government of the Philippines (US$19.4 million), the Overseas Economic Cooperation Fund (US$100 million), the GEF (US$20 million), the Japan-World Bank Technical Assistance Grant (US$4.6 million), and the Nordic Development Fund (US$1 million).

PrepCom III Working Groups

Working Group I (chaired by Bo Kjellen, Sweden). Issues include the atmosphere (climate change, ozone depletion, transboundary air pollution), forests, land resources, desertification, and biodiversity/biotechnology.

Atmosphere

Climate Change. The chairman of the Inter-governmental Negotiating Committee for a Framework Convention on Climate Change (INC/FCCC) reported on the June 1991 meeting in Geneva. Delegates agreed that UNCED should not duplicate the work of INC/FCCC. Several countries stressed the need for differential responsibilities in a climate convention—i.e., industrial countries pollute most, so they should pay most. The decision adopted simply requests the secretariat to make the PrepCom documents available to the INC, and to follow INC's work.

Ozone Depletion. Several countries called for additional funds for technology transfer to protect the ozone layer, and urged timely compliance with financial commitments under the Montreal Protocol. The ozone depletion decision expressed satisfaction with ongoing work under the Vienna Convention and the Montreal Protocol, and urged all states to become parties to the convention and protocol, and to support the expansion of the Global Observing System Network of the World Meteorological Organization (WMO). Industry was also urged to contribute to the efforts under the Montreal Protocol.

Transboundary Air Pollution (TAP). Already serious in Europe and North America; TAP is becoming a major problem in LDCs as well. The PrepCom noted the potential for legal conflicts over transboundary damage, and the need for arrangements to deal with accidents and emergencies. Several countries stressed the need for information sharing on successful approaches.

The European Community (EC) stressed the importance of regional approaches, including broader coverage of the Global Atmosphere Watch network. Parties to the Convention on Long-Range Transboundary Air Pollution were asked to share technologies for airborne emissions.

Issues for Agenda 21. The atmosphere working party outlined eight areas for inclusion in Agenda 21. The first half were covered at PrepCom III, and the second half will be addressed at PrepCom IV. Issues included: promoting the energy transition; increasing energy efficiency; promoting renewable energy sources; promoting environmentally sound and sustainable transportation systems; promoting environmentally sound industrial development; promoting environmentally sound agricultural and forestry practices; promoting sustainable energy consumption patterns and lifestyles; and addressing the scientific uncertainties.

Forests

The preparatory process has become one of the most important fora for substantive negotiations over issues of new and additional resources and sovereign rights, both linked to UNCED's role as principal negotiating forum for forests.

At the last PrepCom, delegates agreed to aim for a framework on principles that should govern a forest convention dealing with all types of forests, not just tropical.

This was perhaps the most contentious issue so far. Industrialized countries continued to stress natural forest protection, leading some NGOs to accuse the U.S. of emphasizing reforestation to divert attention from climate change. Canada offered guiding principles for conservation and sustainable development of all types of forests. Developing countries stressed the need to take account of the economic realities of LDCs.

The (bracketed) draft on Forest Principles will be taken to PrepCom IV, along with Agenda 21 proposals in this area, and governments and NGOs can suggest new principles and modifications in New York.

Principles agreed to date include: sustainable management of forests, based on popular participation, including participation of women, and respect for the rights and interests of forest dwellers and local communities. Demands for fuelwood should avoid net deforestation, and decisions on forest use should be based on full economic accounting.

Bracketed (still under discussion) proposals include: requiring targets and time frames in national forest policies; revising national policies to comply with international forest guidelines; protecting native forests; and mandating environmental impact assessment. Agreement on financial mechanisms and technology transfer also remain outstanding.

Land Resources

Canada stressed the need to integrate land resources with climate change and freshwater resource issues, while some LDCs argued that land degradation is caused by lack of economic development.

It was agreed that mountain ecosystems, coral atolls, and coastal regions merit separate treatment.

The (bracketed) Agenda 21 document adopted identified three main areas of concern: protection and management of fragile ecosystems;

integrated approach to planning and management of land resources; and sustainable agriculture and rural development.

Desertification

An African proposal to create a special desertification fund was opposed by the U.S. and others, who stressed the need to improve national economic and land management policies.

Several African countries complained about the lack of time given to desertification and the Chair of Working Group 1 promised that desertification will be given priority at PrepCom IV.

Program areas identified for Agenda 21 include improving information and monitoring systems, intensifying afforestation and reforestation programs, coping with environmental refugees, and developing comprehensive drought preparedness and relief program.

Biodiversity and Biotechnology

Biodiversity. Key points of contention included access to genetic resources and technology, financial resources, and the issue of biotechnology. LDCs focused on ownership and use of biological resources. While some countries insisted on national sovereignty, others considered biological resources as a common heritage, warranting binding regulation. The EC proposed forming networks of protected areas to conserve the maximum possible number of species and ecosystems, but some LDCs objected to this proposal as being too narrowly conservationist.

Biotechnology. A number of LDCs and NGOs expressed concern about potential hazards of biotechnology, and opposed the export of untested genetically-manipulated organisms. The U.S. felt that dangers of genetically-altered organisms were exaggerated.

Several European countries favored the development and implementation of a bio-safety code of conduct. The U.S. advocated the protection of intellectual property rights, while many LDCs emphasized the rights of local communities.

Decisions on biodiversity and biotechnology request the secretariat to work with the INC for a convention on biological diversity.

Working Group II (chaired by Dr. Bukar Shaib, Nigeria). Oceans, freshwater resources, wastes (transboundary movement of hazardous wastes, management of radioactive waste, management of toxic chemicals, solid waste management and sewage).

Oceans

The oceans agenda centers on: whales and small cetaceans; relation of UNCED to the Law of the Sea Convention; capacity and institution building, and technology transfer; development issues; polar regions; land-based sources of pollution; sustainable use of living resources in high seas; marine biodiversity in tropical areas; need for regional approaches; and the Global Ocean Observing System.

Disputes surfaced over whether the International Whaling Commission (IWC) has regulatory authority over the smaller cetaceans. New Zealand proposed maintaining the 10 year moratorium on commercial whaling (until 1995/6), protecting small cetaceans, and reviewing the international machinery for the protection of all cetaceans.

Progress on the issue of land-based sources of marine pollution incorporated results of the Halifax meeting of experts. Some countries favored a global treaty on land-based sources of marine pollution, and proposed that parties to the London Dumping Convention ban radioactive waste dumping at sea.

The draft decision calls for submission by the Secretary-General of revised options to PrepCom IV.

Freshwater Resources

A draft decision to mandate water tariffs to promote water conservation was rejected by some LDCs who feared that water resources would be increasingly controlled by those with the ability to pay.

The decision adopted requests revised options for PrepCom IV. The WMO Dublin Conference on Water and Environment to be held in January, 1992, was asked to make recommendations to UNCED, and to identify options for improved cooperation and coordination.

Wastes

Transboundary Movement of Hazardous Waste. Discussions focused on the need to strengthen safeguards, and expand participation in the Basel and the Bamako Conventions. LDCs and the EC called for a ban on the international movement of waste. LDCs urged more monitoring, and more disclosure; research on health effects; opposition to pressure on LDCs to receive such waste for payment; and the need for a system of financial liability for damages.

The U.S. opposed a complete ban on the transboundary movement of hazardous waste, maintaining that this was a matter between individual states. No compromise was reached.

Management of Radioactive Waste. There was much discussion about the appropriateness of the UNCED forum for discussion of this topic, given the role of the IAEA. The most contentious issue was dumping of low-level radioactive wastes at sea. No agreements were reached.

Environmentally Sound Management of Toxic Chemicals. Main issues concerned financial assistance and technical cooperation for capacity building; adequate consumer labelling; use of chemicals in agriculture; education, communication, and awareness programs; links with other issues; and the principle of "prior informed consent."

Solid Waste Management and Sewage Issues. Proposals included source separation of household wastes and developing markets for recyclables.

The draft decision asks for revised options at PrepCom IV, including measures for the prevention, minimization, and management of hazardous wastes; it calls upon UNEP meetings of experts to consider a possible international program and proposals for an inter-governmental mechanism for risk assessment and management of chemicals.

Working Group III & Cross-Cutting Issues (chaired by Mr. Bedrich Moldan, Czechoslovakia).

Legal and Institutional Issues

The PrepCom held its first substantive discussions on cross-cutting issues, including legal and institutional matters. It examined proposals to strengthen support for Agenda 21, and to establish a monitoring and review mechanism at a high inter-governmental level.

There were several proposals for monitoring the implementation of Agenda 21 and improving overall U.N. coordination. While some countries favored strengthening UNEP, others proposed reinforcing ECOSOC, or establishing an International Development Council (possibly serving as a special secretariat to the U.N. Secretary-General, or as part of an expanded Security Council), and the U.S. proposed reviving the Environmental Coordination Body.

These suggestions are being considered against the background of a Swedish proposal, still at an early stage of consultation, to set up an International Commission on Global Governance in preparation for a World Summit on Global Governance in 1995 to commemorate the 50th anniversary of the U.N. (although Malaysia has already strongly opposed this proposal because "it may prove the basis for intervention within states").

Most delegations opposed creating new institutions, and supported increased cooperation and coordination among the existing ones. The working group requested the secretariat to compile proposals and information on existing agreements and legal instruments.

The decision on legal instruments for transboundary waters acknowledges that further progress on this issue will occur in the U.N. International Law Commission, the U.N.

World Bank Provides Assistance for India's Industrial Sector Pollution Control Efforts

The Bank recently approved a loan entirely dedicated to improving India's industrial sector environmental performance. World Bank resources of $150 million will complement those of India's government and private sector. The total cost of the project is estimated at US$260 million. The project will help to promote:

- The enactment of new laws and regulations to limit the discharge of pollutants, the development of safety codes for factory operations, and the effective enforcement of existing legislation.
- The creation of agencies to enforce compliance with environmental laws through assessments, extension services, and research.
- Support for efforts by industry to comply with existing environmental regulations, including a special program to reach the small-scale industry by setting up common waste treatment facilities.

Despite some progress made in raising awareness on environmental issues, pollution and environmental degradation caused by industrial sources remain serious, and threaten the country's economic sustainability.

The government of India estimates that industry contributes over one-third of pollutants discharged into waters. Half of this amount is generated by small- and medium-size industries, particularly those in the chemical sector.

The project's efforts to monitor, control, and alleviate industrial pollution will be concentrated in the four states where the chemical industry is largely located (Gujarat, Maharashtra, Tamil Nadu, and Uttar Pradesh), and will include producers of fertilizers, dyes, pesticides and insecticides, pharmaceuticals, petrochemicals, pulp and paper, sugar, distilleries, and leather tanning.

The medium-term objectives of India's environmental strategy are:

- To reduce by 25 percent industry's water use, solid residue generation, and all polluting emissions into water bodies.
- To promote the use of common effluent treatment plants at existing clusters of small-scale industries.
- To contain at present levels the emissions of airborne pollutants, especially of CO_2 and SO_X.
- To regulate the use of non-biodegradable products and the disposal of toxic and hazardous waste.

Economic Commission for Europe, and the International Conference on Water and the Environment.

The subject of dispute settlement was contentious, and it will be discussed at PrepCom IV, but not as a separate agenda item.

There was broad agreement that some reform of U.N. institutions in the field of environment and development is needed, and that existing international institutions (including the Bretton Woods institutions) should be adapted to support sustainable development. Such reforms, together with strengthening of UNEP, would help avoid a proliferation of global institutions. Increased coordination at the inter-governmental level is also desirable, and will involve increased institutional capacity in LDCs to enable them to participate. New partnerships and increased participation, including the NGO sector, will be important. Institutional arrangements will be further considered at PrepCom IV.

Human Settlements

The decision adopted noted that human settlements should be treated as a distinct program of Agenda 21, in addition to being addressed in each specific program area. It was also decided that the implementation of the Global Strategy for Shelter to the Year 2000 should be a major element of the Agenda 21 human settlements program.

Financing

The substantial additional funding required to implement Agenda 21 became a key concern at the PrepCom.

The secretariat's paper (PC/51) identified a number of potential mechanisms for transferring resources, including: debt relief, debt-for-nature swaps, a special drawing rights scheme, and a tax on the use of the global commons.

The EC acknowledged that new and additional financial resources must be given to developing countries. While the U.S. recognized the need for access to resources, it emphasized that better use has to be made of existing aid, that the GEF should serve as the primary financial mechanism for assistance, and that private sector participation is key to environmentally sound development. The U.S. disagreed with fixed targets for overseas development assistance, stressing that growth is generated not so much by additional aid, but by dynamic, market-based economies, within the context of appropriate government regulation.

G-77 countries again called for new and additional funding, without conditionality, and—in a surprising new twist—through "mandatory" contributions. The "mandatory" claim was, however, acknowledged to be largely rhetorical. China and the G-77 favored the creation of a general environment fund (the "Green Fund"), separate from the GEF, to cover activities not included in the conventions. They also called for transparent and democratic governance of funding mechanisms, for compensatory payments by industrialized countries to developing countries, and for the establishment of a separate fund for each convention. Among the reasons cited for a separate fund were: that GEF's current mandate is too limited; that the basis for contributions is voluntary; that its governance is based on weighted voting power; and that the World Bank had too large an influence on its operations.

Delegates debated reallocating financial flows from existing programs to meet incremental costs for sustainable development. The decision finally adopted accords priority to financial resources at PrepCom IV, and promises that all proposals submitted by government delegations will be considered. It also requests the Secretary-General to provide concrete proposals, with specific costings, for the implementation of each program area of Agenda 21.

Technology Transfer

G-77 countries objected to dumping of inappropriate and outmoded technology on LDCs, stressing the need for equitable transfer of technology. The U.S. emphasized free market mechanisms, human development, and local capacity building for technology transfer, with responsibility centered at the national level.

The EC considered that technology cooperation should be adapted to national or regional capabilities and needs; that industrialized countries should help LDCs develop their own technologies; and that NGOs play an important role. The EC also felt UNCED should not address intellectual property rights, which are being addressed by the GATT.

The decision adopted requests the Secretary-General to continue work on these issues, to submit draft options for Agenda 21 to PrepCom IV, and to transmit the text of the vice-chair to PrepCom IV. This latter text (mostly bracketed) calls for: improved flows of environmentally safe and sound technology to LDCs; indigenous capacity building; ensured access to scientific and technological information; exchanging experiences for technology assessment, environmental impact and risk assessment of

"The phenomenon of life is a rare one, and the conditions which support it are very, very exceptional."

Maurice Strong
Secretary-General, UNCED

technology; purchasing appropriate patents for transfer to LDCs; developing international safeguards for technology transfer; facilitating the role of market mechanisms in promoting technology transfer; promoting long-term technological partnerships; supporting cooperative research and development; and incorporating the transfer of environmentally sound technologies to developing countries in the negotiations of an International Code of Conduct of Transfer of Technology.

Poverty, Demographic Pressures, Health, Education, Women, and Youth

The EC requested priority be given to clean drinking water, sanitation, and adequate shelter, mentioning the important role of NGOs in environmental education efforts. Both Sweden and the U.S. emphasized that poverty alleviation is a prerequisite for sustainable development. The decision adopted requests the Secretary-General to prepare proposals for action on these issues.

On indigenous people and local communities, the decision adopted recognized: the contribution of indigenous peoples' traditional knowledge to sustainable development, and the need to protect habitats on which they depend. The need for capacity building and for cooperation to promote their self-development was also stressed.

The youth in environment and development decision calls for promoting the effective participation of young people.

The women in development decision calls for including a global goal in Agenda 21 promoting the full and effective participation of women, and the adoption of specific measures to benefit women. It was agreed that women's contribution should be included, both as a cross-cutting issue and in all substantive work, particularly in the Earth Charter, Agenda 21, and the conventions; women's participation in UNCED activities at all levels, including delegations, needs to be actively promoted.

Sustainability, International Economy, Integrated Economic-Environmental Accounting, and Economic Instruments

G-77 countries felt that time spent on these issues was insufficient. The EC stressed the successful conclusion of the Uruguay Round of GATT could play an important role. Austria added that environmental concerns should not be an excuse for "eco-protectionism."

While some countries favored a revised system of national accounts—to integrate both environmental and economic accounting—others favored the adoption of satellite accounts, to complement the existing system of national accounts.

The decision adopted on these issues requests the Secretary-General to continue work on these issues, and to submit to PrepCom IV proposals for action for Agenda 21.

The Earth Charter

During this PrepCom, substantive discussion of the secretariat's draft proved impossible. The short, visionary statement initially intended sparked sharp reactions. A decision was made to take as a basis for discussion at PrepCom IV all of the documents submitted.

Malaysia suggested that the Earth Charter be called instead the "Rio Declaration on Environment and Development," in order to bring development issues more into the debate, and Brazil stated that language such as "global commons" tends to compromise national sovereignty over resources.

The chairman, however, took the view that the Earth Charter should be short and concise, closely integrated with Agenda 21, and should build on principles embodied in the Stockholm Declaration. Signing the declaration would be a symbolically important act for summit leaders.

Agenda 21

Agenda 21 will be addressed to governments and to multilateral institutions and NGOs, which will play a key role in its implementation.

Many delegates cautioned against excessive demands on Agenda 21, if it is to secure wide support.

The treatment of cross-cutting issues, and the need for a mechanism for monitoring implementation were also discussed. Although progress was achieved in some areas, negotiations have so far proved difficult. Some G-77 delegations argued that the means of implementing the programs, including costing and financing, should be included in each substantive area of Agenda 21. Failure to resolve this point resulted in virtually all substantive texts of Agenda 21 remaining bracketed until the next and final PrepCom in March.

The PrepCom plenary adopted the chairman's summary, based on informal consultations held on a G-77 draft decision. Additional program areas now include demographic pressures and unsustainable consumption patterns. The summary outlined the basic elements for cross-cutting issues in Agenda 21:

- Basis for action.
- Objectives.
- Activities.
- Means of implementation.

Finally, the following elements were proposed for Agenda 21 and each of its program documents:

- Financial resources.
- Transfer of environmentally sound technology.
- Specification of the different actions to be taken by developed and developing countries.
- Identification of responsibilities for actions to be undertaken by international and regional organizations.
- Recognition of the specific needs and realities of developing countries.

Summary of the Statement by the World Bank at PrepCom III

In delivering the Bank's statement to PrepCom III's plenary session, Jane Pratt (EXT/UNCED) outlined the steps that the Bank has taken to integrate environment and development in its own work, and to provide substantive contributions to preparations for the Earth Summit. More than half of the Bank's US$ 24 billion in lending last year involved projects with environmental components, environmental impact assessment of Bank projects has been instituted, and research on economic-environment linkages is underway, including national income accounting and environmental impacts of policy-based lending. The *World Development Report, 1992* (WDR) will be dedicated to environment and development (see section on page 13), and there are 23 focal points in the Bank working on contributions to the PrepCom's working parties. Considerable time and effort is also being devoted to the Global Environment Facility (GEF).

Ms. Pratt spoke of the importance the Bank gives to maintaining a dialogue with all parties concerned in its environmental work. She also underlined the need for more effective and transparent information flows, and the need for better understanding of the links between global environmental concerns and country development strategies.

On the latter point, Ms. Pratt indicated that the World Bank is working to develop a stronger basis for global and national actions. Country-based Environmental Action Plans (EAPs) being prepared by developing countries are proving useful in setting out the policy changes, investments, technical assistance, research, and training needed to address each country's environmental priorities. The Bank not only welcomes those initiatives, but supports the requests of several developing countries to use consultative group meetings of donors to secure financial support for actions under their EAPs. Such an approach appears to be promising in mobilizing resources to support actions that have positive environmental impacts at the national level.

"Our chances for arriving at the best policy balance and implementing it can be improved, if people are free to articulate their problems and participate in solutions. Popular participation is important to successful solutions, economically, socially and environmentally."

Barber B. Conable
Former President,
The World Bank Group
London, U.K., March 19, 1991

UNCED Regional News

Africa and the Middle East

1. The U.N. Economic Commission for Africa (ECA) has released a Cairo Common Position on the African Environment and Development Agenda, following ECA's regional preparatory conference for UNCED in Cairo held July 11–16, 1991. The "Cairo Declaration" stresses the links between environment and development, the need for popular participation and full democratization in decision-making, and in program implementation; NGOs and the independent sectors, including trade unions and business, must get involved.

2. In preparation for the Earth Summit, the African Academy of Sciences (AAS) held a Conference on Environment and Development in Addis Ababa, November 11–14, 1991.

3. The last UNCED regional/subregional preparatory meeting took place in Cairo, September 10–12, 1991, for Arab countries. The main issues discussed included the accumulated environmental damage and unsustainable consumption patterns of industrialized nations; the need to complement environment and development, in view of the fact that sustainable economic growth increases the resources available for environmental protection; and recognition that use of outdated technology can harm the environment in developing countries.

The pressing regional environmental problems included water resources, land management, and the industrialization strategy.

Absent from the discussion was consideration of price incentives to promote efficient resource use; the emphasis was on command and control measures, rather than the use of market incentives and pricing mechanisms.

Mr. Anand K. Seth, Chief, EMTEN, represented the Bank at this regional meeting.

Asia and the Pacific

4. The first meeting of the Inter-Agency Committee on Environment and Development in Asia and the Pacific was held in Bangkok on July 17, 1991. U.N. agencies, inter-governmental organizations, and bilateral donors attended.

The Inter-Agency Committee was established following the Ministerial Conference on Environment and Development in Asia and the Pacific, held in Bangkok, October 15–16, 1990, to improve cooperation and coordination of regional environment and development activities.

The next meeting will take place in November, 1991, to discuss the implementation of the regional strategies, funding mechanisms, and the outcome of PrepCom III and other important meetings.

5. Japan's Minister of International Trade and Industry (MITI) announced, during a visit to Thailand in August, 1991, a new Japanese initiative to help other Asian nations solve energy and environmental issues.

The Japanese green aid plan will focus on strengthening political dialogue, the transfer of energy and environmental protection technologies, and financial cooperation. The plan will give priority to: desulfurization, energy efficiency, and clean energy sources.

Japan will help other Asian nations promote their human resources by establishing training programs and joint research.

An Energy and Environmental Technology Center will be created as a coordinating organization for the plan.

6. Some 200 participants representing NGOs and government agencies from the Asia-Pacific region gathered in Fukuoka, Japan, on September 21–22 for a conference to commemorate 30 years of volunteer activities by the International Organization for Industrial, Spiritual, and Cultural Advancement (OISCA). The World Bank and several U.N. and other organizations also attended.

The conference adopted the "Fukuoka Declaration," a manifesto of urgent measures to be taken both by NGOs and by governments in the region to reverse the environment's present critical situation.

Latin America

7. The Esquel Group Foundation, a Latin American NGO network, is organizing an international

World Bank-NGO Seminar on Environment and Development at the Bank-IMF Joint Annual Meeting in Bangkok

Since 1988 the World Bank has held meetings with NGOs during the joint annual meetings to exchange views on environment and development. This year's meetings were attended primarily by Thai and international NGO representatives. In his intervention, Mohamed El-Ashry (ENVDR) presented the Bank's second annual environment report, which emphasizes Bank's experience with the application of environment assessment p. .edures. His presentation was followed by discussions from participants.

International Environment Policy Meeting

The Aspen Institute meeting of senior international policymakers took place in Aspen, Colorado, from July 18–28, 1991, in connection with UNCED. Ms. Jane Pratt (UNCED Coordinator, EXTDR) and Mr. Francisco Sagasti (EXTDR) attended the meeting.

The working group's report was presented to a gathering of senior policymakers from several countries and the U.N. system, including Mr. Ibrahim Shihata (LEGVP), and subsequently submitted to PrepCom III. It addressed several institutional, legal, financial, and technological issues.

1. Institutions. The report stressed the need to strengthen the capacity of national, sub-national, and regional organizations for promoting sustainable development and reinforcing the participatory nature of decision-making processes at all levels.

The working group recommended strengthening UNEP's *assessment* functions through the Earthwatch program, and enhancing its role in the development of international environmental law and "soft law" instruments, its role with the general public and NGO's, and its catalytic functions in respect of international environment conventions. It also recommended that UNEP should discontinue its role in project implementation.

Participants considered that UNDP's primary role should be to provide technical support for devising and implementing national and regional sustainable development policies. They proposed that UNDP and other field and regional offices of the U.N. system combine their skills and resources.

Continued staff follow-up to UNCED was considered essential for the implementation of Agenda 21 decisions. The report suggested that the role of the Administrative Committee on Coordination be strengthened, and that working parties in sectoral and cross-sectoral areas, similar to those established by UNCED, be organized. Provision should be made for advice from under-represented groups, especially women.

Finally, it proposed a Sustainable Development Commission, since participants felt there was a need for a high-level, inter-governmental deliberative body that could focus the energies of the U.N. system on sustainable development. This body would: (a) involve those ministers with real decision-making power; and (b) report directly to the U.N. General Assembly, in order to have the necessary weight within the U.N. system.

2. Technology Transfer. The working group felt that donor programs should incorporate technical training of indigenous experts and strengthen technology assessment capabilities. In addition, participants considered that capacity-building should be promoted at the regional level through the establishment of networks of institutions to facilitate technology diffusion. An outcome of UNCED should be to encourage better use of consultative groups, along the lines of CGIAR. Other proposals included:

- Ensuring that developing countries have access to information about environmentally sound technology for development.
- Developing regulatory frameworks to provide incentives for the use of environmentally sound technology in all sectors of the economy.
- Supporting initiatives to encourage research and development of environmentally sound technologies, and applying full social cost pricing to technology research and development and technology assessment.

3. Finance. Financial measures proposed by the working group included: increased public investment and funding, and the promotion of free trade and private investment through the elimination of barriers to trade, especially those disguised as means of environmental protection, and the encouragement of direct foreign investment in environmentally sustainable technology.

The group warned against the proliferation of management and administrative mechanisms for funding. Programs should be designed to increase private sector participation, and small-scale, grass-roots lending activities.

It was proposed that UNCED consider using the GEF to serve as an umbrella multilateral organization for channelling additional resources linked to specific conventions, including the preparation of national strategies.

4. Legal Issues. There was consensus that in international law-making processes, obligations of countries should be linked to their contribution to the deterioration of the global commons and the depletion of natural resources.

The International Law Commission could make an important contribution to the development of international environmental law.

On the controversial issue of compulsory settlement of disputes, the working group suggested that some improvements could be made by expanding the role of the International Court of Justice; establishing an international center for the settlement of environment disputes (ICSED); establishing procedures to enable individuals and associations of individuals to seek redress against governments which breach their legal obligations; and developing the role of national and regional courts and tribunals.

Finally participants considered that the *role of* NGOs should be further promoted and developed.

conference on the impacts of climate variations and sustainable development in semiarid regions (ICID). The conference will take place in Fortaleza, Brazil, January 27 to 31, 1992. It will bring together members of the international scientific and technical community, public and private sector organizations, and others, to discuss the links between environmental degradation, economic and social development, and the formulation of policies to respond to climate change in semi-arid regions.

8. With more than 700 NGOs already participating, Brazilian NGOs are preparing to host the 1992 UNCED parallel meeting in Rio de Janeiro.

The parallel NGO meetings will last several weeks, and will take place at the Gloria Hotel conference center and the nearby Flamengo Park. This site is easily accessible to NGOs, grassroots organizations, and other participants. 35,000 are expected to participate in UNCED activities in Brazil, and although the Brazilian government has provided the Rio convention center for the official meeting, only about 1,000 NGOs will have access to the conference itself. NGOs will therefore largely rely on their own parallel meetings to achieve their conference objectives. The International Facilitating Committee (IFC), and the Brazil NGO Forum will join efforts to ensure the success of the NGO meetings. The official conference proceedings will be linked to giant TV screens in the area where NGOs will gather.

Europe

9. An international conference on water an the environment will be held in Dublin, January 26–31, 1992. The main objectives are: (a) to assess the current status of the world's freshwater resources in relation to present and future water demands, and to identify priorities for the 1990s; (b) to develop coordinated inter-sectoral approaches; (c) to formulate environmentally sustainable strategies and action programs for the 1990s and beyond; and (d) to bring the above to the attention of governments as a basis for national programs, and to increase awareness of the environmental consequences and development opportunities in improving the management of water resources.

