



CONSEJO DE LA TIERRA
EARTH COUNCIL
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THE EARTH SUMMIT ECO 92 Different Visions



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THE EARTH SUMMIT ECO 92 Different Visions

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INTRODUCTION

The United Nations Conference on Environment and Development (UNCED), held in Rio de Janeiro, Brazil, in June 1992, produced 5 governmental agreements and 46 alternative treaties. The Conference was also known as the Earth Summit because it brought together more than 100 heads of state and official representatives of 172 governments. It also brought together some 14,000 nongovernmental organizations (NGOs) and more than 8000 representatives of the communications media from around the world.

The Summit was a landmark event in analyzing, reflecting upon, reaching agreement on and laying the groundwork for programmes aimed at developing new types of international cooperation on development and the environment.

The governmental agreements are:

- The Rio Declaration on Environment and Development
- Agenda 21
- The Convention on Biological Diversity
- The Convention on Climate Change
- Forest Principles

The 46 non-governmental treaties, submitted by the NGOs, include the Political Declaration and the Earth Charter.

The Earth Council, a nongovernmental global agency headquartered in Costa Rica, has set as its goal to promote worldwide awareness of these issues and to follow closely the evolution of these agreements. The Council recognizes the value of both the governmental and nongovernmental agreements, and considers it necessary to disseminate both sets of proposals, the perspectives of which are different.

The Council hopes to become an agency at the service of the inhabitants of the Earth, by promoting public dialogue and the dissemination and analysis of information relevant to environmental and development issues and problems. It also seeks to link local needs with global priorities. In order to accomplish its goals, the Council depends on the cooperation of local, regional and global organizations and agencies.

Almost a year later, the public has a very general notion of the issues addressed at the Summit. For example, many people still have not heard of the concept of sustainable development, or find it confusing and highly abstract. In view of the importance of this event and the high level of political representation at same, it is only natural that there would be differing opinions, and we feel it would be premature to try to evaluate its political, economic and social significance at this time. It is clear, however, and a matter of concern, that little progress has been achieved at the national and international levels in implementing these agreements. The principal causes are, among others, the economic recession in the developed countries, the political and economic crises of the Third World and, lastly, the disappearance of socialist governments from Eastern Europe.

Despite this situation, the Earth Council has been working tirelessly since the Summit to promote and facilitate the active participation of an informed and alert civil society in defining the development agenda for the next century.

An important first step for us is to disseminate and promote analysis of the documents, both governmental and nongovernmental, produced during the process of preparing the Earth Summit, which provide the basis for initiating a process of active participation and the exchange of opinions among different sectors of society.

With this in mind, we are pleased to present these summaries of Agenda 21 and the NGO Treaties. While there are differences regarding possible solutions to environmental and development problems, we believe it is necessary to promote dialogue among the different actors who will participate in development. Governments cannot solve these problems on their own and will require the support and cooperation of civil society. Everyone has responsibilities in this endeavour, and it is important that the corresponding public- and private-sector agencies listen to and respect the proposals put forth by civil society.

This book is intended to inform and, at the same time, serve to encourage those who wish to better understand the steps that must be taken to achieve social equity, economic change and, as a result, ecological sustainability. It is also an invitation to dialogue and critical analysis, both of which are necessary to orient the changes taking place among nations and within them. Using our ideas and promoting a vision of the world, as we would like it to be, we will contribute to answering the call of Rio.

Maurice Strong
President

Alicia Barcena
Executive Director

Earth Council
San Jose, Costa Rica

FOREWORD

One of the objectives of the Earth Council is to disseminate the documents approved by the governments in The Earth Summit – ECO 92, as well as those prepared by different groups in preparation for the Conference. Presented herein are Agenda 21, the Rio Declaration, the Agreements on Biodiversity and Climate Change, Forest Principles and the forty-six Treaties of the non-governmental organizations gathered at the 1992 Global Forum in Rio de Janeiro.

Agenda 21, the official agreement of the governments, consists of 40 chapters, divided into four sections. Problems such as poverty, health concerns, population growth, human settlements, excessive consumption, debt, trade, etc. are addressed in the first section, entitled **Social and Economic Dimensions**. The need to preserve and care for natural resources such as water, the atmosphere and energy, and to reduce the generation of residues and wastes that pose a threat to health and the conservation of the planet is the topic of the second section, entitled **Conservation and Management of Resources for Development**. The third section, entitled **Strengthening the Role of Major Groups**, focuses on the development and strengthening of the social groups most affected by these problems, to wit: women, young people and children, indigenous groups and workers in urban and rural areas. Emphasis is placed on the role played by technical personnel and scientists, and on the behaviour of those who are responsible for industrial production and those who manage industry and trade. The resources and instruments needed to implement policies for sustainable development, such as financial assistance, education, technology, science, international law, information, etc. are covered in the fourth section, entitled **Means of Implementation**.

In order to make the comparative analysis of the five governmental proposals and those of the NGOs more comprehensible, the latter have been presented by subject matter, which will facilitate their comparison

with Agenda 21. The NGO treaties are presented in five sections, each with a title that corresponds to the topics addressed.

Agenda 21 and the NGO Treaties are very similar in terms of their purposes. However, they differ regarding the definition of the process, the urgency of some immediate solutions and the role to be played by governments and the societies of all the countries of the world. The NGO proposals are explicit in denouncing poor public management and those responsible for the poor quality of life endured by millions of people.

In order to make this information more accessible to the reader, we have summarized the principal ideas of the documents, using simple language that can be easily understood by those who will undertake the important local and community tasks called for.

We hope that this contribution will be one of many and that in the twenty-first century the Earth Summit will be known for its humanistic approach and for its objective of protecting future generations and their habitat, and for understanding that nature and natural resources are the basis for humanity's ability to reason, dream and struggle.

Let us hope that the greens, the browns and the blues that paint this, our Earth, the spray of the ocean and the leap of a feline will be but a few of the visible signs we will leave for posterity, and that the documents we are publishing today will give testimony to our foresight.

Anibal Severino
Coordinator
of the Rio Agreements
Earth Council
San Jose, Costa Rica

I
**RIO DECLARATION
ON ENVIRONMENT
AND DEVELOPMENT**

RIO DECLARATION ON ENVIRONMENT AND DEVELOPMENT

The United Nations Conference on Environment and Development,

Having met at Rio de Janeiro from 3 to 14 June 1992,

Reaffirming the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972* and seeking to build upon it,

With the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among states, key sectors of societies and people,

Working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system,

Recognizing the integral and interdependent nature of the Earth, our home,

* UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT (1972, Stockholm). 1972. Report. Stockholm, United Nations.

Proclaims that:**Principle 1**

Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Principle 2

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction.

Principle 3

The right to development must be exercised so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Principle 5

All states and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

Principle 6

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

Principle 7

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, states have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

Principle 8

To achieve sustainable development and a higher quality of life for all people, states should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

Principle 9

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Principle 10

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each

individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Principle 11

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

Principle 12

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

Principle 13

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse

effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Principle 14

States should effectively cooperate to discourage or prevent the relocation and transfer to other states of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

Principle 15

In order to protect the environment, the precautionary approach shall be widely applied by states according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Principle 16

National authorities should endeavour to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution with due regard to the public interest and without distorting international trade and investment.

Principle 17

Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

Principle 18

States shall immediately notify other states of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those states. Every effort shall be made by the international community to help states so afflicted.

Principle 19

States shall provide prior and timely notification and relevant information to potentially affected states on activities that may have a significant adverse transboundary environmental effect and shall consult with those states at an early stage and in good faith.

Principle 20

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

Principle 21

The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

Principle 22

Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

Principle 23

The environment and natural resources of people under oppression, domination and occupation shall be protected.

Principle 24

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

Principle 25

Peace, development and environmental protection are interdependent and indivisible.

Principle 26

States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

Principle 27

States and people shall cooperate in good faith and in a spirit of partnership in the fulfillment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

II

AGENDA 21

**PREAMBLE**

Humanity stands at a defining moment in history. We are faced with increased poverty, hunger, disease and illiteracy, and the continuing deterioration of the ecosystems on which we depend for our well-being.

Agenda 21 addresses these problems and aims at preparing the world for the challenges of the next century, based on a global consensus, a political commitment on socioeconomic development and cooperation in matters relevant to the environment. Its implementation, through strategies, plans and processes, is the responsibility, first and foremost, of governments and the United Nations system. Other international, regional and interregional organizations are also called upon to contribute to this effort. The participation of the public, NGOs and other groups should also be encouraged.

To achieve the objectives of Agenda 21, it will be necessary to provide developing countries with financial resources. An order-of-magnitude assessment of costs is included in each of the areas of the Agenda. In the implementation of the areas identified in Agenda 21, special attention should be given to the particular circumstances facing the countries, especially those that are transforming their economies, in some cases in the midst of considerable social and political tension.

These areas, which make up the 40 chapters of Agenda 21, are described in terms of the basis for action, objectives, activities and means of implementation.

Agenda 21 could evolve over time in the light of changing needs and circumstances.

This process marks the beginning of a new global partnership for economically viable, socially just and environmentally sound development, not only for the present, but also into the future; in other words, sustainable development.



SECTION ONE

Social and Economic Dimensions

2**INTERNATIONAL COOPERATION****Developing countries and their domestic policies**

At the Earth Summit, the states made the commitment to establish a new global partnership in order to achieve a more efficient and effective world economy capable of guaranteeing the survival and well-being of the human race and other species. The goal is to maintain basic ecological processes and vital support systems, as a means of meeting the needs of the present generation without jeopardizing the well-being of future generations.

Trade and sustainable development

One way to achieve this international cooperation is to establish an open, secure, non-discriminatory, and predictable multilateral trading system that is consistent with the goals of sustainable development and regulates global production. Also, developing countries should have greater access to export markets, within the framework of sound environmental policies. For this to happen, the international community must cooperate in and coordinate activities intended to:

- Halt protectionism and expand world trade, in particular in the developing countries, and
- Facilitate the integration of all countries into the world economy and the international trading system.

Also, in terms of national policies, it is necessary to establish a balance between production for both the domestic and export markets. Regarding these policies, it is necessary to improve the preparation, distribution, marketing and competitiveness of basic products, and, through diversification, reduce dependence on exports.

Trade and environment

Environmental and trade policies should be mutually supportive. A system such as the one described above reduces pressure on the environment, and a healthy environment allows for the continued expansion of trade.

Governments should encourage GATT, UNCTAD and other institutions to examine these proposed activities:

- **Ensure that environmental regulations or standards do not constitute restrictions on trade;**
- **Consider factors that affect environmental standards and trade policies, especially when they are applied inappropriately to developing countries;**
- **Try, to the extent possible, to resolve environmental problems related to import trade, on the basis of an international consensus;**
- **Clarify, with greater precision, certain GATT measures as they relate to the environmental problem;**
- **Ensure public input in the application of trade policies;**
- **Ensure that environmental policies provide the appropriate legal and institutional framework to respond effectively to changes in production and trade.**

Financial resources

Investment and domestic and external financial resources are essential to the ability of developing countries to achieve economic growth and ensure the well-being of the population, in a sustainable manner, without depleting the resource base that underpins development.

This will demand new and additional resources. Also, the international community should study the issue of external debt in the following terms:

- **Countries with debts should renegotiate them with commercial banks;**

- **Consideration should be given to medium-term debt reduction and to new funds for the debtor countries;**
- **Multilateral institutions should continue to support debt reduction with commercial banks, in accordance with the established strategy; and**
- **Efforts should be made to strengthen policies aimed at attracting direct investment, to foster the return of flight capital and to avoid unsustainable levels of debt.**

Economic policies

Given the unfavorable climate in terms of financial resources, developing countries must reorient their macroeconomic policies and public spending. The developed countries, especially the industrialized ones, should provide resources to support this transition to sustainable development, and strengthen their efforts:

- **To encourage a stable and predictable international economic environment;**
- **To stimulate savings and reduce fiscal deficits; and**
- **To increase the adjustment capacity of their economies, by applying macroeconomic and structural policies.**

Developing countries should intensify their efforts to:

- **Maintain monetary and fiscal discipline, price stability and a positive balance of payments;**
- **Ensure realistic exchange rates;**
- **Encourage the private sector, foster entrepreneurship and eliminate institutional obstacles; and**
- **Provide opportunities for the development of small-scale enterprises.**

Regarding international and regional cooperation and coordination, efforts should focus on increasing the capacity of the country to formulate and apply national economic policies when necessary, on designing and implementing effective fiscal regimes, accounting systems and financial sectors, and on promoting entrepreneurship.

3**THE STRUGGLE TO OVERCOME POVERTY****Programmes**

Poverty is to be found in all countries, but it is particularly serious in developing countries. Consequently, even though it is impossible to find one solution for global application, country-specific programmes should be developed to eliminate poverty. All states must participate in this struggle, supporting national efforts and providing financial resources.

Countries should create, along with employment programmes, efficient health and education services that will enable the traditionally poor sectors to work, to enjoy minimal social guarantees for survival, to earn a steady income and to keep a certain level of dignity.

Improved distribution of income

These special programmes should be aimed at the poorest inhabitants of urban and rural zones, especially women and children. In order to ensure that the masses have access to sustainable subsistence and that there is a clear understanding of the need to protect the environment, organized groups at the local and community levels must assume leadership; it is they who will be the source of change and action. To this end, efforts will focus on enhancing the participation of women in decision making, guaranteeing the integrity and right of indigenous populations and promoting community exchanges.

It is also important that the institutions of the United Nations system foster technical cooperation, evaluate progress achieved in implementing Agenda 21, and analyze the international economic situation as it relates to the causes of poverty, to wit:

- external debt,
- funding for development,
- prices for staple products,

- exchange rates, and
- the social impact of structural adjustment programmes.

Programmes for the most needy

Governments must work to improve the distribution of income, and develop policies aimed at ensuring maximum use of human resources.

This means that all governments must attach special importance to natural resource protection and conservation, and find ways to promote democratic participation, encouraging the input of women, young people and indigenous and local communities.

Efficient services

Governments should create, along with employment programmes, efficient health and education services. In order to ensure that the masses have access to sustainable subsistence and that there be a clear understanding of the need to protect the environment, organized groups at the local and community levels must assume leadership; it is they who will be the source of change and action.

In this context, it is very important for governments to have access to information on these groups, especially that related to their needs and hopes, which is the foundation for formulating support programmes. This, of course, means that all the agencies that make up the United Nations system should collaborate with the governments and realize that the mitigation of poverty is a top priority. Therefore, they need to reinforce their structures and create new ways to cooperate more directly with governmental institutions in the countries where they operate.

In activities designed to follow up on the application of Agenda 21, special attention should be given to programmes enacted to eliminate poverty.



PRODUCTION AND CONSUMPTION

Their evolution

This chapter addresses two programme areas: the first focuses on unsustainable patterns of production and consumption; the second refers to developing national policies and strategies aimed at encouraging sustainable production and consumption patterns.

Production and consumption

The excessive demand for products and goods, and the unsustainable lifestyle of the wealthiest social classes, have a tremendous influence on the environment. Paradoxically, the poorest social classes cannot satisfy their basic needs of food, health, shelter and education. It is urgent to analyze the dynamics of demographic processes, and that countries promote production and consumption patterns which will reduce environmental damage and make it possible to meet the basic needs of all people. This means that governments, industries, families and individuals must change their consumption patterns significantly, beginning with the industrialized countries, which must eliminate patterns that are ineffective and harmful to the environment.

It is also important that countries work to create databases on production and consumption, and develop methods for analyzing them. They must also encourage the evaluation, invention and adaptation of new technologies for economic growth and development.

Policies and strategies

Governments should seek increased efficiency in production and changes in consumption patterns, promoting optimum use of resources and the reduction of waste, which means that national policies on the subject must be developed.

To accomplish this, top priority must be attached to improving efficiency in the use of energy and natural resources for production, as a way to reduce environmental pressure and increase economic and industrial productivity and competitiveness.