Conclusions from the conference will form the basis for a "Dublin statement" to be submitted to the final PrepCom in March 1992.

10. A major gathering of NGOs organized by the Environmental Liaison Center International (ELCI), with support from the French government, will take place in Paris, December 17–20, 1991. The meeting will develop "common peoples' strategies" on issues of global concern, and adopt guidelines for an NGO program for 1992 and beyond. About 70 percent of the 1,000 participants expected to attend will come from developing countries.

11. The International Peace Bureau (IPB), based in Geneva, Switzerland, has issued an appeal that disarmament be considered by UNCED. Their "Disarm for Life" appeal requests the Earth Summit to consider the recommendations of the 1987 report of the World Commission on Environment and Development, and asks people to "approach their national UNCED committee with an appeal requesting their support for the inclusion of disarmament in your country's preparation" for the Earth Summit and the conference itself.

12. A conference on technology transfer and the global environment took place at the Royal Institute for International Affairs (Chatham House) in London, September 11–12, 1991. The conference, attended by several U.N. organizations, the World Bank, government agencies, private and public companies, universities, and NGOs, was jointly convened by Chatham House and the World Resources Institute (WRI) to analyze the scope for transferring environmentally sound technologies to address global problems.

Participants argued that the major obstacle to the transfer of environmentally sound technologies was not intellectual property rights, but financing.

In his intervention, the representative from the Business Council for Sustainable Development (BCSD) stressed that developing countries need access to OECD markets, more than aid or the harmonization of environmental standards.

Ms. Nemat Shafik (WDR) represented the Bank and spoke about background work for the 1992 WDR that had implications for technology transfer, and about some of the emerging lessons from the GEF.

13. The U.N. Industrial Development Organization (UNIDO), and the Danish aid agency, DANIDA, organized a ministerial conference on ecologically sustainable industrial development in Copenhagen, Denmark, October 14–18, 1991. The conference discussed hazardous waste management, the transfer of environmentally sound technology, industrial pollution, and biotechnology.

North America

14. A conference of mayors on world cities and their environment took place in Toronto, Canada, August 25–28, 1991. The Conference issued a "Toronto Declaration," resolving to take environmental responsibility at the local level to ensure sustainable development and equity, mobilize resources for the environment, and foster cooperation for environmental action. The Bank was represented by Carl Bartone,

Mary McNeil, Michael Cohen, and Josef Leitmann (INURD).

In five cities of the world, Accra, Katowice, Jakarta, São Paulo, and Toronto, citizens voiced concerns about their cities' environment. Through a series of town meetings sponsored under the Five Cities Consultation Project—executed in conjunction with the joint UNDP-World Bank-UNCHS (Habitat) Urban Management Program (UMP)— representatives from a variety of professional backgrounds met in a grassroots effort to voice their environmental concerns and to compare their views with other urban residents from across the world.

The Five Cities Project is managed by the Centre for Urban and Community Studies at the University of Toronto.

In addition to the town meetings, the UMP prepared baseline data and environmental profiles for each city which will be used to develop a World Bank policy paper on strategic options for the environment.

A declaration issued July 17, 1991 and signed in São Paulo by all five participating cities, was a major input into a declaration on the environment, a "Local Agenda 21" that was released at the conference of mayors on world cities and their environment.

15. Over sixty NGO representatives and private citizens presented testimony on UNCED issues at a public hearing held in Saint Louis, Missouri, on June 29, 1991. The U.S. Citizens Network plans to hold similar hearings across the U.S., the results of which are expected to contribute to the debate on the U.S. national report.

The Global Environment Facility (GEF)

In November, 1990, representatives from industrialized and developing nations meeting in Paris decided to take a further step to provide additional funds to meet the incremental costs of addressing global environmental issues in developing countries by setting up the Global Environment Facility (GEF).

The GEF was established as a three-year, US$1.5 billion, experimental program among national governments, the World Bank, the U.N. Development Programme (UNDP), and the U.N. Environment Programme (UNEP). More than 20 countries, including at least eight developing countries, have contributed funds to the facility.

Developing countries with a per-capita GNP of less than US$ 4,000 in 1989 are eligible for GEF funding. To qualify, a project must relate to one or more of four specific areas of global concern: global warming, preservation of biological diversity, protection of international waters, and reduction of ozone layer depletion. A further requirement is that the project would not be economically viable in the absence of GEF support. For ozone-related projects, the recipient country must also be a party to the Montreal Protocol.

UNDP coordinates and manages project preparation and technical assistance under the GEF and, through its 113 resident representative offices around the world, plays a key role in the identification of projects, communications with governments, and coordination with aid donors. It also ensures that the programs funded complement other development activities.

UNEP provides guidance through its 14-member scientific and technical advisory panel (STAP) which defines scientific and technical criteria for use of GEF funds.

The World Bank administers the GEF trust fund, and is responsible for the appraisal and supervision of investment projects.

GEF participants establish guidelines to determine eligibility for GEF funding and review free-standing projects and work programs twice a year, early in the project cycle. Following the participants' review, GEF projects are appraised and approved by the implementing agency: UNDP for technical assistance projects, and the World Bank for investment projects.

In May, 1991, the participants agreed to establish a US$5 million Small-Grants Program, under UNDP management, to support to innovative, community-based, small-scale activities by grassroots organizations, NGOs, and NGO networks in developing countries in the four areas of special concern described above. NGOs in some 35 countries have already been identified to help implement the projects selected for GEF funding, and the small-grants program will facilitate the participation of these NGOs in the GEF. Grants in any one country will not exceed US$50,000, but regional and sub-regional projects may be granted up to US$250,000.

Already, initial efforts are indicating the need to develop broader participation in decision-making, and greater transparency in information sharing. Rather than waiting until the 3-year pilot phase is completed, proposals are already being developed to address these issues, which will be considered at the next participants' meeting, scheduled for December 4–6, 1991, in Geneva. As decided by participants at their last session, there will be a special consultation with interested NGOs on December 3, 1991.

The 1992 World Development Report on Environment and Development

The *World Development Report* is the World Bank's most important annual publication, to which considerable intellectual and staff resources are devoted. The 1992 WDR addresses the linkages between environment and development.

The 1992 WDR is being directed by Mr. Andrew Steer, under the overall responsibility of Vice-President for Development Economics, Lawrence Summers. The WDR is prepared by a "core team" of about 10 full-time Bank higher-level staff and 10 researchers, and will include contributions from some forty Bank and outside leading environmental and economic experts. The Report will be published in time to be available at the Earth Summit.

A Dialogue on the 1992 World Development Report on Environment and Development

Andrew Steer has agreed to share some preliminary thoughts on the findings with readers of the *UNCED Network News*. These informal comments are not a complete summary of the conclusions. They represent "work in progress," and are intended to promote response and dialogue.

Some preliminary conclusions

The primary message of the WDR will be the need to implement policies for environmental management and for economic efficiency as complementary aspects of the same development agenda. Sound environmental policies—correctly defined—will be sound from an efficiency standpoint, and good economic policies will take environmental concerns into account. It will also identify the conflicts and tradeoffs that may arise between short-term economic development and environmental quality, and will suggest compensatory policies and investments to minimize these tradeoffs. Finally, it will recommend priorities for environmental management at both the national and global levels so as to ensure environmentally sound development into the next century.

Environmental challenges

The Report will argue that in the current environment discussions inadequate attention is being given to those local problems which are harming the health and livelihoods of the world's poor: sanitation and water supply, indoor air pollution, localized heavy concentrations of industrial, transportation and energy pollutants, and severe land degradation in specific locations.

This is not to argue that the other more global problems are not important, but that they must not crowd out those environmental problems that are afflicting millions in the developing world today. For example, 750 million children suffer from acute diarrhoeal diseases annually, of which 4 million die, 500 million people suffer from trachoma, 200 million from schistosomiasis, and 800 million from hookworm. Providing access to sanitation and water supply would not solve all these problems, but together with education in hygiene would be the most effective environmental investment in terms of the alleviation of human suffering. This and other "local" problems should be a strong focus at UNCED, and higher on the agenda for receiving additional donor support.

Development and the environment: key links and challenges

The interlinkages between economic development and the environment are by no means fully understood—but much progress has been made in recent years. There was a time—as recently as the 1970s—when a common view was that the earth simply could not provide the raw material inputs to sustain continued economic growth. There was a fear that the earth was running out of metals, minerals, and energy, and that the soils of the earth would not have the capacity to provide food for a growing population. We now know that those concerns were greatly exaggerated.

These concerns have now been overtaken by concerns about the adverse environmental by-products of economic activity: thus, for example, the concern is less that agricultural production cannot be significantly increased, but that in achieving this increase, the soils may be depleted, chemical inputs may spill over into water systems, and that valuable habitats will need to be put under agriculture. Similarly, the concern is less that energy, metals, and minerals are running out, but that their growing use will produce pollution and wastes in air, water, and on land, which will harm health and productivity, and damage ecological systems.

Continuing growth in economic activity will be essential to alleviate poverty, and is therefore imperative. This will undoubtedly place significant pressures on environmental resources, b . it would be wrong to conclude that economic growth is always detrimental for the environment. Whether the impact is positive or negative is a choice that

society can make. Three necessary and mutually reinforcing ingredients are required to address the most important current environmental challenges:

- Incomes must grow.
- New technologies must be incorporated into investment.
- The value of environmental resources must be reflected in decision-making.

Income growth. Rising incomes can provide the means for overcoming many of the worst environmental problems. This applies to countries and to families and individuals. Higher-income countries generally have a much greater ability to pay the price of environmental protection (they don't always choose to expend the necessary resources for these purposes—e.g., carbon emissions—but they have the ability, should they wish.) Similarly, individual farmers, if they have access to resources, can invest in necessary soil conservation, and thus improve their long-term prospects. Poor families often have to focus on the urgent near-term needs, and in times of crisis are sometimes required to "mine" natural capital, through expanding production onto steep slopes, excessive cutting of trees for firewood, failing to replace soil nutrients, and so on. Policies to provide the poor access to resources (credit, extension services, land titles, etc.) and to raise their incomes, are among the most important environmental policies.

Investing in new technologies. The solution to many environmental problems lies in the adoption of environmentally-sound technologies. This is most evident in the industry and energy sectors. Here, technologies and substitutes already exist to solve most emissions problems. Natural gas and clean coal technologies, for example, can reduce particulate matter emissions and carbon monoxide by 99.9 percent, and SO_2 and NO_x emissions by at least 90 percent. Unleaded fuels and catalytic converters can reduce lead and VOC emissions from mobile sources by 99.9 percent and 98 percent, respectively.

Adopting new (or forgotten) techniques is equally important in rural areas. The introduction of soil management techniques—terracing, minimum tillage, vetiver grass, and the like—can almost eliminate soil erosion. New agricultural packages can add nutrients to weak soils rather than deplete them.

The existence of technologies is encouraging, but doesn't guarantee that problems will be solved, of course. Benefiting from technology change usually involves investment, and like all investments, will require resources and a careful assessment of costs and benefits. Some such investments (such as in soil management) will be privately attractive. Others may be privately unattractive but socially desirable, and some may not be socially desirable until incomes and resources rise or the costs of the technologies fall.

Recognizing the value of the environment. Rising incomes and technological advances *make possible* environmentally-responsible development, but they don't guarantee it; for most of industrial history, rapid economic growth has been associated with rapidly deteriorating waste and pollution problems. Technology change is by no means always environmentally friendly, and increased output has usually been environmentally damaging. This is because decisions were made by individuals, corporations, and governments without taking the value of a healthy environment into account. Thus, in order to harness the power of income growth and technological change in the service of environment, decision-makers need to be made to act in a way that respects the scarcity of clean air and water, and of forests and natural habitats. This is, of course, easier said than done!

Policies for development and the environment

The above considerations suggest that environmental policies should be of two types. First, they should be directed at promoting efficient income growth and technological innovation—so as to give the *ability* to protect the environment. Second, they should seek to instil the value of the environment into everyday decision-making—so as to give the *incentive* to protect the environment.

The bulk of the *World Development Report* will be devoted to exploring how these two sets of policies can be applied in practice. A major chapter will discuss how policy interventions can be targeted toward overcoming the market and policy failures that cause environmental degradation. Another chapter will explore the necessary institutional underpinnings of these policies—focussing in particular upon three requirements for the effective incorporation of environmental and development concerns into decision-making: more responsive and efficient public institutions; improved participation in decision-making of those groups whose health and welfare are most affected by policy outcomes; and better information, education, and understanding of environmental issues. The remainder of the Report will apply these principles to four important sets of environmental challenges: (a) land management and natural habitats; (b) sanitation and water supply; (c) industrial, energy, and transport emissions and wastes; and (d) international environmental challenges, with a special focus on global warming and biodiversity protection.

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Upcoming Events

The following is a list of selected meetings organized by U.N. agencies and other organizations related to the UNCED agenda.

Event	*Date*	*Place*
Second Meeting of Senior Experts on Environmental Law	30 Oct. – 2 Nov., 1991	Rio de Janeiro, Brazil
UNCED Working Group on Toxic/Hazardous Waste	last 2 weeks of Oct., 1991	Switzerland
Global Assembly of Women and the Environment	4–8 November, 1991	Miami, Florida
World Women Congress for a Healthy Planet	8–12 November, 1991	Miami, Florida
African Academy of Sciences Conference	11–14 November, 1991	Addis Ababa, Ethiopia
Science for Environment and Development Conference	24–29 November, 1991	Vienna, Austria
Steering Group on Sustainable Development	25–27 November, 1991	Netherlands
Joint Meeting of Aid and Development Ministers (OECD)	2–3 December, 1991	Paris, France
Global Environment Facility/Meeting with NGOs	2 December, 1991	Geneva, Switzerland
Participants' Meeting, Global Environment Facility	3–5 December, 1991	Geneva, Switzerland
INC Framework Convention on Climate Change	9–20 December, 1991	Geneva, Switzerland
UNCED Working Group on Science and Technology	10–15 December, 1991 (for 2 days during this period)	Conches, Switzerland
Experts' Meeting on Chemical Risk (UNEP/ILO/WHO)	16–19 December, 1991	London, U.K.
International NGO Steering Committee for UNCED	17–20 December, 1991	Paris, France
International Conference on Water and the Environment	26–31 January, 1992	Dublin, Ireland
Fifth Session of the INC on a Framework Convention on Climate Change	February, 1992	To be decided
Fourth Session of the Preparatory Committee for UNCED	2 March–3 April, 1992	New York
Globe '92 International Trade Fair and Conference	16–20 March, 1992	Vancouver, Canada
World Youth Preparatory Forum for UNCED	22–29 March, 1992	San Jose, Costa Rica
World Health Assembly (WHO)	4–22 May, 1992	Geneva, Switzerland
World Conference of Indigenous Peoples	18–30 May, 1992	Rio de Janeiro, Brazil
Earth Summit: UNCED	1–12 June, 1992	Rio de Janeiro, Brazil

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========== GLOBAL ISSUES ==========

***13 UNCED: ENVIROS SAY GENEVA MEETING A BUST**

"Three weeks of negotiations in preparation for next year's 150-nation United Nations 'earth summit' in Rio de Janeiro, Brazil, draw to a close in Geneva today, amid allegations from environmental groups that little has been accomplished" (John Hunt, FINANCIAL TIMES).

But Maurice Strong, secretary general of the summit, said he still thinks it will be a success. "The real cliffhanger will be at Rio de Janeiro. We are trying to get the ropes in place to scale that cliff. At the moment we are only at the base."

Environmentalists said they were frustrated with the lack of progress at the meeting. Final decisions on many key issues were left to be made at the final preparatory meeting in NY next March. For example, no agreement was reached on a plan to protect rainforests. There was much friction between the U.S. and other countries on the subject of energy conservation and global warming. The head of the U.S. delegation called the proposals for the reduction of greenhouse gases "too interventionist" and possible violations of national sovereignty.

There was also friction between the "Group of 77" less developed nations and the industrialized countries. The third world countries said that the developed nations had been the major world polluters and should have the responsibility of helping poorer countries clean their environment by offering financial assistance.

Strong: "Industrialized countries must recognize that one of the best investments they can make for global environmental security is in the developing countries" (9/4).

information available on who is doing what relevant to sustainable development.

Unlike other, uni-sectoral publications, the Brundtland Bulletin is thoroughly cross-sectoral. It covers every sector of society from the UN system to the media, from academia and NGOs to industry and the scientific community.

By being a comprehensive, cross-sectoral, accessible publication, the Bulletin has served its dual purpose of reporting on progress towards sustainable development worldwide and reaching out to the widest range of society possible in order to catalyze further action towards a sustainable future. Precisely for that reason the Bulletin has proven itself extremely useful in developing countries where cross-sectoral information is not easily found.

In this fashion, the Centre has made, and will continue to make an important contribution to the UNCED process specifically and to the much broader goal of sustainable development in general.

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On The Road To Brazil

Background

In December of 1989 the UN General Assembly decided to convene a conference on Environment and Development (UNCED) in Brazil in 1992. This Conference was to help examine the interlinked problems of environment and development since the UN Conference on the Human Environment (held in Stockholm in 1972.) To effectively organize this conference the UN Secretary-General Javier Perez de Cuellar appointed Maurice Strong of Canada, a former member of the World Commission on Environment and Development, as UNCED's Secretary-General who then went about creating the UNCED secretariat. The UN also arranged for the creation of a Preparatory Committee (PrepCom) open to all UN member governments to do the work for the Brazil conference.

The UNCED Secretariat, with a staff of approximately 40, is located in Geneva and has additional small units in New York (headed by Jean-Claude Faby), and Nairobi (headed by Fritz Schlingemann).

The Preparatory Committee held its Organizational Session on 5-16 March 1990 in New York, and at that meeting appointed Ambassador Tommy Koh of Singapore to the post of Chairman of the Preparatory Committee and created a Bureau comprised of 39 governments.

The PrepCom's first substantive session was held in Nairobi from 7-31 August 1990 and its second in Geneva from March 18 to April 5. Two further substantive sessions are scheduled to be held before the main conference: the third in Geneva from 12-30 August 1991 and the fourth in New York from March 9 to April 3, 1992. Documents approved at these sessions can be obtained directly from the UNCED's offices in Geneva or from the Centre for Our Common Future.

The UNCED '92 Conference (or Earth Summit, as it is referred to) will be held on 1-12 June 1992 in Rio de Janeiro, Brazil to coincide with World Environment Day, June 5th 1992, and is to be at

the highest possible level of participation. Parallel meeting(s) of the 'Independent Sectors' (defined as all sectors of society apart from governments) will be held in Rio at the same time as the Conference. In conjunction with the main conference, a series of events will take place in cities throughout Brazil during 1992. An official ceremony for heads of state and government will be held in Manaus, a technology exhibition of environmental protection equipment and products will be staged in Sao Paulo, an interparliamentary meeting will be organized in Brasilia and a science and technology seminar will be held in Curitiba.

In parallel with the extensive preparations within the UN system for this major conference, the 'Independent Sectors' also plan a wide range of preparatory, participatory and follow-up activities.

The UNCED Preparatory Committee and its Work

So far, three open-ended Working Groups have been established within PrepCom to help with the task of providing overall guidance to the wider preparatory process. The aim of the preparatory process is to arrive in 1992 at 'specific agreements and commitments by Governments and international organizations for defined activities on environment and development, specifying targets and timetables and providing the basis for concrete action plans'. The issues to be dealt with by the Working Groups are, respectively:

Working Group 1. Protection of the atmosphere by combating climate change, depletion of the ozone layer, and transboundary pollution; protection and management of land resources by, inter alia, combating deforestation, desertification and drought; conservation of biological diversity; environmentally sound management of biotechnology.

Working Group 2. Protection of the oceans and all kinds of seas, including enclosed and semi-enclosed seas, and of coastal areas, and the protection, rational use and development of their living

resources; protection of the quality and supply of freshwater resources; environmentally sound management of wastes, particularly hazardous wastes, and of toxic chemicals, as well as prevention of illegal international traffic in toxic and dangerous products and wastes.

Working Group 3. To analyze and make recommendations on all legal and institutional questions of environment and development including those that might arise in any of the other two working groups. The mandate of this working group also includes discussion on the so-called Earth Charter (see further down).

In fulfilling their mandates, each of the Working Groups has been asked to ensure that they use an integrated approach to the environment and development issues they will be considering. To achieve this, they have been directed to take into account, among other things, patterns of consumption and production, access to and transfers of technology, financial resource requirements, the eradication of poverty and the improvement of quality of life.

A voluntary fund has been established by the governments of the United Nations to help the least developed countries participate in the preparatory process.

Regional preparatory conferences for EArth Summit are to be held and their results integrated into the preparatory process. Of these the conferences for the ECE region, Latin America and Asia and the Pacific have already been held. The meetings for Africa and the Middle East are to be held in July and September of 1991 respectively.

National preparatory processes are also to be held in all countries and the Preparatory Committee has adopted guidelines for these processes which includes the preparation of an extensive National Report, due in July, and which details the environment and development situation of the country as well as its situation vis-a-vis the international situation. PrepCom has also adopted the guidelines for the contributions of the UN system as a whole to the '92 process.

Guidelines for the preparation of national reports called for by the Preparatory Committee and for the participation of 'non-governmental' organizations were agreed at the PrepCom's meeting in Nairobi.

WHAT UNCED IS ALL ABOUT!

Much work is being done throughout the world to prepare for the Earth Summit in 1992, but what exactly can we expect from this conference? The UNCED secretariat knows what it wants from the meeting, but many people outside the inner circles of the environment and development world are still unsure as to what the UNCED secretariat expects from the conference and what it is doing to ensure that these expectations are fulfilled.

In terms of expectations, UNCED forsees that the gathering in Rio will have six major outputs. Each of these outputs covers a broad range of topics or "issue areas," eight of which the UNCED secretariat has identified as of special interest and Working Parties (not to be confused with Working Groups) have been set up to "provide analytical background" on the issue areas.

Those outputs are as follows:

1. Conventions

It is hoped that the conference will bring about global conventions on certain issues of global importance (i.e. climate change, biodiversity and the prospect has been raised about a possible global convention on forestry). These conventions would in essence be presented and opened for signature in Rio, though they would be negotiated and formulated during the UNCED preparatory process. It is still not clear what connection the UNCED secretariat and the PrepCom will have to the various negotiating processes for these conventions. One such negotiating process, that for a climate convention, is already underway. An Intergovernmental Negotiating Committee meeting was held in Washington D.C.

from the 4th to the 14th of February to try and come up with a framework convention on climate change that could be signed at Rio.

2. Earth Charter

This is basically a document stating or declaring the principles by which people should conduct themselves in relation to each other and to the environment. This declaration is drawn up so that humans can develop sustainably, to, as a UN document puts it, "ensure our common future in both environmental and developmental terms." The UNCED secretariat is preparing a list of elements that they feel should be included in such a charter. PrepCom has yet to decide how such a charter will be formulated.

3. Agenda 21

This is supposed to be a "programme of action for the implementation of the principles enunciated in the Earth Charter." It is a way of saying this is what we must do to bring ourselves into the 21st century. It is a statement of goals and objectives as well as a list of strategies and actions that will be taken to meet those objectives. The structure of Agenda 21 has already been outlined in draft fashion, but PrepCom is expected to modify this draft and come up with a more final way of working Agenda 21. So far, Agenda 21 is basically an "ends and means" document. It states cleary where we want to go and how we are going to try to get there. UNCED hopes that their Agenda 21 will be a flexible and evolving document and that the Earth Summit will only be the first step in the long process of its preparation.

It was also mentioned that other groups and organizations (of the independent sectors) or perhaps the sectors themselves would prepare their own versions of Agenda 21 which would state their particular objectives, goals, and strategies for meeting these goals.

4. Financial Resources

Since much of the output of the conference is expected to be in terms of recommendations for action or conventions which call for the adherance to certain costly principles, the conference itself is expected to consider ways of financing these activities, especially in developing countries. The UN believes the conference

must "ensure access by developing countries to the additional financial resources they will require to integrate the environmental dimension into their own development policies and practices, as well as the incremental costs that will be incurred by complying to the international environmental conventions and protocols." Again, it is expected that PrepCom will deal with this issue, making suggestions and helping design the necessary financial mechanisms that will allow developing countries to undertake environmentally sound development.

5. Technology Transfer

In the same way that some countries will need financial resources to undertake the actions and programmes that are required of them after the Earth Summit, the UNCED secretariat feels many countries will need access to technologies that allow them to take care of their environment. According to the secretariat, these technologies need to be provided to them on an equitable basis and they need to be able to use them fully (i.e they need to be trained in their usage). The task of PrepCom, and ultimately of the UNCED itself, will be to come up with mechanisms and agreements that allow poorer countries to have access to environmentally sound technologies, while still taking into consideration the issues of intellectual property and encouraging further development of these technologies.

6. Institutions

As a final output to UNCED, the organisers of the conference hope that they will be able to strengthen existing institutions which deal with environment and development issues (eg UNEP, UNDP). Part of this strengthening will presumably include ways of ensuring communication and collaboration between environment and development institutions. This institutional "overhaul" will presumably also include formulating mechanisms which allow environment and development issues to be examined in light of other related issues such as: security, economic, humanitarian issues, etc.

Institutional change has proved hard to manage for the UNCED secretariat and they are quick to point out that institutional issues can only be dealt with once the other "cross-sectoral" issues have

been resolved; i.e. once the UN decides what it wants out of the new, improved intitutions. In Nairobi, at the PrepCom meeting in August, there were many disagreements as to whether or not Working Group 3 of PrepCom should be created to deal with legal and institutional questions. These questions were resolved in Geneva at PrepCom 2

The Centre For Our Common Future and the Road to Brazil

The Centre For Our Comon Future, which was established in 1988 to act as a focal point for follow-up on the "Brundtland Report", has naturally taken an active interest in the preparations for the Earth Summit. Indeed the Centre hopes, as do many others, that the Brazil conference will be a turning point in the revival of multilateralism and international cooperation and that the governments gathered in Rio de Janeiro will take concrete steps to address the global management crisis we face.

The Centre believes that a sustainable future for humanity is essentially a democratic one and therefore what the conference ultimately achieves will depend on the involvement of individuals and organizations from all sectors of society. The Centre also believes that the outcome of Brazil will depend on the nature of the relationships and the dialogue that those individuals and organizations establish amongst themselves.

Recognizing that the Earth Summit will provide a unique opportunity for all sectors of society to interact and cooperate, the Centre provided the initial leadership in calling together representatives from more than 200 organizations from over 65 countries at meetings in Canada, Switzerland and Kenya during the months of March, June and August of 1990 to discuss the road to Brazil. Organizations present at these meetings came from all sectors of society —environment and development non-governmental organizations (NGOs), trade unions, business and industry, women's organizations, youth groups, spiritual and religious groups, etc.

Out of these meetings came a collective call to the Preparatory Committee for UNCED to strengthen the development aspects of the agenda for the conference and to open the preparatory process to representatives of all key sectors of society, both within and outside the public sector. The mechanism for the input of these sectors of society into the conference was then established at PrepCom 2 in Geneva.

A major outcome of these series of meetings was also the adoption of the term "independent sectors", which it was felt would underline the plurality, diversity and independence of the various constituencies whose input into UNCED was needed. It was also felt that the term would make clear that not just the traditional "NGOs", but all sectors of society who were independent of governments needed to play a role in the process leading up to 1992. It was stressed, however, that there should be no expectation that these disparate constituencies would speak with one voice, nor should they be pressured to do so.

The final outcome of that initiative was the creation of an International Facilitating Committee (IFC) to be made up of individuals selected from the various independent sectors. It should be noted that while the Centre had convened the meeting at which the IFC was created, the decision to create it was taken by consensus of all the groups present and not at the initiative of the Centre. Indeed, the IFC will be operated independently from the Centre with its own staff and finances.

As the momentum towards Brazil builds, it is becoming ever more clear that UNCED will need —even require— cooperation and participation amongst those who constitute the independent sectors to maximize the use of their individual and collective resources. Never before have these sectors faced such an important challenge and opportunity for cooperation. Obviously, no one organization can meet such a challenge alone.

In addition to cooperating with the initiatives undertaken by other groups and organizations, the Centre has designed its own '92 programme. The programme is designed to assist and insure the broa-

dest possible participation in the process leading up towards the Earth Summit.

ECO '92 Public Forums

As part of the Centre's '92 programme a series of ECO '92 Public Forums are being held throughout the world. These are designed to provide an additional avenue of input for the public in the UNCED official preparatory process. The concept behind these forums is to reverse the situation where governments and policy-makers speak and the people listen. The Public Forums take a panel of top government officials and policy-makers involved in the UNCED process to various places around the world to listen to the views and opinions of the people. These forums truly constitute a unique global event.

Never before have senior government officials from Sweden, Brazil, Pakistan, and Canada gone to Mexico, Argentina, Thailand or the Soviet Union to hold public discussions with citizens of those countries on topics of political and economic importance such as development and the environment. Still, that is exactly what the Centre For Our Common Future, working in cooperation with the IFC and its working partners, has achieved with its ECO'92 Public Forums. These unprecedented gatherings represent a novel way for people to dialogue with governments in search of solutions to critical survival issues in an increasingly interconnected world. Exciting things happen when people from completely different backgrounds get together with governments from other parts of the world, acknowledge and put aside their differences, and search for joint responses to common problems.

ECO'92 Public Forums have been successfully held in New Delhi, Nairobi, Mexico City and Amsterdam and, in each case, both the people and the governmental representatives involved have become more aware of human dimension of the problems that face us and what must be done to address them. Upcoming ECO'92 Public Forums (which will include presidents, prime ministers, and leading UN personalities) promise to be a substantial and innovative input into UNCED.

Network '92

In addition to the Public Forums the Centre has created and is distributing a powerful tool that has been instrumental in disseminating information about UNCED and thus helping insure that it is a success.

The amount of activity that is taking place throughtout the world in preparation for the UN Conference on Environment and Development (UNCED) to be held in Brazil in 1992 is astounding. There is so much happening that all people concerned with environment and development issues need a versatile tool to help them manage the UNCED-related information that is being produced daily around the globe. Today, the only such tool is the Network '92

Seven issues of the Network have already been produced and their profound effects are visible. Many of the major newsletters, bulletins, information packets and other informations tools that have anything to do with UNCED use the Network as a source. You can find articles taken from the Network in the publications of all sorts of groups, from global industry and NGOs in India to The World Bank and the government of Mozambique. The Network has become an indispensible resource for groups and organizations from all sectors of society in all corners of the globe.

All in all the Network '92 is a newsletter designed to help people digest and make sense of the '92 conference, to let them follow the myriad of preparations now taking place for this event and to show them that UNCED is more than just the sum of its parts.

The Brundtland Bulletin

Besides its UNCED-directed efforts, the Centre has continued to strengthen its efforts to stimulate dialogue on sustainable development, most notably through the Brundtland Bulletin. This quarterly publication constitutes the most comprehensive collection of

information available on who is doing what relevant to sustainable development.

Unlike other, uni-sectoral publications, the Brundtland Bulletin is thoroughly cross-sectoral. It covers every sector of society from the UN system to the media, from academia and NGOs to industry and the scientific community.

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On The Road To Brazil

Business Council for Sustainable Development

Sustainable development: a new frontier for business

Development Business
7-31-91

by J.R. Mikton

For the first time in its 45-year history, the United Nations is bringing the world business community into the fold to ensure the success of a major conference on the environment—Earth Summit 1992. Heralded as the world's largest international conference on environmental matters, Earth Summit, or the UN Conference on Environment and Development, as it is formally called, will be held in Brazil from 1 to 12 June of next year. Representatives of over 100 nations will attend and, hopefully, decide on a wide range of possible agreements and future policies regarding the global environment.

To woo business leaders and ensure their input, the secretary-general of the Earth Summit, Maurice Strong, has enlisted the talents of a wealthy young Swiss industrialist, Stephan Schmidheiny, who will serve as Strong's principal adviser for business and industry.

The mission given to Schmidheiny by Strong includes a challenge to business to examine its past performance—and to mold its future strategies—in relation to the emerging concepts of "environmentally sound and sustainable development."

In Schmidheiny's view, "Sustainable development combines two key objectives—environmental protection *and* growth. It is about meeting the economic and social needs of today's generation without compromising the ability of future generations to meet their own needs. Business bears its share of responsibility for past environmental problems, but is also very well placed to make a major contribution to solutions in the future."

Council created

In pursuit of this contribution, the Swiss industrialist has organized the Business Council for Sustainable Development, which is composed of the chairpersons and CEOs of some 50 leading companies based in 24 countries, one third in the developing world.

The executive director of the Business Council, the honourable J. Hugh Faulkner, a former Canadian cabinet minister, explains the Council's mission in the following terms: "In view of the tragic levels of world poverty, economic development must be accelerated.... Our goals are to focus the thinking of business leaders on one crucial issue: how economic growth can be carried out in an environmentally friendly and sustainable fashion."

In a more concrete way, the Council is expected to play a leadership role by mobilizing the world's businesses to cooperate in setting environmental goals, developing workable proposals, and carrying them out.

In Schmidheiny's words, "Industry should demonstrate its involvement and thus genuinely contribute to a more positive image for itself, with the goal of improving its willingness to talk and its acceptance. Industrial activities, as we know, are considered to be among the main causes of environmental problems. This is precisely why we want to show and convince people that we can make an important contribution to solving these problems and we will do so."

Business Council membership ranges in diversity from well-known transnationals, including DuPont, Nissan, Shell and Volkswagen, to firms of a more regional reputation, such as Compañia de Acero del Pacifico of Chile and La Compagnie Financière et Industrielle of Cameroon. About half the members are chief executives of smaller companies.

Commenting on this diversity, Council chairperson Schmidheiny asserts: "Northern and Southern countries are now so interwoven, both economically and environmentally, that their problems cannot be approached separately."



Stephan Schmidheiny, chosen as adviser on business and industry for Earth Summit 1992.

So far, the Business Council has focused on defining the essential elements of an environmentally friendly company. Its larger task will be to try to determine the type of overall framework that should be put into place by governments—and reinforced by the marketplace—to encourage companies to accord a priority in their operations and planning to environmental factors.

The Council plans to present its findings and conclusions to Earth Summit 1992 in the form of three published documents:

- A brief summary of the Council's overall conclusions and the evidence on which they are based.
- A book that will provide some 50 practical case studies of successful approaches to sustainable development in various parts of the world.
- A book about the applications of environmentally sustainable development in the developing regions.

New dimensions

According to Schmidheiny, "The idea of sustainable development involves two fundamentally new dimensions: First of all, there is the realization that it is not enough to adopt end-of-the-pipe measures, i.e., to clean up harmful processes at the end; we must apply sustainability from the outset, by defining the product, selecting materials and so forth. This is where long-term environmental protection begins.

The second aspect is the realization that it is not just overdevelopment that causes environmental damage—underdevelopment can do the same thing."

In an interview earlier this year with the German newsweekly *Der Spiegel*, Schmidheiny outlined some environmental options at the firm level. Drawing on personal experience and that of Council members, Schmidheiny believes that sustainable development will be affected "by the priority a company gives to conducting its business in as environmentally friendly a manner as possible." He argues that it is important for firms to employ ecological cost-benefit analysis, so that the costs a company incurs when making use of, or damaging, the environment is factored into its investment decisions.

Other considerations enter in at the product level. For example, notes Schmidheiny, companies could begin to assign more weight to the mix of raw materials in a proposed product that would have the least negative impact on the environment. They can also employ an integrated life-cycle analysis that takes into account the total environmental impact of the product, from the production of materials used in its assembly, through its useful life, to the process of "de-manufacturing" that breaks down the product for recycling.

In this way, the waste of today can be converted into the raw materials of tomorrow. In addition, the amount of energy required in manufacturing the product can be substantially reduced, further diminishing the burden on the environment.

Schmidheiny considers employee involvement an essential factor in sustainable development. In his opinion, employees should be motivated to suggest improvements that can help the company protect the environment. "And it should be made clear that such activities will lead to an advancement up the corporate ladder," he adds.

On the Council agenda

Organized into task forces and working groups, the secretariat and members of the Business Council are examining a series of environmental issues in relation to the experience of their companies and other firms. For example, the Task Force on Clean Technology Waste Minimization is looking at the possibilities for more efficiently transferring such technologies to developing countries, and, says executive director Faulkner, "thus help avert the looming environmental crisis that industrialization could bring to the developing world."

The Task Force on Market-based Instruments is confronting the problem of how to put a "price" on the environment so that companies will have to pay when they use it. According to Faulkner, "One reason why the environment is abused is that its use is free." The solution? "That is not an easy assignment," he contends, "but environmental accounting methods can and must be found."

The Council is also organizing regional meetings in Latin America, the ASEAN countries, India and Africa in order to obtain the views of Third World business leaders. The key issues of sustainable development will be examined in the context of each region. □

***J.R. Mikton** is a free-lance journalist and business consultant based in Geneva.*

Jane Pratt

With the compliments of



The World Bank
1818 H Street, N.W.
Washington, D.C. 20433, U.S.A.

As you requested here is Mr. Stephan Schmidheiny's address and tel.nr.

The Business Council for Sustainable Development
World Trade Center Building
3rd Floor
10, route de l'Aéroport
CH-1215 Geneva 15
Switzerland

Tel. Nr. (41-22) 788 3202
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Other Collateral Efforts to Shape UNCED



Lester Brown



John Anderson



Hazel Henderson



Stephen Lewis

ENVIRONMENT & DEVELOPMENT



Patricia Mische



Bradford Morse



Shridath Ramphal



Jeremy Rifkin



Robert J. Ryan, Jr.

Global Structures:

In preparation for the June 1992 UN Conference on Environment and Development — THE EARTH SUMMIT — Americans from all walks of life will come together with people from the international community to demonstrate broad public support for international frameworks needed to achieve sustainable development and world peace.

ENVIRONMENT & DEVELOPMENT

THE SECOND GLOBAL STRUCTURES CONVOCATION

February 6 - 9, 1992 • The J. W. Marriott Hotel • Washington, D.C.

A Working Conference on International Laws and Institutions for Sustainable Development and a Viable Global Community

in support of THE EARTH SUMMIT: The United Nations Conference on Environment and Development

With a focus on the international legal and institutional aspects, the Convocation will search for global structures needed to achieve a world community that is environmentally healthy, free from war, and economically sound.

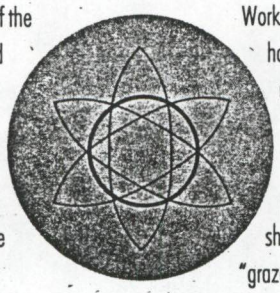
In this historic opportunity, non-government organizations have been invited to participate in tandem with the United Nations process. While no policy positions will be taken in the name of the Convocation or its co-sponsoring organizations, a summary of the Convocation findings will be made available to the U.S. Delegation to UNCED in advance of the UNCED Preparatory Committee meeting in March, and subsequently to UN delegates in Brazil.

The first Global Structures Convocation, the 1989 Structures for Peace Convocation, attracted over 1400 participants and resulted in the formation of The Alliance for Our Common Future.

The Program: The Convocation will begin Thursday evening with "MINDWAY" — a feature-length film which promises to challenge preconceived notions and open the way to new perceptions.

With the Convocation emphasis on participation, simultaneous workshops on Friday afternoon will provide background information on international legal and institutional issues, the UNCED process, and a variety of topics offered by several co-sponsoring organizations and associates.

Saturday morning workshops explore alternative approaches to existing international legal, institutional and economic structures.



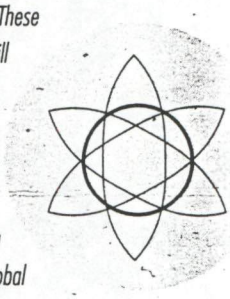
Workshop reserved seats will be honored the first fifteen minutes of the session, and then made available to non-reserved participants. Participants may remain with a workshop for the entire session, or "graze" from one to another.

To facilitate the process of local networking and post-convocation grass roots educational programs, the convocation will include Regional, State and Local networking meetings. Local leaders are encouraged to network with local members and supporters of Co-Sponsoring organizations in advance of the Convocation to coordinate interests and travel arrangements.

All workshops and plenary sessions will be professionally audio taped and available for purchase.

Policy Positions and Joint Statements: Co-sponsoring organizations have been assured that no policy positions or joint statements will be made in the name of the Second Global Structures Convocation: Environment and Development or its co-sponsors. Individuals wishing to circulate position statements for individual signatures are requested to do so in ways which are compatible with the program format.

Special Features: *(These and other special features will be available to the extent that financial support from individual contributors, foundation and corporate grants permit. Contributions are tax deductible and can be made payable to "WFA/Global Structures.")*



Hyde Park Speakers' Corner: A conference room with open mike and video camera will be available throughout the convocation for those who wish to have their comments recorded.

The Idea Book: Convocation Participants and friends are invited to submit ONE PAGE IDEAS regarding international legal and institutional approaches to sustainable development, world peace and global community. Information must include a contact name and address, and postmarked no later than December 31. Please indicate "Global Structures Idea Book" when mailing or sending by FAX (202-785-3942.)

Video Room: Co-sponsoring organizations are invited to bring video tapes (and order forms) which are recommended for local educational programs. The Convocation management assumes no responsibility for the return of video tapes made available.

Contributors

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Co-Sponsoring Organizations *(as of October 7, 1991)*

Principal Co-Sponsors

The Alliance for Our Common Future
The American Association of University Women
The Global Tomorrow Coalition
International Development Conference
The League of Women Voters of the United States
The National Audubon Society
United Nations Association of the U.S.A.
The U.S. Citizens Network on UNCED
World Federalist Association (Managing Sponsor)

Additional Co-Sponsors

Academy of World Studies
The African-American Institute
Americans for Indian Opportunity
The Association to Unite Democracies
Baha'is of the U.S.
Beyond War
Bread for the World
Campaign for the Earth
Campaign for UN Reform
CARE International
Center for Development of International Law
Center for International Cooperation
Center for War/Peace Studies
Center of Concern
Christian Children's Fund
Committee on Political Economy of the Good Society (PEGS)
Citizens for a Peaceful Planet
Congressional Human Rights Foundation
Coolidge Center for Environmental Leadership
Cornell's Eco-Justice Project and Network
Council on Economic Priorities
Council on International and Public Affairs
Earth Day International
Earth Day USA
The Elmwood Institute
Environmental Citizenship Program of Tufts University
Environmental Resource Center
The Episcopal Church
Food for the Hungry International
Foundation for International Community Assistance
Friends Committee on National Legislation
Friends of the U.N.
Global Education Associates
Globe-Lib
Greenpeace USA
Institute for Alternative Agriculture, Inc.
Institute for Space and Security Studies
International Federation of University Women
IUC International Education Centre
Iowa Peace Institute
Maryland United for Peace and Justice
The Medical Association for Prevention of War
Methodists United for Peace With Justice
Milwaukee Coalition for Global Survival
The National Council of Women of the U.S.
The National Women's Conference Committee
The National Peace Institute Foundation
Nebraskans for Peace
Negative Population Growth, Inc.
North-South Centre of the Council of Europe
Nuclear Free America
Office for Church In Society, United Church of Christ
Overseas Development Council
Pan Pacific & SE Asia Women's Association of the USA, Inc.
Pax World Foundation
Parliamentarians for Global Action
Peace Links
Physicians for Social Responsibility
Psychologists for Social Responsibility
RESULTS/RESULTS Educational Fund
SANE/FREEZE
Save the Children
Society for International Development
Trickle Up Program
The Trust for Public Land
Veterans for Peace, Inc.
Women for Meaningful Summits
Women's Action for Nuclear Disarmament
Women's Foreign Policy Council
World Citizen, Inc.
World Constitution and Parliament Association
World Federalist Movement
World Government Organizations Coalition (WGOC)
World Peacemakers
Worldwatch Institute
Zero Population Growth

The Convocation Co-sponsoring Organizations are natural allies in their commitment to UNCED and the achievement of a viable global community. The Convocation will include leaders representing a combined constituency estimated to be over twenty million Americans.

AGENDA

THURSDAY FEBRUARY 6

12 noon - 7 pm
REGISTRATION

Individually arranged Congressional appointments (optional)

7 pm- 9 pm
Mindwalk - A Film for Passionate Thinkers starring Liv Ullmann, based on "The Turning Point" by Fritjof Capra, author and physicist. Created and directed by Fritjof's brother, Bernt Capra, this keenly timed conversation story offers an approach for healing the planet via an "ecological" view based on modern science and the theory of living systems. In the vein of "Dinner With Andre", it is filmed on the medieval French Island of Mont St. Michel and stars Liv Ullman, John Heard and Sam Waterston as a physicist, poet and politician who wrangle over the world's problems as if their lives depended on the outcome. It involves forming a new approach to world crises by mending the way the universe is perceived.

9 pm - 10 pm
Conversations with Fritjof Capra and Panel



Fritjof Capra, PhD., physicist, systems theorist and best-selling author, is founder and president of the Elmwood Institute, an ecological thinktank dedicated to fostering concepts & values for a sustainable future.

FRIDAY FEBRUARY 7

9 am - 5 pm
REGISTRATION

Display tables
Discussion groups
(Further information upon registration)

1:00 pm - 2:30 pm
PLENARY I
GLOBAL STRUCTURES: BACKGROUND AND NEEDS

Charles Sykes, Chair, Global Tomorrow Coalition & Vice President, CARE, Inc.
Sarah Harder, Co-Chair, Alliance for Our Common Future

Welcome
Russell Peterson, Past President, National Audubon Society & Global Tomorrow Coalition

Global Structures & the State of the World
Lester Brown, Worldwatch Institute

Global Economics & Sustainable Development
Hazel Henderson, Economist, Consultant, Author

Report from the Nation: UNCED and the CEQ Roundtables
Michael Deland, Chairman, White House Council on Environmental Quality (Invited)

2:45 pm - 4:45 pm
BACKGROUND WORKSHOPS

F1 **LEGAL STRUCTURES FOR SUSTAINABLE LIVING: AN OVERVIEW**

Center for the Development of International Law
William Pace, Director, CDIL, and panel

F2 **INSTITUTIONAL STRUCTURES FOR SUSTAINABLE LIVING: AN OVERVIEW**

The United Nations Association of the U.S.A.
Jeff Laurenti, UNA-USA, Exec. Dir. for Multilateral Studies, and panel

F3 **INTERNATIONAL FINANCING OF SUSTAINABLE LIVING: AN OVERVIEW**

Environment and Energy Study Institute
Gareth Porter, EESI

F4 **GLOBAL ENVIRONMENT: WFA'S PROPOSALS**

World Federalist Association
Walter Hoffmann, Executive Director, WFA
Lucy Webster, Vice President, World Federalist Movement (International)
Neal Potter, Honorary Vice President, WFA

F5 **GLOBESCOPE AMERICAS CONFERENCE REPORT**

The Global Tomorrow Coalition
Don Lesh, GTC and panel

F6 **REFORMING GLOBAL INSTITUTIONS**

Consortium for Action to Protect the Earth '92
Christina Real De Azua and panel

F7 **THE STOCKHOLM INITIATIVE ON GLOBAL SECURITY & GOVERNANCE**

Richard Falk, Woodrow Wilson School of Public and International Affairs
Saul Mendlovitz, World Order Models Project

F8 **NGO'S AND THE UNCED ROUNDTABLES**

U.S. Citizens Network on UNCED
Fran Spivy-Weber and panel

F9 **THE WORLD WOMEN'S CONGRESS FOR A HEALTHY PLANET - NOVEMBER CONGRESS REPORT**

Women's Foreign Policy Council
Catherine J. Tinker, for WFPC and UNA-USA, and panel

F10 **SUSTAINABLE DEVELOPMENT - FROM CONCEPT TO PRACTICE**

The International Development Conference
Andy Rice, IDC and panel

F11 **PEACE SITES INTERNATIONAL: AN EDUCATIONAL PROGRAM FOR WORLD ORDER**

World Citizen, Inc.
Lynn Elling, Chairman
Roger K. Wangen, Minnesota Dept of Education
Glenda Peterson, Elementary Teacher
Larry Thomforde, High School Teacher

F12 **ABOLISH WAR: A GLOBAL CAMPAIGN FOR COMMON SECURITY**

An approach of military veterans of the international community.
Veterans For Peace
Charles Bonner, President,
Vice Admiral Ralph Weymouth; USN (Ret)
Jerry Genesio, Executive Director, VFP

F13 **CONFLICT RESOLUTION: STRUCTURES FOR THIRD PARTY INTERVENTION**

Psychologists for Social Responsibility
Michael G. Wessels, Ph.D., Moderator
Eileen Babbitt, Associate Director,
Public Dispute Program, Harvard Law School
Dean G. Pruitt, PhD, President,
International Association of Conflict Management
Wallace Warfield, Senior Associate,
Conflict Clinic, George Mason University

F14 **WOMEN IN DEVELOPMENT**

The National Women's Conference Committee
Women for Meaningful Summits
Sarah Harder and panel

F15 **APPROACHES TO RESTRUCTURING THE UN, ITS AUTHORITY & VOTING SYSTEM**

Richard Hudson, Executive Director, Center for War/Peace Studies
John Logue, Director, Common Heritage Institute

F16 **DEVELOPING ENVIRONMENTAL ETHICS**

Center for International Cooperation
Patricia Jepsen Chuse, Founder-President, Moderator
Chief Leon Shenandoah
Dr. Michael W. Fox, Vice President, The Humane Society International

F17 **BUILDING GLOBAL STRUCTURES THROUGH THE GLOBAL ACTION NETWORK (GAN)**

Environmental Citizenship Program
Lincoln Filene Center, Tufts University
Nancy Anderson, Director and panel

F18 **PERSIAN GULF REPLAY: A GLOBAL STRUCTURES SCENARIO**

Tad Daley, International Policy Department, The Rand Corporation

5:30 pm
RECEPTION

7:00 pm
BANQUET

8:15 pm
PLENARY II
A FRAMEWORK FOR GLOBAL STRUCTURES: THE STOCKHOLM INITIATIVE FOR GLOBAL SECURITY AND GOVERNANCE

Co-Chairs:
John Anderson, World Federalist Assn
Fran Spivy-Weber, US Citizens Network-UNCED

Special Greetings
Chief Leon Shenandoah, Tadodaho,
Chief of the Six Nations Iroquois Confederacy

Introduction of Keynote Speaker
Bradford Morse, Administrator of UNDP: 1976-86
United States Congress: 1961-72
Members of Congress for Peace Through Law: Chairman, 1969-71

Voices for Global Governance and Sustainable Development

Shridath Ramphal, Formerly Secretary General of the Commonwealth, Member of the Brandt, Palme, Brundtland and South Commission and the Stockholm Initiative Working Group

Panel Remarks

Stephen Lewis, Bradford Morse and additional co-signatories of The Stockholm Initiative on Global Security and Governance

SATURDAY FEBRUARY 8

8:30 am - 10:30 am
WORKSHOPS
Strengthening International Legal Frameworks

A1 **EARTH CHARTER - ESTABLISHING THE VALUES AND PRINCIPLES FOR INTERNATIONAL LAWS AND GLOBAL COMMUNITY**

Baha'is of the U.S.
Peter Adriance, Moderator
Rebeque Getahoun, Baha'is International
Angela Harkavy, National Wildlife Federation

A2 **UNCED, WORKING GROUP III - REPORT ON THE NGO UNCED PROCESS**

Center for Development of International Law
U.S. Citizens Network for UNCED
William Pace and panel

A3 **SETTLING DISPUTES - AN ENVIRONMENTAL CHAMBER IN THE INTERNATIONAL COURT AND/OR REGIONAL ARBITRAL TRIBUNALS?**

World Federalist Association
Walter Hoffmann, Executive Director
Charles Price, Past President, WFA
Louis B. Sohn, Former President, American Society of International Law

A4 **STRENGTHENING THE INTERNATIONAL LEGAL FRAMEWORK FOR OCEAN SPACE AND SUSTAINABLE DEVELOPMENT**

International waterways, pollution controls, ocean space and Law of the Sea.
Council on Ocean Law
Lance N. Antrim and panel

A5 **NEEDED: AN INTERNATIONAL SPACE AGENCY — THE PROMISE AND PERILS OF SPACE OPERATIONS**

Ozone Layer, Starwars, Energy, Nukes in Space, Space Operations.
Institute for Space and Security Studies
- Dr. Robert M. Bowman, President (Member, International Institute for Space Law, Former Director of Starwars Programs)

A6 **UNCED CONVENTIONS — CLIMATE CHANGE, BIODIVERSITY, FORESTRY — SUMMARY AND CRITIQUE**

Are Conventions and Treaties enough? How are they implemented? Monitored? Enforced?
Bryan MacPherson, International Committee of Lawyers for Tibet

WORKSHOPS
Strengthening Institutional Frameworks

B1 **PROTECTING THE GLOBAL COMMONS - A GLOBAL ENVIRONMENTAL REGULATORY AGENCY?**

UNEP or a Global EPA? -Compliance/ Enforcement, Strengthening Basic capacities of the UN s
National Resources Defense Council
Liz Barret-Brown and panel

B2 **UN TAXES? FINANCING INTERNATIONAL INSTITUTIONS AND PROGRAMS FOR SUSTAINABLE DEVELOPMENT**

Fossil fuel taxes? - A tax on Arms Trading?
Environment and Energy Study Institute
Gareth Porter and panel

B3 **FINANCING WITH GREEN CONDITIONS**

How Can Donors, Lenders and Global Institutions Work Together for Sustainable Development? The World Bank, the International Monetary Fund? A U.N. Auditing Body? Evaluating the General Agreement on Tariffs and Trade (GATT), World Bank programs, procedures and agreements.
To be announced

B4 **RESTRUCTURING ECONOMIC, SOCIAL AND POLICY-MAKING BODIES OF THE UN: ECOSOC & THE SECURITY COUNCIL**

Exploring new structures for sustainable development authority within the UN system. Should Environmental Security be included in the Security Council's mandate? What about decision making? Veto? Voting systems?
To Be Announced

B5 **COORDINATING ENVIRONMENT, DEVELOPMENT AND OTHER CROSS-CUTTING CONCERNS**

Population, Agriculture, Women's Issues, Human Rights
United Nations Association of the USA
Kathy Sessions, UNA-USA Policy Analyst and panel

B6 **COMPREHENSIVE TEST BAN, NUCLEAR RADIATION AND ENERGY ISSUES**

An expanded role for the International Atomic Energy Agency (IAEA)?
To be announced

B7 **AN EMERGENCY UN ENVIRONMENTAL "CLEAN UP" FORCE? GREEN HELMETS?**

Milwaukee Coalition for Global Survival WFA-Milwaukee
Dr. L. K. Bharadwaj, President WFA-Milwaukee and panel

8:30 am - 10:30 am
WORKSHOPS
Strengthening Economic Development Frameworks

C1 **THE SOUL OF ECONOMIES**

Restoring Human Values to Economic Systems
Lifestyles of the Developed World; Distinctions between prosperity and greed; Redefining success & revising economic indicators.
Center for Applied Philosophy & Practical Spirituality
Denise Breton and Chrisopher Largent, Co-Authors

C2 **GLOBAL STRUCTURES FOR SUSTAINABLE ECONOMICS**

Exploring Socio-Economic zones, and alternative economies with a role for the UN.
Proutist Universal
Clark Forden, Executive Director
Allana Hartzok, International Union for Land Value Taxation & Free Trade
Dada Brahmananda, Proutist Universal, New Dehli

C3 **GLOBAL ENERGY MANGEMENT SYSTEMS? ALTERNATIVE ENERGY SYSTEMS AND APPROACHES**

Worldwatch Institute
Christopher Flavin and panel

C4 **GLOBAL STRUCTURES FOR POPULATION STABILIZATION**

Zero Population Growth
Susan Weber, Executive Director
Steve Sinding, Rockefeller Foundation
Peggy Curlin, Center for Development & Population Activities

C5 **THE UNCED PROCESS & INDUSTRY: WHAT THE BUSINESS COMMUNITY CAN DO**

David Angell, 3rd Secretary (Environment)
Canadian Embassy
International Business Panel

C6 **POLITICAL ECONOMIC ORGANIZATIONS FOR GLOBAL ENVIRONMENTAL RATIONALITY**

The Committee on the Political Economy of the Good Society
Eric Lindblom, PEGS Executive Director and panel

C7 **WORLD MILITARY AND SOCIAL EXPENDITURES**

Sustainable Development, the U.S. Economy and Peace Dividends — Integrating values and goals.
Physicians for Social Responsibility
Julia Moore, PSR Executive Director and panel

10:30 - 12:15
PLENARY III
GLOBAL STRUCTURES: INTEGRATING ENVIRONMENT & DEVELOPMENT CONCERNS

Edward Luck, President, United Nations Association of the USA
Sharon Schuster, President, American Association of University Women

What Global Structures Do We Have Now?
United Nations speaker to be announced

What Can Be Done to Strengthen Them?
Stephen Lewis, Formerly Canadian Ambassador to the United Nations

12:15 pm
UNSCHEDULED LUNCH

1:30 pm - 2:45 pm
PLENARY IV
MAKING A DIFFERENCE: DEMOCRATIC PROCESS FOR GLOBAL STRUCTURES

Eileen Rinde, Executive Director, Foundation for Global Community (Beyond War)
Sam Harris, Executive Director, Results/Results Education Fund

International Democracy & Global Community
Saul Mendlovitz, Dag Hammerskjold Professor, Rutgers School of Law, Newark, Director, World Models Project

Toward a Human World Order — Democratic Process, UNCED and the UN
Pat Mische, Co-Director, Global Education Associates

NGO Panel: Grassroots Organizing for Global Structures

3:00 pm - 4:15 pm
A PLENARY WORKSHOP WITH JEREMY RIFKIN
From Geopolitics to Biosphere Politics: Environment as the Framework for Global Structures

4:30 pm - 5:30 pm
Global Structures for Global Community: Taking the Inquiry Back Home
Regional, State and Local Work Meetings

5:30 pm - 7:30 pm
UNSCHEDULED DINNER

7:30 pm - 10:00 pm
PLENARY V
AMERICA AND THE EARTH SUMMIT: GOALS AND DIRECTIONS

Robert Berg, President, International Development Conference
Susan Lederman, President, League of Women Voters

U.S. Policy Positions on UNCED, Working Group III: International Legal and Institutional Issues
Ambassador Robert J. Ryan, Jr.
U.S. Government Panel

NGO Panel Response

9:30 pm - 10:00 pm
Audience Participation, (1 minute each)

S U N D A Y F E B R U A R Y 9

9 am - 10:15 am
Regional and Local Coalition Meetings (Continued)

10:30 am - 12:00 noon
PLENARY VI
CREATING GLOBAL STRUCTURES FOR AGENDA 21

The Nineties: UN Decade for International Law
John Anderson, President, World Federalist Association

Global Structures by the Year 2000?
Major speaker to be announced

3 Minute Regional and Local Reports

Closing Remarks

Note: Conferees are encouraged to schedule their Congressional appointments on Thursday, February 6, or Monday, February 10.