At the same time, society needs to develop effective means for dealing with problems related to the elimination of waste materials or products, by promoting recycling or reducing the amount of material used in packaging. Lastly, more environmentally sound products should be introduced into the market.

As regards decision making, preference should be given to ecologically sound measures for governmental sectors, the industrial sector and other interested groups.

Governments should encourage the emergence of an informed consumer public, by providing information that will enable families and individuals to select ecologically sound products.

They should also review the purchasing policies of their agencies and departments, with a view to improving the ecological aspects of their procurement policies.

Governments and private-sector organizations should adopt a more positive attitude toward sustainable consumption, encouraging the adoption of consumption patterns and lifestyles that are environmentally sound.



DEMOGRAPHICS

Dynamics and sustainability

As humanity has advanced, especially in this century, the world's population, and, of course, consumption, have increased rapidly. As a result of this growth, more of the earth is being used than ever before, and given the greater demand for water, air, energy and other natural resources, the environment is being altered and life is becoming more difficult.

Therefore, when the environment and development are analyzed, consideration must be given to population growth as it relates to resource use, dissemination of technology and cultural behaviour, especially that of the most vulnerable groups and those living in ecologically sensitive zones.

Demographic factors and sustainable development

Population policies should give consideration to the effect of human activity on the environment and development, in order to formulate strategies for mitigating its adverse and negative effects.

The world's population is expected to exceed 8 billion by the year 2020, which makes it necessary to ask questions now about the concentration of population, the location and size of cities and the capacity of local governments to respond to these problems.

Sixty percent of the world's population lives in coastal areas, while 65% of the cities with populations above 2.5 million are located along the world's coasts, at or below sea level.

In order to find solutions, it is essential to link demographic factors with environmental and development concerns, technology, culture and natural resources and systems, particularly those which are ecologically fragile. International, regional and national institutions specializing in interdisciplinary research on the interactions among demographic factors,

the per capita use of resources, the distribution of wealth, as well as migratory patterns, must participate in the search for solutions. It is also necessary to increase the availability of information on the physical, biological and socioeconomic effects of demographic changes, information that should be incorporated into public awareness programmes.

There is also a need to increase the exchange of information in databases among research institutions and international, regional and national agencies, including governments, the private sector, local communities, NGOs and scientific institutions in industrialized and developing countries.

National policies and demographic trends and factors

It is important to have a holistic view of environmental and demographic issues in planning and formulating policies in each country for alleviating poverty, ensuring the conditions necessary for securing a livelihood, providing necessary health services and improving all aspects of the quality of life, especially for women and children.

To do this, it is necessary to identify vulnerable population groups such as landless small farmers, ethnic minorities, refugees and women who head households, among others.

It is important to have access to population data, disaggregated *inter alia* by gender and age, as a means of determining the role of these vulnerable groups in work and population density, in order to better use and manage natural resources. Also, in formulating human settlement policies, consideration should be given to resource needs, waste production and ecosystem health.

Inasmuch as the number and size of cities are on the rise, it is reasonable to think that sustainability is threatened. Consequently, it is necessary to conduct research and collect data on the local reactions of different groups to the dynamics of demographics, especially in zones that are under considerable pressure such as highly deteriorated inner cities.

Local programmes and demographic trends and factors

In order to design such programmes, it is necessary to prepare a frame of action, through a process of consultation at the national level, involving different groups within society as a means of determining the needs, perspectives and limitations of each locality. Special attention should be given to the role of women as agents of change.

National policies and integrated programmes with multiple objectives should be applied in order to address food security, land tenure, housing and minimal infrastructure, education, family credit plans and employment programmes, linked to environmental conservation, reforestation and women.

Governments must take active steps to implement measures to ensure that men and women have the same right to decide freely and responsibly how many children they will have, and when, in keeping with their freedom, dignity and personal values, taking into account ethical and cultural considerations. Likewise, it is important to upgrade preventive and curative health services, and to develop information and education programmes that transmit to men and women reproductive health messages that are easily understood, bearing in mind cultural factors.

The implementation of demographic activities requires support from political, local and religious authorities, the private sector and the scientific community in each country. Coordination should be improved at the local and international levels.



HUMAN HEALTH

Protection and improvement

The fundamental causes of the severe health problems affecting the world's population are poverty, the uncontrolled growth of the population and excessive levels of consumption by certain countries with inappropriate development models.

Governments should focus their attention on meeting the primary needs of the population and on improving socioeconomic, health and environmental conditions, which will require the cooperation of all, but especially national and international institutions.

Primary health care

Governments and local authorities, with support from other organizations, should:

- Improve health programmes, paying special attention to the basic need of potable water, safe foods and sanitation, especially in rural areas. To do this, it is necessary to develop basic infrastructure and establish monitoring and planning systems intended to improve institutional coordination as a means of increasing provision of social services. All of this should be complemented with the application of new technologies and research on environmental health.
- Promote education, the exchange of information, technical support and training, especially in systems for educating health care workers, and encourage the participation of local populations in the provision of these services.
- Update and apply the "Health for All in the Year 2000" project.

Control of communicable diseases

Despite recent advances, there remain many communicable diseases against which measures must be taken, especially those related to water supply and sanitation (*cholera, diarrhea, malaria, etc.*). Environmental health measures and education are the principal components of the strategy being used to combat them.

By the year 2000, 30 or 40 million people will be infected with AIDS, resulting in direct health costs that cannot even be calculated. This pandemic will inhibit growth in the industrial and service sectors, and even agriculture will be affected.

A number of goals have been proposed for the year 2000. They will be obtainable if governments establish national health protection plans. Some of the goals are:

- To eliminate dracunculiasis (guinea worm disease);
- To eradicate polio;
- To control onchocerciasis (river blindness) and leprosy; and
- To ensure universal access to clean drinking water, thus reducing cholera, schistosomiasis and death from diarrhea, measles and other infections and diseases that affect primarily children.

Governments should include in their national health systems vaccination, environmental risk identification, epidemiological surveillance and anti-AIDS programmes. This should be complemented with inter-sectoral guidelines, the control of environmental factors such as water and food purification, waste treatment, as well as the exchange and dissemination of technologies.

Protecting vulnerable groups

Another area of work is the protection of vulnerable groups, enabling all individuals to reach his/her full potential. Consequently:

- Children should have access to basic health care;

- **Services for young people in the health and social education sector should be strengthened;**
- **Women should be involved in decision making at the national and community levels; and**
- **Preventive and curative health services should be strengthened in indigenous communities, integrating traditional knowledge and experiences into health systems.**

Urban health

Programmes to improve health should be developed not only in rural areas, but also in urban and peri-urban areas, providing necessary environmental health services and coordinating the participation of citizens and institutions and health-related groups.

Very often, urban growth leads to the destruction of the physical environment and the resource base indispensable for sustainable development. In this case, municipal governments must be strengthened so they may provide the environmental health services the people need. This can be achieved by formulating and executing specific municipal plans. Improvements in urban health will depend on coordinated action by all levels of government, health care providers, businesses, citizens, religious groups, and social and educational institutions.

Environmental pollution and hazards

Health risks caused by environmental pollution and hazards are closely related to the causes of many diseases. Environmental pollution is the result of changes in consumption and production patterns, lifestyles, the production and use of energy, industry, transportation, etc. It is urgent to link environmental and health practices to minimize hazards and maintain the environment to a degree that human health and safety are not endangered. To do this, it will be necessary to place strict controls on air and water pollution in urban zones and closed areas, the use of pesticides, the disposal of solid waste, sanitation problems in human settlements, noise, exposure to ultraviolet radiation, as well as industrial activity and energy production, with emphasis on the control of toxic substances.



HUMAN SETTLEMENTS

Improving living conditions

Every day the areas inhabited by most of the world's population become less livable. This is reason enough for improving the social, economic and environmental quality of human settlements, and the working and living conditions of their inhabitants, especially in developing countries.

Adequate shelter for all

At the present time, at least one billion people do not have access to safe and healthy shelter, a figure that will grow by the end of this century.

Access to safe and healthy shelter is essential to a person's physical, psychological, social and economic well-being and should be a fundamental part of national and international actions. It is essential to secure adequate shelter for rapidly growing populations and for the rural and urban poor who have access to none.

Environmentally-sound housing programmes being promoted should receive the support of the international community. Likewise, it is necessary to implement programmes to reduce the impact of rural to urban migration by improving living conditions in rural areas and programming the resettlement of displaced persons from other countries.

Management of human settlements

Every day the number of urban dwellers increases, and by the end of the century, the majority of the world's population will live in cities. Therefore, developing countries must:

- **Improve management of lands, urban centres and all urban settlements, in order to enhance their ability to improve the living**

conditions of residents, especially the marginalized and disenfranchised, thus avoiding the accelerated deterioration of the environment.

- Reduce poverty in urban areas by generating employment, alleviating hunger, providing shelter and offering the services needed by the community.
- Develop intermediate cities as a means of creating employment for unemployed labour in the rural areas and supporting economic activity, in order to relieve pressure on large urban agglomerations in developing countries.
- Adopt innovative urban planning strategies that call for the reduction of subsidies and the recovery of expenditures incurred in providing environmental services.
- Promote dialogue, improve social organization and community participation and strengthen institutional frameworks, particularly at the local level.

Sustainable land-use planning and management

The promotion of land-use planning and management is another important area of the Agenda, since land resources are the basis for living systems. In rapidly growing urban areas, the high cost of land is making it less and less accessible, given the demands of industry, housing, commerce, agriculture, etc. Sound physical planning and a fair system of distribution would increase access to land.

To the extent possible, countries should undertake a national inventory of their land resources, classify them according to use and create efficient land markets. National land resource management plans should also be developed.

The rural and urban poor should have access to land and credit.

Integration of environmental infrastructure

In many countries, the inadequacy or lack of environmental infrastructure causes widespread ill-health or numerous deaths.

All countries need facilities and services that will enable them to improve the quality of life, increase productivity, enjoy better health and reduce expenditures on medicine.

Infrastructure in human settlements must be strengthened, ensuring the provision of water, sanitation, irrigation and solid waste management.

It is necessary, therefore, to adopt technologies suited to local conditions, to recover the actual costs of infrastructure services and seek joint solutions to environmental problems affecting several localities.

Sustainable energy and transport systems

The use of energy is key to the development of communities, but the sources of such energy are limited and costly. Ways must be found to reduce the costs of energy and the pollution it causes, in order to protect the urban environment.

In recent years, especially in the developed countries, air quality has declined as a result of carbon monoxide and problems related to the ozone layer. The causes have much to do with technological deficiencies such as the consumption of fuel, especially by the transportation industry. This industry accounts for 30% of commercial energy consumption and for about 60% of total global consumption of liquid petroleum; these consumption levels will increase as the number of motorized vehicles increases. It is also necessary to consider the existence of densely populated areas and numerous industrial complexes.

Countries should formulate national action programmes to promote and support reafforestation with a view to achieving sustained provision of biomass energy, and promote the integrated development of energy-saving technologies (solar, wind and biomass sources). It is also necessary to plan urban transportation systems, promoting the use of high-occupancy public transport and non-motorized vehicles.

Human settlements in disaster-prone areas

Over the last twenty years, some three million people have died, and eight hundred million have been affected, as a result of natural disasters. These disasters disrupt economic activity and urban productivity and affect natural resources. There are also disasters caused by man or industry. Countries need to conduct national and local studies on the nature and frequency of natural disasters and on their social and economic consequences. This must be accompanied by public-awareness campaigns.

Regarding pre-disaster planning, research should be conducted on the risks to human settlements and their infrastructure. It is also important to have post-disaster reconstruction and rehabilitation plans in place.

The construction industry

Even though the construction industry is essential in providing housing, infrastructure and employment opportunities in the community, it can also be an important source of environmental damage through depletion of the natural resource base, degradation of fragile eco-zones, chemical pollution and the use of building materials harmful to human health. It is necessary to strengthen the indigenous building materials industry, increase the use of local materials, apply designs and techniques that use energy and natural resources efficiently, promote the exchange of information on all ecological and sanitary aspects of construction, and discourage the use of construction materials and products that generate pollution.

Human resource development

Attention should be drawn to the following:

- The absence of a policy environment capable of integrating the resources and activities of the public sector, the private sector and the community;
- The lack of specialized training and research institutions, and technical assistance for low-income communities.

Consequently, it is necessary to increase personal and institutional capabilities in order to integrate the efforts of the public and private sectors and the community.

- **Social mobilization programmes that call for the participation of women, young people and NGOs in the sustainable development of human settlements should be strengthened and promoted.**
- **Integrated land and ecological management systems should be promoted in local urban development plans.**



ENVIRONMENT AND DEVELOPMENT

Integration as the basis for decision making

In many countries, government and private groups address economic, social and environmental factors separately in decision making, to the detriment of development that is economically efficient, socially equitable and environmentally sound.

Therefore, it is necessary to integrate these factors into the planning and management process, so that when decisions are made regarding economic, social, fiscal, energy, agricultural, trade, transportation and other types of policies, greater attention will be paid to the effects of such policies on the environment. Consequently, it is important to integrate environmental and development issues gradually, to strengthen institutions and to facilitate the participation of society in the decision-making process.

Integration at the policy, planning and management levels

In addition to the increased exchange of experiences between countries, new forms of dialogue have been proposed to integrate governments, industry, science, environmental groups and the public in the process of developing effective approaches to environment and development.

In order to ensure that the environment and development are the focus of political and economic decisions, it is necessary to adjust decision-making processes, in accordance with the specific conditions of each country.

It is also necessary to readjust certain governmental and private sector institutional structures, which can be accomplished with the collaboration of UNEP, UNDP and the World Bank.

It is also necessary to improve information and the analytical methods used in the planning and management process. It is recommended that

each country formulate a national sustainable development strategy in order to ensure socially responsible economic development and to protect resources and the environment for future generations.

Legal framework and effective regulations

Another aspect that must be considered is the formulation and improvement of laws and regulations at the national, state, provincial and local level, enacted to put environmental and development policies into practice. In this regard, the following must be considered:

- **The effectiveness of laws and regulations should be improved and legal and administrative procedures for redress and remedy of actions affecting environment should be established.**
- **A cooperative network on sustainable development law should be established.**

Economic instruments and market incentives

The situation described above must be accompanied by economic policies capable of influencing attitudes and behaviour related to the environment. Producers and consumers must be willing to pay environmental costs and reverse the tendency to treat the environment as "a free good," incorporating social and environmental costs into economic activities. Countries should review their economic and fiscal incentives and establish a price structure which reflects the costs of using and conserving natural resources, incorporating the polluter-pays principle and the natural-resource-user-pays concept.

Integrated environmental and economic accounting

Mechanisms must be created to assess the value of natural resources and to give consideration to environmental and economic accounting in decision making. National accounting procedures must be expanded to include environmental degradation in their variables for evaluation. To accomplish this objectives, it is necessary to strengthen international cooperation, improve national accounting systems, establish an evaluation

process, compile more accurate data and information and upgrade technical cooperation.

It is also necessary to review national economic policies, strategies and plans, with a view to incorporating environmental and development issues.

SECTION TWO

Resources for Development



THE ATMOSPHERE

Protection at the global, regional and local scale

Protection of the atmosphere is a broad and multi-dimensional endeavour which requires knowledge of physical, chemical, ecological, biological, oceanic, hydrological, economic and social processes.

Various sectors of the national economy are also involved. Therefore, it is recommended that governments and other entities work to protect the environment, to study it and, when appropriate, to apply the options and measures presented herein.

Several international agreements exist, which consider some of the activities proposed. These activities should be coordinated with social and economic development in an integrated manner, with a view to avoiding adverse impacts, especially in developing countries working to achieve sustained economic development and eradicate poverty.

Therefore, it is necessary for governments, the United Nations system, NGOs and other inter-governmental and private agencies to work for the implementation of the proposals presented herein.