REGISTRATION FORM

(Mail to Joan McKinney, Convocation Director, The Second Global Structures Convocation, 1000 16th Street NW, Suite 810, Washington, D.C. 20016) 202-833-9585; FAX-202-785-3942

Last Name *First Name* *Initial*

Your Name as you wish it to appear on the Name Tag

Affiliation

Address

City *State*

Zip/Postal Zone *Country*

Day Telephone *FAX*

REGISTRATION FEES

(Checks payable to WFA/Global Structures)

Postmarked before December 15	$75.00
After December 15	$100.00
Co-Sponsor Blocks of 10 by 12/15 *(please enclose list of individuals with addresses)*	$500.00
Total Registration Fee	_____
Friday, February 7 Banquet: Please reserve _____ Dinners x $35.00 =	_____
Tax Deductible Contribution	_____
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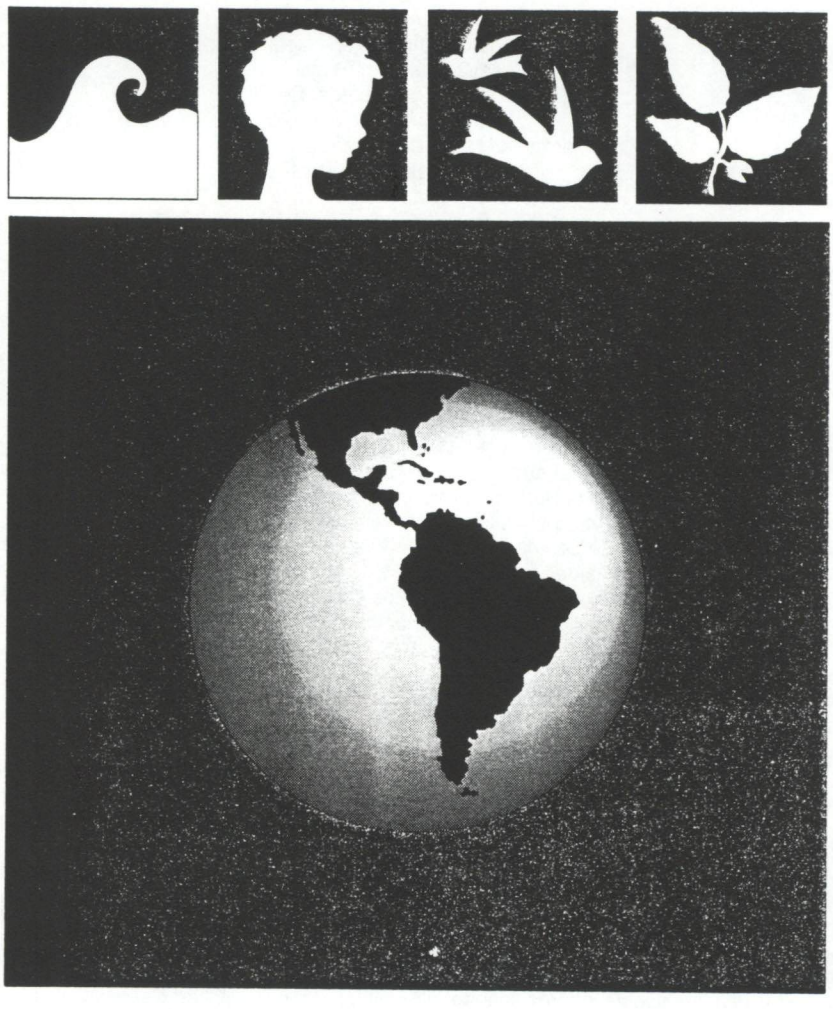
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OUR OWN AGENDA

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LATIN AMERICAN AND
CARIBBEAN COMMISSION ON
DEVELOPMENT AND ENVIRONMENT

ACKNOWLEDGEMENTS

To develop a regional outlook on the issue of the environment prior to the World Conference on Environment and Development in Brazil in 1992, the United Nations Development Programme (UNDP) and the Inter-American Development Bank (IDB) sponsored the preparation of the report "Our Own Agenda." The report reflects regional thinking, analysis and discussion which has developed around this issue in recent years and puts forth suggestions concerning the manner in which the issue should be addressed in the future. A select group of experts and scientists from the region contributed to preparation of the report.

Under the leadership of the UNDP and the IDB, the Commission for Latin American and Caribbean Development and Environment was established in 1989 to oversee preparation of the report. The Commission, which was convoked by Enrique V. Iglesias, President of the Inter-American Development Bank, and Augusto Ramírez-Ocampo, Director of the Regional Program for Latin America and the Caribbean of the United Nations Development Programme, is composed of the following persons:

Oscar Arias Sánchez, Costa Rica
Miguel de la Madrid, Mexico
Oswaldo Hurtado, Ecuador
Misael Pastrana, Colombia
Arnaldo Gabaldón, Venezuela
José Goldenberg, Brazil
Carlyle Guerra de Macedo, Brazil
José Lizarraga, Peru
Margarita Marino de Botero, Colombia
Paulo Nogueira Neto, Brazil
Shridath S. Ramphal, Guyana
Gert Rosenthal, Guatemala
Carlos Enrique Suárez, Argentina

The Commission met as a body in New York, Washington, D.C., and Santiago, Chile. It was advised by three groups of experts who prepared and analyzed the contents of each chapter of the report, which were subsequently reviewed and approved by the Commission. The advisory groups conducted plenary sessions in Caracas, Mexico and Buenos Aires to coordinate points of view.

The working groups were made up of João Almino (Brazil), Alicia Bárcena (Mexico), Mario Calderón (Colombia), Aldo Ferrer (Argentina), María de Lourdes Davies de Freitas (Brazil), Arnaldo Gabaldón (Venezuela), Gilberto Gallopín (Argentina), Jorge Hardoy (Argentina), Carlos Quesada (Costa Rica), Diego Carrión (Ecuador), Marc Dourojeanni (Peru), Guillermo Mann (Chile), Margarita Marino de Botero (Colombia), Fernando Ortiz Monasterio (Mexico), Jorge Morello (Argentina), Juan Novara (Argentina), Fernando Romero (Bolivia), Winston Rudder (Trinidad and Tobago), Eneas Salati (Brazil), Vicente Sánchez (Chile), Héctor Sejenovich (Argentina), Alejandro Toledo (Mexico) and Alvaro Umaña (Costa Rica).

Arnaldo Gabaldón and Maria de Lourdes Davies de Freitas acted as coordinators and Vicente Sánchez, Héctor Sejenovich and Gilberto Gallopín as spokesmen for the groups.

Several special reports were prepared for review by the Commission. In alphabetical order, the authors were João Almino, Alicia Bárcena, Raul Brañez, Aldo Ferrer, Gilberto Gallopín, Jorge Hardoy, Jorge Morello, Fernando Ortiz Monasterio, Eneas Salati, Héctor Sejenovich and the Ecological Systems Analysis Group of the Fundación Bariloche.

Editing of the documents prepared for the Commission was coordianted by Arnaldo Gabaldón, with the collaboration of Vicente Sánchez, Gilberto Gallopín, Emma Torres, Marc Dourojeanni and Claudia Martínez.

In addition, valuable contributions and commentary were provided by Guillermo Archibold (Panama), Edward Backus (Conservación Internacional), Nicolo Gligo (ECLAC), Pablo Gutman (Argentina), Bernard Hermes (Guatemala), Yolando Kakabadse (Ecuador), Pedro Malan (Brazil), Pedro Ramos de Sousa (Brasil), Ives Renard (Santa Lucia), Seeparsad Ramnarine (Trinidad and Tobago), Manuel Winograd (Fundación Bariloche), Edward Farnworth and Stephen McGaughey (IDB) and Fred Strebeigh.

To support the work of the Commission the UNDP designated Michael Gucovsky, Emma Torres and Claudia Martínez while the IDB designated Lucio G. Reca, Marc Dourojeanni, Eduardo Balcárcel and Juan Novara. Valuable support for work of the Commission was also provided by Arsenio Rodríguez, Salvano Briceño, Jaime Urturbia and Raul Brañez (UNDP), by Nicolo Gligo (ECLAC) and Mark Schneider (OPS). The Commission also received the benefit of commentary on the progress of the working groups presented during its public hearings in Washington, D.C., and Santiago, Chile, in which some 90 persons from Latin America, the Caribbean and the United States participated.

We wish to express our special appreciation to different offices in the United Nations Organization and in the Inter-American Development Bank which provided studies and statistics for the report and which helped to arrange the many meetings involved in the undertaking as well as to coordinate ancillary activities. The preparation of this document would not have been possible without the help and support of the regional offices of the UNDP, the Office for Latin America and the Caribbean of the UNDP, ECLAC, the Office of Project Services of the UNDP and the Panamerican Health Organization (PAHO).

Publication of the report was under the direction of the Office of Publications of the IDB, directed by José Ellauri. The Spanish edition was edited by Carlos M. Hirsch. The translation into English was done by Henry Goethals. Peter Gall of the UNDP served as press liaison on the project. Ruben Lubowski collaborated in preparation of the graphs contained in the report and Melisa Esteva, Graciela Echaide and Claudia Estrada provided secretarial support.

"Development and the Environment...
...finally receive the attention
that they deserve, not only from
scientists and militants but also
from political leaders and from
public opinion in general."

Javier Pérez de Cuéllar
Secretary General of the United Nations
Speech to the Colombian Congress
Bogota, August 23, 1990

It is with great satisfaction that we present the report of the Latin American and Caribbean Commission on Development and Environment.

As a continuation of the report of the World Commission on Environment and Development entitled "Our Common Future," the United Nations Development Programme (UNDP) and the Inter-American Development Bank (IDB), with the collaboration of the Economic Commission for Latin America and the Caribbean (ECLAC) and the United Nations Environment Programme (UNEP), in October 1989 convoked an independent commission for Latin America and the Caribbean to oversee preparation of the report. As compiled by the Commission, the report is designed to provide a multi-faceted overview of the subject, projecting a political as well as a technical vision firmly grounded in the region itself. It does not pretend to be the last word. Rather, it is a contribution by the region to a great global debate on a unique set of problems.

The work of the Commission is based on the conviction that humanity must renew its pledge of global solidarity to ensure a balance between the developing countries' priorities—to combat poverty and foster economic development—and environmental priorities which are of worldwide concern.

Our planet faces a crisis of survival. This is the perception of our peoples and our governments. The World Conference on Environment and Development which will be held in Brazil in 1992 provides a unique opportunity to conduct a worldwide dialogue on a subject of vital importance to ourselves and to future generations. We trust that "Our Own Agenda" may help Latin America and the Caribbean articulate a common vision on these twin themes for presentation in Brazil at that time.

Enrique V. Iglesias
President,
Inter-American Development Bank

Augusto Ramírez-Ocampo
Regional Director for Latin America and the Caribbean,
United Nations Development Programme

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BRAZIL:

Business leaders voice environmental concerns

by Bill Hinchberger

Brazil's business leaders are adding their voices to the rising world chorus against environmental abuse. The recent wave of business-led ecological initiatives coincides coincidentally (or not) with Brazil's hosting of next year's UN summit on the environment and development. The world's largest international gathering on environmental matters, Earth Summit 1992, or the UN Conference on Environment and Development, as it is formally known, will be held in Rio de Janeiro from 1 to 12 June.

The flurry of environmental initiatives represents an abrupt about-face among Brazilian business leaders. Earlier this year, the Brazilian magazine *Exame* published the results of a poll, carried out together with the *Harvard Business Review*. The results were not very encouraging: Just 9 per cent of Brazilian business people considered the environment a top priority compared to 44 per cent of their colleagues in Japan and 38 per cent in Germany.

Then, all of a sudden, executives went bullish on "sustainable development"—framed as a joint venture between economic development and environmental protection.

Foundation set up

One ambitious initiative that is helping turn the tables is the Brazilian Foundation for Sustainable Development, sponsored by some of the country's most powerful industrial firms. The foundation's purpose is to ameliorate pollution and environmental degradation by helping to design ecological components for business endeavours and by facilitating their financing—the latter, by relying heavily on foreign foundations and governments.

"Our goal is to bring together those who have the projects with those who have the money," says Jorge Marques Leandro, interim executive director of the foundation, which should be operating at full speed by the beginning of next year. The foundation is expected to cultivate close ties with the Global Environmental Facility (GEF), an international entity recently created with the backing of the United Nations, the Group of 7, and the World Bank.

The foundation "should act as a modem between projects and funding for environmental efforts," quips Márcio Fortes, director of the Brazilian branch of the Business Council for Sustainable Development (BCSD), the group, headed by Swiss entrepreneur Stephan Schmidheiny, which is preparing business input for the Earth Summit (see DB, Issue No. 323).

Formerly unrelated to the foundation, the BCSD has become one of its biggest boosters. The foundation proposal was among the centerpieces of discussions at a BCSD-sponsored seminar in October that attracted many of Latin America's best known executives and leading politicians for two days of meetings in Rio de Janeiro.

One ambitious initiative is the new Brazilian Foundation for Sustainable Development.

Foundation organizers took advantage of the gathering to secure commitments from a core group of sponsors, including many well-known names in traditionally "dirty" industries like timber and mining: Aracruz, Brascan, C. Itoh, Jari, Belgo-Mineira, Pains, Suzano, Vale do Rio Doce, Andrade Gutierrez, Papel Simão, Klabin, Mannesmann, Nissho Iwai, OAS, Real, Café, Ripasa, Saint-Gobain, Shell, Vale and Veracruz Florestal.

At least a dozen other Brazilian firms and multinational subsidiaries have subsequently expressed interest in signing on.

Leandro, an executive at the state-owned Companhia Vale do Rio Doce, the world's leading iron exporter, stressed that the foundation will not mimic existing philanthropic efforts: "We don't want to take on pure environmental projects because businesses start out enthusiastically but then forget about them." Instead, the foundation hopes to soften the blow of what he called the "extra costs" that companies must assume when they decide to incorporate an environmental component into a project.

Another unique aspect of the foundation is that it will be a non-profit institution—run according to strict business principles. Its president-elect, Israel Klabin, is a leading executive of the pulp and paper producer that bears his name. Leandro promises a bare-bones structure but a high-quality staff. Founding corporations are donating US$ 100,000 each in start-up cash, but afterwards the organization will be expected to operate under its own power.

In that spirit, the foundation will do more than analyze projects, give its stamp of approval, and assist in procuring foreign funding. It will also offer (and charge for) services to companies that wish to design environmentally sound projects, and serve as an oversight agency. "We want to become the Price Waterhouse of environmental projects," said Leandro.

This no-nonsense approach received a warm welcome during Klabin's recent visit to the United States to meet with foundation officials and politicians. "Groups feel good about putting their money into something controlled by the private sector," Leandro notes. "They have misgivings about working with public entities."

Fortes was less diplomatic: "The public sector has been unable to demonstrate operational capacity. [Foreign donors] haven't been able to operate with the government. There are resources that have failed to enter the country because the Brazilian government has been unable to present adequate proposals."

The most glaring example, says Fortes, is the lack of initiative in response to the promise of over $1 billion in assistance by the Group of 7, the world's wealthiest nations, for the protection of Brazil's tropical forests.

According to Leandro, the virtual privatization of international environmental aid did not figure in the original blueprint. Instead, he recalls, it emerged from Vale do Rio Doce's study last year of the potential for recovery of a 25-million hectare chunk of the Amazon basin—half of which is severely damaged.

That piece of real estate surrounds the railway linking Vale's Carajás iron ore mine to the port in São Luis, Maranhão. Together with three other companies, Vale developed a plan to spend $100 million for reforestation and the construction of a paper-mill. Eventually, some $800 million would be invested in the initiative.

After discussions with top government officials, Vale concluded that the ambitious undertaking would require outside help. Finding no existing infrastructure, Vale's chairman Eliezer Batista took the lead in organizing the foundation on the international Business Council for Sustainable Development.

Vale do Rio Doce's green conversion was not a purely altruistic endeavour. Italian activists, for example, provided company officials with a rude awakening when they flooded the Brazilian embassy in Rome with copies of letters written to their government demanding that it cease purchases of iron ore from "the country that killed [labour and environmental activist] Chico Mendes."

Another firm, pulp and paper producer Riocell, now owned by Klabin, was jolted into defense of its environmental image when a US newsweekly alleged (wrongly, argue company officials) that it was exporting lumber cut from tropical forests. More recently, Roberto Klabin, who doubles as a Klabin executive and president of the environmental organization SOS Atlantic Forest, has accepted many of the criticisms aimed at his company by environmentalists, candidly admitting in the local press that Klabin should, for instance, do a better job of treating effluent from its plants.

Many local and multinational companies have launched independent initiatives as well, either to improve their own environmental performance or to fund outside projects. For example, Empresa Dow, subsidiary of the Dow Chemical Company, recently announced the creation of a new directorship responsible for environmental and health issues. The company's US headquarters has established a policy of maintaining high standards internationally—even if local legislation is more permissive.

Other companies like Aracruz, Alcoa, and Standard, Ogilvy & Mather are investing in environmental projects not directly related to their own business activities. Paper producer Aracruz operates a nature park in the state of Espírito Santo, which regularly receives visits from local school children. Steel multinational Alcoa runs an environmental education project for children who live near its plant in Peços de Caldas, Minas Gerais. And advertising firm Standard, Ogilvy & Mather allows its creative personnel to do *pro bono* work for environmental groups on company time.

The movement is not restricted to companies with internationally recognized monikers. The National Grassroots Business Association (PNBE), uniting the younger and more progressive Brazilian business community, recently launched its own environmental initiative. The PNBE, says coordinator Percival Maricato, hopes to encourage member companies to make sustainable development part of their daily concerns. Characteristically, the PNBE initiative emphasized the need for improvements in the quality of life for Brazil's poor, which PNBE believes must go arm-in-arm with better environmental quality.

"It is an acculturation process for the entire Brazilian society," says Maricato, adding that businesses must take heed to boost their environmental images, lest they be forced to take action. "Either they will have to take steps on their own, because they understand the importance of the issue, or they will be forced to do so," he predicts. "The pressure on environmental issues will only tend to increase." □

Bill Hinchberger is the São Paulo, Brazil correspondent for Business Latin America. *He also contributes to* America Economia *and* Institutional Investor.

Development Business. 31 Dec 91

United Nations Centre on Transnational Corporations

The United Nations Centre on Transnational Corporations, responding to a request by the Economic and Social Council during its July 1989 session, elaborated a set of Criteria for Sustainable Development Management to strengthen the participation of large industrial enterprises in efforts for environmental preservation and protection. The Criteria were received with appreciation by the Council at its July 1990 session.

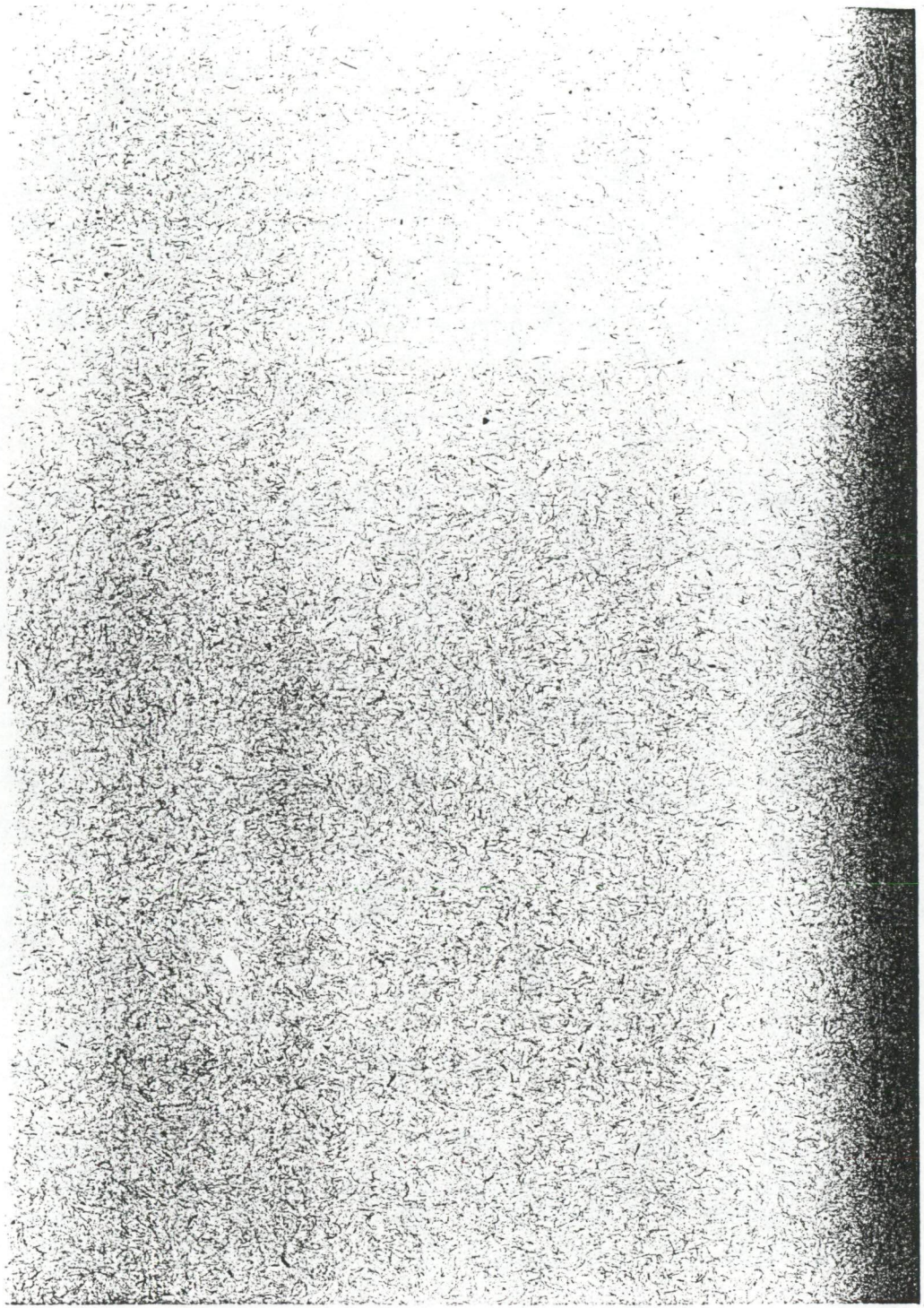
As the focal point within the United Nations system for dealing with transnational corporations, the Centre aims to advance understanding of these companies, to secure effective international agreements relating to their activities and to strengthen the negotiating capacity of host developing countries.

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United Nations Centre on Transnational Corporations

CRITERIA FOR SUSTAINABLE DEVELOPMENT MANAGEMENT

UNITED NATIONS
New York, 1991



PREFACE

With the acceleration of international investment, transnational corporations have come to play a crucial role in global production, and in the development of new products, technologies and markets. The importance of transnational corporations is seen in that they affect one quarter of the world's productive assets; 70 per cent of the products in international trade; 80 per cent of the world's land cultivated for export crops, and the major share of the world's technological innovations.

A number of specific recommendations regarding the prospective role of transnational corporations as partners in a long-term strategy for sustainable development were made by the World Commission on Environment and Development in 1987. The Commission defined sustainable development as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs . . . in essence . . . a process of change in which the exploitation of resources, the direction of investment, the orientation of technological development, and institutional change are all in harmony and enhance both the current and future potential to meet human needs and aspirations".

The United Nations Centre on Transnational Corporations (UNCTC), responding to a request by the Economic and Social Council during its July 1989 session, elaborated a set of Criteria for Sustainable Development Management to strengthen the participation of large industrial enterprises in efforts for environmental preservation and protection. The Criteria were received with appreciation by the Council at its July 1990 session.

As production has become internationalized, the benefits of new technologies have spread rapidly. At the same time, however, environmental health and safety risks have multiplied, and the natural resource base on which production depends is being threatened. Agricultural, extractive and industrial production all affect the environment. Criteria are needed to ensure that corporate management from these and other sectors can make a positive contribution to sustainable development by maintaining economic growth while reducing environmental risk and resource over-exploitation. These criteria incorporate a new management approach that has the potential to strengthen and direct efforts toward a stable and balanced relationship between business activity and nature.

Peter Hansen
Executive Director

CRITERIA FOR SUSTAINABLE DEVELOPMENT MANAGEMENT

Introduction

Transnational corporations, with manufacturing and financial capacities which transcend national boundaries, have a special responsibility for environmental protection and development. As major repositories of technological, human and financial resources, they have the potential to make a major contribution to sustainable development and global environmental protection.

Business has a direct interest in supporting sustainable development. Natural resources are the very base for the existence of agriculture, mining and manufacturing. All firms utilize, either directly or indirectly, natural resources, and therefore have a long-term interest in conserving and efficiently using them. Technology that minimizes energy and conserves materials makes good financial sense. The failure to install pollution-control equipment can result in expensive delays or interruptions of projects. Likewise, the failure to minimize overall environmental risks can jeopardize good working relations with local communities and host countries. The cost to a firm of preventing environmental damage and degradation is lower than the subsequent cost of curing them.

In July 1989, the Economic and Social Council asked the United Nations Centre on Transnational Corporations to develop ways and means for strengthening the participation of large industrial enterprises, including transnational corporations, in efforts for environmental preservation and protection. The Council requested the elaboration of a set of criteria and operational principles as steps in that effort. The results are presented below. In preparing them, the Centre sought contributions from experts in Governments, international organizations, transnational corporations, environmental organizations and universities. Their insights into the management process and their views on the interaction of sound economics and environmental protection have contributed significantly to the development of the criteria.

The criteria seek to provide a foundation for a new corporate management approach to the environment and development. The concept of sustainable development should be used to guide decision-making and action at all levels of the firm. Sustainability cannot be attained without active cooperation between policy makers, regulators, industrial managers, workers, consumers

and the officials of international organizations. Each has an important role to play in building a sustainable world. But the unique management aspects of transnational corporations and the international consequences of their decision-making suggest that a focus on a sustainable development management approach is needed.

The Criteria for Sustainable Development Management have two components. The criteria themselves are aimed at shifting management perspectives from a traditional business-as-usual view towards one that stimulates thinking on sustainable development. Members of the board of directors, institutional investors, individual shareholders and the chief executive officer can provide the needed internal support. Each individual criterion should be viewed in the overall context, each complementing and expanding the other. In their totality, they should provide a consistent approach. In certain fields of transnational activity, such as extractive mining, international finance, and consulting services, sector-specific modifications may be needed in order to address the specific realities. The criteria conclude with 10 short initiatives which might guide a transnational corporation in starting the implementation of practices consistent with sustainable development.

The effectiveness of these criteria depends in large part on appropriate governmental policies, a supportive institutional structure, and a financial commitment in both developed and developing countries. With the cooperation of industry, Governments, international organizations, and non-governmental organizations, significant new investments in both developed and developing countries can be productive and environmentally sustainable.



TIME AND SPACE

Time horizons

Sustainable development management requires that corporate executives develop a long-term perspective on environment and development and consider that perspective in making short-term decisions. Sustainability requires husbanding of non-renewable resources (e.g., fossil fuels and minerals), maintaining the productivity of renewable resources (e.g., fisheries, soils and forests), and avoiding destructive and irreversible effects (e.g., loss of species and genetic resources). Ideally, sustainability means living off nature's "income" and not dissipating its "capital". Achieving economically and ecologically sustainable growth demands longer-term time horizons than those currently employed so that the interests of future generations are not compromised by today's decisions. Current forms of decision-making systematically discount the future, undervaluing the costs of resource depletion and the benefits of conservation.



Spatial boundaries

Sustainable development management requires that corporate executives extend their vision of the firm beyond the factory gates. Current thinking on where to invest in production facilities, which is often limited to traditional concerns such as availability of labour, access to markets and transportation systems, may result in unintended environmental hazards. Decisions on plant locations and plans for emergency preparedness are better formulated if they are based on advance consultations with local governments, emergency services, and community-based groups. Decisions on where to locate hazardous industrial activities should take into account the weakest, most vulnerable persons, species and places, and anticipate the potential for major disruptions of neighbouring communities and eco-systems. The environmental effects of CO_2 emissions, chlorofluorocarbons, acid rain and ocean waste disposal can travel far beyond national boundaries and cause unwanted economic and political costs, both in the recipient and originating country.

"The responsibility and the attitude of the international corporations to guide their criteria and operations for environmental preservation and protection are of great importance for the n. nagement of inherent problems . . . I herewith wish to express my agreement with the contents of this document . . ."

Miguel de la Madrid
Former President, Mexico

LIVING WITH NATURE

Stewardship of common resources

Sustainable development management requires that corporate executives respect and conserve common public resources. Common public resources are involved in many of the most serious environmental problems confronting the planet. Resources such as the air we breathe and the open oceans cannot — or can only imperfectly — be reduced to private ownership and cannot be effectively exchanged in markets. Open and unpriced access to the global common resources by transnational corporations and other economic factors has resulted in overuse, misuse and environmental degradation, with losses being borne by society as a whole and more particularly by the more vulnerable groups within a community. A company managed with sustainability as a goal should not derive a "subsidy" from such resource use. Human health and the earth's overall biological well-being depend on strengthening the corporate commitment to the preservation, protection, and restoration of common public resources.

Managing uncertainties

Sustainable development management requires executives to foster respect for uncertainities about the effects of industrial activities and products and to engage in a continuing inquiry into those effects. When competent scientific research suggests a reasonable basis for concern about environmental consequences, prudent corporate leadership should allocate resources in such a way that any potential company-related aspects are understood and alternative technological or production options are studied. Decisions on such matters should be based on the quality of the data underlying the concern and the significance of the risk to the environment in question. As environmental impact data are developed or come to the attention of executives, they should be fed back into the process of producing or designing products. Management cannot wait for scientific certainty before responding to concerns about environmental and health damage. The management challenge is to act decisively when effects are known and to take uncertainty as an opportunity for reflection.

"It is my pleasure to lend support, by way of an official endorsement, to broad public acceptance of the Criteria for Sustainable Development Management. The Criteria could help to stimulate the international business community's readiness, and that of transnational corporations in particular, to take long-term environment effects into consideration when deciding on future investments. These Criteria could also contribute to help companies in applying the same criteria for investment decisions at home and abroad, particularly in developing countries . . ."

Jan P. Pronk
Minister for Development Co-operation,
The Netherlands

EFFICIENT TECHNOLOGIES

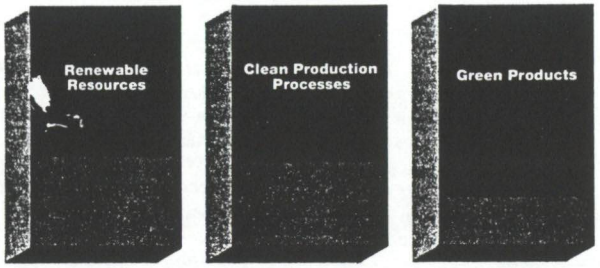
Efficiency of production

Sustainable development management requires that corporate executives use natural resources in an environmentally efficient and conserving manner, reducing waste to a minimum. The price for products needs to include not only the costs of production which are calculated by the private company but also the costs to society which are currently externalized, such as the costs of related health care to members of communities exposed to toxic materials. The price of non-renewable resources, which includes not only minerals and fossil fuels but also genetic resources and wilderness areas, should reflect their increasing scarcity over time. And the price of renewable resources, such as agricultural and forestry resources, should reflect the full social cost of production and the time needed for their regeneration. Corrected costs would encourage corporations to employ non-waste technologies, enhance resource recovery and reuse, encourage efficient use of energy, materials and water, and increase product durability and product life cycle.

Sustainable technology

Sustainable development management requires that corporate executives seek to develop, use and transfer technologies that are compatible with the needs, skills, training, finances and natural environment of the people of the region in which they are used. Sustainability will require a wide variety of "nature-sparing" technological changes (energy efficiency, waste recycling), as well as "nature-enhancing" ones (alternative energy sources, sustainable forestry). Technological research and development efforts must be directed towards the pressing needs of new energy sources, food production, recycling, pollution abatement and the safety of employees and surrounding communities. These diverse research and development requirements will involve many small technological advances, adaptations of existing technologies and technological breakthroughs.

New Balances into the 21st Century



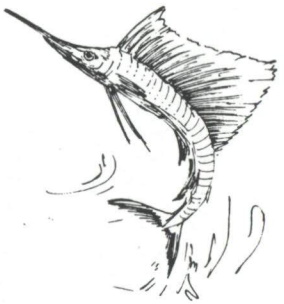
DIVERSITY

Diversification of production

Sustainable development management requires that corporate executives advocate the diversification of appropriate productive activities around the planet. Environmentally and economically sound diversification of production can assist countries to move from excessive reliance on exports of non-renewable resources, over-reliance on monocultures, or activities that make extreme demands on the environmental assimilative capacity of the region. Such diversification can reduce concentrated environmental burdens and at the same time broaden the economic base. Diversification of production also implies increased linkages with the rest of the economy and the development and marketing of new products in accordance with specific geographical regions, local market needs and particular cultures.

"I find the proposed Criteria for Sustainable Development Management extensive and comprehensive and I endorse that concerted efforts should be made to disseminate them to the transnational corporations."

Bernard T.G. Chidzero
Senior Minister of Finance,
Economic Planning and Development, Zimbabwe
Member of the World Commission
on Environment and Development



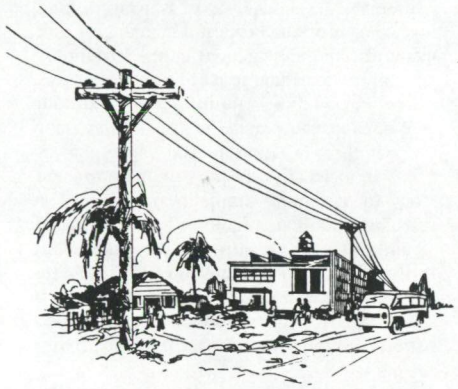
Bio-diversity and socio-diversity

Transnational corporation executives should contribute to sustainable development by fostering an appreciation of multiple forms of life and cultures. Corporate practices must not threaten species diversity, indigenous peoples, diverse cultures and religions, or the ecologically sensitive ecosystems upon which they depend for their survival. When introducing new products or processes that may have an impact on natural or sensitive social systems, executives should propose ways to conserve affected botanical and wildlife resources, assess the relative benefits of the new products and processes over the ones that might be replaced, and recommend ways to mitigate any negative cultural impacts which might occur in the various international markets. Diversity is essential for maintaining the planet's ecological balance and preserving multiple cultural identities.

GLOBAL CONSEQUENCES

Reallocation of activities

Sustainable development management requires that different levels of activity and types of function be reallocated around the globe. The economic activities of transnational corporations in poorer countries can make a genuine contribution to sustainable development through employment generation and training opportunities at differing levels, appropriate technological transfers, and access to affordable products of good quality. Sustainability is not compatible with a world of extremes of wealth and poverty, where human needs are not being met. A more equitable distribution of income, property, and opportunity can only emerge if world development is more balanced, with more corporate investment in poorer countries. However, in countries where regulatory controls are low, sound maintenance traditions are absent, or facilities for responding to emergencies are inadequate, transnational corporations should not establish hazardous industries or export toxic wastes since such a step would pose an unacceptable health risk to the local populations.



"I fully endorse your Criteria for Sustainable Development Management. I strongly believe that whatever measures are undertaken in favour of managing our common resources in a balanced manner and making production more efficient should be backed."

Susanna Agnelli
Under Secretary of State for Foreign Affairs, Italy
Member of the World Commission on Environment and Development

Atmospheric changes

Sustainable development management should prompt transnational corporation executives to take immediate action to mitigate the consequences of their firm's activities to the global atmosphere. Atmospheric degradation contributes to tree and crop damage, land loss for islands and low-lying coastal regions, and threatens human health. Industrial corporations contribute to the depletion of the ozone layer, the creation of acid rain, and global warming. As such, they are in a position to affect significantly the maintenance of the bio-sphere and the bio-geochemical processes of life. Executives can set global examples by establishing corporate conservation projects, adopting energy-saving goals, shifting from non-renewable to renewable resources, supporting large-scale reforestation, and promoting environmentally responsible behaviour within the workforce and in surrounding communities. The reduction in anthropogenically generated greenhouse gases, ozone-depleting chemicals, and acid rain depends, in the short term, on significantly higher levels of energy efficiency and the design of various replacement technologies and, in the long term, on transformations in modes of production, transportation, and fossil fuel use.

AUDITING AND REPORTING

Auditing and assessment of performance

Sustainable development management requires that corporate executives be continually and fully informed about the environmental practices of their facilities. Techniques available include corporate environmental impact statements, external environmental audits, compliance-testing standards, and an internal reporting system for unusual environmental events and near-accidents. An effective reporting system would use objective measurement standards and subjective assessments and would check that company-wide environmental and safety standards are understood and used regularly by all transnational subsidiaries and affiliates. Headquarter executives should establish procedures to monitor the extent to which joint-venture partners, subcontractors, and suppliers are following the firms's safety and health guidelines in managing hazardous materials and wastes. Division executives should train all regular and part-time workers in the company's safety procedures and should have sets of procedures, articulated goals for improvement, assessment schedules and follow-up mechanisms for evaluating compliance. Senior management should be notified of especially sensitive local environmental concerns.

"The Criteria for Sustainable Development Management is an excellent framework from which to develop a set of policies and programmes to improve the environmental awareness and performance of any transnational corporation."

Gus Speth
President, World Resources Institute, United States



Reporting successes and failures

Sustainable development management requires that corporate executives inform investors, creditors, employees, Governments and the general public in a timely manner of the environmental failures or beneficial effects resulting from the firm's operations. Enterprises need a regular channel through which they can report how these responsibilities for environmental protection and sustainable development are being carried out. Improved public access to environmental information at the level of local enterprises is essential if sound, independent assessment of an enterprise's environmental impact is to be facilitated. Provision of full information to consumers on the environmental and resource consequences of its products and services is a good indication of a transnational corporation's commitment to the environment and to public welfare.

CONTINUING EDUCATION

Anticipatory thinking

Sustainable development management requires that officials of transnational corporations anticipate the environmental and social effects of their activities. It involves thinking not only of the present impact of activities but also the potential future obstacles or changes that may be influenced by or influence those activities

"The Criteria for Sustainable Development Management are a valuable contribution toward the needed dialogue with industry aimed at an evolving acceptance of responsibility for protecting the environment."

Ambassador Richard Benedick
Senior Fellow
World Wildlife Fund
The Conservation Foundation
United States

(e.g., geological/seismic activity, population increase). Anticipatory thinking implies identification of the possible injurious side effects of present decisions, a recognition of the global implications of specific local and national actions, a consideration of the potential for catastrophic accidents, and the designing of new products sensitive to the needs of future generations. The tools for anticipatory learning include environmental impact assessment, risk analysis, public consultations, joint university/company task forces, and worker/management and community/management environmental planning teams. Anticipating the future reduces the potential for serious environmental damage and enhances the likelihood of sustained long-term growth.

Participatory learning

Sustainable development management requires that executives of transnational corporations learn from and respond to the concerns of customers, workers, local governmental officials, community leaders, environmentalists and academics. Clear and well established lines of communication encourage cooperation, dialogue, and mutual understanding. Through formal and informal training of outside groups in such areas as safe product use and accident contingency plans, executives and their staffs can improve the overall safety of the company's plans and facilities. Participatory learning is based on the responsibility of a corporation towards its customers for safe products and services, towards its workers for safety in the workplace and towards society at large for protection of the environment and the non-depletion of non-renewable resources. Education for sustainable development must flow to and from transnational corporations.

"In order to make the concept of sustainable development more operational, there is a clear need for improved analytical and planning tools. The present Criteria for Sustainable Development Management . . . is a very valuable contribution to develop such tools . . . It is now to be hoped that these guidelines will be followed by all those concerned . . . and that they be further elaborated and refined in the light of experience."

Ambassador Bjornar S. Utheim
Section for Environment and Development
Ministry of Foreign Affairs
Norway

TOWARDS ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

First corporate steps

1. **Establish** and publish a transnational corporate **sustainable development policy** statement emphasizing sustainable growth, environmental protection, resource use, worker safety and accident prevention. Translate the policy statement into all the working languages of affiliate enterprises.

2. **Review** strategic **planning**, resource acquisition plans, and operating procedures so as to align them with the sustainable development policy. Announce significant efforts to reduce the use of natural resources and minimize the generation of wastes.

3. **Review** and modify corporate **structure**, lines of responsibility and internal reporting mechanisms to reflect the sustainable development policy. Encourage overseas affiliates to modify procedures in order to reflect local ecological and social realities.

4. **Educate staff** on the ways in which sustainable development affects their firm and how they can utilize these criteria in their specific tasks. **Reward** employees who discover and report environmental problems or who recommend new, environmentally sound products and processes.

5. **Prepare** sustainable development **assessments** of all major upcoming investment and operating decisions. Distribute them to affiliate offices as models for their own sustainable development assessments.

6. **Perform** an environmental **audit** of on-going activities, particularly those in developing countries, to verify that the criteria have been adequately considered. Establish a comparative scale for identifying affiliates with strong and weak environmental track records.

7. **Report** publicly on the enterprise's **most hazardous products**, processes and toxic emissions. Distribute widely information on the methods in place to reduce these potential hazards and to cope with unanticipated emergencies.

8. **Institute research** and development work on the reduction and/or elimination of industrial products and processes which generate greenhouse gases. Arrange for environmentally safer technologies to be available to affiliates in developing countries without extra internal charges.

9. **Inform joint venture partners** and subcontractors about the corporate sustainable development policy. Establish ground rules for discontinuing business relationships with associated firms which operate with a disregard for basic health and environmental concerns.

10. **Disseminate** these **criteria** to other firms in relevant trade associations, local areas, or affiliated companies. Share the experiences with these criteria with local governments, national authorities, and the United Nations.

For further information or a copy of the latest report on transnational corporations and the environment, contact:

Environment Unit
United Nations Centre on Transnational Corporations
Room DC2-1202
United Nations
New York, NY 10017

Telex: UNCTNC 661062
Telephone: (212) 963-3160
Fax: (212) 963-2146

TRANSNATIONAL CORPORATIONS AND SUSTAINABLE DEVELOPMENT

Related UNCTC projects (1991)

CONTRIBUTION OF TRANSNATIONALS TO SUSTAINABLE DEVELOPMENT

- **Training courses in sustainable development management**
  Training material for corporate management programmes and an environmental business course.
- **Innovative environmental management approaches**
  A study based on an international benchmark survey and case studies.
- **Comprehensive and analytical assessment**
  A report to the Commission on Transnational Corporations addressing the role of transnational corporations in five areas of developmental importance to the 1992 United Nations Conference on Environment and Development.

ENVIRONMENTALLY SOUND TECHNOLOGIES AND PRODUCTS

- **Banned, withdrawn and severely restricted products**
  Annual issues of the *Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments.*
- **Hazardous technologies and industrial accidents**
  Studies on hazardous technologies, industrial accidents, liability and compensation.
- **Transfer of environmentally sound technologies to developing countries**
  A study of policy options.

ADVICE TO DEVELOPING COUNTRIES ON ENVIRONMENTAL MANAGEMENT

- **Strengthening environmental institutions, laws and regulations**
  Technical assistance to Governments and intergovernmental bodies.
- **Transnational corporations and industrial hazards disclosure**
  Analysis of disclosure regulations in industrialized countries and their applicability to developing countries.
- **Hazardous wastes**
  Inventory, analysis and evaluation of data, and recommendations on the conditions of production, transportation and disposal in developing countries.

CONTRIBUTION TO INTERNATIONAL CONVENTIONS AND AGREEMENTS

- **Global climate change and biotechnology**
  Analysis of the impact of transnational corporations and proposals for corporate restructuring.

ACCOUNTING AND REPORTING FOR SUSTAINABLE DEVELOPMENT

- **Definition and measurement**
  Revised methods to estimate environmental assets and liabilities.
- **Information disclosure**
  International standards for transnational corporations to report environmental impacts.

Information Networks for UNCED

I've not been too successful in accessing the on-line information networks. Then again, I haven't tried that hard either.

United Nations

Press Release

Department of Public Information • News Coverage Service • New York

ENV/DEV/18
24 April 1990

GLOBAL INFORMATION NETWORK ESTABLISHED FOR 1992
UN CONFERENCE ON ENVIRONMENT AND DEVELOPMENT

NEW YORK, 24 April (UN Conference on Environment and Development) — Electronically accessible information relating to preparations for the United Nations Conference on Environment and Development, scheduled for 1992 in Brazil, will be provided to all interested parties by the Conference secretariat.

The Secretary-General of the Conference, Maurice Strong, who has announced the inauguration of a "Global Electronic Network", has indicated that by using systems developed by the United Nations Department of Public Information (DPI), but on a larger scale than ever before, the Conference secretariat in Geneva will soon be able to "post" information on publicly accessible electronic "bulletin boards" of the sort being used world-wide in recent years.

Initially, this service will consist of background information — such as texts of General Assembly resolutions setting up the Conference, and decisions taken by the Conference's Preparatory Committee, as well as information about scheduled meetings and substantive announcements concerning the preparatory process, including, for example, the contents of statements delivered at the organizational session of the Preparatory Committee.

As the Conference secretariat assembles its staff, additional information will be routinely posted about upcoming events and about documents being prepared for submission to the Preparatory Committee, which holds its first substantive session from 6 to 31 August in Nairobi. Depending on response, additional categories of information could be supplied electronically in such a way as to encourage the broadest access to information.

The initial access to this system will be through networks such as Telecommunications Co-operative Network (TCN) and Econet, which have existing arrangements to enable their members to read material posted by the United Nations, with special menus being created for matters related to the Conference. The secretariat intends to facilitate access not only by those already accustomed to this technique, but to broaden access throughout the developing regions of the world, and in languages additional to English. It

(more)

2/6

will also take advantage of projects supported by the United Nations Development Programme (UNDP) which are designed to promote affordable access for users based in developing countries, and make information available to the UNDP-sponsored "Sustainable Development Network", recently announced by UNDP Administrator William Draper III.

In co-ordination with UNDP and the International Maritime Organization (IMO), the Conference secretariat will also be exploring existing satellite systems, such as Inmarsat and Peacesat, to enable access to secretariat electronic conferences by those located in remote areas of the globe where national data communication systems are scarce.

User Information

By means of a personal computer, a modem and telephone access to an electronic network, users can share information, pool resources and be kept abreast of future events related to the Conference. Users with access to TCN through a United Nations department, agency or mission should contact:

Telecommunications Cooperative Network
505 8th Ave., Suite 1805
New York, NY 10018
(212) 714-9780

TCN will provide access to the UNISER menu in which the Conference's Bulletin appears.

Users not interconnected with TCN may contact any of the following networks which are designed for easy access:

United States:

Global Education Motivators
Chestnut Hill College
Germantown & Northwestern Avenues
Philadelphia, PA 19118-2695
(215) 248-1150

or

Peacenet/Econet
3228 Sacramento St.
San Francisco, California 94115
(415) 923-0900 Fax: (415) 923-1665

United Kingdom:

GreenNet
25, Downham Road
London N1 5AA
Tel: +44 1 923 2624 Fax +44 1 2541102

(more)

Canada:

The Web
456 Spadina Avenue, Floor 2
Toronto, Ontario, M5T 2G8
Tel: +1 (416) 929-0634 Fax: +1 (416) 461-2886

Sweden:

FredsNaetet, (PeaceNet Sweden; NordNet),
Timmermansgrnd 4nb, 116 27 Stockholm
Tel: +46 (8) 7200001 Fax: +46 (8) 7200035

Nicaragua:

Nicarao, CRIES Equipo de Telecommunicaciones
Apartado postal 3516, Managua
Tel: +505 (2) 26228 or +505 (2) 25137 (ext. 5)

Brazil:

Alternex, c/o IBASE
Rua Vicente de Souza 29
22510 Rio de Janeiro
Tel: +55 (21) 286 0348

Australia:

Pegasus Networks
PO Box 201, Byron Bay 2481
Tel: +61 (66) 85 7286

Users on any other system should contact Econet or TCN for information.

Information on local access from other countries can also be obtained from local post, telephone and telegraph facilities.

* *** *

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UNITED
NATIONS

A

General Assembly

Distr,
GENERAL

A/CONF.151/PC/INF/3
10 August 1990

Original: ENGLISH

PREPARATORY COMMITTEE FOR THE
UNITED NATIONS CONFERENCE ON
ENVIRONMENT AND DEVELOPMENT
First session
Nairobi, 6-31 August 1990

THE UNCED INFORMATION SYSTEM

Note by the Secretariat

Background

1. The agenda of the 1992 United Nations Conference on Environment and Development (UNCED) 1/ has been developed on the basis of the activities of the United Nations system, and other relevant intergovernmental and non-governmental organizations. The success of the Conference will, in large part depend on the extent to which the preparatory process will be able to develop concrete conference outputs based on these existing activities.

2. The above implied that the ad hoc UNCED secretariat will need extensive access to information about who is doing what in the area of environment and development in the United Nations system and in other relevant organizations. Given the dynamically changing nature of these activities, the information needs to be rapidly updatable, and to be made available for programme development purposes to the UNCED secretariat, the Preparatory Committee, and the agencies themselves.

3. Another important measure of success will be the extent to which the interests of national governments, public opinion, non-governmental organizations, etc., can be brought into and made important parts of the preparatory process. One important element of this is the continuous provision of up-to-date information about the preparatory process, via all possible means.

Requirements for success

7. The UNCED Information System will not be successful without considerable support from the UNCED preparatory process, the United Nations agencies and other relevant organizations. In particular, the secretariat will need to develop efficient and functional ties with the relevant organizations to ensure the appropriate flow of information both into and out of the UNCED Information System. This process has already been started.

8. The UNCED Information System will be successful only if it will be used. While it will be an essential tool for the Secretariat in its programme development during the next two years, its main objective is to be useful to Governments and all the relevant organizations, which together are the foundation for the 1992 Conference.

Timetable

9. The global electronic network phase of the UNCED Information System has already started with the supplying of information to the Association for Progressive Communications (APC) networks and Telecommunications Co-operative Network (TCN). All the documents of the Preparatory Committee are available on these networks.

10. We expect to start developing the rest of the UNCED Information System immediately after the first session of the Preparatory Committee. The first major step will be extensive consultation with United Nations agencies, other relevant organizations and especially existing information networks.

11. Following such consultations, the UNCED secretariat will develop the UNCED Information System, which should be operational by the end of 1990. During 1991, the data base will be considerably expanded and refined.

Notes

1/ See General Assembly resolution 44/228.

2/ The UNCED secretariat is already providing information on a regular basis to the APC networks (via Econet) and to TCN. Copies of a concise guide to accessing these networks (prepared by members of these networks) are available to delegations upon request.

WHY ECONET?

To help coordinate Earth Day's 20th anniversary celebration, offices all over the world utilize EcoNet to: gather information on regional events; post summaries of activities; send on-line newsletters and coordinate media outreach.

"Without having to travel, organizers are able to network with each other and find out what programs are working and why. We're very excited about how it will work as an organizing tool, and it may prove to be a major cohesive force for years to come."

Mark Mobley, Earth Day 1990 - EcoNet Coordinator

Calling themselves "Campus Earth," university students around the country use EcoNet to organize on-campus activities promoting public awareness of global warming.

"EcoNet is a vital part of our information campaign to explain the importance of rainforests and what must be done to preserve them. It also brings the conservation movement together in a network that promotes cooperation and unity."

Randy Hayes, Director, Rainforest Action Network

While most of us received the story of the Valdez oil spill through the mass media's eyes, EcoNet users nationwide simultaneously got first-hand accounts of the devastation from local Alaskans who are on-line.

"EcoNet is not simply a data bank of information, it's a data bank of people with information, with whom you can communicate. I'm making connections and meeting colleagues in New Zealand, Australia, France, Great Britain, Denmark and Brazil. I know them because I talk to them with EcoNet."

W.J."Rocky" Rohwedder, Ph.D, Associate Professor of Environmental Studies & Planning, Sonoma State University, California.

Network users respond to an on-line letter-writing campaign request by immediately sending electronic mail, fax, and telex messages urging decision-makers to help protect an area of rainforest that is about to be logged.

JOIN ECONET

BE A PART OF THE ENVIRONMENTAL COMMUNITY ONLINE

(A Small Sample of Organizations On EcoNet)

Alaska Environmental Lobby
Alliance for Environmental Education
California Energy Commission
California Institute of Public Affairs
California ReLeaf
California State Department of Education
Central America Resource Network
CoastNet
Cool It! Project
Computer Using Educators
Conservation Foundation
Consortium of Aquariums, Universities and Zoos
Council for Renewable Energy Education
E Magazine
Earth Day 1990
Earth Island Institute
Earth Save
Environmental Action
Environmental Defense Fund
Environmental Grantmakers Association
Environmental Law Institute
Environmental Policy Institute
Environmental Protection Agency
Friends of the Earth
Garbage Magazine
Global Action Network
Global Tomorrow Coalition
Green Alliance
Greenpeace
Institute for Local Self Reliance
Institute of Cultural Affairs
International Union for the Conservation of Nature
Izzak Walton League of America
League of Conservation Voters
National Audubon Society
National Toxics Coalition
National Wildlife Federation
Natural Resources Defense Council
Nature Conservancy
NBC Nightly News - *Assignment Earth*
New Age Journal
North American Association for Environmental Education
Oceanic Society
Oxfam America
Pesticide Action Network
Rainforest Action Network
Rocky Mountain Institute
Sierra Club
Sierra Club Legal Defense Fund
Smithsonian Magazine
Tennessee Valley Authority
Toxics Coordinating Project
Tree People
Turner Broadcasting System
UNESCO
United Nations Association
United Nations Development Program
United Nations Evironmental Programme
West Coast Environmental Law Association
Wilderness Society
Windstar Foundation
World Wildlife Foundation & Fund

Many organizations have multiple offices online.