Improving the scientific basis for decision making

Concerns over climatic changes and variability, air pollution and ozone depletion have created new demands for scientific, economic and social information.

It is necessary to have a better understanding of the problem and to be able to predict the properties of the atmosphere and of the affected ecosystems, as well as health impacts and their interactions with socioeconomic factors.

Therefore, it is necessary:

- To promote research on natural processes that affect, and are affected by, the atmosphere, as well as on critical linkages between sustainable development and atmospheric changes;
- To develop methodologies and identify threshold levels of atmospheric pollutants, as well as levels of greenhouse gas concentrations that could cause dangerous anthropogenic interference;
- To ensure a more balanced geographic coverage of the Global Climate Observing System and its components, including the Global Atmosphere Watch; and
- To promote cooperation in the development of early detection systems concerning changes in the atmosphere, in order to improve capabilities to predict such changes and assess resulting environmental and socioeconomic repercussions.

Efficient development and energy consumption

Energy should be used in ways that respect the atmosphere, human health and the environment as a whole.

Energy is essential to economic and social development and an improved quality of life, but it is necessary to control atmospheric emissions of greenhouse gases and other substances. This control should be based on efficient systems for energy production, transmission, distribution and consumption, which should increasingly depend on environmentally sound energy systems.

This should reflect the need for equity, a sufficient supply of energy and increased consumption in developing countries.

Therefore, it is necessary to:

- Cooperate in the search for and development of economically viable and environmentally sound energy sources to promote the availability of increased energy supplies, as well as appropriate methodologies for making integrated energy, environment and

economic policy decisions for sustainable development and the assessment of environmental impacts;

- **Promote energy efficiency and emission standards at the national level, aimed at the development and use of technologies that minimize adverse effects on the environment; and**
- **Increase cooperation with the private sector in disseminating product labelling programmes and providing decision makers and consumers with information on energy efficiency.**

Transportation

The transport sector has an essential role to play in economic and social development. However, as transport needs increase, so do atmospheric emissions. Consequently, there is a need to review existing transport systems, with a view to the more effective design and management of traffic systems.

It is necessary to develop a transport system that is more cost-effective, more efficient, less polluting and safer, particularly mass transit, and to design and build environmentally sound road networks.

Also, it is necessary to study, within the framework of the United Nations and its regional commissions, the feasibility of convening regional conferences on transport and the environment, considering social, economic and sustainable development priorities.

Industrial development

Industry is essential for economic development. It is an important source of employment and income, produces goods and services, is a major resource, energy and materials user and is responsible for emitting a large number of materials that have a negative impact on the atmosphere and the environment.

Protection of the atmosphere would be enhanced by more efficient use of resources and materials in industry, improving pollution abatement technologies and replacing certain substances that deplete ozone.

Therefore, it is necessary to encourage industry to strengthen its capacity for creating technologies, products and processes that are safer and less polluting, and to promote cost-efficient policies that include administrative, social and economic measures.

It is also necessary to cooperate in the generation, transfer and use of industrial technologies, and to upgrade environmental impact evaluation systems.

Terrestrial and marine resources and sound land use

Atmospheric changes can have important impacts on forests, biodiversity and freshwater and marine ecosystems, as well as on economic activities such as agriculture. Certain practices related to the use of terrestrial and marine resources can decrease greenhouse gas sinks and increase atmospheric emissions.

The loss of biological diversity may reduce the resilience of ecosystems to climate variations and air pollution damage.

Policies on resources and land use will produce changes in the atmosphere; consequently, the objectives of such policies should be handled in an integrated manner.

Thus, it is necessary to:

- Promote cost-efficient policies and programmes that include administrative, social and economic measures, with a view to fostering environmentally sound land-use practices;
- Promote policies and programmes that discourage inappropriate land-use practices, especially those that can produce pollution; and
- Encourage the sustainable use of terrestrial and marine resources.

Preventing ozone depletion

Scientific analyses confirm the continuing depletion of the ozone layer by reactive chlorine and bromine from chlorofluorocarbons (CFCs), halons and other such artificial substances.

To reverse this depletion, it will be necessary:

- To apply the control measures identified in the Montreal Protocol of 1987, as amended in London in 1990. It is necessary to approve and ratify the Montreal Protocol and its amendments, and to transfer to developing countries the technology needed to comply with its obligations.
- To expand and give financial support to the Global Ozone Observing System and to the new systematic observation stations, especially those in the southern tropics.
- To participate in the continuous assessment of scientific information on the health and environmental effects and the technological/economic implications of ozone depletion.
- To replace immediately CFCs and other ozone-depleting substances.

Transboundary atmospheric pollution

Atmospheric pollution has adverse health impacts on humans and the environment: forest loss and the acidification of bodies of water, among others. The lack of reliable emissions data outside Europe and North America is a major constraint to measuring transboundary atmospheric pollution.

It is necessary:

- To establish regional agreements to combat transboundary atmospheric pollution and to cooperate with developing countries in particular.

- To develop warning systems and response mechanisms for industrial and nuclear accidents, natural disasters and the deliberate destruction of natural resources.



LAND RESOURCES

Integration, planning and management

Land is normally defined as a physical entity in terms of its topography and spatial nature; a broader view also includes natural resources. Land is a finite resource, while the natural resources it supports can vary over time and according to purposes for which they are used. Land includes all natural resources: soils, minerals, water and biota.

Integrated approach to using land resources

Expanding human requirements, agriculture and other economic activities are placing pressures on land resources, resulting in suboptimal use of both land and natural resources. If, in the future, human requirements are to be met in a sustainable manner, it is now essential to move toward more effective and efficient use of land and its resources. It is important, once the characteristics of the soil are known, to determine how to best use the land without damaging the environment and, if possible, improving it, which is one of the key goals of sustainable development. In such planning, consideration should be given to both economic and social factors and the components of the environment such as air, water, plant and animal life, land and natural and geological resources.

Land-use policies

Governments, with support from international organizations, should ensure that policies and regulatory instruments support the best possible land use and sustainable management of land resources. To accomplish this, it is necessary to review their planning and management systems and to adopt an integrated approach to this process. In doing so, protected areas, private property rights, the rights of indigenous peoples and their communities and the role of women in agriculture and rural development are to be respected.

In order to optimize land use and land management:

- **Institutions and mechanisms for coordination should be strengthened, opening up decision making to all interested parties, especially local communities and populations;**
- **Interested sectors should be trained to manage land resources in an integrated and sustainable manner;**
- **Awareness-raising campaigns should be launched to alert and educate people concerning the importance of integrated land management and the role that individuals and social groups can play in it; and**
- **Information, observation and assessment systems for environmental data should be strengthened, joining efforts at the national, regional and international levels.**



DEFORESTATION

Saving the forests and the jungles

The loss of forests to fires, unsustainable illegal or commercial exploitation, intense crop rotation and excessive grazing lead to soil erosion, the loss of plants, animals and biological wealth and the degradation of watersheds, all of which reduce the quality of life and limit options for development.

There are major weaknesses in the policies, methods and mechanisms adopted to support and develop the multiple ecological, economic, social and cultural roles of trees, forests and forest lands. It is necessary to strengthen national institutions, to harmonize policies, to decentralize responsibilities and to expand participation.

Sustaining the multiple functions of forests

In order to increase the contribution of forests to the well-being of humanity and the satisfaction of needs, the governments, the private sector, labour unions, rural cooperatives, local communities, indigenous populations, young people, women, users of forest resources and NGOs should work together on tasks such as:

- Rationalizing and strengthening administrative mechanisms, personnel, services and work teams;
- Training at all levels;
- Promoting appropriate forestry legislation;
- Disseminating information on the problem; and
- Creating or strengthening existing research centres to study such subjects as: sustainable management of forests, biodiversity, the effects of airborne pollutants, traditional use of forest resources by local populations and indigenous people and improved market

returns and other non-market values derived from the management of forests.

Rehabilitation and reforestation

Forests worldwide have been and are being threatened by uncontrolled degradation and conversion to other uses.

This situation gives rise to the need to:

- Manage, conserve and increase green areas by protecting forests in representative ecological systems and landscapes (natural parks and reserves) and primary forests;
- Reforest planted forests used to meet human needs, as well as degraded natural forests;
- Improve the use of natural forests;
- Promote urban forestry; and
- Increase protection of forests from pollutants, fire, pests, diseases and other illegal human interference.

To do this, it is necessary to classify the different types of forests and to establish systems of protected zones; to pay special attention to the needs of humans in terms of services and the uses of forests, such as the substitution of energy supplied by firewood and the combination of crops and livestock with trees; to make full use of products other than wood that can be derived from the forest; and to protect and manage watersheds, soils, flora and fauna and other resources found in forests.

Integrated Valuation of Forests

Effective evaluation methods are needed to determine the real value of the goods and services derived from forests. National economic accounting systems and forestry policies should be formulated to diversify forest use. The goal is to formulate methods that will take into account the social, economic and environmental values of forests, analyzing the

supply and demand of goods and services in an integrated manner, and not only consider timber, as has been the practice up to now.

Systematic evaluation and observation

In order to carry out long-term planning and make sound decisions, there is a need for evaluation and observation mechanisms that will make it possible to detect changes in forest cover, the total area of forest land and levels of exploitation.

Protection and conservation through rehabilitation

Improved management of forests would foster the development of a variety of activities that would help to generate more employment and income for communities and new investment.

In addition to wood, the forest offers non-wood products such as medicinal plants, dyes, fibers, gums and resins. The value of forests can also be increased through non-damaging activities such as eco-tourism and the supply of genetic material. This should be accompanied by efficient technology and better use of residues. One important problem is to promote small-scale forest-based enterprises.

Initial steps in conserving forests

Some of the first steps to be taken in managing, conserving and developing forests are:

- To strengthen national institutions involved in forestry issues;
- To support appropriate legislation;
- To develop forestry information systems and education and training programs;
- To strengthen research programmes and centres and increase the provision of specialized technical support; and

- To prepare baseline information for planning and evaluating programmes, establishing mechanisms to guarantee the public access to this information.

This will require technical and financial support from the regional and international community.

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DESERTIFICATION AND DROUGHT

Managing fragile ecosystems

Fragile ecosystems include deserts, semi-arid lands, mountains, wetlands, small islands and certain coastal areas. Desertification is land degradation in arid, semi-arid and dry sub-humid areas resulting from climatic variations and human activity. Desertification affects 60% of the world's population, 70% of all drylands, and 25% of the total land area of the world. The priority in combatting desertification should be to implement preventive measure for lands that are not yet degraded, or which are only slightly degraded, without disregarding severely affected areas. In combatting desertification and drought, the participation of local communities, rural organizations, national governments, NGOs and international and regional organizations is essential. It is necessary to carry out actions aimed at soil conservation and reforestation, as well as programmes to eradicate poverty, and social and economic plans for times of drought.

Information and monitoring systems for regions prone to desertification and drought

There is a general lack of basic knowledge on the desertification process, and there is no mechanism for generating and sharing such information worldwide. It is important to create national environmental information coordination centres, to strengthen regional and worldwide networks for monitoring land degradation, and to establish permanent systems to monitor these phenomena. Governments, in conjunction with the appropriate NGOs, should study ways to determine the ecological, economic and social consequences of land degradation, climatic changes, drought and desertification, and use the findings of such studies to adopt concrete measures. It is also important to strengthen regional programmes and the activities of international cooperation agencies such as the inter-Governmental Authority for Drought and Development, the South African Development Coordination Council, the Permanent Inter-

State Committee on Drought Control in the Sahel, and the Arab Maghreb Union.

Combating land degradation

In combating desertification on rangeland, rainfed cropland and irrigated land, preventive measures should be launched in areas that have not been affected; corrective and rehabilitative measures should be taken on moderately degraded land. To accomplish this, it will be necessary to carry out programmes aimed at:

- Afforestation and reforestation with native, fast-growing and drought-resistant species,
- Promoting improved land-management systems, especially for rangelands, with the participation of the community,
- Securing investment in forestry development, and
- Testing and introducing drought-resistant plant species.

This will be possible if proper national legislation, forestry research programmes, training for farmers and livestock ranchers and the support of international agencies are available.

Eradication of poverty in areas prone to desertification

In areas prone to desertification and drought, current livelihood and resource-use systems are not suitable for maintaining living standards, and poverty is a major factor in accelerating the rate of degradation and desertification.

Therefore, it is necessary to:

- Create and strengthen rural organizations responsible for managing village and pastoral land management;
- Strengthen land tenure systems, protecting the property rights of women and pastoral and nomadic groups living in rural areas; and

- Strengthen the credit system and develop the capacity for production and marketing.

National development plans and desertification

An integrated approach must be adopted in planning and managing the use of land resources. It is necessary to incorporate programmes to combat desertification and ecological plans into national planning; to begin a long-term process of applying and monitoring strategies related to natural resource management; and to increase regional and international cooperation in combating desertification. International organizations, multilateral funding institutions, NGOs and relevant bilateral agencies should:

- Provide greater cooperation and assistance in formulating programmes to combat desertification;
- Integrate such programmes into national planning strategies;
- Establish a national coordinating and systematic observation mechanism; and
- Establish regional and global networks of these plans and mechanisms.

Zones prone to drought

It is estimated that in the mid-1980s, some three million people perished because of drought in sub-Saharan Africa. Apart from the human toll, the economic costs of drought-related disasters are also high in terms of lost production, due to misused inputs and diversion of development resources.

One way to diminish the effects of droughts is to establish early-warning systems to forecast drought.

Also, it is important to:

- Formulate strategies to deal with national food shortages;

- **Improve national and regional capacity for agrometeorology and contingency crop planning; and**
- **Establish emergency food distribution mechanisms and safety nets for the most vulnerable households.**

These actions should be accompanied by research on seasonal forecasts, on ways to reduce water loss from soils and on water harvesting techniques that can provide support for national early-warning systems.

Popular participation and environmental education

It is necessary to increase public awareness of issues related to desertification and drought. The knowledge and experience of affected populations should be taken into account. To accomplish this, it is important that governments:

- **Decentralize their administrative structures;**
- **Establish mechanisms for consultation by and participation of land users;**
- **Re-design specific cooperation projects with affected local communities;**
- **Introduce appropriate legislation;**
- **Provide economic support to popular initiatives; and**
- **Increase the level of public education and foster the dissemination of specialized technological know-how.**



MOUNTAINS

Management of fragile ecosystems

Mountains are an important source of water, energy, biological diversity, minerals and forestry and agricultural products.

About ten percent of the world's population depends on mountain resources. Mountains are a storehouse of biological diversity and endangered species.

The proper management of mountain resources and the socioeconomic development of the inhabitants of mountain areas deserve special attention. Nevertheless, mountain areas, even though they are essential to the survival of humanity, are experiencing environmental degradation as a result of human and natural forces.

Ecology and mountain ecosystems

In order to manage mountain areas, much more information is needed on the different types of soils, forests, water and animal and plant resources. It is also necessary to identify areas that are most vulnerable to erosion, floods, landslides, earthquakes and other natural hazards. This information should be included in a database that would be used to facilitate environmental assessments and improve decision making in this area.

Governments should:

- Offer local populations incentives to adopt technologies and cultural practices that do not harm the environment.**
- Diversify mountain economies by developing tourism, fishing and mining, provided natural resources are not damaged.**
- Encourage national and international coordination of popular initiatives and activities of NGOs working on mountain**

development, such as the African Mountain Association, the Andean Mountain Association, the International Center for Integrated Mountain Development, the United Nations University and the Woodland Mountain Institute.

Watersheds and alternative livelihood opportunities

One resource which originates in the mountains and must be protected in order to maintain a balance between the community and natural resources is watersheds. Measures must be taken to make integrated use of watersheds, avoiding soil erosion and establishing mechanisms for conserving flora and fauna in threatened mountain areas. The participation of the community in the use of the watershed is essential; working groups or local committees should be formed to complement the activities of institutes.

Efforts should also focus on:

- Creating systems for planning and managing the use of mountain watersheds;
- Gathering data and information on existing ecosystems in mountain areas, in order to be able to identify hazardous areas and those threatened by air pollution;
- Compiling information on the livelihoods and production activities of populations living in mountain areas; and
- Promoting regional and international cooperation in the exchange of information and experiences among countries that share mountain ranges and watersheds.



AGRICULTURE AND RURAL DEVELOPMENT

To work the land and avoid its depletion

It is estimated that by the year 2025 the world's population will be 8.5 billion, 83% of which will be living in developing countries, which means there will be even greater demand for food and other basic commodities.

It is necessary to increase food production in a sustainable way, enhance food security and avoid further depletion of land resources.

Reviewing, planning and programming policies

In particular, countries with economies in transition from planned to market-oriented systems need a coherent national policy framework for sustainable agriculture and rural development in order to incorporate environmental considerations into economic activities.

To do this, it is necessary:

- To bring about a significant increase in agricultural production in a sustainable manner, to ensure the people's right to obtain enough food to meet their needs and cultural habits, and to review national policies on food security, foreign trade, exchange rates, prices, subsidies and agricultural taxes.
- To identify demographic trends in the areas of the country that are of the greatest importance in terms of agricultural production, and how land tenure rights affect them.
- To analyze production and marketing policies at the local, regional and national levels.
- To manage rangelands, forests and flora and fauna. Governments, in conjunction with pertinent international and regional organizations, should strengthen the ministries of agriculture, natural resources and planning.

Popular participation and human resources

The greater the degree of community control over the resources on which it relies, the greater the incentive will be for human resource development. The approach focuses on fostering self-reliance, cooperation, the provision of information, and support for user-based organizations. This will require training and the capacity to assume responsibilities in sustainable development efforts.

Governments should:

- Assign clear titles, rights and responsibilities regarding land, individuals and communities, to encourage investment in agricultural resources.
- Strengthen rural institutions.
- Formulate policies on extension, training, prices, input distribution, credit and taxation, to ensure necessary incentives and equitable access by the poor to production support services.

Improving production and farming systems

Agriculture needs to be intensified to meet future demands for basic commodities and to avoid further expansion on to marginal lands and encroachment on fragile ecosystems. Increased use of external inputs and development of specialized production and farming systems tend to increase vulnerability to environmental stresses and market fluctuations.

Therefore, it is necessary:

- To intensify agriculture by diversifying production systems, with a view to achieving maximum efficiency in the use of local resources, while minimizing environmental and economic risks.
- To ensure access to agricultural inputs and services and national and local markets in order to reduce food losses.
- To increase the availability of credit and rural infrastructure related to transportation and commodity marketing.

Planning the use of land resources

Inappropriate and uncontrolled land use is one of the major causes of degradation and depletion of land resources. Present land-use practices often disregard the actual potential, carrying capacity and limitations of land resources, as well as their diversity in space. It is estimated that the world's population, now at 5.4 billion, will be 6.25 billion by the end of the century.

The need to increase food production to meet the expanding needs of the population will put enormous pressure on all natural resources. Techniques for increasing production and conserving soil and water resources already exist, but are not widely or systematically applied. A systematic approach is needed for identifying land uses and production systems that are sustainable for each soil and climatic zone.

This is a complex task, in which it will be necessary to:

- Strengthen international and regional technical working groups;
- Create effective databases, and plan in an integrated manner; and
- Train professionals, and promote discussions at all levels, with a view to increasing awareness of the problem.

Land conservation and rehabilitation

The problem of soil erosion is particularly acute in developing countries, as are the problems of salinization, waterlogging, soil pollution and loss of soil fertility.

Efforts to control land degradation have had limited success to date. Long-term national and regional land conservation and rehabilitation programmes, as well as strong political support and adequate funding, are needed.

Governments, with the support of international and regional organizations, should:

- Help small-farmer communities to investigate and promote the use of site-specific technologies and farming systems which make it

possible to conserve and rehabilitate lands, and at the same time, increase agricultural production, including conservation-oriented agroforestry, terracing and mixed cropping.

- Establish training centres for agricultural extension personnel and land users.

Conservation and use of plant genetic resources

Plant genetic resources are an essential resource to meet future needs for food. Many existing gene banks provide inadequate security and, in some instances, the loss of plant genetic diversity in gene banks is as great as it is in the field. It is necessary to develop measures to facilitate the conservation and use of plant genetic resources, the creation of networks of *in situ* conservation areas and the use of such tools as germ plasm banks. Existing national and international mechanisms to assess, study, monitor and use plant genetic resources suffer from major gaps and weaknesses and are largely underfunded.

Conservation and use of animal genetic resources

The need for increased quantity and quality of animal products and draught animals calls for conservation of the existing diversity of breeds to meet future requirements, including those for use in biotechnology. Some local animals are threatened by extinction as a result of the introduction of exotic breeds and of changes in livestock production systems.

It is necessary to preserve these breeds by collecting and storing semen and embryos, conserving, *in situ*, indigenous stock and establishing artificial insemination centres.

integrated pest control

Conservative estimates put pre-harvest and post-harvest losses caused by pests between 25 and 50 percent. In many areas, they also prevent livestock development.

Chemical control of pests has dominated the scene, but its overuse has adverse effects on farm budgets, human health, the environment and international trade.

Integrated pest management, which combines biological control, host plant resistance and appropriate farming practices, and minimizes the use of pesticides, is the best option for the future, as it guarantees yields, reduces costs, is environmentally friendly and contributes to the sustainability of agriculture.

Sustainable plant nutrition

Plant nutrient depletion is a serious problem resulting in loss of soil fertility, particularly in developing countries. To increase soil productivity, the FAO sustainable plant nutrition programmes could be helpful. The integrated plant nutrition approach aims at ensuring a sustainable supply of plant nutrients to increase future yields, without harming the environment and soil productivity. In many developing countries, population growth rates exceed 3% a year, and national agricultural production has fallen behind food demand. In these countries, it is necessary to increase agricultural production by at least 4% a year, without destroying soil fertility. Trained labour, energy supply, adapted tools and technologies, plant nutrients and soil enrichment will be necessary.

Rural energy to enhance productivity

In rural areas of the developing world, the chief sources of energy are firewood, crop residues and manure, together with animal and human energy. More intensive energy inputs are required to increase productivity and generate more income.

Rural energy policies and technologies should promote a mix of fossil and renewable energy sources that is cost-efficient and sustainable and ensures agricultural development.

The full potential of agriculture and agroforestry, as well as common property resources, as sources of renewable energy, is far from being realized.

The achievement of sustainable rural development is intimately linked to energy demand and supply patterns.

Evaluating the effects of ultraviolet radiation

The increase of ultraviolet radiation as a consequence of the depletion of stratospheric ozone layer is a phenomenon that had been recorded in different regions of the world, particularly in the southern hemisphere. Consequently, it is important to evaluate its effects on plant and animal life, as well as on sustainable agricultural development.

In affected regions, governments, at the appropriate level and with the support of relevant international and regional organizations, should take the necessary measures, through institutional cooperation, to facilitate research and assessments regarding the effects of enhanced ultraviolet radiation on plant and animal life, as well as on agricultural activities, and to consider taking appropriate corrective measures.



BIOLOGICAL DIVERSITY

Conservation

Biological resources feed and clothe us and provide housing, medicines and spiritual nourishment. Natural ecosystems, which include forests, savannahs, pastures, rangelands, deserts, tundras, rivers, lakes or seas, contain most of the Earth's biodiversity.

The loss of the world's biological diversity is caused by the destruction of natural resources, over-harvesting, pollution and the inappropriate introduction of exotic plants and animals, all of which threaten human development.

Conservation of biological diversity

Urgent measures must be taken to conserve ecosystems, with a view to learning about the genetic material contained in plants and animals. This would make it possible to rank the use of biological resources and identify their benefits for agriculture, health, welfare and the environment.

Countries must press for the early entry into force of the Convention on Biological Diversity, approved by the Earth Summit, which enables the countries to protect ecosystems *in situ*, to conserve biological and genetic resources *ex situ* and to enhance ecosystem functions.

Of course, states have the sovereign right to exploit their biological resources, to benefit from biotechnological development, while preserving their biodiversity, and to promote the commercial use of the products derived from these resources.

Principle actions of the governments

Governments should prepare strategies, plans and programmes of action for the conservation of biological diversity and place the true value

on biological and genetic resources, recognizing the knowledge, innovations and practices of indigenous and local communities.

The governments should:

- Take measures for the just and equitable distribution of benefits derived from the use of biological and genetic resources;
- Identify components of biological diversity that are important for its conservation and for the sustainable use of biological resources;
- Ascribe value to these resources; and
- Identify processes and activities with significant impacts upon biological diversity, and evaluate the potential economic implications.

Attention should also focus on the rehabilitation and restoration of damaged ecosystems and the recovery of threatened or endangered species. Efforts should also be made to encourage the conservation of biodiversity and the balanced use of biological and genetic resources on private lands and in areas adjacent to protected areas. Throughout this process, it is important for countries to exchange information and experiences on the conservation of biodiversity and the sustainable use of biological resources. It is also important to establish baseline information on the status of terrestrial, aquatic, coastal and marine ecosystems. This calls for technical and scientific cooperation to establish national and international information networks, available to all interested parties. At the international level, it is essential to promote technical and scientific cooperation in the field of conservation of biological diversity and the sustainable use of biological and genetic resources.

16**BIOTECHNOLOGY****Environmentally sound management**

Biotechnology is a set of techniques for bringing about specific man-made changes in DNA, or genetic material, in plants, animals and microbial systems, leading to useful products and technologies. Although biotechnology cannot resolve all the problems of development, it promises to contribute to better health care, enhanced food security, improved supplies of potable water, more effective industrial development processes, and support for reforestation and detoxification of hazardous wastes. Steps must be taken, especially in developing countries, to develop sustainable applications of biotechnology, to engender public trust and confidence and to establish appropriate mechanisms to facilitate the management of these technologies.

Increasing the availability of renewable raw materials

In order to increase the food supply, improve food distribution and establish more sustainable agricultural systems, biotechnology must be applied in agriculture.

Governments must improve productivity, nutritional quality and shelf-life of food products and pulses. To this end, they must further develop resistance to diseases and pests, develop tolerant and/or resistant plant varieties, or promote the use of agricultural varieties that are currently underutilized.

They should also develop improved vaccines to prevent diseases and promote sustainable agricultural production, strengthening and broadening the capacity and scope of action of existing research centres, with a view to improving products and processes with productive and environmental value.

At the international level, it is necessary to cooperate on issues related to access to, the conservation and exchange of germ plasm; to promote research programmes, especially in developing countries, with

particular reference to cooperation with local and indigenous people. Also of utmost importance is training of competent professionals in the basic and applied sciences at all levels and, if possible, within the context of specific projects that need personnel capable of using advanced technology.

Human health

The degradation of the environment resulting from inappropriate development has a direct negative effect on human health. Malnutrition, poverty, poor human settlements, lack of potable water and inadequate sanitation facilities add to the problem of diseases. Governments must design and maintain programmes to benefit the sectors that need to improve their health and protect themselves from diseases.

Steps must be taken to establish and enforce screening, systematic sampling and evaluation of drugs and medical technologies, with a view to barring the use of those that are unsafe for human health. It is important to develop and make widely available vaccines against major communicable diseases, especially those that affect children.

Environmental protection measures should be taken to control disease-carrying mosquitoes, to ensure water quality and to promote the development and use of medicinal plants and other related sources, which will provide important support in caring for and improving human health. These efforts will be successful if they are accompanied by public education programmes to increase knowledge and understanding of the benefits and relative risks of modern biotechnology, and if support is provided for formulating national programmes to improve general health.

Protection of the environment

The environment is threatened in all its biotic and abiotic components: animals, plants, microbes and ecosystems (which constitute biological diversity), water, soil and air (physical components of habitats) and all the interactions among them. Despite the efforts made, the following are likely to continue growing:

- Environmental damage caused by overconsumption;

- The quantities of waste generated; and
- The unsustainable use of land.

Governments must develop environmentally sound alternatives and improvements for environmentally damaging production processes by reducing the need for unsustainable synthetic chemical inputs and replacing certain products with other ecologically appropriate products or with natural products. The development of processes to treat sewage and organic waste, as well as to remove pollutants, and new processes to recover energy, are priority actions that must be undertaken by governments. They must also promote the appropriate use of bio-fertilizers within national agricultural programmes. These actions, supported by further research, increased transfer of biotechnology and better information, will ensure environmental protection, for the sake of sustainable development.

Mechanisms for international cooperation

Only when adequate and transparent safety and border-control procedures are in place will the community-at-large be able to take full advantage of biotechnology and be in a better position to accept the potential benefits and risks of biotechnology. Steps must be taken to ensure safety in biotechnology development, application, exchange and transfer, through an international agreement on principles to be applied on risk assessment and management.

Particular reference should be made to health and environmental considerations, ensuring the widest possible public participation and taking into account ethical considerations. This means that governments must make sure that existing safety procedures are widely available, up-to-date and adapted to the needs of their regions and, in addition, they should receive international support for training, the establishment of networks and direct assistance for interested parties.

Development of biotechnology

In developing countries, enabling factors such as those listed below are frequently inadequate:

- **Training capacity (technological know-how),**
- **Research and development facilities and funds,**
- **Industry-building capacity,**
- **Capital, including venture capital,**
- **Protection of intellectual property rights, and**
- **Expertise in marketing research and technological, socioeconomic and safety assessments.**

Efforts should be made to discourage the current "brain drain" and to recognize and foster traditional methods, placing a value on the know-how of indigenous populations and their communities. Guarantees must be established to ensure that these populations share in technological, economic and trade benefits. There is a need to strengthen the capacity to apply both new and conventional biotechnologies to meet the needs of sustainable development.

17**OCEANS, SEAS AND COASTLINES****Protection**

Oceans, seas, and coastal zones contain various resources that are important for the global system, humans, development and local subsistence. Therefore, it is essential to manage these resources and to integrate them into economically viable, socially just and environmentally sustainable development.

Management of coastal and marine areas

More than half the world's population lives within 60 km of the shoreline, a percentage that tends to increase over the years. Despite current efforts to manage marine and coastal resources, it has not been possible to achieve sustainable development in many parts of the world.

Each coastal state should consider establishing appropriate coordinating mechanisms for integrated management and sustainable development of coastal and marine areas and their resources. This will be possible through the formulation and implementation of land- and water-use policies, emphasizing the compatibility of different uses, preparing coastal profiles identifying critical areas, including eroded zones, user conflicts, priorities and development patterns, with a view to prevention. At the same time, efforts must be made to improve coastal human settlements and prepare contingency plans for natural disasters, climate changes or damages caused by man.

Planning should include the conservation and restoration of altered critical habitats, integrating sectoral programmes on sustainable development for settlements, agriculture, tourism, fishing, ports and industries using or affecting coastal areas, with environmental strategies aimed at sustainable development.

Marine environmental protection

Land-based sources contribute 70% of marine pollution, while maritime transport and dumping at sea contribute 10% each. Contaminants include sewage, nutrients, metals, radionuclides, oil and hydrocarbons.

Approximately 600,000 tons of oil enter the oceans each year as a result of normal shipping operations.

Nevertheless, the principal causes behind the degradation of the marine environment are land-based activities, such as erosion, agriculture, and sewage and waste from tourism, cities and industry.

A precautionary and anticipatory, rather than a reactive approach, is necessary to prevent degradation of the marine environment. This requires, *inter alia*, the adoption of measures to assess the environmental impact, clean production techniques, recycling, environmental audits, minimization of wastes, construction and improvement of sewage treatment facilities, quality management criteria for the proper handling of hazardous substances and a broad understanding of the damaging effects of air, land and water pollution.