RECYCLED PAPER DESIGN BY CYNTHIA OCCHIPINTI, SAN FRANCISCO, CA

THE ENVIRONMENTAL E C O N E T COMPUTER NETWORK FOR THE PLANET

CONNECTING THE EARTH'S ENVIRONMENTAL COMMUNITY THROUGH TELECOMMUNICATIONS

WHAT IS ECONET?

EcoNet is an international, computer-based communication system committed to serving organizations and individuals who are working for environmental preservation and sustainability.

Most importantly, EcoNet is a community of persons using the network for information sharing and collaboration with the intent of enhancing the effectiveness of all environmentally-oriented programs.

DIAL LOCALLY, ACT GLOBALLY

If you have a personal computer and a modem, EcoNet connects you with people around the world. From most U.S. cities, you need only make a local phone call.

HARNESS POWERFUL TECHNOLOGY

EcoNet offers easy-to-use tools for posting your events on international bulletin boards, preparing joint projects through electronic conferences, and finding and discussing the latest information on environmental topics.

ACCESS VITAL INFORMATION RESOURCES

These resources on EcoNet include such data as the Environmental Grantmakers Association's directory of grantmakers, the Sierra Club National News Report, the National Wildlife Federation's Conservation Directory, Global Action Network's federal legislative information, action alerts, and newsletters from around the world.

SAVE TIME AND MONEY

Quickly and easily, EcoNet allows you to exchange messages, long documents, telexes and faxes for pennies per page. No more phone tag; no more unnecessary copying, addressing, folding, stuffing, and mailing.

REALIZE INTERNATIONAL CONNECTIVITY

Added to our U.S. accessibility, local access is available from many other countries. We have made international access even more affordable by establishing partnership relationships with like-minded networks in Canada, England, Sweden, Australia, Nicaragua, and Brazil. These connections also allow our users to be in constant communication with a wide range of internationally active environmental organizations and individuals. EcoNet users can also exchange electronic mail with users in the Soviet Union.

NO SPECIAL COMPUTER REQUIRED

EcoNet is compatible with nearly any personal computer or terminal connected to a normal phone line through a modem. Most communications software programs are adequate.

ELECTRONIC MAIL

An easy-to-use electronic mail system lets you send and receive messages of any length - virtually instantly - at a very low cost. Electronic "gateways" allow you to send telex and fax messages nearly anywhere in the world and mail to users on many other electronic systems and most international electronic mail networks.

PUBLIC ELECTRONIC CONFERENCES

Interactive public conferences on EcoNet let you read and participate in discussions on issues of interest to you. The public conferences focus on a wide range of environmental issues. These include: global warming, rainforests, legislative activities, water quality, energy policy, toxics, and environmental education.

PRIVATE ELECTRONIC CONFERENCES

You may set up a private conference - accessible to a specified group of users of your choice - to prepare a joint paper, to conduct business with your board or with affiliated organizations, or to plan an action or educational campaign.

HOW MUCH DOES A SUBSCRIPTION COST?

EcoNet's rates are among the least expensive telecommunications rates anywhere. For a one-time $15 signup fee, you receive a user manual, your private account and password, and one free hour of off-peak connect time during your first month. A monthly subscription of $10 includes an hour of off-peak connect time each month. (Peak time is Monday - Friday, 7AM - 6PM, your local time.) Additional connect time is charged at $5/hour in off-peak hours and $10/hour in peak hours. There is a small charge for users requiring large amounts of online storage.

☐ **Yes, open my EcoNet account.**
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NAME

ORGANIZATION YOU REPRESENT (IF APPLICABLE)

ADDRESS

CITY, STATE, ZIP

TELEPHONE

KEYWORDS INDICATING YOUR MAJOR AREAS OF INTEREST

REFERRED BY

Account-Billing Method:

☐ I PREFER TO HAVE MY CREDIT CARD CHARGED AUTOMATICALLY AND TO RECEIVE A STATEMENT OF CHARGES EACH MONTH. (NO DEPOSIT REQUIRED.)

CARD NUMBER EXPIR. DATE

NAME ON CARD IF DIFFERENT FROM ABOVE

☐ I PREFER TO BE BILLED EACH MONTH. MY REQUIRED $50 DEPOSIT IS ENCLOSED.
I UNDERSTAND THAT THIS DEPOSIT IS FULLY REFUNDABLE SHOULD I CLOSE MY ACCOUNT.

☐ I'M INTERESTED. PLEASE SEND ME MORE INFORMATION.

A SERVICE OF THE INSTITUTE FOR GLOBAL COMMUNICATIONS.

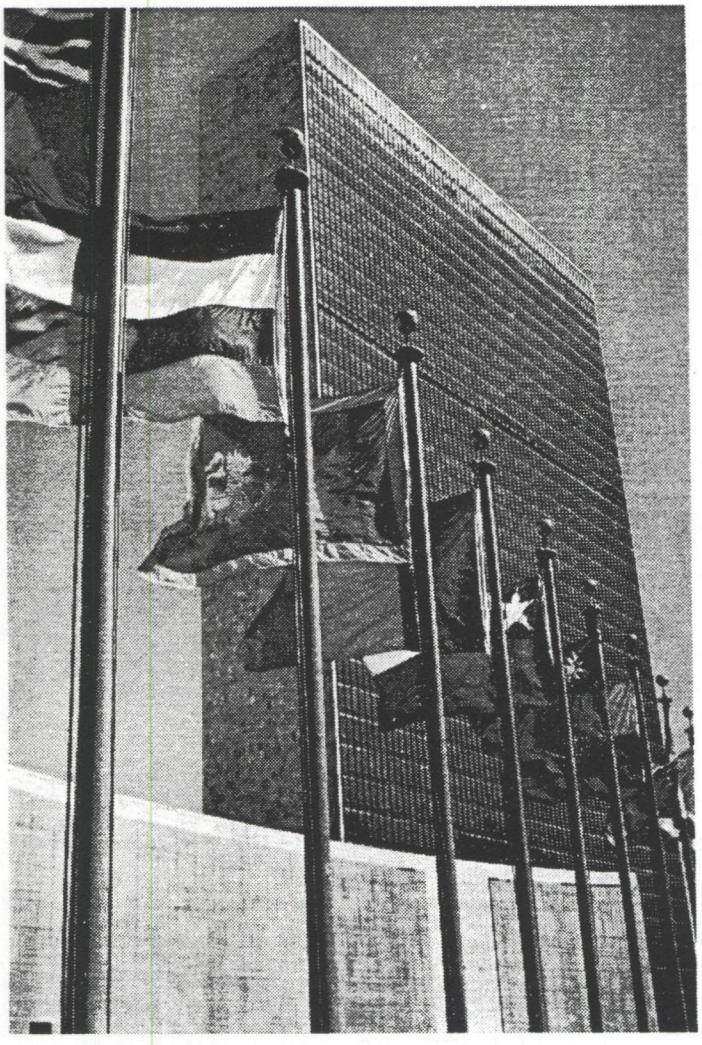


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NOTE: Total on-line charges vary from $27 to $32 per hour (approximately) depending on the time of the day (prime or non-prime time). This includes a 50% discount for governments, UN agencies, and non-governmental organizations affiliated with the United Nations. There is a minimum charge of $15 per month.

UNISER Menu...

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	CODE	SERVICE	DESCRIPTION
*	1	Read Me!	? About UNISER
*	2	Database	$ UN Database (Help? Enter Info More)
*	3	Resolutions	$ UN Resolutions (Help? Enter Info More)
*	4	Daily Journal	- United Nations' Daily Journal
*	5	>UNCED	+ UN Conference on Environment and Development
*	6	>Request UNDoc	- Request a UN Resolution or other Document
*	7	UN Storehouse	- Special UN Resources and Information
*	97	>TCNHELP	? Information and Help
*	98	>Q)uit	+ Previous Menu or Prompt
*	99	>OFF	- Sign off the system.

UNISER UNISER UNISER UNISER UNISER UNISER UNISER UNISER UNISER UNISER

This service is designed to help you find UN information quickly and simply. The information in the UN Database is divided into two categories, UN Database and UN Documents. These are fully searchable by title and subject. They are broken down into the following sub-categories:

UN DATABASE: (Menu Option 2)

DHL — Daily Highlights: Daily news from and about the UN. Current global events.

PR — Press Releases: Full text, some by request only, of official UN Press Releases; General Assembly, Security Council, ECOSOC, and other UN bodies.

SPN — Spanish UN Newsbriefs: news, in Spanish, similar to DHL

FRN — French UN Newsbriefs: news, in French, similar to DHL

UN RESOLUTIONS: (Menu Option 3)

INDEX — Index of resolutions passed by the General Assembly, during the past two years. Provides resolution numbers and titles, and subject of resolutions, fully searchable. Use this service to resolutions dealing with a particular topic; full text then available by request within 24 hours via Electronic mail.

SCRES — Security Council Resolutions: Full text, some by request only, of all resolutions passed by the Security Council since 1987. Selected earlier resolutions (eg. SC/242, SC/363, etc.).

There is a $2.00 minimum charge for document requests up to four pages, with an additional $.50/page thereafter. A page is equal to 66 lines of text. This charge will show up in your normal billing. Most documents are 1-3 pages in length, most resolutions 1-2 pages. Make several requests simultaneously to reduce charges; fees are per total number of pages.

The DAILY JOURNAL (Menu Option 4) is the daily schedule of the United Nations. It is uploaded on a daily basis, and is generally maintained on-line until the completion of the following work day. IT IS NOT A SEARCHABLE DATABASE, but its materials are available for downloading into your PC.

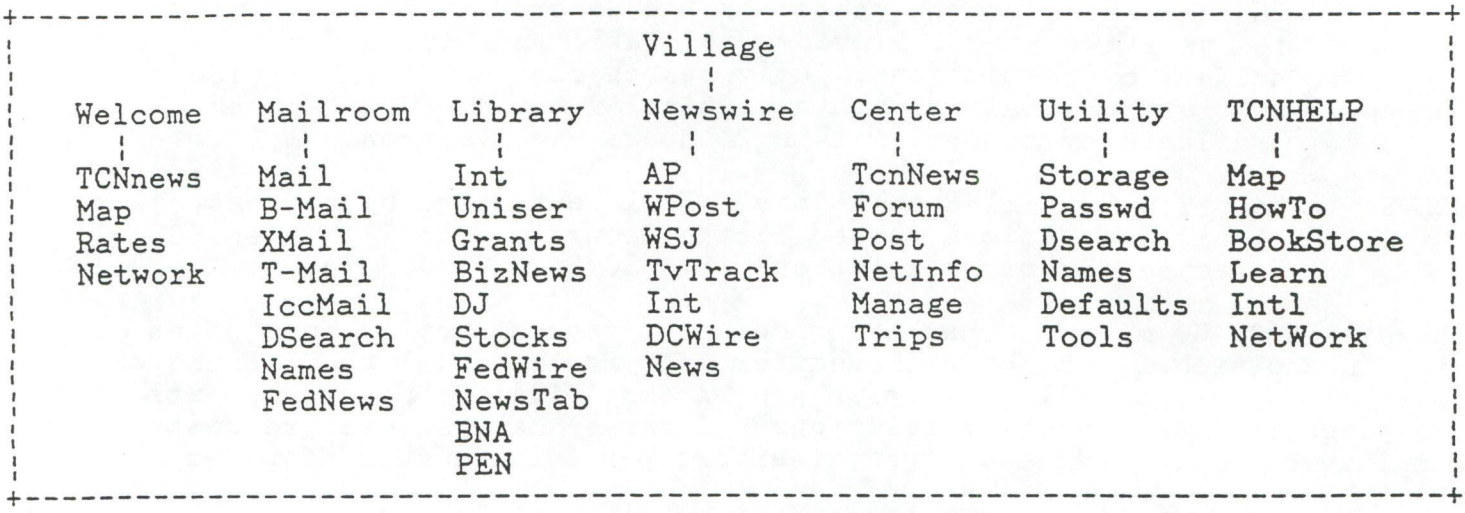
The UNCED database (Menu Option 5) is the database of the upcoming (1992) United Nations Conference on Environment and Development. It is updated on a recurring basis, and contains several sub-categories, as outlined in its UNCED sub-menu. IT IS NOT A SEARCHABLE DATABASE, but its materials are available for downloading into your PC.

Welcome to the UNCED Main Menu

Item #	Description
1)	UPDATES (Report on recent activities)
2)	SCHEDULES (Upcoming Events)
3)	DOCUMENTS (UNCED Reports, Press Releases, Etc.)
4)	PREPCOMM-1: Nairobi
5)	SPEECHES OF MAURICE STRONG, SG of UNCED

REQUEST UNDOC (Menu Option 6) is the service form used to request materials found in the UNISER database and Resolutions database. It is a simple form, requiring only the document designation number and the document date, as found in the Databases themselves. It also contains an opportunity to cancel the request, before sending.

TCNHELP (Menu Opttion 97) is a gateway into the Help and information section of the TCN Electronic Village, and via that into the main Electronic Village itself. Please investigate this section carefully; it contains many of the utilities and information sources necessary for proper maintenance of your account and list other TCN databases that are accessible through your UNISER account.



The VILLAGE Map:

Your guide to the menus and services on TCN's electronic village, and related networks.

>VILLAGE: Village Main Menu

Info	?	About this menu
>Welcome	+	Welcome Center
>Mailroom	+	The Post Office
>Library	+	The Research Center & Library
>Newswire	+	TCN'S Newsstand
>Center	+	Community Center
>Utility	+	TCN Utilities Menu
>TCNHELP	+	Help and Information
>GO	+	GO to a Service/Menu Not listed above
>Village	+	Village Main Menu (This Menu!)
>OFF	-	Sign off the system.

Here are brief descriptions of some of the selections in the VILLAGE. These may be activated either by following the menu stages, or they may be entered directly from the system prompt > by typing the following commands:

>HELP - Use this option to request help directly from the network staff. Be sure to enter all the pertinent information in your question or description

>MAP - A 'map' of TCN services available to all users

>HOWTO - A menu of tricks to cut costs, manage files and make better use of the GEMNET system and the TCN Network

>BOOKSTORE - To order manuals, users guides, validations, softwares, etc.

>LEARN - An interactive ON-LINE program to learn how to expertly use the mail system. Practical HANDS-ON TRAINING, with responses from the with responses from the computer. VERY USEFUL tutorial, try it!

SOME NOTES ABOUT COSTS

Because the TCN network was established for non-profit organizations, and is partially subsidized by foundation grants, it has among the lowest telecommunication rates available anywhere. This enables non-profit organizations to work with reasonably priced computer telecommunications, and permits GEM, Inc. to offer its GEMNET/UNISER database at minimum costs to the user. It is our intention to keep our services as inexpensive as possible.

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NOTE! FOR EXACT PRICING INFORMATION, TYPE >TCNRATE <ENTER>. THESE RATES ARE SUBJECT TO PERIODIC CHANGE, OF COURSE. GO TO >TCNHELP <ENTER> FOR PRECISE ANSWERS TO INDIVIDUAL QUESTIONS ABOUT COSTS. IT ALSO HELPS TO THINK OF THE NETWORK LIKE A TELEPHONE ACCOUNT: THE MORE ONE USES IT, AND THE MORE ONE MAKES USE OF SOPHISTICATED SERVICES (LONG DISTANCE, CALL FORWARDING, ARE LIKE THE SURCHARGED DATA SERVICES), THE MORE ONE MUST PAY.

****

PRIME HOURS = Mon - Fri, 8am - 6pm EASTERN STANDARD TIME (USA).

NON-PRIME HOURS = Mon - Fri, 6pm - 8am EST, AND ALL HOURS WEEKENDS, HOLIDAYS

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NOTE! BASE CHARGES FOR THE SYSTEM ARE NOT STRICTLY FIXED, BUT ARE A FUNCTION OF FOUR SEPARATE ELEMENTS THAT THE USER CAN INFLUENCE:

****

1) COMMUNICATIONS 2) CONNECT 3) KILOCHARACTERS 4) STORAGE

****

NOTE! SURCHARGE RATES FOR THE USE OF DATABASES (SUCH AS UNISER, REUTERS, ETC.) ARE DETAILED IN THE PRICING SECTION OF THE VILLAGE. SURCHARGES ARE IN ADDITION TO BASE CHARGES.

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1. HOURLY COMMUNICATIONS CHARGE: SOME SELECTED RATES FOR COMMON NETWORKS

TELENET	$5.00/hr	PRIME -	$4.00/hr	NON-PRIME	[300/1200/2400]
TYMNET	$6.00/hr	PRIME -	$6.00/hr	NON-PRIME	[300/1200/2400]
TELENET/CANADA	$11.00/hr	PRIME -	$11.00/hr	NON-PRIME	[300/1200/2400]
CSC/INFONET	$42.60/hr	PRIME -	$42.60/hr	NON-PRIME	[300/1200]
ITN-U.K.	$20.40/hr	PRIME -	$20.40/hr	NON-PRIME	[300/1200]

TELENET AND TYMNET ARE PRO-RATED TO THE NEAREST MINUTE, WITH A MINIMUM OF 3 MINUTES. FOR INFORMATION ON OTHER SYSTEMS, TYPE >TCNRATE OR ENTER THROUGH THE VILLAGE. FOR INTERNATIONAL COMMUNICATIONS, CHARGES ARE BILLED INDEPENDENTLY FROM THE HOST COUNTRY, UNLESS PLACED VIA TYM-USA, INFONET OR ITN-UK. FOR MORE INFORMATION ON INTERNATIONAL NETWORKS, SEE THE VILLAGE MENU OR ENTER >INTL

2. HOURLY CONNECT CHARGE: $9/hr PRIME or $5/hr NON-PRIME. CONNECT TIME IS PRO-RATED TO THE NEAREST MINUTE WITH A MINIMUM 1 MINUTE SESSION

3. KILOCHARACTER TRAFFIC: ONE KILOCHARACTER IS EQUAL TO 1000 CHARACTERS OR FRACTION THEREOF. THERE IS A .05 CENT CHARGE PER KILOCHARACTER TRANSMITTED IN OR OUT OF YOU ACCOUNT. KILOCHARACTERS ARE DETERMINED ON A PER CONNECTION BASIS WITH A MINIMUM OF ONE KILOCHARACTER. ONE NORMAL PAGE OF TYPED TEXT IS EQUAL TO APPROXIMATELY 1.5 KILOCHARACTERS.

4. STORAGE COSTS: INFORMATION STORED IN ON-LINE FILES IS BILLED AT THE RATE OF $0.35/MONTH PER BLOCK OF 2,048 CHARACTERS (OR LESS). MINIMUM STORAGE IS ONE BLOCK/MONTH. FOR MORE ON STORAGE COSTS AND PROCESSES, SEE THE UTILITY MENU IN THE VILLAGE, OR >TCNHELP. TO CHECK YOUR ACCOUNT STORAGE, TYPE >STORAGE

Maria —
Get more info on
who is preparing
National Report
for USA

What is the 1992 U.N. Conference on Environment and Development?

The 1992 U.N. Conference is a meeting of governments to create a global blueprint for environment and development. The 1992 Conference provides a unique opportunity -- perhaps the last in this century -- to shine the global spotlight on these issues and to ensure that nations make binding commitments to preserve the earth and the life it sustains.

The 1992 U.N. Conference is a follow-on meeting to the 1972 Stockholm U.N. Conference on the Human Environment that was a major impetus for the environmental movement. Citizens had a tremendous impact on the 1972 U.N. Conference. Now, twenty years later, we have gained understanding of the *linkages between environment and development*. Again, citizens can play a key role in shaping the outcomes of a critical U.N. Conference.

The Challenge Of The 1992 U.N. Conference

How can we chart a development path that will preserve the *integrity of the earth* and the *dignity and well being of the human family*? As the world's resources grow scarcer and more costly during the next century, how will we manage those resources? Threats to security in the 21st century will arise less from military adventurism than from how nations and cultures answer these questions. The current crisis over oil in the Middle East shows the danger of failing to find sound answers.

Superpower cooperation has moved the U.N. to a pivotal position in the resolution of regional conflicts. Can the U.N. become a key forum for responding to these questions on the care and use of global resources? We think it can -- especially if citizens help show governments the way.

Why Get Involved?

Citizen groups have a major role to play in t 1992 U.N. Conference. Our knowled expertise, and constituent contacts can grea influence what governments will discuss in Bra

The U.N. has invited participation in t Conference by citizen groups. Areas of experti the U.N. seeks include: environment, populati development, business, industry, labor, scien youth, women, indigenous peoples, and ethics

Citizens can make a difference by influencing t U.S. "national report." Each U.N. memb nation has been asked to prepare a repo assessing the challenges posed by the need f environmentally responsible development, a identifying action plans responding to the challenges. The U.S. government has invit citizen input to its "national report," to completed by October 1991. We are calling hearings across the country to integrate citiz concerns into the report.

As the world's largest industrial power, t policies of the U.S. have a greater impact environment and development than those of a other single nation. *It is especially important th the national report of the U.S. -- and the U.S. n in the 1992 Conference -- reflects the goals a perspectives of U.S citizens and provides leadersh to create a sustainable common future.*

There are other ways that citizens can make difference. Citizens should be part of the U government negotiating team at the U. Conference in Brazil. We also need to work w citizen groups in other countries. There will parallel conferences for citizen groups in Bra and activities leading up to the "big even Effective citizen action will develop a "criti mass" of people willing to make democracy wo to safeguard the interests of future generation

U.S. Citizens' Network

on the

United Nations Conference on Environment and Development

The U.S. Citizens' Network on UNCED is a project of the Tides Foundation

U.S. CITIZENS NETWORK
ON THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT
1010 Vermont Avenue, NW, Suite 904
Washington, DC 20005-4902

The U.S. Citizens' Network on the United Nations Conference on Environment and Development is a project of the Tides Foundation

U.S. Citizens' Network

The **U.S. Citizens' Network on the United Nations Conference on Environment and Development** (UNCED) was established at a Citizens Consultation in Washington on October 21-22 1990. Representatives of some 160 organizations took part in the Consultation, and the decision to establish the Citizens' Network was a significant agreement to create a mechanism which would be of service to many different kinds of groups. Five major functions of the **Citizens' Network** are being developed.

- **Clearinghouse.** First, the Network will serve as a clearinghouse for the collection and dissemination of all kinds of useful information on the issues with which UNCED will deal and the process by which it will operate. The clearinghouse will support Network participants in finding out the policies, positions and actions being taken by international, governmental, and non-governmental organizations concerned with UNCED. The clearinghouse will organize and make available information that will enable all Network participants to act more effectively, it will publish a regular bulletin, and will post information on the EcoNet computer network.

- **Outreach.** Secondly, the Network will promote and facilitate activities, by organizations, that will build public understanding of the nature and importance of the UNCED issues. The Network will encourage and assist the holding of regional conferences and town meetings -- always working through and with existing organizations -- and may organize a national meeting in the spring of 1992. In addition, it plans to publish a "Citizens' Action Guide" to the 1992 conference.

- **Policy development.** A third function of the Network will be to support the development of policy statements on UNCED issues, as well as on issues not formally on the UNCED agenda but closely linked to it, that can be adopted or endorsed by participating organizations. (The Network itself will take no stand on policy questions.) These policy papers will be prepared by Working Groups established within the framework of the Network but operating autonomously.

- **Policy input.** the Network will also play an important role in enabling organizations to participate in the policy-making process, both nationally and internationally. The Network will work with the President's Council on Environmental Quality and the Department of State, and Congressional committees to set up events -- public hearings, roundtables, meetings with the U.S. delegation to UNCED, etc. -- through which organizational views and recommendations can be presented. The Network will also work with the UNCED Secretariat to provide opportunities for organizational input into the work of the UNCED Preparatory Committee and Secretariat.

- **International cooperation.** Finally, the Network will be a focal point for encouraging U.S. organizational cooperation with non-governmental groups in other countries (e.g. Brazil, Canada) and with international non-governmental networks. A lot is happening internationally in the "independent sectors" that will shape UNCED's results, and the Network will help U.S. organizations share in this international activity.

To carry out these tasks, support from foundations will be essential. The **Citizens' Network** has obtained 501(c)(3) status as a project of the Tides Foundation, and the Executive Committee has begun submitting grant applications to several foundations.

The Citizens' Network will only thrive if it has the support and participation of organizations such as yours.

The **Citizens' Network** therefore asks you to do three things:

- **Sign up as a Network participant** and make a financial contribution in cash or in kind to its support. We are asking $25 from individual participants and $50 from organizations, but will welcome larger contributions from those who are able to make them. All contributions are tax-deductible.

- **Provide information to the Network** about the policies your organization has adopted; the publications it has produced; the activities it is carrying out or planning, etc. This information is vital if the Clearinghouse is to function fully . . . and only you can provide it.

- **Participate in Working Groups.** The Network's Working Groups provide an opportunity for you to share in developing policy on the issues before UNCED.

As a participant in the Network, you will receive:

- Access to the clearinghouse, including:
  - A Directory of organizations in the Network
  - A list of key UNCED players
- The Network Newsletter
- Notification of opportunities for involvement in the policy making process
- Assistance in organizing local events
- Information on how to participate in the Working Groups.

To become a Network participant, please fill out attached reply form. The stakes of the United Nations Conference on the Environment and Development are very high. Let's work together to make sure that our voices are heard!

Registration Form

Name _____

Organization _____

Address _____

_____

City State ZIP

Phone (___) _____

Fax (___) _____

Areas of interest and expertise _____

_____

_____

☐ My financial contribution is enclosed

☐ $25 ☐ $50 ☐ $100 ☐ $___

I would like to join a Working Group:

- ☐ Alternative Economics & Finances
- ☐ Biological Diversity
- ☐ Climate
- ☐ Conflict Resolution & Negotiation
- ☐ Desertification & Land Degradation
- ☐ Energy
- ☐ Environment of the Poor
- ☐ Environmental Democracy
- ☐ Ethics, Development & Environment
- ☐ Forests
- ☐ Health & Environment
- ☐ International Institutions
- ☐ Military Spending, Development & Environment
- ☐ Oceans
- ☐ Population
- ☐ Sustainable Agriculture
- ☐ Technology Transfer
- ☐ Toxics
- ☐ Urban Environment
- ☐ Water Resources
- ☐ Women's Dimension
- ☐ Other _____

Please make checks payable to **The Tides Foundation/Citizens' Network on UNCED**, and mail to: **U.S. Citizens' Network on United Nations Conference on Environment and Development**, Suite 904, 1010 Vermont Ave., NW, Washington, DC 20005-4902.

Information Clearinghouse
Citizens' Network on UNCED

Overview: The Information Clearinghouse of the Citizens' Network on UNCED will coordinate the compilation and dissemination of information concerning the 1992 United Nations Conference on Environment and Development (UNCED). The focus of the Clearinghouse will be on making information available to U.S. organizations, however, information will be shared, and efforts coordinated, with parallel efforts in other countries and with the work of international coordinating bodies.

Problem: The UNCED agenda is large and complex, with many separate but related facets, and there is a large and growing amount of information pertaining to the issues on the agenda. Although the conference itself is more than a year and a half away, most key decisions will be made well in advance of June 1992. The ability to make effective contributions to these decisions will depend on timely awareness of the UNCED process; ready access to pertinent information, and the ability to alert appropriate networks of people and organizations.

The Citizens Network comprises a broad-based and diverse group of organizations, reflecting the breadth of issues relating to the UNCED agenda. Many of these organizations have not addressed their issues in the context of an international environment and development arena, and many have no previous experience with UN conferences.

Needs: There is a broad range of needs for information relating to UNCED and to environment and development, ranging from overview materials on each to access to specialized in-depth reports; from a schedule of events to identification of key people and organizations in each of a variety of substantive areas. Access to the information needs to be well organized to avoid the dual problems of information overload and inability to know about and access vital information.