The Director of UNEP is requested to convene a meeting on land-based sources of marine pollution, as soon as possible.

Sustainable use and conservation of the living resources of the high seas

Fishing on the high seas currently involves problems such as unregulated fishing, excessive fleet size, vessel reflagging to escape controls, insufficiently selective gear, unreliable databases and lack of sufficient cooperation among states. Fishing on the high seas currently represent 5% of total world landings.

It is necessary to:

- Develop and increase the potential of marine living resources of the high seas to meet human nutritional needs;

- **Promote the development and use of selective fishing gear and protect and restore endangered marine species; and**
- **Manage high seas fishing in accordance with the provisions of the United Nations Convention on the Law of the Sea.**

States should prepare collaborative technical and research programmes to improve the understanding of the life cycles and migrations of species found in the high seas, including identifying critical areas and life stages.

Use and conservation of marine living resources under national jurisdiction

Marine fishing yields 80 to 90 million tons of fish and shellfish per year, 95% of which is taken from waters under national jurisdiction. The rights and obligations of the states are established in the United Nations Convention on the Law of the Sea. These resources provide food and sustenance for millions of people, particularly in developing countries. Unfortunately, fishing in many areas under national jurisdiction face mounting problems, including local overfishing, unauthorized incursions by foreign fleets, ecosystem degradation, overcapitalization and excessive fleet size, undervaluation of catch, insufficiently selective gear, unreliable databases, and increasing competition between artisanal and large-scale fishing, and between fishing and other types of activities. For these marine resources to truly satisfy social and nutrition needs, it is necessary to:

- **Improve knowledge and identification of existing marine living resource stocks, evaluating their potential, particularly of underutilized populations and species;**
- **Apply environmentally sound fishing techniques, strategies and practices;**
- **Use new technologies;**
- **Attach priority to human food needs;**
- **Improve handling and processing facilities to avoid wastage;**

- Improve the quality and training of skilled personnel to manage and conserve effectively the marine living resources of the exclusive economic zone and other areas under national jurisdiction;
- Foster aquaculture; and
- Conserve coral reefs, estuaries and reproduction and breeding zones.

The marine environment and climate change

There are many uncertainties about climate change and particularly about possible sea-level rise due to the warming of the atmosphere. The marine environment is vulnerable and sensitive to climate changes. The high degree of uncertainty in present information hinders effective management and limits the ability to predict and assess environmental change.

Increased ultraviolet radiation derived from ozone depletion has been reported in some areas of the world.

Systematic collection of data on marine environmental parameters will be needed to apply integrated management approaches and to predict the effects of global climate change and of atmospheric phenomena, such as ozone depletion, on living marine resources and the marine environment.

In order to determine the role of the oceans and all seas in world systems and to predict natural and human-induced changes in marine and coastal environments, the mechanisms to collect, synthesize and disseminate information from research and systematic observation activities need to be restructured and reinforced considerably.

Strengthening international cooperation

It is recognized that the role of international cooperation is to support and supplement national efforts. Implementation of strategies and activities in the programme areas relative to marine and coastal areas and seas requires effective institutional arrangements at national, subregional, regional and global levels, as appropriate. There are numerous national

and international institutions and regional institutes, within and outside the United Nations system, with competence in marine issues, and there is a need to improve coordination and strengthen links among them. It is also important to ensure that an integrated and multisectoral approach to marine issues is pursued at all levels.

UNEP's and GESAMP's regional seas programmes should be strengthened.

Sustainable development of small islands

Small-island developing states, and islands supporting small communities, are a special case both for environment and development. They tend to be ecologically fragile and vulnerable. Their small size, limited resources, geographic dispersion and isolation from markets place them at a disadvantage economically and prevent them from developing large-scale economies.

Their geographic isolation has resulted in their habitation by a large number of unique species of flora and fauna, giving them a very high share of global biodiversity. They are also considered to be extremely vulnerable to global warming and sea-level rise, with certain islands facing the increasing threat of the loss of their entire national territories.

Because development options for small islands are limited, there are special challenges to planning for sustainable development. Without the cooperation and assistance of the international community, small-island developing states will have difficulty in meeting these challenges.

The first Global Conference on the Sustainable Development of Small Island States will be held in 1994.



FRESHWATER RESOURCES

Protection of the quality and supply

Every human being needs good quality water to live. Therefore, freshwater resources, an indispensable part of all terrestrial ecosystems, must be used properly and protected from contamination to ensure adequate supplies of water of good quality for the entire population of this planet. In order to avoid contamination, innovative technologies must be available and full use must be made of same. The multisectoral nature of water resources development in the context of socioeconomic development must be recognized, as well as the multi-purpose utilization of water resources for water supply and sanitation, agriculture, industry, urban development, hydro-power generation, inland fishing, transportation, recreation, lowlands and flatlands management and other activities.

Integrated water resource management and use

As populations and economic activities grow, many countries are rapidly reaching conditions of water scarcity or facing limits to economic development. Water demands are increasing rapidly, with 70-80% required for irrigation, less than 20% for industry and a mere 6% for domestic consumption. The holistic management of freshwater as a finite and vulnerable resource, and the integration of sectoral water plans and programmes within the framework of national economic and social policy, are of paramount importance. These should be adopted in the 1990s and beyond. The fragmentation of responsibilities for water resources development among sectoral agencies is proving, however, to be an even greater impediment to promoting integrated water management than had been anticipated. Effective implementation and coordination mechanisms are required.

All states must establish national action plans and investment programmes with estimated costs and well-defined objectives. The objectives include to promote a multisectoral approach, to plan the use and protection of the resource, to promote the participation of communities and to strengthen the institutional framework. The goal is optimization of

water resources allocation under physical and socioeconomic constraints, flood and drought management through risk analysis and environmental and social impact assessment.

All governments must promote water conservation through improved water-use efficiency and wastage minimization schemes for all users, including the development of water-saving devices. Water resources development and management should be planned in an integrated manner, taking into account long- and short-term planning needs; that is to say, they should incorporate environmental, economic and social considerations based on the principle of sustainability.

Water resources assessment

Water resources assessment, including the identification of potential sources of freshwater supply, comprises the continuing determination of sources, extent, dependability and quality of water resources and of the human activities that affect those resources. There is a concern that at a time when more precise and reliable information is needed about water resources, hydrologic services and related bodies are less able than before to provide this information, especially information on groundwater and water quality. Developing countries are finding it increasingly difficult to gain access to advanced technology for data capture and management. Therefore, the establishment of national databases is vitally important for water resources assessment and for the mitigation of the effects of floods, droughts, desertification and pollution.

Protection of water resources and aquatic ecosystems

Freshwater is a unitary resource. There are few regions of the world that are still exempt from problems of loss of potential sources of freshwater supply, degraded water quality and pollution of surface and groundwater sources. Major problems affecting the water quality of rivers and lakes are inadequately treated domestic sewage, inadequate controls on the discharges of industrial waste waters, loss and destruction of catchment areas, ill-considered siting of industrial plants, deforestation, migratory agriculture and poor cultivation practices. Many of these problems have arisen from a development model that is environmentally destructive and from a lack of public awareness and education about water resource protection. Ecological and human health effects are the

measurable consequences. There is a widespread lack of perception of the linkages between the development, management, use and treatment of water resources and aquatic ecosystems. A preventive approach, where appropriate, is crucial to avoid costly subsequent measures to rehabilitate, treat and develop new water supplies.

Drinking water supply and sanitation

An estimated 80% of all diseases and over one third of deaths in developing countries are caused by the consumption of contaminated water, and on average, as much as one tenth of each person's productive time is sacrificed to water-related diseases. One of the most outstanding efforts to bring water and sanitation services to the world's poorest people is the Mar del Plata Action Plan adopted by the United Nations system in 1977. The commonly agreed premise was that all peoples, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantities and of a quality commensurate with their basic needs. It is also recognized that human excrement and sewage are important causes of the deterioration of water quality in developing countries. It is, therefore, necessary to introduce available technologies, which are appropriate, and to build sewage treatment facilities, which could bring significant improvement. To this end, it is important to:

- Establish protected areas for sources of drinking water supply;
- Expand urban and rural water supply;
- Control water-associated diseases;
- Ensure the safe re-use of liquid wastes;
- Build sewage treatment facilities; and
- Introduce international support mechanisms for programme funding, implementation and follow-up.

Water and sustainable urban development

Early in the next century, more than half of the world's population will be living in urban areas. By the year 2025, that proportion will have risen to 60% comprising some 5 billion people.

Rapid urban growth and industrialization are putting severe strains on the water resources and environmental protection. Scarcity of freshwater resources and the escalating costs of developing new resources have a considerable impact on the development of industry, agriculture, human settlements and economic growth.

Better management of urban water resources, including the elimination of unsustainable consumption patterns, can make a substantial contribution to the alleviation of poverty and improvement of the health and quality of life of the urban and rural poor.

Efforts must be made so that by the year 2000 all urban residents will have access to at least 40 litres per capita per day of safe water; improvement will have been made in the discharge of municipal and industrial effluents; and that at least 75% of solid waste generated in urban areas is collected and recycled or disposed of in an environmentally safe way.

Water and sustainable food production and rural development

Sustainability of food production increasingly depends on sound and efficient water-use and conservation practices consisting primarily of irrigation development and management, of water management in rain-fed areas, and of the provision of water for livestock, inland fishing and agroforestry.

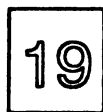
The challenge is to develop and apply water-saving technology and management methods and, through capacity-building, enable communities to introduce institutions and incentives for the rural population to adopt new approaches, for both rain-fed and irrigated agriculture. Policies and programmes related to these issues must be adopted at the local, national and international levels. It is essential that the development of irrigation schemes be based on environmental impact assessments that identify hydrological consequences within watersheds, or transferred between

them, as well as the assessment of social impacts on peoples in river valleys.

Impacts of climate change on water resources

There is uncertainty with respect to the prediction of climate change at the global level. Higher temperatures and decreased precipitation would lead to decreased water supplies and increased water demands. Any rise in sea level will cause the intrusion of salt water into estuaries, small islands and coastal aquifers and the flooding of low-lying coastal areas. The most important impacts of climate change are its effect on the hydrologic cycle and on water management systems and, through these, on socioeconomic systems.

An increase in the incidence of extremes, such as floods and droughts, would cause increased frequency and severity of disasters. It is necessary to strengthen research and monitoring programmes and expedite the exchange of information, at the national, regional and international levels.



TOXIC CHEMICALS

Assessment of scientific information and resources

It is a well-known fact that modern life requires the substantial use of chemicals, and it has been shown that they can be produced and used with a high degree of safety. However, in the desire to improve the quality of life for humankind, there are two major problems related to the use of toxic chemicals, particularly in developing countries: the lack of scientific information to assess risks, and the lack of resources for assessing them.

Expanding and accelerating international assessment of chemical risks

Assessing the risks to human health and the environmental hazards that a chemical may cause is a pre-requisite to planning for its safe and beneficial use. Among the approximately 100,000 chemical substances in commerce and the thousands of substances of natural origin with which human beings come into contact, many appear as contaminants in food, commercial products and the environment.

Fortunately, exposure to most chemicals (some 1,500 cover over 95% of total world production) is rather limited and most are used in small amounts.

However, a serious problem is that crucial data for risk assessment are often lacking. Within the framework of the OECD chemicals programme, such data are now being generated for a number of chemicals.

International cooperation related to risk assessment must be coordinated to avoid the duplication of efforts. Each nation should have a critical mass of technical staff with experience in toxicity testing and exposure analysis, which are two important components of risk assessment.

Governments, with relevant international and regional support, should:

- **Strengthen and expand the programmes on risk assessment of the International Programme on Chemical Safety (IPCS), the United Nations system (UNEP, ILO, WHO), FAO and other organizations, including cooperation agencies for economic development;**
- **Promote mechanisms to increase collaboration among governments, industry, academia and relevant NGOs involved in the various aspects of risk assessment of chemicals and related processes; and**
- **Encourage the development of procedures for the exchange by countries of their assessment reports on chemicals.**

Harmonization of classification and labelling of chemicals

Adequate labelling of chemicals and the dissemination of safety data sheets are the simplest and most efficient way of indicating how to handle and use chemicals safely. A scheme prepared within the United Nations system to regulate the safe transport of dangerous goods should be developed. Globally harmonized classification and labelling systems, which would promote the safe use of chemicals, are not yet available.

Governments, in collaboration with relevant international organizations and industry, should launch projects with a view to establishing and elaborating a harmonized classification and compatible labelling system for chemicals in all United Nations official languages, including adequate pictograms. The system should be developed and implemented in stages.

Information exchange on the risks of toxic chemicals

The London Guidelines for the Exchange of Information on Chemicals in International Trade are a set of guidelines adopted by governments, with a view to increasing safety in the use of chemicals that are banned or severely restricted in the producing countries. This is cause for great concern. In order to address this issue, provisions for Prior Informed Consent procedures were introduced in 1989 in the London Guidelines for the Exchange of Information on Chemicals in International Trade (UNEP)

and the International Code of Conduct on the Distribution and Use of Pesticides (FAO). The ILO chemicals convention calls for communication between exporting and importing countries when hazardous chemicals have been prohibited for reasons of safety and health at work.

Within the framework of GATT, negotiations have been pursued with a view to creating an instrument on products banned or severely restricted in the domestic market.

Establishment of risk-reduction programmes

Risks related to the use of many chemicals can be reduced by using other products and by using chemical-free technologies.

In the agricultural area, integrated pest management, including the use of biological control agents as alternatives to toxic pesticides, is one approach to risk reduction.

Other areas of risk reduction include the prevention of chemical accidents, prevention of poisoning by chemicals and the undertaking of toxicovigilance and coordination of clean-up and rehabilitation of areas damaged by toxic chemicals. The OECD Council has decided that OECD member countries should establish national risk reduction programmes.

The International Council of Chemical Associations has introduced initiatives regarding responsible care and product stewardship aimed at the reduction of chemical risks. The Awareness and Preparedness for Emergencies at Local Level (APELL) programme of UNEP provides advisory services. ILO has published a Code of Practice on the prevention of major industrial accidents and is preparing an international instrument on the prevention of industrial disasters, for eventual adoption in 1993.

Lastly, Governments, with the cooperation of relevant international and regional organizations, should:

- Promote the adoption of policies based on acceptable producer liability principles, as well as precautionary, anticipatory and life-cycle criteria for managing chemicals, applied to production, trade, transport, use and disposal;

- Undertake concerted activities to reduce risks from toxic chemicals, taking into account the entire life cycle of the chemicals;
- Establish and strengthen national poison-control centres;
- Reduce overdependence on the use of chemicals;
- Require manufacturers, importers and others handling toxic chemicals to develop emergency response procedures; and
- Identify, assess, reduce and minimize or eliminate risks from storage of outdated chemicals.

Strengthening of national capabilities and capacities for management of chemicals

Many countries lack national systems to cope with chemical risks. They also lack infrastructure and scientific and technical methods to deal with said risks. Basic elements for sound management of chemicals are:

- Adequate legislation,
- Information gathering and dissemination,
- Capacity for risk assessment and interpretation,
- Establishment of risk management policy,
- Capacity for enforcement,
- Capacity for rehabilitation of contaminated sites and poisoned persons,
- Effective education programmes, and
- Capacity to respond to emergencies.

Governments, with the collaboration of relevant intergovernmental organizations, agencies and programmes of the United Nations system, should:

- Promote and support multidisciplinary approaches to chemical safety problems;
- Establish and strengthen a national coordinating mechanism to serve as liaison for all sectors affected by activities related to the safe use of chemicals;

- **Develop institutional mechanisms for the management of chemicals;**
- **Establish networks of emergency response centres, including poison control centres; and**
- **Develop national and local capabilities to prepare for accidents.**

Prevention of illegal international traffic in toxic products

There is currently no global international agreement on the traffic in toxic and dangerous products. However, there is general concern that illegal international traffic in these products is detrimental to public health and the environment, as acknowledged by the General Assembly of the United Nations in Resolutions 42/183-44/226.

Further strengthening of international and regional cooperation is needed to prevent illegal transboundary movement of toxic and dangerous products. It is also necessary to improve monitoring and enforcement capabilities.

Governments, according to their capacities and available resources and with the cooperation of international organizations, should:

- **Adopt and implement legislation to prevent the illegal import and export of toxic and dangerous products;**
- **Develop appropriate national enforcement programmes to monitor compliance with such legislation and to impose appropriate sanctions;**
- **Develop a national alert system to assist in detecting illegal traffic in toxic and dangerous products, with the possible participation of local communities; and**
- **Exchange information on illegal transboundary movements of toxic and dangerous products.**

Enhancement of international cooperation

A meeting of experts, held in London in 1991, made recommendations for increased coordination among United Nations bodies and other international organizations involved in chemical risk assessment and management.

The meeting called for measures to enhance the role of IPCS and to establish an intergovernmental forum on chemical risk assessment and management.

To further consider the recommendations of the London meeting, the Executive Heads of WHO, ILO and UNEP are invited to convene an intergovernmental meeting within one year.



HAZARDOUS WASTES

Control, recycling reuse and disposal

Effective control of the generation, storage, treatment, recycling and reuse, transport, recovery and disposal of hazardous wastes is of paramount importance for proper health, environmental protection and natural resource management, and sustainable development. This calls for the prevention of the generation of hazardous wastes and the rehabilitation of contaminated sites. Both require knowledge, experienced people, proper facilities, financial resources and technical and scientific capacities.

There is great concern that part of the international movement of hazardous wastes is being carried out in contravention of existing national legislation and international instruments, to the detriment of the environment and public health of all countries, particularly developing countries. Consequently, in 1989, the General Assembly of the United Nations requested each regional commission to contribute to the prevention of the illegal traffic in toxic and dangerous products and waste.

Promoting the prevention and minimization of hazardous waste

It is crucial to enhance information on the prevention and management of hazardous wastes, since an increase in these wastes affects human health, degrades the environment and generates costs to citizens in connection with the generation, handling and disposal of such wastes. Policies should be established that encourage cleaner production methods, set intermediate goals for stabilizing the quantity of hazardous waste generated, and achieve the qualitative improvement of waste streams.

Governments should establish purchasing standards to avoid discrimination against recycled materials, provided that those materials are environmentally sound. Economic incentives could be offered to stimulate industries to adopt new, cleaner production methods. Governments should also support research in this area and encourage technology

assessment, or establish regulations that establish the ultimate responsibility of industries for environmentally sound disposal of the hazardous waste their activities generate.

Promoting and strengthening institutional capacities

Many countries lack the national capacity to handle and manage hazardous wastes. This is primarily due to inadequate infrastructure, deficiencies in regulatory frameworks, insufficient education and training programmes and lack of coordination between the different ministries and institutions involved in various aspects of waste management. One of the main priorities in ensuring environmentally sound management of hazardous wastes is to provide education and training programmes covering all levels of society. There is also a need to undertake research programmes to understand the nature of hazardous wastes, to identify their potential environmental effects and to develop technologies to safely handle those wastes.

Therefore, governments should:

- Enhance the capabilities of institutions responsible for the management of hazardous wastes;
- Establish and maintain inventories of hazardous wastes and their treatment/disposal sites, as well as of contaminated sites that require rehabilitation; and
- Assess exposure and risk to human health and the environment.

Promoting and strengthening international cooperation

In order to promote and strengthen international cooperation in the management, including control and monitoring, of transboundary movements of hazardous wastes, a precautionary approach should be applied. There is a need to harmonize the procedures and criteria used in various international and legal instruments, and to create monitoring capacities.

It is important to strengthen national and regional capacities and capabilities to monitor and control the transboundary movement of

hazardous wastes. To this end, efforts must be made to strengthen national legislation and prepare regional agreements on control and monitoring systems. Governments are urged to ratify the Basel Convention and the Bamako Convention and to pursue the expeditious preparation of the corresponding protocols, as well as those on liability and compensation, and guidelines and mechanisms to facilitate the implementation of the Conventions.

Preventing illegal international traffic in hazardous wastes

Article IX of the Basel Convention specifically addresses the issue of illegal shipments of hazardous wastes, which may cause serious threats to human health and the environment and which impose a special and abnormal burden on the countries that receive such shipments. Steps must be taken to halt these activities. To do so, it is necessary to develop appropriate national enforcement programmes to monitor compliance with such legislation, detect and deter violations through appropriate penalties, and give special attention to those who are known to have participated in the illegal traffic of hazardous wastes.



SOLID WASTES AND SEWAGE

Elimination or safe use

Solid wastes include all domestic refuse and non-hazardous wastes such as commercial and institutional wastes, street sweepings and construction debris. Environmentally sound waste management must go beyond the mere safe disposal or recovery of wastes that are generated, and seek to address the root cause of the problem by attempting to change unsustainable patterns of production and consumption. Accordingly, the framework for necessary action should be founded on a hierarchy of objectives and focused on the four major waste-related programme areas listed below.

Minimizing Wastes

Unsustainable patterns of production and consumption are increasing the quantities and variety of environmentally persistent wastes at unprecedented rates. This trend could significantly increase the quantities of wastes produced by the end of the century and increase quantities four to fivefold by the year 2025.

A preventive waste management approach focused on changes in lifestyles and in production and consumption patterns offers the best chance for reversing current trends. Incentives must be established to reduce unsustainable patterns of production and consumption, and thus minimize waste generation. Governments must develop and strengthen national capacities in research and design of ecologically sound technologies, and review the effectiveness of all waste-minimizing instruments to identify potential new instruments that could be used, and techniques to be used in making them operational.

Maximizing waste reuse and recycling

The exhaustion of traditional disposal sites, stricter environmental controls governing waste disposal, and increasing quantities of wastes, particularly in industrialized countries, have all contributed to a rapid increase in the cost of waste disposal services. As the economics of waste disposal services change, waste recycling and resource recovery are becoming increasingly cost effective. Future waste management programmes should take maximum advantage of resource-efficient approaches to the control of wastes, in order to control waste generation. These activities should be carried out in conjunction with public education programmes. It is important that markets for products from recycled materials be identified in the development of reuse and recycling programmes.

Promoting environmentally sound waste disposal and treatment

Even when wastes are minimized, some wastes will still remain. Even after treatment, all discharges of wastes have some residual impact on the receiving environment.

Consequently, there is room for improving waste treatment and disposal practices such as, for example, avoiding the discharge of sludges at sea.

In developing countries, the problem is of a more fundamental nature: less than 10% of urban wastes receive some form of treatment and only a small proportion of treatment is in compliance with any acceptable quality standard.

Governments must develop and strengthen national capacity to treat and safely dispose of wastes, within their sovereign territory and as close as possible to the sources of origin, in ways that are compatible with environmentally sound and efficient management.

To this end, it is necessary to:

- Establish an information clearing house;

- **Set up an extensive regional network related to these issues;**
- **Conduct research on critical subjects such as low-cost, low-maintenance waste water treatment system, or industrial waste treatment systems; and**
- **Promote appropriate training to improve current waste management practices.**

Extending waste service coverage

By the end of the century, over 2 billion people will be without access to basic sanitation services, and an estimated half of the urban population in developing countries will be without adequate solid waste disposal services.

As many as 5.2 million people, including 4 million children under five years of age, die each year from waste-related diseases. The health impacts are particularly severe for the urban poor. Extending and improving waste collection and safe disposal services are crucial to gaining control over this form of pollution. Governments are urged to apply the "polluter pays" principle, by setting waste management charges at rates that reflect the costs of providing the service and ensure that those who generate the wastes pay the full cost of disposal. Governments should also encourage institutionalization of community participation in planning and implementing procedures for solid waste management.



RADIOACTIVE WASTES

A major risk of nuclear energy

Annually, about 200,000 m³ of low-level and intermediate-level waste and 10,000 m³ of high-level radioactive waste is generated worldwide from nuclear power production. These volumes are increasing as more nuclear power units are put into operation, nuclear facilities are decommissioned and the use of radionuclides increases.

The high-level waste contains about 99 per cent of the radionuclides and thus represents the largest radiological risk. The growth of waste volumes should continue to be kept under close review.

In most countries with a substantial nuclear power programme, technical and administrative measures have been taken to implement a waste management system.

Protecting human health and the environment

Steps must be taken to ensure that radioactive wastes are safely managed, transported, stored and disposed of, with a view to protecting human health and the environment, within a wider framework of an interactive and integrated approach to radioactive waste management and safety. States should support efforts within IAEA to develop and promulgate international radioactive waste safety guidelines for the safe disposal of radioactive wastes.

It is also necessary to promote policy and practical measures to minimize and limit the generation of radioactive wastes or, to promote proper planning of safe management, including storage, transportation and disposal.

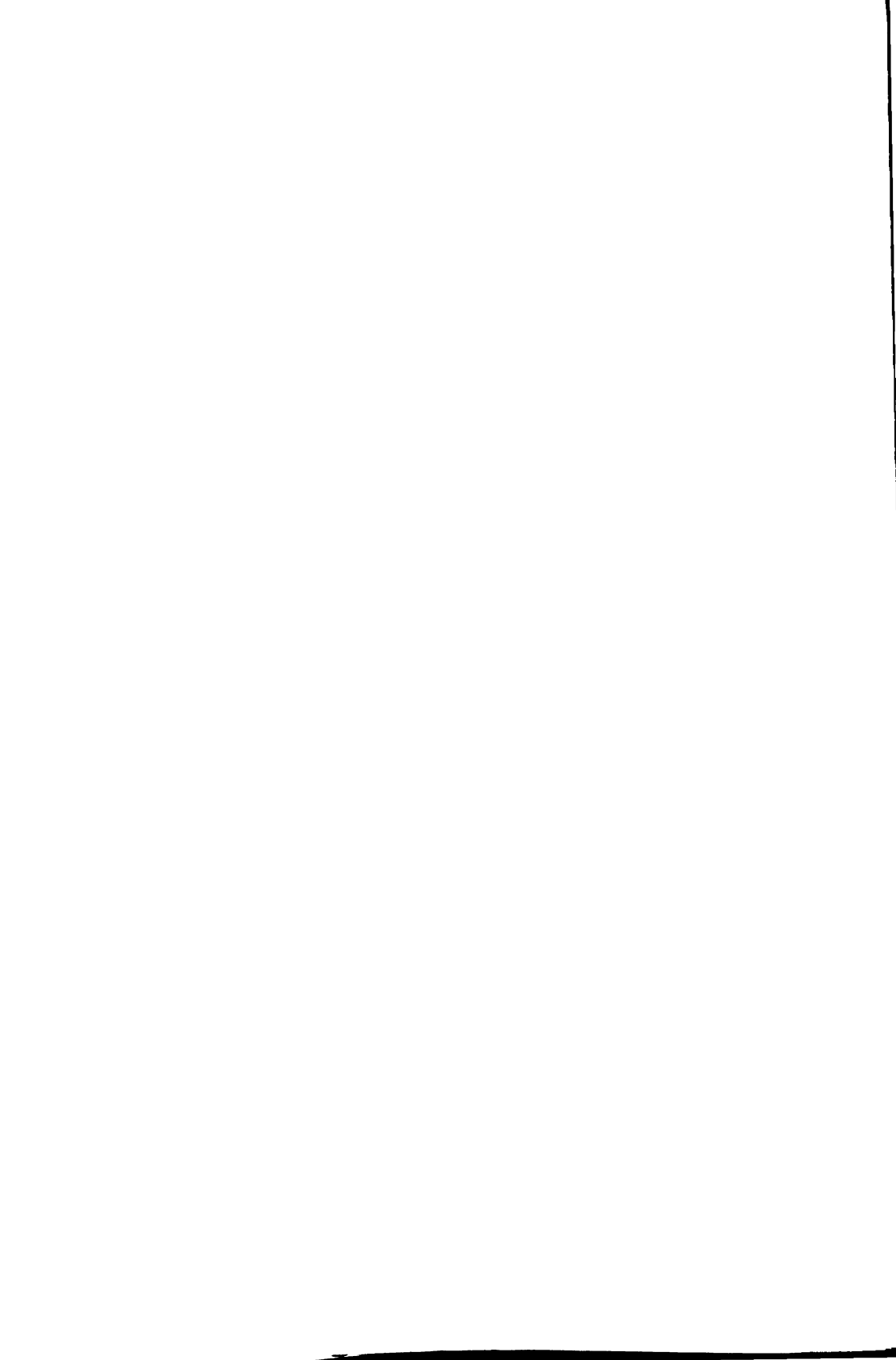
Lastly, states should not promote or allow the storage or disposal of radioactive wastes near the marine environment if they pose unacceptable risks to people.

States, in cooperation with relevant international organizations, should:

- **Promote the adoption of policy and practical measures to minimize and limit the generation of radioactive wastes;**
- **Promote the safe treatment, storage, transportation and disposal of radioactive wastes;**
- **Strengthen efforts to implement the Code of Practice on the Transboundary Movements of Radioactive Waste, and the London Agreement on Disposal Sites;**
- **Not promote or allow the storage or disposal of high-level, intermediate-level and low-level radioactive wastes near the marine environment; and**
- **Respect, in accordance with international law, the decisions on the environment that deal with the safe and environmentally sound management of radioactive wastes.**

SECTION THREE

Strengthening the Role of Major Groups





PREAMBLE

Strengthening major groups

Critical to the effective implementation of the objectives, policies and programmes agreed to by the governments at the Earth Summit for all programme areas of Agenda 21 is the participation of all social groups.

Agenda 21 provides an opportunity for individuals, groups and organizations to participate in procedures that determine the advantages or disadvantages involved in developing a new project. It also enables them to participate in decision-making, particularly those which affect the communities in which they live and work.

Also, individuals, groups and organizations should have access to information on environment and development that will be available to national authorities.

The programme areas set out below address the means for moving towards real social partnership in support of common efforts for sustainable development that is economically sustainable, socially just and environmentally sound for the present, without endangering future generations.



THE IMPORTANCE OF WOMEN IN SUSTAINABLE DEVELOPMENT

Over the past few years, several international conventions have been adopted to end all types of discrimination against women and to ensure them equal access to land, education and safe employment.

For example, the Nairobi Strategy endorsed several plans of action for the full, equal and beneficial integration of women and to ensure their participation in national and international ecosystem management and control of environmental degradation.

The active involvement of women in all areas, especially in economic and political decision making, will be critical to the successful implementation of Agenda 21.

Important activities to be carried out by governments include:

- To eliminate constitutional, legal and administrative obstacles to the full participation of women;
- To increase the number of women involved as decision makers, planners, managers and advisers in policies and programmes for sustainable development;
- To strengthen women's organizations and institutions that promote sustainable development;
- To provide women with access to all levels of education;
- To reduce the heavy workload of women and girls at home, by equally distributing work with men;
- To establish more and affordable day care centres and kindergartens;

- To strengthen preventive, curative and reproductive health services, and women-managed insurance systems, providing support for comprehensive maternity care;
- To promote equal employment opportunities and equitable remuneration for women, with adequate economic, political and social support systems;
- To establish banking systems, with a view to facilitating rural women's access to credit;
- To implement programmes to increase consumer awareness and foster the active participation of women in bringing about changes necessary to reduce or eliminate unsustainable patterns of consumption and production;
- To design and implement educational and communications programmes to eliminate negative attitudes and prejudices against women; and
- To review progress made in these areas and to prepare a report with recommendations for the 1995 Conference.

In addition to the above activities, there are certain areas that require urgent action, and which call for the active participation of women in decision making or in implementing programmes related to environmental degradation and the economy in developing countries and which affect the lives of women and children in rural areas suffering from drought, desertification, deforestation, armed hostilities, natural disasters, toxic wastes left over from the use of unsuitable agro-chemical products, and other problems.