Objectives: The Clearinghouse will compile and organize information on:

- Official documents – governmental & intergovernmental – concerning UNCED
- Reports, papers & articles concerning the UNCED process & issues related to UNCED;
- UNCED-related legislation in the U.S.
- Information on parallel intergovernmental proceedings
- Events & conferences related to UNCED
- Organizations & individuals actively involved in UNCED issues

The Clearinghouse will make the UNCED-related information available via:

- Newsletter/bulletins for network members
- Calendar of events
- Indexed, cross-referenced guide to documents
- Database/directory of organizations & people, indexed by interest & expertise
- Distributing copies of documents
- Electronic conferencing & electronic mail
- News service, via fax, to environment & development organizations, publications and news services, and to the general media
- Referral to sources of detailed information/expertise

Wherever practical, the Clearinghouse will support the dissemination of UNCED related information by, and in the publications of, the participating organizations in the Citizens' Network, rather than developing separate publications.

Citizens' Network on UNCED, Information Committee
801 Homestead Street, Baltimore, MD 21218, 301 243-2131; Fax - 301 243-2132

Information, Environment and Development

Executive Summary

Overview: Effective global access to environment and development information is crucial to:

- Meet ongoing needs for environmentally sound decision-making;
- Enable effective public participation in the decision-making processes; and
- Prepare for the 1992 U.N. Conference on Environment and Development (UNCED).

Through this project the U.S. can play a key leadership role at UNCED in the effective use of information and communication technology to enable environmentally sound development.

The Problem: The problem is two-fold:

- Massive amounts of information pertaining to environment and development issues and to the UNCED agenda exist and will be generated;
- No comprehensive and coherent structure is available to organize that information and to make it readily accessible.

The result is that decision makers are simultaneously faced with information overload and with failure to access essential information.

Project Accomplishments: By focussing attention and resources on the uses of information technology to support environmentally sound development, the project will:

- Assemble an active forum of environment and development information experts as a catalyst for mobilizing information resources and expertise;
- Facilitate common access to, and connectivity in, the global information infrastructure
- Support effective organization of, and access to, information for the UNCED agenda.

The project will support the development of a public/private U.S. initiative that can be a centerpiece of the U.S contribution to UNCED.

Funds Requested: The first year budget of $160,000 will support an office with two full time staff and provision for consulting support, office resources, communication, travel and conferences. Half of the funds will be raised from industry, and half from charitable foundations.

Proposal

Introduction: The challenges of environment and development that constitute the basis for the UNCED agenda are taking place during a time that marks the emergence of an information revolution. One key component of the environment and development challenge is that of absorbing, digesting, and understanding a massive body of information on the impact of human behavior – including agriculture, industry, technology and consumption – on local, regional and global ecosystems. A second component is that of enabling access to that information in a way that on how to alter human behavior so that it can regain a balance with the natural world.

The intelligent application of information technology and the art and science of organizing effective access to information can support a major breakthrough in our ability to come to terms with the challenge of environment and development.

Why this project is needed: The UNCED agenda presents a complex array of environmental problems and cross-sectoral development issues in an institutional, legal and financial context for developing and implementing policy. A large and growing body of data on environmental and economic conditions and on environmentally sound processes exists. Access to the data is essential to facilitate environmentally sound development. However, there is no comprehensive framework to enable ready access to a coherent body of these data. Likewise, there is a substantial body of people and organizations with pertinent knowledge and expertise, but no comprehensive cross-referenced directory to facilitate access to these sources. Computer-based electronic access to the data is a key to resolution of the information issues, but the present electronic information infrastructure is increasingly composed of separate electronic networks without adequate provision for effective information interchange between the networks.

Information technology radically transforms human ability to compile, organize, synthesize and gain access to massive amounts of data in a manner that allows an understanding of the interrelatedness of environmental, economic and human systems and processes, and that can creates a basis for environmentally sound decisions. Information technology also creates powerful new opportunities for public participation in, and access to, decision making processes.

In addition to its role in developing an effective information strategy for the UNCED agenda and issues of environment and development, this project also addresses the need for the U.S. to play a leadership role in UNCED, building on the existing commitment of the U.S. delegation to UNCED to technology transfer and public participation.

Goal: To mobilize the power of information technology and the creative energy and vision of people and organizations in the information business to develop and implement an information-based framework for environmentally sound development and for UNCED.

Objectives:

- Develop an active forum to address the role of information technology in supporting environmentally sound development, and to mobilize resources and expertise;
- Facilitate enhancement to the global information infrastructure to overcome barriers to common access to environment and development information, and to support public participation in environmentally sound development decisions;
- Development and implementation of a framework for organizing UNCED-related information within the matrix of the environmental, cross-sectoral and institutional framework of the UNCED agenda.

Activities:

Develop an active environment and development information forum:

- Assemble an Advisory Committee composed of information and communication experts from non-government organizations, the information and communication industry, and government;
- Compile a directory/database of key individuals, organizations and businesses who are engaged in environment and development information activities;
- Compile pertinent environment and development data sources, and facilitate coordination among these sources and of access to the data contained within them;
- Mobilize additional resources and expertise, primarily from sources within the information and communications business.

Facilitate enhancements to the global information infrastructure to support access to environment and development information and decisions:

- Develop systematic mapping and analysis of existing global information infrastructure, and identify barriers to effective access to information;
- Coordinate with sustainable development networks advocated by UNCED Secretariat;
- Assess institutional, legal and financial implications of an effective, cooperative global information infrastructure.

Develop and implement strategies for organizing UNCED-related information:

- Develop and facilitate an effective electronic conferencing framework for UNCED, and facilitate active involvement of people and organizations in the electronic conferences;
- Facilitate a process for on-line input and access to the preparation of the US National Report for UNCED;
- Broaden access to receiving and communicating information; integrate electronic information dissemination with print and voice distribution;
- Identify ways of utilizing information technology and methodology to support sustainable development and natural resource management and protection.

Evaluation: The [to be] attached chart [will] show the proposed schedule for implementation of the project activities. Measurement of project accomplishments against the schedule will be the primary basis for evaluation.

Conclusion: The challenge of environment and development is an immense one; a key to its resolution lies in an effective strategy for the creative, intelligent application of available systems of knowledge. This project will engage the emerging power of information technology and the creative energy of its proponents to develop and implement such a strategy.

Citizens' Network on UNCED, Information Committee
801 Homestead St, Baltimore, MD 21218, 301 243-2131; Fax - 301 243-2132

Miscellaneous

BNA Regulation Economic and Law 8-27-91

TOP OFFICIALS CALL ON GOVERNMENTS TO COMMIT TO SIGNING 'EARTH CHARTER'

GENEVA—(By a BNA Special Correspondent)—Countries attending a United Nations meeting in 1992 should sign an "earth charter," pledging stronger commitment to clean up the world's environment in the 1990s, U.N. Secretary General Javier Perez de Cuellar said August 26.

Joined by Maurice Strong, secretary general of the U.N. Conference on Environment and Development, Perez de Cuellar said such a charter would embody basic principles to guide the economic and environmental behavior of nations.

"It is absolutely essential to produce a development and social agreement which will guarantee the ecological health of our planet," Perez de Cuellar told the third preparatory meeting for the 1992 U.N. Conference on Environment and Development, to be held here through Sept. 4. "Collective security does not mean only the elimination of military threats."

Heads of state of more than 100 countries are expected to attend the 1992 UNCED meeting, to be held in June in Rio de Janeiro, Brazil. The United Nations is billing it as the most important environmental meeting to be held since 1972, when a meeting in Stockholm set up the United Nations Environment Program.

A further preparatory committee session will take place in New York in March but Strong ruled out any further meetings. The agenda for the Rio meeting should be largely in place by the end of the current meeting, he told the preparatory committee, and the New York session in March should be largely devoted to tying up loose ends of the agenda.

Energy Tax

Among the proposals that were being considered by the preparatory committee Aug. 26 was the introduction of an energy tax to reduce fossil fuel use and promote environmental health. The proposal comes from the UNCED secretariat itself and suggests the setting up of another U.N. agency to promote energy conservation. But conference sources said the proposal had run into opposition from western countries on the grounds that it would impose yet another layer of U.N. bureaucracy on the environment/energy equation.

The UNCED proposal said, "There is a need for rationalization and containment of energy consumption at the global level. The long-term objective is to reverse the present trends where most money is spent on conventional energy systems." Countries should set markers for their maximum energy requirements and should plan not to go beyond them, the proposal added.

The proposal, which is bogged down in committee discussion, could single out automobile pollution as a key area of environmental control, according to conference sources. "Countries could introduce or strengthen pricing and other economic mechanisms which discourage large fuel consuming and polluting vehicles and encourage alternative uses," the proposal from the UNCED secretariat said.

While the proposed U.N. Energy Conservation Agency is running into strong opposition from western representatives, conference sources said it might get through to Rio to be discussed at the heads-of-government level.

Existing Agreements Evaluated

Committee members spent part of their time evaluating more than 100 existing environmental agreements. These range from the Vienna Convention for the Protection of the Ozone Layer to specific agreements for the conservation of polar bear.

Peter Sand, organizer of the committee which is trying to synthesize these agreements for the Rio meeting, told BNA he was "awed" by the amount of work involved. The United States, for example, has proposed that regional and even bilateral agreements on these matters could be combined in an agreement worked out in Rio de Janeiro.

Jeffrey Kovar, one of the U.S. negotiators here, has said that a "representative sample" of such accords could be added to the list in Rio, but Third World delegations have said this could be too selective a process. U.S. delegation sources declined comment but Joy Hyvaerinen, representing Greenpeace, said such selectivity was just an example of the sort of proposal the non-governmental organizations were seeking to avoid.

Despite the controversy concerning the conventions which will—or will not—be presented in Rio, Perez de Cuellar and Strong were generally upbeat in their speeches to a plenary session of the meeting August 26.

Strong, a former head of UNEP, said the deliberations of the various working groups here would need to be synthesized for the March meeting in New York. He said he was convinced that framework conventions would emerge from the current meeting which, after refinement in New York, could be presented for signature at the Rio meeting.

Concerns About Progress

However, non-governmental organizations attending the Geneva meeting expressed concern over its lack of progress.

Action Aid and Greenpeace, two of the non-governmental organizations concerned with the environment, said in a joint statement Aug. 26 that the UNCED meeting was "heading towards a possible failure characterized by cunning bargaining for the short-term interests of those in power in the North and the South.

"Some key countries are failing to seriously address the reality of causes of environmental degradation and poverty or to address the concessions they will have to make to halt environmental destruction and help developing countries toward an ecologically, economically, and socially sound future," the two organizations said in a statement.

In other conference action in the first two weeks, developing countries, in committee, called for faster action on ratification of the Montreal Protocol to phase out ozone-depleting chlorofluorocarbons by the year 2000.

Juan Antonio Mateos of Mexico, speaking for the Third World "Group of 77" countries (which actually numbers more than 100) said developed countries should pay up their commitments to the Montreal Protocol immediately. "Otherwise they will be setting

aside their commitment to eliminate harmful substances that pollute our earth."

Hazardous Waste Disposal

The question of hazardous waste disposal arose when developing countries sought in committee to wrap an outright ban on movement and dumping of such wastes into the declaration which will emerge from the Rio meeting. "Some people are inclined to regard developing countries as dumps for hazardous wastes," Khattar Oinagi of Mauritania told a committee meeting.

Ignatio Llanos of Chile called for a system of monitoring transboundary movement of hazardous waste and research on its health effects in developing countries. He was supported by the European Community, whose representative, Rob Droop of the Netherlands, said all countries should commit themselves to self-sufficiency in waste management and disposal.

But Susan Drake of the United States said waste disposal should be a private matter between countries governed by bilateral agreements.

The United States was also at odds with Third World countries on a series of proposals on climate change and the protection of the atmosphere presented by the UNCED secretariat.

They were described by Robert Reinstein, another U.S. delegate, as "too interventionist." But conference sources said they expected the U.S. opposition to be watered down by the time the conference ends.□

AUG 17 1992

"Document Control"

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FROM: WEINER, JONATHAN: EOP-COUNCIL OF ECONOMIC ADVISERS

TO: DR. D.A. BROMLEY

DATE OF CORRESPONDENCE: 08/10/92

SUBJECT: NEW REPUBLIC PIECES ON UNCED, RELATED ITEMS.

****

DIRECTORATE ASSIGNED:

STAFF ASSIGNED:

ACTION REQUIRED:

STAFF ACTION:

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DATE COMPLETED:

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COPIES TO: ENVIRONMENT
D. Allan Bromley

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OSTP RECEIVED: 08/14/92

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EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON, D.C. 20500

August 10, 1992

MEMORANDUM FOR THE HON. D. ALLAN BROMLEY

FROM: JONATHAN B. WIENER

SUBJECT: NEW REPUBLIC PIECES ON UNCED; RELATED ITEMS

RECEIVED
92 AUG 14 P3:40
MAIL ROOM

As you requested, attached is a copy of the New Republic's editorial of July 6, chastising the "media pack" for insisting that the U.S. be painted as "Satan America" at UNCED, when in the New Republic's view the U.S. was actually doing a good job on climate change, biodiversity, biotechnology, and forests.

I found the second and third paragraphs of the editorial particularly intriguing, because they make the very argument in favor of a "comprehensive approach" -- fear that Europe might only shift from CO2 emissions to CH4 emissions -- that we pressed for almost three years to counter the European focus on CO2.

I am also enclosing the Easterbrook piece, which worries that real environmentalism will be undermined by those who assert that every environmental problem is an instant calamity.

Finally, I am enclosing the most recent article that Dick Stewart and I have published on the "comprehensive approach" to climate change policy (a piece you saw in draft form earlier this spring). This article reiterates our advocacy of the comprehensive approach, taking into account the latest available scientific information, and addresses the concerns raised by some about the practicality of the comprehensive approach.

THE NEW REPUBLIC

JULY 6, 1992

RIO-CON

A principle of journalism holds that the more reporters on a story, the less gets covered. With several thousand correspondents at Rio, endless column-inches were devoted to the atmospherics and diplomatic sniping, both of which will be utterly forgotten. Little notice was accorded the actual content of the treaties to be signed—though that's where the real story was.

Consider the global warming treaty, the primary achievement of the Earth Summit. Despite what you heard, U.S. involvement made the treaty better. Here's why. There are two important greenhouse gases, carbon dioxide and methane. The former occurs in larger quantities, but the latter is about ten times as potent. The United States is the leading source of carbon dioxide; Europe, the offender in methane.

Before Rio, European officials (fonts of the anti-American complaints emphasized in the coverage) wanted carbon dioxide alone restricted. This would have imposed disproportionate costs on U.S. industry. The Netherlands, which by measure of public statements is Earth's greenest nation, is also the No. 1 per capita emitter of methane. Dutch negotiators, adamant about a carbon dioxide crackdown, wanted methane left alone because—get this—global warming science is uncertain. Ultimately the compromise that allowed the United States to sign the treaty, and George Bush to go to Rio, was that the United States will regulate carbon dioxide if Europe regulates methane. The treaty ended up covering a broader range of pollutants as a result of U.S. pressure. This was ignored by the media pack, because it spoils the Satan America spin.

The pack also dwelt on U.S. opposition to a clause fixing a carbon reduction target of 1990 levels in the year 2000. This was made to sound like a huge distinction, though there is unlikely to be any statistically significant difference between the two numbers. The trend line for carbon emissions is down in some recent years, including in the United States, mainly because of investments in energy efficiency: total carbon output for the year 2000 may fall below the 1990 level in many nations even if governments mandate nothing. Meanwhile Germany, praised for its greener-than-thou attempt to sign up E.C. states for a 1990 side commitment, jockeyed behind the scenes to have Bonn's reductions realized via credits from antiquated former East Germany foundries that will shut down in any case.

On the biodiversity treaty everybody, including American negotiators, agreed in principle to a document long on concessions to the South: royalty payments for genetic materials discovered on Third World soils, coupled with Northern funding for preservation of tropical biology. Everybody, including the document's Southern proponents, agreed the language was a mess. For one, it appeared to invalidate Northern patents for bioengineered products. The fuzzy wording specified neither how much the North would give nor who would administer the money. Sometimes when proposed treaties are a mess nations nod to them anyway, planning that once the spotlight shifts elsewhere, they will refuse to ratify them without amendments and side letters. An argument can be made for this position. But the position Bush took—continue negotiating till the parties agree on what the treaty means—is hardly the scandal it was made to seem.

Then there's the forest preservation compact. All Northern nations, including the United States, wanted to sign, though the treaty would have created a new argument for reduced logging in the Olympic Peninsula. In this case the South would not assent, calling the compact an intrusion on economic sovereignty. That may be a fair complaint. But while the United States was pilloried for worrying about the economic impacts of greenhouse and biotechnology controls, it was also chastised for not respecting the South's economic stake in forest use. Important Third World nations even resisted a vaporous statement of forestry principles. Somehow that was the fault of the white devils too.



Major players went to the conference with an interest in making Washington look bad. At times it was dishonest of reporters not to note this. The E.C., for example, wants community nations to cede authority over environmental affairs to Brussels. E.C. leadership has long felt that this will not be done until it usurps the traditional position of the United States as environmental reform leader. The E.C.'s chief environmental official, Carlo Ripa di Meana, theatrically announced a boycott of Rio. If the treaties were really so important, why wasn't Ripa di Meana there, making one last appeal? The EPA's Bill Reilly was.

Bush fumbled the Earth Summit from the p.r. perspective. But the consequential part of Reilly's work at Rio was defensibly pro-environment. Perhaps it's refreshing to hear that, for a change, the White House bungled the symbols while handling the substance. •

THE WHITE HOUSE
WASHINGTON

DATE: 5/12/92

TO: OSTP

FROM: PHILLIP D. BRADY
Assistant to the President and
Staff Secretary

Please forward your comments
directly to this office
by 10:00 a.m., WED. 5/13/92.
Thank you.

THE WHITE HOUSE

Office of the Press Secretary

For Immediate Release May 13, 1992

10

The President today announced that the United States has joined eight other countries of the Americas in signing an agreement that will formally establish an Inter-American Institute for Global Change Research. The Institute will bring together the critical resources and capabilities needed to address important issues of global change in the Western Hemisphere.

The agreement was signed today by D. Allan Bromley, Assistant to the President for Science and Technology at a meeting hosted by President LaCalle of Uruguay in Montevideo.

The President first announced the concept of a network of regional institutes to study global change in his closing remarks to the White House Conference on Science and Economics Research Related to Global Change, which was convened by the President in April, 1990. Since then, the United States has actively developed this concept and has promoted the establishment of the first of these institutes which will be located in the Western Hemisphere. The United States will continue to work with senior representatives in the areas involved to establish institutes in the European/African region and in the Western Pacific region.

This signing affirms the President's commitment to global stewardship and his desire to further promote responsible environmental policies and reiterates that protecting the environment and encouraging economic growth can be mutually

Withdrawal/Redaction Sheet
(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
011 Memorandum	To: Allan Bromley From: Nancy Maynard Re: UK UNCED Initiative on Earth Observing Satellites (3 pp.)	5/1/92	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Global Climate Change Files - Conferences/Meetings
WHORM Cat.:
File Location: United Nations Conference on Environment and Development (UNCED) [3 of 3] [1991-92]

Date Closed:	4/26/2010	**OA/ID Number:**	62058-005
FOIA/SYS Case #:	2005-0336-F	**Appeal Case #:**	
Re-review Case #:		**Appeal Disposition:**	
P-2/P-5 Review Case #:		**Disposition Date:**	
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P-3 Release would violate a Federal statute [(a)(3) of the PRA]
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P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [a)(5) of the PRA]
P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

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Freedom of Information Act - [5 U.S.C. 552(b)]

(b)(1) National security classified information [(b)(1) of the FOIA]
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(b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
(b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
(b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
(b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
(b)(9) Release would disclose geological or geophysical information

Climate Prediction: An Historic Opportunity

Recent scientific advances in the study of El Niño events and their worldwide climatic consequences provide the United States with a unique opportunity to move the world toward production and use of systematic, skillful and societally useful climate predictions of immense economic value. The high visibility of climate issues created by the pending UNCED meeting in Brazil affords the President at least one opportunity to respond strongly and positively to an important climate issue and be applauded for his action by world leaders. At a time when most of the attention at UNCED is riveted on a single issue (greenhouse), the U.S. can take one bold initiative which will remind the world that there is more to climate change than greenhouse warming. Such an initiative, perhaps more than any other, will demonstrate the strong and vital link between economic development and enhanced environmental awareness.

Predictions of year-to-year climate variations are quite important, particulary for developing nations that base much of their economic and societal wealth on agriculture and hydrologic resources. Scientists have established that most of these year-to-year fluctuations in climate have their origin in a strong coupled interaction between the tropical oceans and the atmosphere, mainly in the tropical Pacific. The most commonly cited manifestation of this global interaction is known as El Niño, a warming of the surface waters in the central and eastern tropical Pacific. Coupled with its atmospheric counterpart, the Southern Oscillation, this phenomenon is known as ENSO. The current research program aimed at achieving a better understanding of these phenomena is making tremendous progress toward predicting these tropical fluctuations, and the world-wide climate anomalies which accompany them, a season to a year or two in advance. Our demonstrated and still increasing ability to provide reliable predictions of these natural events and their climatic consequences provides the President with the opportunity to galvanize world leaders around the development and routine use of climate information for a variety of profound strategic, economic and social purposes.

By taking a leadership position with other nations, and accelerating somewhat the present plans for El Niño studies within the USGCRP, the President can identify himself directly with a remarkable change in man's partnership with nature. He would be placing the U.S. clearly at the forefront of transforming the human condition from that of passive victim of natural climate variation to one of scientifically-sound anticipation and rational response.

The Science of Seasonal to Interannual Climate Prediction

Climate variations associated with El Niño often have widespread and devastating impacts. These include the onset and intensity of the Indian monsoon, the frequency, severity, and paths of storms in the Pacific, the viability of commercial fisheries off the coast of South America, and the occurrence of short term regional drought in many

parts of the world (while severe floods are occurring elsewhere). Many of the adverse impacts of these climate fluctuations could be avoided or reduced by successful forecasts of the El Niño cycle. Scientists here and abroad are ready to begin providing El Niño forecasts, based upon highly promising results of the Tropical Oceans and Global Atmosphere (TOGA) element of the USGCRP (an international project supported by eighteen nations).

Remarkable and rapid advances have been made in tropical climate predictions. Before the 1980s, it was not possible even to confirm that an El Niño/Southern Oscillation (ENSO) event was underway. Improved observations of the tropical ocean and atmosphere along with advances in dynamical modeling have led to an understanding of how the coupled ocean-atmosphere system works to produce the ENSO cycle and have enabled development of skillful forecasts of warm and cold Pacific episodes up to a year or more in advance.

The key insight in understanding the ENSO phenomenon was made in 1969 by a prominent Norwegian meteorologist, Jacob Bjerknes. He grasped that the ENSO phenomenon is to be understood neither as an atmospheric phenomenon nor as oceanic phenomenon, but as a phenomenon which depends intrinsically on the interaction between the atmosphere and the ocean. A theory of ENSO would therefore accurately describe how atmospheric winds change the oceanic sea surface temperature (SST) which is simultaneously producing changes in the atmospheric winds. When a model of the ocean is coupled successfully to a model of the atmosphere, the ENSO arises spontaneously, with the proper surface winds and the proper SST.

By 1987, this idea had been encapsulated into simplified coupled models of the Pacific Ocean and the atmosphere above it. The models were able to simulate correctly the major large scale features of ENSO and, more remarkably, to predict the future state of the ENSO from information about the current state of the ocean. The prediction scheme was first tested using past years to see if warm events that had already occurred could be successfully reproduced. The models first proved successful at such retrospective forecasts and then successfully predicted the onset of warming in the Pacific in 1986 more than a year in advance. This and the 1991-92 case, also correctly predicted more than a year in advance, constitute a remarkable achievement in the Earth sciences.

We now understand that the spontaneous nature of the ENSO cycle is rooted in an instability of the coupled atmosphere-ocean system. The instability produces repetition on an irregular cycle of 3 to 4 years - slow by weather standards but all too fast when severe regional drought and flooding accompany the cycle. The recurrence time varies between three and seven years with long runs of regular events interspersed with long runs of no (or weak) events.

Current predictions are made by calculating the state of the ocean from the time history of the observed winds (which themselves are not yet well known very precisely) acting

upon a model of the ocean. Surface wind data are collected from ship and island observations and, soon, from satellite measurements. Subsurface observations are also taken by commercial ships and by research vessels and moorings. It is anticipated that within the next few years a sufficient number of ocean moorings will be placed throughout the tropical Pacific, under the TOGA element of the USGCRP, to complete the required basin-wide network.

Needed improvements in present forecasts can be made by constructing models of the essential atmosphere-ocean interactions at a level of detail sufficient to absorb all the information that the expanded observing system will provide. Such models involve large numerical computations that require use of a supercomputer. Vast volumes of observational data must be processed and efforts must be made to go back in time and secure data sets for model validation. Finally, the predictions must be made routinely and distributed to interested countries whose scientists know how to use the information.

Several tropical countries have already begun to use available information on ENSO conditions and existing experimental forecasts. For example, government agencies in Peru, Ecuador, Brazil, Australia, India, China, and Ethiopia regularly monitor the evolution of ENSO. In Peru, an assessment of the likelihood of a warm or cold phase of the tropical Pacific Ocean guides government decisions as to whether to plant dry crops such as cotton, or a more water responsive crop, such as rice. Substantial improvements in agricultural yields have been the result. Tropical climate forecasts have in this fashion already had some impact on tropical societies by reducing uncertainties in important policy decisions. However, these forecasts are still limited and rudimentary. They are carried out by small research groups which lack the resources to make use of all available observational data. Similarly, they cannot take full advantage of the advanced modeling and data handling techniques developed in oceanography and meteorology, most notably for numerical weather prediction.

Moreover, these academic research groups cannot sustain the forecasts which must appear routinely if decision makers in tropical countries are to rely on them. What is urgently needed is the establishment of an institution devoted to research, training, and experimental prediction of tropical climate variations, with the resources and mission to be responsive to society's needs. The global nature of the problem requires multi-national collaboration in the establishment of such a world-class institute.

The International Institute for Climate Prediction

The establishment of an institution to accelerate progress in interannual climate prediction has been discussed extensively during the past two years, both within the U.S. and with partner nations internationally. Furthermore, arguments supporting the establishment of such a facility have been provided by the Intergovernmental TOGA

Board, the Second World Climate Conference, and the ASCEND-21 Conference. Encouraged by these discussion, scientists and governmental officials in the U.S., working closely with colleagues in Brazil, France, Germany, Japan, and Peru, have prepared a detailed plan for an international research institute for climate prediction. This institute is designed to: (1) accelerate research focussed on climate variability on seasonal to interannual time scales; and (2) conduct routine experimental forecasts of such climate variability and provide these to the appropriate agencies in participating countries. The initial focus will be on those regions of the world where significant socio-economic benefit can be immediately realized. This initiative represents a unique opportunity for scientists from developing countries to work directly with colleagues from the more developed countries to produce timely climate information which directly supports economic and policy decisions in their respective societies.

Recommendation

The President can articulate a broad commitment in the context of UNCED by proposing that the nations of the world join the U.S. in establishing the capability to provide systematic predictions of year-to-year climate changes and their regional implications. Achieving this goal would involve several actions, many of which are already part of the U.S. climate change strategy. These actions presumably include:

- reiteration of the U.S. and international commitments to the design and operation of the Global Climate Observing System called for at the Second World Climate Conference,

- highlighting the sustained commitment to the U.S. Global Change Research Program, and the international global change research efforts to which it contributes, as a high priority for the Administration, and

- continued support for the development of the President's initiative to establish International Institutes for Research on the Science and Economics of Global Change, including the Inter-American Institute for Global Change Research, to investigate the regional implications of climate change on a number of time-scales.

The President would accompany these actions with one aimed specifically at near term climate prediction:

- an offer, accompanied by a call for immediate multi-national action, to support and host an International Research Institute for Climate Prediction, which would serve as the point of synthesis for climate information on year-to-year climate variations, together with a network of regional Application Centers for the systematic utilization of the predictions.