In order to reach these goals, training, research and information centres should be established in rural and urban areas of developed and developing countries, to provide women with access to ecologically sound technologies.

With regard to international and regional cooperation and coordination:

- The Secretary-General of the United Nations should review the adequacy of all United Nations institutions which focus on the role

of women in meeting development and environment objectives, and make recommendations for strengthening their capacities.

- **Each body of the United Nations system should review the number of women in executive posts.**
- **UNIFEM should establish regular consultations with donors in collaboration with UNICEF, with a view to promoting programmes and projects that strengthen the participation of women.**
- **UNDP should establish a coordination centre for women in each of its resident representative offices, with a view to providing them with information on environment and development.**

As to financing and cost evaluation, the Conference Secretariat has estimated the total cost of implementing these activities from 1993-2000 to be about US\$40 million. It is necessary for the international community to provide funding on grant or concessional terms.

25**CHILDREN AND YOUNG PEOPLE****The future of sustainable development**

Young people possess great intellectual capabilities and, therefore, must be given the opportunity to work towards achieving a healthy environment, improved standards of living and access to education and employment, with respect for their human rights. Nevertheless, part of this talent is lost. Each country, by the year 2000, should ensure that at least 50% of its youth have received professional training, or at least secondary education. Efforts must be made to reduce youth unemployment to the general unemployment rates of the country.

It is also necessary to better organize youth groups and coordinate them in order to provide them with access to information, and to promote dialogue between the youth community and government in order to include their perspectives on government decisions, particularly with regard to the environment, at the local, national and regional levels. Another important step is to ensure the participation of young people in all relevant United Nations programmes.

Lastly, countries should combat human rights abuses against young people, particularly young women and girls, providing all youth with legal protection and support for them to fulfill their aspirations.

Children

While it is true that children will inherit the responsibility of looking after the Earth, they are not always protected and are most vulnerable to the effects of environmental degradation. This means that their interests should be given special consideration.

Consequently, Agenda 21 urges children to participate in environmental education programmes carried out in their schools or communities and to participate in policies and strategies related to the environment and development, at the local, regional and world levels.

Governments pledge to ratify the 1989 Convention on the Rights of Children, and commit themselves to:

- **Protecting the well-being of children, in areas related to the environment and development, particularly as concerns health, nutrition, education, literacy and poverty alleviation.**
- **Ensuring the survival, protection and development of children.**
- **Promoting primary environmental care activities that address the basic needs of communities and improve the home environment of children.**
- **Expanding educational opportunities, including education to create an awareness on environmental and development responsibility.**
- **Promoting the participation of local communities, including women, young people, children and indigenous peoples in the integrated management of resources at the community level.**



INDIGENOUS PEOPLE

Different cultures and ethnic groups

Indigenous people and their communities have an historical relationship with their lands. They possess traditional scientific knowledge of their habitat.

Today, the inhabitants of these communities represent a significant percentage of the global population.

Therefore, they have the right to enjoy the full measure of human rights and fundamental freedoms without hindrance or discrimination. It is necessary to strengthen the role of indigenous people and their communities, keeping in mind the holistic relationship they have developed among nature, its resources and the environment.

Conventions and declarations already exist that promote the well-being of indigenous people. Governments should ratify and apply them and seek support for the General Assembly of the United Nations to formulate another declaration on the rights of indigenous people.

Governments should promote measures such as the following:

- **Adoption and strengthening of policies and/or legal instruments that protect indigenous intellectual and cultural property and the right to preserve customary and administrative systems and practices;**
- **Creation of a coordination centre in each international organization in order to provide information, answer questions from and address the issues facing the indigenous population and ensure their participation in national decision-making;**
- **Provision of technical and financial assistance for capacity-building programmes to support the sustainable self-development of indigenous people;**

- **Support for research and education programmes that incorporate their knowledge and experiences related to the environment and to find out how they can be applied to current development challenges;**
- **Improved technological efficiency of their resource management systems, promoting the adaptation and dissemination of appropriate ecological technologies;**
- **Recognition of the fact that the lands of indigenous populations and their communities must be protected against activities that the community does not accept; and**
- **Support for the formulation of resource management and conservation strategies, and the execution of activities included in Agenda 21.**

Lastly, in order to increase the participation of indigenous peoples in sustainable development, two fundamental questions must be addressed: the creation of national consultation mechanisms and the establishment of regional cooperation formulas.

Therefore, mechanisms must be created or strengthened to consult with indigenous populations, with a view to reflecting their needs and incorporating their knowledge, values and traditional practices into national policies and programmes on natural resource management and conservation and other issues.

Governments have agreed to provide a space in society for indigenous populations and their communities, by ratifying appropriate policies and legal instruments, protecting their lands, and recognizing their values, traditional knowledge and resource management practices, with a view to promoting sustainable and equitable development.

Governments, the United Nations system and other international organizations should incorporate the participation of indigenous women in resource management programmes. They should also provide technical and financial support, particularly in developing countries.

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NONGOVERNMENTAL ORGANIZATIONS (NGOs)

Key partners

One of the principal problems faced by the international community in connection with the urgent need to replace unsustainable development patterns is how to create, in all sectors of society, an awareness that this is a problem whose solution must be shared by all. In this regard, NGOs play a vital role.

Their credibility, based on their independence, responsibility and constructive approach, is key to the development of participatory democracy.

Many NGOs have sufficient experience, expertise and capacity to contribute to environmentally sound and socially responsible sustainable development. The community of non-governmental organizations offers a global network that should be tapped.

Therefore, it is very important to foster maximum cooperation and communication among these NGOs and international organizations and governments, within the framework of the institutions mandated to carry out Agenda 21.

With regard to international activities, especially with the United Nations system and other international organizations, efforts should be made to improve procedures and mechanisms by which NGOs can contribute to policy design, decision-making and implementation and evaluation of development programmes.

The following actions will be of priority:

- **To establish or enhance existing mechanisms and procedures to draw on the expertise and views of NGOs in the formulation of policies, in the adoption of decisions, in the execution and evaluation of programs, in the transfer of information among agencies, and in the debates and conferences of the United Nations;**

- To review levels of financial and administrative support for NGOs, and the extent and effectiveness of their involvement;
- To establish channels for the participation of NGOs in the process established to review and evaluate the implementation of Agenda 21;
- To promote the participation of NGOs in the review and evaluation of policies designed to implement Agenda 21, and to support NGOs in developing countries;
- To take into account the findings of the review systems and evaluation processes of nongovernmental organizations in relevant reports of the Secretary General to all pertinent United Nations organizations; and
- To provide NGOs access to timely data and reports to promote the effectiveness of their programmes in support of sustainable development.

Governments should:

- Establish a dialogue with NGOs from all sectors of society in order to study their rights and responsibilities, channel their contributions and coordinate the implementation of national policies.
- Encourage NGOs and local authorities to discuss sustainable development, and to participate in national mechanisms or procedures established to carry out Agenda 21.

This should:

- Enable NGOs to participate in, supervise and review the design and evaluation of national policies concerning the implementation of Agenda 21;
- Enable NGOs to participate in formal and informal education and dissemination; and

- **Provide NGOs with information necessary for their effective contribution to research and the design, implementation and evaluation of programmes.**



LOCAL AUTHORITIES

Key role in meeting objectives

Local authorities play a vital role in meeting the objectives of Agenda 21, since they establish environmental policy, supervise planning, operate and maintain the economic, social and environmental infrastructure and, more importantly, are the level of governance closest to the people.

Their role in mobilizing the public to promote sustainable development is of utmost importance.

By 1993, the international community should have initiated a consultative process aimed at increasing cooperation among local authorities.

By 1994, representatives of municipal associations should have increased levels of cooperation and coordination with the goal of enhancing the exchange of information and experiences among local authorities.

By 1996, local authorities should have undertaken a consultative process with their populations and achieved a consensus on a local Agenda 21 for the community.

Local authorities should be encouraged to implement programmes that enhance the participation of women and youth.

The important role of local authorities

Local authorities should, *inter alia*, enter into a dialogue with the citizenry, local organizations and private enterprise to adopt a local Agenda 21. The process of consultation would increase household awareness of sustainable development issues.

Efforts should be made to promote partnerships between local organizations and international funding agencies to secure economic

support to implement local authorities' programmes on environment management.

For this purpose:

- **Habitat and other relevant organs and organizations of the United Nations system are called upon to gather information on local authorities and their funding needs;**
- **Periodic consultations involving both international partners and developing countries should be held to review strategies and consider how international support could best be mobilized;**
- **Processes should be established to increase the exchange of information, experiences and mutual technical assistance among local authorities.**



WORKERS AND THEIR TRADE UNIONS

The important role they play in implementing Agenda 21

Workers are an important counterpart in activities programmed for sustainable development.

For them to be able to participate as a sector, it will be necessary to make adjustments in the national entrepreneurial system. Therefore, trade unions, as the representatives of workers, are vital actors in achieving sustainable development in view of their experience in addressing industrial change, the high priority they give to protection of the work environment and the related natural environment, and their constant concern for the social and economic situation of their members.

Collaboration among trade unions and their extensive membership constitutes an important channel for disseminating concepts of sustainable development.

The overall objective is poverty alleviation and full and sustainable employment, which contribute to appropriate working, community and physical environments.

More specifically, the following objectives are proposed for accomplishment by the year 2000:

- To promote the ratification of relevant conventions of ILO and establish bipartite and tripartite mechanisms on safety, health and sustainable development;**
- To increase the number of environmental collective agreements aimed at achieving sustainable development;**
- To reduce occupational accidents, injuries and work-related diseases;**
- To increase the provision of education, training and professional skills for workers.**

Activities carried out by unions and workers should:

- **Promote the rights of workers to freedom of association in organizations or unions;**
- **Strengthen participation and consultation with governments, commerce and industry in order to guarantee the participation of workers and their unions in decisions on the design, implementation and evaluation of national and international policies and programmes on environment and development;**
- **Establish closer collaboration between employers and employees, and the government, at the workplace, community and national levels to deal with safety, health, the environment, equity and the labour rights of women. In other words, they should ensure that the concept of sustainable development is equitably implemented;**
- **Ensure that workers participate in environmental audits at the workplace and in environmental impact assessments;**
- **Participate in environment and development activities within the local community and sustainable development activities carried out by regional and international organizations.**

In summary, workers should have access to training to augment environmental awareness, ensure their safety and health, and improve their economic and social welfare.



BUSINESS AND INDUSTRY

More effective production processes and technologies

Business and industry, including transnational corporations, provide employment and livelihood to the population, and are directly related to the social and economic aspects needed for sustainable, sound and balanced development.

Promoting cleaner production

Business, industry and transnational corporations should apply more effective production processes and technologies, by improving the use of energy and resources, improving working conditions and minimizing wastes, by reusing and recycling same. This would contribute greatly to improving human health and the environment. It is a question of introducing the concept of clean production, which implies striving for optimal efficiency at every stage of the product life cycle. The application of this concept would improve the overall competitiveness of the business.

Economic instruments and legislative measures are needed to implement environment-friendly production systems and to maximize the use of resources. This points to the importance of establishing or strengthening laws and creating mechanisms that enhance the value of natural resources.

Promoting responsible entrepreneurship

Small and medium-sized entrepreneurs play an important role in the social and economic development of a country. Entrepreneurship is one of the most important driving forces for innovations, increasing market efficiencies and responding to challenges and opportunities. Responsible entrepreneurs -large, medium and small- can play a role in improving the efficiency of resource use, reducing risks and hazards, minimizing wastes and safeguarding environmental qualities. Businesses should adopt codes

of conduct for environmentally sound practices and develop programmes to increase awareness and environmental responsibility at all levels.

Large, medium and small businesses should consider establishing partnerships to exchange experiences in management skills, market development and technological know-how. They should also conduct training activities related to environmental issues.

Governments should encourage the establishment and operation of sustainably managed enterprises to ensure responsible management, from the point of view of health, safety and the environment.

Financial aid institutions should support small- and medium-scale entrepreneurs engaged in sustainable development activities, particularly in developing countries. Foreign investment should be encouraged for environmental aspects, and international organizations should support research and development related to improving the technological and managerial requirements for sustainable development.



THE SCIENTIFIC AND TECHNOLOGICAL COMMUNITY

Their important role in decision making

The scientific and technological community, which includes a wide range of professionals and management personnel, is in a position to make open and effective contributions to the decision-making processes concerning environment and development. They possess knowledge which is of great use to decision makers who help determine policies and programmes relevant to development and the environment.

Therefore, the participation of this group in the execution and evaluation of Agenda 21 is essential.

Improving communication and cooperation among the scientific and technological community, decision makers and the public

The scientific and technological community and policy makers should increase their interaction in applying sustainable development strategies which give consideration to the interests of the users. Undoubtedly, this would help to establish research priorities to formulate realistic sustainable development strategies and to propose actions for constructive solutions.

This means that it will be necessary to:

- **Improve and expand scientific and technical inputs to inter-governmental consultative, cooperative and negotiating processes towards international and regional agreements.**
- **Expand programmes for disseminating the research findings of research centres and universities, and at the same time, publish national scientific reports and technical reports that are understandable and relevant to local sustainable development needs.**

- Improve links between the official and independent research centres and industry so that research may become an important element of industrial strategy.
- Promote and strengthen the full participation of women in the disciplines of science and technology.
- Promote the development of codes of conduct and guidelines relating to science and technology.

Codes and guidelines in science and technology

As members of disciplines devoted to the need to protect the biosphere in the context of sustainable development, scientists and technologists have a special set of responsibilities. Increased ethical awareness in environmental and developmental decision making should help to set appropriate priorities for the maintenance and enhancement of life-support systems.

The following actions should be undertaken:

- Strengthening national and international cooperation with nongovernmental sector, to develop codes of conduct and guidelines regarding environmentally sound and sustainable development.
- Establishing national advisory groups on environmental and developmental ethics, in order to develop a common value framework between the scientific and technological community and society as a whole, through continuous dialogue.
- Extending education and training in environmental and developmental ethical issues.
- Reviewing national and international environment and development legal instruments, in order to ensure their inclusion in codes of conduct and guidelines.

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FARMERS AND GOVERNMENT POLICIES

Securing resources for investment

One third of the surface of the Earth is used for agricultural activities.

Agricultural problems vary from region to region, but there are certain problems common to developing countries: falling commodity prices, international debt, the use of inappropriate technologies and inadequate production systems. To this must be added the fact that most agricultural activities are small scale, subsistence oriented and based on family labour. Numerous agricultural tasks, over a wide area, are carried out by women. Many farmers are members of indigenous communities that have been the stewards of the Earth's resources for thousands of years.

The sustainable development of people in marginal and fragile ecosystems is addressed in Agenda 21. The key to its successful implementation lies in the motivation and attitudes of farmers.

In a farmer-centred approach, be it in a developed or developing country, which is considered of utmost importance in achieving sustainable agriculture, governmental policies should provide incentives for investing in land and other resources and eliminate economic, legal and institutional barriers.

Therefore, governments should:

- **Ensure the implementation of programmes on sustainable livelihoods, agriculture and rural development, managing fragile ecosystems, water use in agriculture and integrated management of natural resources.**
- **Promote pricing mechanisms, trade policies, fiscal incentives and other policy instruments that positively affect individual farmer's decisions about an efficient and sustainable use of natural resources.**

- **Involve farmers and their representative organizations in the formulation of policies.**
- **Protect, recognize and formalize women's access to tenure and use of land, as well as rights to lands, access to credit, technology, inputs and training.**
- **Support the formation of farmers' organizations by providing adequate legal and social conditions.**

National and international research centres should cooperate with farmers' organizations in developing environment-friendly farming techniques.

Governments, multilateral and bilateral development agencies and NGOs should collaborate with farmers' organizations in formulating agricultural development projects in specific agroecological zones.