Such a proposal would be eagerly supported by many nations, including a number of

Latin America and African countries, Japan, Germany, France, Italy, the UK, Australia, Indonesia and others. Members of the U.S. scientific community have initiated informal discussions of the feasibility of such an institution with their international counterparts. These informal discussions could be accelerated if needed in order to support a Presidential announcement at UNCED.

By focusing attention on establishing the capability to skillfully predict year-to-year climate changes and their regional implications, the U.S. can ensure scientific progress toward responding to issues such as greenhouse warming while providing tangible near-term climate information of substantial economic consequence to most nations of the world.

NATIONAL SPACE COUNCIL

EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20500

April 21, 1992

MEMORANDUM FOR

MR. W. ROBERT PEARSON
Executive Secretary
Department of State

MR. R. BLAIR DOWNING
Executive Secretary
Department of Treasury

BG JOHN A. DUBIA
Executive Secretary
Department of Defense

MR. JAMES FRELK
Director, Space Commerce
Department of Commerce

MS. VICKERS BRYAN
Director, Executive Secretariat
Department of Transportation

MR. SAMUEL SKINNER
Chief of Staff
to the President

DR. FENTON CAREY
Special Assistant
to the Secretary
Department of Energy

MR. WILLIAM SITTMANN
Executive Secretary
National Security Council

MR. JAMES MURR
Associate Director
Office of Management and Budget

DR. D. ALLAN BROMLEY
Director
Office of Science and Technology Policy

CAPT NORBERT RYAN
Executive Assistant
to the Vice Chairman
Joint Chiefs of Staff

MR. DANIEL GOLDIN
Administrator
National Aeronautics and Space Administration

MS. PHYLLIS PROVOST MCNEIL
Executive Secretary
Central Intelligence Agency

SUBJECT: Space-Based Global Change Observation

Attached is a copy of the draft policy addressing the recommendations of the Earth Observing System Engineering Review Panel. Written agency concurrence on the draft policy is requested by close of business, April 29, 1992.

Mark J. Albrecht
Executive Secretary

Attachment

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National Space Policy Directive

Subject: Space-based Global Change Observation (S-GCOS)

I. Introduction

The US Global Change Research Program (USGCRP), is a key component of the nation's overall approach to global stewardship and is one of the nation's highest priority science programs. This program's goal is the provision of a sound scientific basis for developing national and international policy relating to natural and human-induced changes in the Earth system. The ultimate success of the USGCRP depends upon an integrated set of ground- and space-based observation and research programs. The United States is planning and implementing a series of satellite missions which include NASA's Mission to Planet Earth, related environmental satellites and activities of other agencies to provide these global observations for the next several decades. For the purposes of this document these systems are collectively referred to as the Space-based Global Change Observation (S-GCOS) system.

II. Objectives

a. General. Space-based Global Change Observation is to provide space-based global observations which together with other observations and studies, coordinated through the United States Global Change Research Program (USGCRP), will provide the scientific information to help understand the Earth system.

b. Specific. In support of the USGCRP the S-GCOS system shall:

1. Improve our ability to detect and document changes in the global climate system, determining, as soon as possible, whether there is global warming or other potentially adverse global environmental changes and, if changes are detected, determine the magnitude of these changes and identify their causes.

2. Provide data to help identify and understand the complex interactions that characterize the Earth system in order to anticipate changes and differentiate between human-induced and natural processes.

3. Provide for a data system to manage the information collected by the S-GCOS system as an integral part of the Global Change Data and Information System (GCDIS) consistent with the USGCRP data policy.

4. Provide for the development and demonstration of new space-based remote sensing technologies for global change

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observation and identify candidates for future operational use.

III. Implementing Actions

This directive provides guidance to agencies developing, deploying, operating or supporting Space-based Global Change Observation systems to acquire and manage relevant observations and data sets for the USGCRP.

a. International Cooperation

It is recognized that the goals and objectives of the United States Global Change Research Program can best be achieved through the mutually-reinforcing research of all nations and many organizations and programs which require a large measure of bilateral and multilateral cooperation. Accordingly, participating agencies may explore, in accordance with this directive and established procedures, international cooperation in Space-based Global Change Observation.

b. Interagency Coordination

Space-based Global Change Observation activities are conducted in the context of the USGCRP. The Federal Coordinating Council on Science, Engineering, and Technology (FCCSET) through its Committee on Earth and Environmental Sciences (CEES) Subcommittee on Global Change (SGC) is responsible for developing and coordinating the USGCRP, and for the activities and requirements of the USGCRP and, therefore, Space-based Global Change Observation. All S-GCOS agencies shall participate with other USGCRP agencies and the CEES Subcommittee on Global Change in the development and coordination of the Space-based Global Change Observation Program Plan. The provision, management, and exchange of data will be a key element of the USGCRP.

The CEES Subcommittee on Global Change will coordinate the interagency development of the Global Change Data and Information System (GCDIS) which integrates appropriate observations, regardless of platform basing mode or orientation of data (land, oceanographic, atmospheric, or space). All agencies involved with S-GCOS will participate with other USGCRP agencies in planning for the GCDIS with a goal of maximizing the system's interoperability. Data sets intended for the GCDIS shall be responsive to the requirements of, and be accessible to global change scientists, and US Government authorized research and operational users.

c. National Aeronautics and Space Administration (NASA)

The National Aeronautics and Space Administration is the lead agency for planning Space-based Global Change Observation and is responsible for developing and operating the NASA component of the S-GCOS system. This component shall be developed to provide

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maximum program flexibility within budget constraints. As part of the USGCRP NASA shall:

1. Lead the development and preparation of a coordinated, interagency Space-based Global Change Observation Program Plan to be delivered to the National Space Council (NSpC), National Security Council (NSC), the Office of Science and Technology Policy (OSTP) and the Office of Management and Budget (OMB) by the CEES Subcommittee on Global Change through FCCSET. This plan will guide agencies' S-GCOS activities.

2. Continue with the Mission to Planet Earth by conducting the ongoing development, operation and scientific use of instruments and satellites designed to observe and monitor processes which govern key aspects of global environmental change.

3. As part of the Mission to Planet Earth develop the Earth Observing System (EOS) comprised of intermediate and small sized satellites as recommended by the EOS Engineering Review Panel.

4. Plan and develop, in an incremental and evolutionary manner the EOS Data and Information System (EOSDIS), the NASA part of the data and information system for S-GCOS. This data and information system shall be compatible with other parts of the USGCRP Global Change Data and Information System, and able to incorporate, as appropriate, currently available Earth observations, such as LANDSAT, and provide an active archive for S-GCOS system data sets. Prototype versions of this system, using existing Earth observations, shall be constructed to demonstrate system utility and functions.

5. Develop new instruments and space systems for global change monitoring systems utilizing technologies from NASA and other S-GCOS agencies. A plan for related NASA research and development activity shall be integral to the interagency coordinated Space-based Global Change Observation Program Plan.

d. Department of Energy (DOE)

The Department of Energy shall participate with other Space-based Global Change Observation agencies in developing and deploying a satellite system in order to maintain data continuity for the understanding of the Earth's radiation budget from 1995 to 1997. This satellite system shall complement those of NASA and other S-GCOS agencies, should not entail significant developmental risk, shall make its data available through the S-GCOS data and information system and shall be developed and deployed as specified in the Space-based Global Change Observation Program Plan.

The Department of Energy shall participate with other Space-based Global Change Observation agencies in conducting research and

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development for advanced technologies which can offer promise of increased performance and/or lowering cost for advanced long-term global change monitoring systems. A plan for related DOE research and development activity shall be integral to the interagency coordinated Space-based Global Change Observation Program Plan.

e. Department of Defense (DoD)

The participation of the Department of Defense in Space-based Global Change Observation shall consist of related activities derived from current and planned DoD programs. DoD, in cooperation with the Director of Central Intelligence as appropriate, will identify those technologies and programs that support the S-GCOS and shall seek to make appropriate technology and data from those programs available. DoD may also seek to identify and take advantage, as appropriate, of S-GCOS programs and capabilities.

f. Department of Commerce (DOC)

The Department of Commerce through the National Oceanic and Atmospheric Administration (NOAA) shall participate in the collection, processing, archiving, retrieval, and use of oceanic- and atmospheric-oriented data and shall, consistent with the Space-based Global Change Observation Program Plan, provide for the permanent archive, management, access, and distribution of oceanic- and atmospheric-Earth science data sets for global change research including data sets obtained by the S-GCOS system. DOC/NOAA shall work with other appropriate agencies to transition, as appropriate, systems, technology and/or sensors developed for use in the S-GCOS system to operational use. The Space-based Global Change Observation Program Plan shall include a discussion of the criteria related to the desirability and economic feasibility of transitioning specific S-GCOS assets to operational use.

g. Department of the Interior (DOI)

The Department of the Interior shall assist in the collection, processing, archiving, retrieval, and use of land-oriented data and shall, consistent with the Space-based Global Change Observation Program Plan, provide for the permanent archive, management, access, and distribution of land-oriented Earth science data sets for global change research including data sets obtained by S-GCOS system.

h. Department of State (DOS)

The Department of State has a role in Space-based Global Change Observation with respect to international agreements, significant activities or arrangements with foreign countries, international organizations or commissions where the United States and one or more foreign countries are members. Prior to

discussions between participating agencies and foreign entities which could reasonably be expected to lead to such agreements, activities or arrangements, the DOS shall be consulted and, as appropriate, shall coordinate interagency review of the proposed U.S. position to ensure consistency with U.S. foreign policy, national security and economic interests, and satisfaction of applicable legal requirements. This shall not affect the ability of participating agencies to explore, in accordance with established procedures, scientific, technical and programmatic aspects of proposed international cooperation that do not involve commitments or foreign policy concerns.

IV. Reporting Requirements

a. Space-based Global Change Observation Program Plan

NASA shall lead the preparation of a coordinated and integrated interagency program plan that shall be forwarded by the CEES Subcommittee on Global Change through FCCSET to the NSpC, NSC, OSTP and OMB not later than July 1, 1992. This plan shall address the Space-based Global Change Observation system architecture, existing and planned Space-based Global Change Observation satellite systems, technology development activities, sensor suites, launch systems, supporting agency contributions and the data and information systems.

b. Annual Space-based Global Change Observation Program Report

Each March FCCSET/CEES/SGC shall prepare for forwarding by FCCSET a report on the progress and accomplishments of the Space-based Global Change Observation to the NSpC, NSC, OSTP and OMB. The Space-based Global Change Observation Program Plan will meet this requirement for 1992.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 6 1992

OFFICE OF
INTERNATIONAL ACTIVITIES

MEMORANDUM

TO: Deputy Assistant Secretary Thomas Baca (DOD)
Assistant Secretary Michael Davis (DOE)
Assistant Secretary E. Curtis Bohlen (State)
Deputy Assistant Secretary Fred Volcansek (DOC)
Dr. Thomas Ratchford (OSTP)
Assistant Administrator Richard Bissell (AID)
Ambassador Robert Ryan (USUNCED)

FROM: Timothy Atkeson Tim Atkeson
Assistant Administrator

SUBJECT: Possible Presidential Initiative at UNCED on Development and International Dissemination of Environmentally Desirable Technologies

The attached concept paper will serve as the basis for our meeting tomorrow (Thursday, May 6, 2:00-3:00pm, in Room 1135 West Tower at EPA) on the above subject. The paper reflects staff-level consultations between DOD, DOE, Commerce, and EPA.

Attachment

cc: Nancy Maynard
Jim Marsh
Gary Moore
Stephen Klein
Nancy Frame

Printed on Recycled Paper

A U.S. INTERNATIONAL INITIATIVE FOR THE DEVELOPMENT AND DISSEMINATION OF ENVIRONMENTALLY DESIRABLE TECHNOLOGIES

A Possible Presidential Initiative for UNCED

OVERVIEW

The Department of Defense (DOD), the Department of Energy (DOE), the Environmental Protection Agency (EPA), and other Federal agencies are extensively involved in research on and development of a broad array of environmentally desirable technologies. Such technologies include those related to pollution prevention, pollution control, energy efficiency, and alternative energy sources, as well as environmental quality and restoration at military installations.

The end of the Cold War and increasing international recognition of the dual goals of sustainable economic development and environmental protection present new opportunities for disseminating these technologies internationally. Many of the technologies developed and demonstrated in the United States have particular applicability to the environmental, energy, and economic needs of developing countries and the nations of Eastern Europe and the former Soviet Union.

In addition to supporting the goals of the National Technology Initiative (NTI), a Presidential international initiative on the development and dissemination of environmentally desirable technologies would:

(1) demonstrate continued U.S. environmental leadership and commitment;

(2) promote sustainable economic development and global and national environmental protection in cooperating countries;

(3) strengthen U.S. bilateral relations with cooperating countries, thereby achieving important foreign policy goals;

(4) publicize the enormous wealth of environmental and technological information available in the United States in both the public and private sectors; and

(5) promote U.S. export opportunities, thereby improving the U.S. balance of trade and creating new jobs.

The United Nations Conference on Environment and Development (UNCED), which will be held next month in Brazil, would provide an excellent opportunity for the

President to announce such an initiative. Building on the existing NTI, the initiative would complement existing or planned U.S. Government multilateral programs to assist developing countries and the nations of Eastern Europe and the former Soviet Union acquire the necessary institutional, scientific, and technological capabilities to deal with global, regional, and national environmental challenges. Such programs include the US-Asia Environmental Partnership, the Support for Eastern European Democracy Act (SEED), and assistance proposed to the former Soviet Union.

THE INITIATIVE

The President would direct DOD, DOE, EPA, and other relevant Federal agencies to undertake a comprehensive U.S. initiative on the development and international dissemination of environmentally desirable technologies. Building on the complementary strengths of different U.S. government programs, the initiative would include the following three major components:

1. Sharing of information on existing and emerging environmentally desirable technologies

The U.S. Government possesses a wealth of information on environmentally desirable technologies and expertise. DOD, for example, has enormous experience with respect to environmental quality and restoration at military installations and weapons clean-up. Applicable to many of the potential cooperating countries, such programs include those related to noise abatement, pollution prevention, base support, atmospheric and global marine compliance, and terrestrial and aquatic environmental assessment. The United States Government is also engaged in comprehensive research and development on emerging "critical" environmentally desirable technologies which can have an enormous impact on our capacity to meet environmental challenges.

The President would offer to make government-owned environmental and technological information available on a much more comprehensive basis through existing and new information dissemination mechanisms, such as the EPA/AID/DOE Environmental and Energy Efficient Technology Transfer Clearinghouse which will be demonstrated at the Rio Conference. The United States could also commit itself to share information on certain "critical" technologies in those instances in which the transfer could clearly be determined to be in the U.S. interest.

An illustrative and very partial list of environmental technologies now under development or planned by EPA is included at Attachment A. In some cases the technology was developed by EPA employees; in others there are co-developers from the private sector or academic community. Existing licensing agreements would have to be evaluated on the issue of transfer to other countries. In some instances, technical

assistance or know-how could be transferred rather than the technology itself. In any instance, the transfer contemplated would have to: (a) comply with any existing intellectual property limitations, and (b) exclude re-export of the technology without consent.

One aspect of the initiative would be publication of a series of progress reports on the various environmentally desirable technologies being developed under the initiative.

2. **Conversion of Technology Development Resources from Military to Environmentally Desirable Purposes**

Through the national laboratories and other institutions, the United States expends considerable resources on military research and development. With the end of the Cold War, some portion of these expenditures could be diverted to environmental technological purposes. The United States could also commit to assisting other nations (especially the nations of Eastern Europe and the former Soviet Union) convert their military resources, installations, and research and development programs to the same purposes. (Some of this work is already underway through DOD.)

3. **Enlisting the Cooperation of the Private Sector**

Recognizing that the vast majority of the relevant technologies are owned or available through the private sector and that the private sector is the most powerful technology transfer medium, the initiative would enlist the cooperation of U.S. industry and private institutions in making the needed technologies more widely available. Complementing existing U.S. technical assistance and capacity-building programs, such cooperation could take a number of different forms, including:

(a) "Internationalization" of the National Technology Initiative: By highlighting the Federal government's substantial programs and services related to science and technology and by stressing government-industry cooperation and collaboration, the National Technology Initiative (NTI) is helping U.S. industry commercialize technologies and compete. The United States could undertake a similar initiative internationally by organizing a series of U.S. government-industry conferences to promote business awareness of opportunities for environmentally desirable technologies in foreign markets.

(b) Formation of Government-Industry "Environmental Tiger Teams": U.S. government-industry missions to Eastern Europe and the developing world have enjoyed considerable success in identifying problems and appropriate solutions. In many instances, these missions have helped U.S. companies

make initial contacts for further business opportunities. The initiative could include the formation of "environmental tiger teams" of 5 to 6 government and industry experts from different disciplines to work with selected countries on problem identification and prioritization and identification of appropriate funding sources for the transfer of environmental technologies.

(c) "Licensing Without Fees": A number of major electronic companies in the United States and abroad have made certain patents related to ozone depletion available to the international community at no cost through the Industry Cooperative for Ozone Layer Protection (ICOLP). In one instance, for example, it made more sense for the proprietor of a particular technique to ensure compatibility in product from its worldwide suppliers than to protect the patent. The United States could work with industry groups in identifying new opportunities in which licenses for certain environmental technologies would be made available without fees under this initiative.

(d) Focus on Export Promotion and Facilitation for U.S. Environmental Technology Industries: Although the international trade prospects in environmental technology are projected in the hundreds of billions annually (OECD, OTA), the range of U.S. companies involved is not well identified. (There are no applicable Standard Industrial Code numbers, and many of the companies are not yet multinationals.) Neither are the market opportunities or trade financing available adequately publicized. The initiative would focus on remedying these gaps.

ATTACHMENT A

Illustrative List of U.S. Environmental Technologies for Inclusion in International Technology Initiative[1]

Bioremediation for oil spill or hazardous waste site remediation

Other innovative hazardous waste site or soil clean-up technologies (e.g., vapor extraction, stabilization, soil washing, chemical dechlorination, thermal treatment)

Advanced technologies for removal of Sox, Nox and particulates from flue gas streams (e.g., sorbent injection, low Nox burners, advanced electrostratic precipitators)

Innovative technologies such as fuel cells for capture and utilization of methane from landfills, gas pipelines, and coal mines

Third generation alternatives to CFCs

Alternative refrigeration and air conditioning cycles that use CFC alternatives

Waste reduction audits and good management practices to reduce hazardous waste releases in various industries: petroleum refining, inorganic chemical manufacturing, plastic product manufacturing, aerospace industries, fabricated metal products, metal finishing, industrial organic coatings, industrial solvents, organic chemical manufacturing, furniture finishing, food processing, wood processing, textile dyeing, etc.

Technologies for the capture and recycling of spent CFCs from refrigerators and air conditioners

Technologies for efficient biomass burning

Constructed wetlands and other low cost wastewater treatment techniques

Innovative technologies for drinking water treatment, asbestos removal, radon mitigation, and solid waste management

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[1]The list contains examples of technologies that have been developed by EPA's Office of Research and Development which could be made available for international technology transfer. In some cases the technology was developed by EPA employees. In others, there are co-developers from the private sector or academic community. Existing licensing agreements would have to be evaluated before transferring the technology to other countries. In some instances, knowledge or technical assistance would be transferred rather than the technology itself.

MEMORANDUM May 12, 1992

TO: M. F. Strong
FROM: Peter S. Thacher PST
SUBJECT: Possible US Initiative in Rio

1. Attached is a draft proposal the US could launch at Rio, especially if the President attends. I'd be grateful if you could mention it during your meeting and leave it with Mike Deland. When I hosted Mr. Bush in Nairobi ten years ago we put on a display of UNEP's GEMS and it was clear that he immediately grasped its significance; perhaps aided by his background in the Agency. Since then I've helped to plant similar advanced analytical tools in UNEP's GRID in Geneva (with current nodes in Nairobi, Bangkok, Sioux Falls, Norway, and with the Brazilian Space Agency), and at the World Bank.

2. The attached paper is a composite of ideas put together by people directly involved. It rests on work already accomplished that could be assembled in the next two weeks if the White House wants it. You know Jack Dangermond who with UNEP help pioneered GIS methodology in the mid 1970s to look at soil loss in Africa, and who now runs the firm in Los Angeles whose "Arc/Info" product is used world wide as well as throughout our Federal, State, and Municipal governments and by many corporations, particularly in the energy sector.

3. Comparable work is underway in a number of countries but the US enjoys a decadal lead and is uniquely positioned because these tools were developed in the public domain under the NASA act in the mid 1950s and is pushed by private corporations. A few of the advanced intelligence services use these techniques and the data -- a Digital Chart of the World -- could be one of the first "swords to be beaten into plowshares"; it was produced by the Defense Mapping Agency (with UK, Canadian and Australian support); no material needs to be declassified, it's already out there. The cold war is over, let's share the tools and some of the data for planetary security.

4. These analytical techniques are obviously critical for tackling <u>global</u> problems, as under IGBP, but perhaps their most immediate value is in providing tools to help nations build sustainable development from the ground up, with human and institutional strengthening through Bill Draper's UNDP, plus the World Bank (including the GEF) and AID and other bilateral programs.

5. There's plenty of room for international cooperation, but no country except the US could make this initiative, and it could be ready in two weeks if the right buttons are pushed, without any significant financial outlays. I mentioned to Mike that I could easily put him in touch with those who will deliver the goods if asked.

KNOWLEDGE EQUITY: SHARING INFORMATION FOR SUSTAINABLE CHOICES

The United Nations Conference on Environment and Development (UNCED) represents a unique opportunity for the United States to make a vital contribution to the world community.

For over two centuries, the world has watched as the United States has proved the tremendous value of democratic government and a market based economy. These fundamental principles of individual choice and informed decision making have spawned a powerful national information capability. This capability has facilitated the accumulation of a vast store-house of knowledge unlike that of any other nation. Knowledge that workers, scientists, and engineers use to create economic opportunity and fight the scourges of ignorance, poverty, hunger, and disease. Providing access to, use and understanding of this knowledge represents a unique leadership opportunity for the United States.

A basic premise of UNCED is that the international community must make informed decisions that meet the present needs and aspirations of all humanity without endangering the earth's ability to absorb the effects of human activities and without compromising the ability of future generations to meet their own needs and aspirations. Shared knowledge about environmental and developmental processes is the common basis for this decision making among all peoples. Equitable access to this knowledge is required to reach international consensus on issues of environment and development.

The United States possess an unparalleled Earth sensing and monitoring capability. This capability coupled with the diagnostic and analytical tools of the public and private sectors is leading towards an unprecedented understanding of the Earth as a system. This understanding will encompass the natural science, health, social, and economic aspects of environment and development. This knowledge can be shared with others through the advanced computational and telecommunications technologies developed by the United States. One such technology, in which the United States is an undisputed world leader, is Geographic Information Systems (GIS). This technology enables its users to view and analyze information about the natural environment together with economic, demographic, health, and political information in an integrated geographic framework.

Many branches of the United States Government produce knowledge that can assist the nations of the world develop their economies while maintaining the environment. For example: the National Aeronautics and Space Administration, the National Atmospheric and Oceanic Administration and the Department of Defense have pioneered the use of space remote sensing -- a vital source of information for monitoring and reducing the uncertainties of environmental change; The Defense Mapping Agency in collaboration with the United States Geological Survey has just completed the

first Digital Chart of the World -- an invaluable environmental and development analysis and planning tool for all nations; and, the National Science Foundation's nationwide computer network has become an indispensable tool for scientists, engineers, and teachers to exchange this knowledge with one-another worldwide.

It is proposed that, the United States take the lead in promoting worldwide access to, use and understanding of the world's collective knowledge base concerning environment and development. The experience, the spirit and the engaged leadership of the United States are needed to promote the goals of UNCED.

A dramatic first step toward knowledge equity would be for the United States to begin a public and private initiative to develop an integrated worldwide information sharing system for environment and development. A symbolic, yet meaningful, gesture could be to provide each head of state attending UNCED with a copy of the Digital Chart of the World.

To maximize effectiveness in providing this leadership, the United States should combine its efforts with those of an emerging public and private partnership of the world's environmental scientists, natural resource managers, development engineers, and information specialists. The following core members of this partnership stand ready to enthusiastically embrace the leadership provided by the United States through its Federal Coordination Committee for Science, Engineering and Technology -- the International Council of Scientific Union's System for Analysis Research and Training (START), the World Engineering Partnership for Sustainable Development, the Consortium for International Earth Science Information Network, and the World Resources Institute.

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May 12, 1992

Honorable Allan Bromley
Assistant to the President for Science and Technology
Old Executive Office Building, Room 358
17th & Pennsylvania Ave., NW
Washington, DC 205005
USA

Dear Dr. Bromley:

I write to follow-up my joint letter to you and the Honorable William Winegard, on February 25, concerning the development of international video teleconference networks to stimulate the rate of scientific innovation by allowing scientists to communicate at an earlier stage of the creative process.

Since I wrote, events have moved quickly. Maurice Strong, Secretary-General of the United Nations Conference on Environment and Development, has encouraged the idea to devote the first International Scientific Network to support and continue the work of UNCED, and for it to be a possible Canadian initiative to be announced in Brazil in June.

In light of President Bush's recent decision to a attend the UNCED meeting, I wanted to bring these developments to your attention. I believe there is unused capacity on NASA satellites that might be used, for an initial 2-year experiment, to connect with Canadian capacities on an Anik satellite and Olympus to create the global broadcast network. If so, President Bush might wish to announce a joint US-Canadian partnership in Brazil.

The initiative would express both the concern of President Bush about environmental issues and the special emphasis of his administration upon supporting scientific research to make progress about these issues. There would be minimal cost - and perhaps no extra appropriation would be needed - if done in partnership with Canadian satellite

capabilities.

Our discussions with the private telecommunications sector in Canada suggest this joint initiative to create the world's first International Scientific Network can become quickly self-financing. The scientific programming will include areas of innovation of interest to R&D-oriented corporations (e.g., parallel processing and supercomputing - re atmospheric modeling; synthetic fuels and other research areas of interest to the international automobile industry.) It is my understanding Canadian corporations may be willing to make a pro bono contribution of their expertise to provide technical management and organize this self-financing base: if so, it will be an exemplary illustration of the public-private cooperation the governments of both countries favor.

2.) Concerning the broader 10-network plan: The enclosed 6-page prospectus has been developed in discussions with faculty members at Yale, Harvard, MIT, and the University of Toronto. Several former Presidents of the International Institute for Advanced Systems Analysis, including Howard Raiffa and Harvey Brooks at Harvard, have been involved in the planning: Ted Munn of the University of Toronto left Friday for Europe with 50 copies of the prospectus for a meeting of the IIASA Council.

I hope, very much, that you can encourage the President to make NASA capabilities available for the world's first International Scientific Network and to join in this public announcement with the Prime Minister of Canada.

With best wishes for your work -

Yours sincerely,

Lloyd S. Etheredge, Ph. D.
Director
Global Communications Project

cc: Honorable William Winegard, Minister of State for Science

Robert H. Pines, Deputy Assistant Secretary of State for Canadian Affairs

Dr. Thomas Lovejoy, Assistant Director for External Affairs, Smithsonian Institution

Withdrawal/Redaction Sheet
(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01b. Letter	To: Helmut Kohl From: John Major Re: UNCED (2 pp.)	2/6/92	(b)(1)	

Collection:

Record Group: Bush Presidential Records
Office: Science and Technology Policy, Office of (OSTP)
Series: Bromley, D. Allan, Files
Subseries: Global Climate Change Files - Conferences/Meetings
WHORM Cat.:
File Location: United Nations Conference on Environment and Development (UNCED) [3 of 3] [1991-92]

Date Closed:	4/26/2010	**OA/ID Number:**	62058-005
FOIA/SYS Case #:	2005-0336-F	**Appeal Case #:**	
Re-review Case #:		**Appeal Disposition:**	
P-2/P-5 Review Case #:		**Disposition Date:**	
AR Case #:		**MR Case #:**	
AR Disposition:		**MR Disposition:**	
AR Disposition Date:		**MR Disposition Date:**	

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(b)(9) Release would disclose geological or geophysical information

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Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01c. Report	Initiative on Improving the Use of Earth Observing Satellites for Environmental Purposes: Conclusions of the London Meeting (10 pp.)	4/92	(b)(1)	

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