In the area of information, governments and farmers' organizations should establish mechanisms to document, synthesize and disseminate local knowledge and practices, as well as the experience gained in farming, forest harvesting and fishing projects, at the local level.



SECTION FOUR

Means of Implementation

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FINANCIAL RESOURCES AND MECHANISMS

Economic growth, social development and poverty eradication are the first and foremost priorities in developing countries.

By implementing this Agenda, meeting its objectives and putting its measures into operation, all countries will benefit, since the cost of inaction could outweigh the financial costs of implementing Agenda 21 and narrow the choices of future generations.

Special efforts will be required to deal with environmental issues. The United Nations Framework Convention on Climate Change and the Convention on Biological Diversity address just such issues.

Economic growth and environmental protection

It is necessary to establish domestic and international economic conditions that encourage free trade and market access. This will help to ensure that economic growth and environmental protection are beneficial for all countries. In order to translate Agenda 21 into policies and implement sustainable development programmes, it will be necessary to secure additional financial resources, promote the equal participation of men and women in the decision-making process, and establish consultative groups.

Naturally, financing for the implementation of Agenda 21 will come from the country's own public and private sectors. New and additional funds for sustainable development and implementation of Agenda 21, particularly in developing countries, will be needed. The Commission on Sustainable Development will regularly review and monitor progress towards the financial target of 0.7 per cent of GDP, to be contributed by developed countries as official aid.

In order to increase the availability of new and additional resources, it is necessary to have access to all possible mechanisms, including:

- **Multilateral development banks and funds:**
 - i. **The International Development Association (IDA), which provides aid to the poorest countries to achieve sustainable development. Particular attention will be paid to the tenth replenishment of the IDA.**
 - ii. **Regional and subregional development banks, which should provide resources on favourable terms.**
 - iii. **The Global Environment Facility, managed jointly by the World Bank, UNDP and UNEP. This Fund should be restructured so as to, *inter alia*:**
 - **Encourage universal participation;**
 - **Have sufficient flexibility to expand coverage to allocate funds, as agreed, to relevant programme areas of Agenda 21;**
 - **Establish a transparent and democratic administration that guarantees a balanced and equitable representation of the interests of developing countries;**
 - **Ensure new financial resources on grant and concessional terms for developing countries;**
 - **Ensure predictability in the flow of funds by contributions from developed countries, ensuring equitable burden sharing; and**
 - **Ensure access to and disbursement of the funds, without introducing new forms of conditionality.**
- **Specialized agencies of the United Nations system which have designated roles to play in supporting national governments in implementing Agenda 21.**
- **Multilateral institutions for capacity building and technical cooperation. UNDP and UNDP should play a special role in this respect.**

- **Bilateral assistance programmes that promote sustainable development.**
- **Debt relief to provide the needed means for sustainable development. All creditors in the Club of Paris should promptly implement the December 1991 agreement.**
- **Private funding is a means of increasing voluntary contributions through non-governmental channels.**

Mobilization of higher levels of foreign direct investment and technology transfers should be encouraged through national policies that promote investment, especially in joint risk projects.

New financing mechanisms such as the following should be sought:

- **Greater use of debt swaps.**
- **Use of economic and fiscal incentives and mechanisms.**
- **Negotiable permits.**
- **New schemes for fund-raising and voluntary contributions through private channels, including NGOs.**
- **Reallocation of resources at present committed to military purposes.**
- **An international and national environment suitable for sustainable development.**

The Secretariat of the Conference estimated that the average annual cost of implementing Agenda 21 in developing countries would be US\$600 billion, including US\$125 billion in concessionary funds.

Developed countries are to report on progress achieved in the area of finance to the Forty-Seventh Session of the General Assembly of the United Nations.



TECHNOLOGY TRANSFER

Capacity building, cooperation and equity

In order to meet the objectives established within the framework of sustainable development and environmental protection, it will be necessary to have access to new technologies that can protect the environment and alleviate poverty and human suffering. Consequently, countries should avoid the use of technologies that pollute, are expensive, fuel-dependent and capital-intensive.

Ecologically sound technologies

Environmentally sound technologies protect the environment, are less polluting, use all resources in a more sustainable manner, recycle more of their wastes and products, and handle residual wastes in a more acceptable manner.

It is recommended that technologies be used that are environmentally sound, that are low-energy consuming, with maintenance systems that do not require heavy investment, and which should not pay large amounts for patents and royalties.

They are total systems which include technical know-how, procedures, equipment and organizational and managerial methods. Even when these technologies are qualitatively different, with different scales, levels, profiles and uses, they must be compatible with nationally determined socio-economic, cultural and environmental priorities.

It is important for developing countries to have access to technologies that are not covered by patents and which are, therefore, more accessible and less costly. This does not mean that efforts should not be made to promote, facilitate or finance access to and the transfer of patented and expensive technologies. This should be done through appropriate economic, fiscal or other types of incentives.

Cooperation and technology capacity-building

Countries should also promote research on and the development and transfer of environmentally sound technology, with the participation of the scientific and technological communities, industry and governments. This should be accompanied by the promotion of national capacities to assess, develop, manage and apply these new technologies.

Nevertheless, for technology transfer to be successful, countries must have access to scientific and technological information in order to select the appropriate technology or develop local technology. For this, information networks should be developed and linked to national, subregional, regional and international systems, which cover broad sectors of the economy, such as agriculture, industry and energy. These networks would disseminate information on available technologies, their sources, their environmental risks and the broad terms under which they may be acquired.

In this regard, it is important to study the function of patents and intellectual property rights, and their effects on access to this technology.

Among other activities, this area of the Agenda also refers to the need to increase capacity and mechanisms for cooperation, through international organizations and between existing public and private agencies, and in this way cooperate in exchanging experiences and enhancing capabilities to assess technology needs.



SCIENTIFIC SUPPORT FOR SUSTAINABLE DEVELOPMENT

One of the functions of science is to provide reliable information for the formulation and selection of policies that are compatible with sustainable development; that is to say, policies that will contribute to understanding to what extent the Earth is capable of supporting development. This is particularly important in areas such as climate change, resource consumption, demographics, oceans, the atmosphere, and environmental degradation of land.

The chapter is based on the Program on Science for the Environment and Development in the Twenty-first Century (Ascend 21), which proposes strengthening the scientific base, accumulating knowledge and improving scientific assessment and capacity.

Through science it is possible to make more efficient use of resources and find new development options. Thus, it is important to improve long-term scientific assessments and strengthen scientific capacities in all countries.

Knowledge, assessment and communication

Policies on the environment and development must be based on scientific assessments and knowledge. This calls for improved communication among scientists, decision-makers and the general public.

First, countries should determine the status of their scientific knowledge and identify their research needs and priorities.

Increased scientific knowledge, through research, will provide a better understanding of natural systems. This will provide countries with more precise analytical and evaluation tools to understand the current situation and situations that could occur in the future. These scientific assessments and predictions must be made regularly, at the global, regional and local levels, and will be used to prepare different strategies.

In order to more clearly understand the effects of scientific research, environmental issues must be linked to social and economic aspects, and findings of formal sciences must be linked to traditional knowledge from different cultures.

Scientists from developing countries should participate in international research programmes that address problems related to the environment and development at the world level and support the development of environmental indicators and criteria.

In order to increase the number of scientists, educational and training programmes on science and technology should be established or strengthened, research infrastructure must be improved and incentives must be provided. Scientific and technological data bases must be expanded, at the national, regional and global levels, using standard formats and systems.

Increased scientific capacity

The following activities should be undertaken:

- Coordinate existing data- and statistics-gathering systems relevant to developmental and environmental issues;
- Develop a methodology to carry out national, regional and global audits every five years, on an integrated basis;
- Promote the education and training of scientists, not only in their disciplines but also in their ability to identify, manage and incorporate environmental considerations into their research projects;
- Strengthen the scientific infrastructure in educational institutions;
- Develop and expand data bases, and organize scientific and technological information networks; and
- Develop new partnerships with specialized personnel to facilitate technical assistance relevant to ecologically sound and sustainable development.



EDUCATION

A means of raising awareness

Education, training and increased awareness on problems related to environment and development are linked to virtually all areas in Agenda 21. Formal education -primary, secondary and university- and informal education (talks, conferences and seminars) are indispensable to changing people's attitudes and values.

Reorienting education

Education is critical for promoting the assessment of sustainable development issues. It is also critical for achieving environmental awareness, ethical values and technical know-how relevant to the environment.

Governments should consider the following measures:

- Develop strategies aimed at integrating environment and development as a cross-cutting issue into education at all levels within the next three years, and to endorse the recommendations of the Jomtien Conference;
- Create worldwide awareness of the topic, integrating environmental and development concepts;
- Promote non-academic educational activities at the local, regional and national levels, through cooperation and support of non-formal educators and other community-based organizations; and
- Promote education programmes on environment and development for adults, women and indigenous populations, with special emphasis on local problems.

Increasing public awareness

There is still a considerable lack of awareness of the interrelated nature of all human activities and the environment, due to inaccurate or insufficient information. Developing countries in particular lack relevant technologies and expertise. There is a need to increase public sensitivity to environment and development problems and involvement in their solution. The United Nations system should improve its outreach through a review of its education and public awareness activities to promote participation.

This will be achieved if governments carry out the following actions:

- Promotion, with the United Nations system, of a cooperative relationship with the media, popular theatre groups, and entertainment and advertising industries;
- Preparation of child-oriented material by UNICEF, UNESCO and UNDP;
- Use by countries and the scientific community of modern communications technologies for public outreach, using audio-visual methods, especially in rural areas. Radio and television programmes should be used to promote local participation; and
- Support for environmentally sound leisure and tourism activities, in accordance with The Hague Declaration of Tourism (1989) and the current programmes of the World Tourism Organization and UNEP.

Promoting training

Training should be aimed at providing knowledge that helps individuals find employment and participate in activities related to environment and development. Countries should encourage national professional associations to develop and review their codes of ethics and conduct to strengthen environmental connections and commitment.

They should also encourage all sectors of society, such as industry, universities, government officials and employees, NGOs, and community

organizations, to include an environmental management component in all relevant training activities.

Governments, industry, trade unions and consumers should promote the importance of understanding the interrelationship between good environment and good business practices, as well as evaluate the effects on productivity, health, safety and employment.



NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION

Capacity-building at the national level

Sustainable, economically viable, socially just and environmentally sound development for the present generation, without jeopardizing the ability of future generations to satisfy their needs, will only be possible if human, scientific, technological, organizational, institutional resources are available.

Increased endogenous capacity to execute Agenda 21 calls for the participation of international organizations, the international community and developed countries at the national, subregional and regional levels, as well as municipalities, NGOs, enterprises, universities, research centres and other private institutions and organizations.

Technical cooperation will be the responsibility of the international community and developed countries.

National Consensus on Agenda 21

Countries should establish a dialogue involving all levels of society to reach consensus on Agenda 21. In order to begin this process, countries must identify their priorities, keeping in mind their environmental and economic needs. They should place importance on developing human resources, both technical and professional, as well as developing institutions that enable them to respond to proposals for development.

Mention should be made of the importance of technical cooperation in developing or strengthening individual and group capabilities. Therefore, this cooperation should be administered and coordinated by the countries, in accordance with their priorities. This should be complemented with programmes to assess the capacity and potential needed for integrated environmental and development management.

International and regional organizations should establish joint technical cooperation activities with the public and private sectors, with a view to identifying coherent and compatible measures.

The following activities should be undertaken:

- **Develop a national consensus and formulate strategies to increase the capacity to implement Agenda 21;**
- **Identify national technical cooperation sources, within the framework of sectoral strategies;**
- **Establish a review mechanism for technical cooperation, in relation to technology transfer;**
- **Foster the technical and collective contribution of the United Nations system to initiatives to enhance national capacities and potential;**
- **Harmonize regional aid; and**
- **Improve the effectiveness of public and private institutions in assessing the environmental impact of all development projects.**

It is also expected that:

- **The UNDP, specialized agencies and other governmental and nongovernmental organizations contribute to technical cooperation efforts;**
- **The Secretary-General of the United Nations submit, in 1997, a report on ways to improve the coordination and cooperation mechanisms within the system; and**
- **Each country conduct, by 1994, an analysis of its existing capabilities and its needs.**



INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

It should be pointed out that the United Nations Conference on Environment and Development served to elaborate strategies and methods to halt and reverse the effects of environmental degradation, which provide overall guidance to governments and the United Nations system.

Therefore, the integration of environment and development at the national, regional and international levels is necessary. Consequently, cooperation and interaction between the United Nations system and other inter-governmental and nongovernmental institutions in executing, following up on and evaluating Agenda 21 should be strengthened by improving global, regional and national institutional arrangements.

The institutional structure of the United Nations system is as follows:

- **General Assembly.** This is the highest inter-governmental mechanism and is the principal policy-making and appraisal organ. The Assembly should organize a regular review of the implementation of Agenda 21, and should meet to conduct a general analysis of the Agenda in 1997.
- **Economic and Social Council.** The Council should assist in the implementation of Agenda 21 by supervising system-wide coordination of all economic and social policy aspects of the programmes of the United Nations system. It should conduct regular reviews of the activities carried out by the system.
- **Commission on Sustainable Development.** The Commission should report to the Economic and Social Council. It would consist of representatives of states, with due regard to equitable geographic distribution. It should monitor the effective follow-up of actions implemented as a result of the UNCED, especially execution of Agenda 21.

- **General Secretariat:** Strong and effective leadership on the part of the General Secretariat is crucial, since it is the coordinator of institutional arrangements within the United Nations system, for the successful follow-up to the Conference and for the implementation of Agenda 21.
- **High-level Inter-Institutional Coordination Mechanism:** Agenda 21 should provide the principal framework for coordination of relevant activities within the United Nations system.

This mechanism should be under the direct leadership of the Secretary General, and its activities entrusted to the CAC.

- **High-level Advisory Body:** This body should consist of persons knowledgeable about environment and development, appointed by the Secretary General.
- **Support Structure of the Secretariat, Organs, Programmes and Organizations of the United Nations System:** This structure should be made up of qualified people, and would support the work of inter-governmental and inter-institutional coordination mechanisms.

UNEP should expand its functions in accordance with its mandate, orienting and coordinating actions on the environment.

UNDP should promote the collective action of the system to support the implementation of Agenda 21 at the national, regional, inter-regional and global levels. It would also mobilize financial resources.

UNCTAD should play an important role in linking development, international trade and the environment.

The United Nations Sudan-Sahelian Office, with support from UNDP and UNEP, should assume an advisory role and participate in the implementation of the provisions of Agenda 21, specifically those related to combatting drought and desertification.

The specialized agencies of the United Nations system, related organizations and other inter-governmental agencies have a

fundamental role to play in projects that promote sustainable development.

- **Regional and Subregional Cooperation and Implementation:** All organs, programmes and organizations of the system should follow-up on the activities implemented as a result of the Conference. This should be done within the framework of their respective mandates and spheres of competence.
- **National Implementation:** States are responsible for following up on the activities implemented as a result of the Conference and on execution of Agenda 21. This should be done in coordination with all the countries, with support from the United Nations system. They should prepare national reports and consider the possibility of creating a national structure.
- **Cooperation between the United Nations System and International Financial Organizations:** The success of the activities implemented as a result of the Conference is dependent upon an effective link between these activities and financial support, which should be provided by the United Nations system and multilateral financial organizations.
- **NGOs:** NGOs are important partners in implementing Agenda 21. They should be given the opportunity to make their contributions and to establish appropriate relationships with the United Nations system. They should play a more active role, and in order to do this, an accreditation system based on the procedures used in the Conference should be put into practice.

The Conference took note of other institutional initiatives for the implementation of Agenda 21, such as the proposal to establish a nongovernmental Earth Council, and the proposal to appoint a guardian for future generations, as well as other initiatives taken by local governments and business sectors.

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INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

Legislation to protect the environment

International legislation is necessary for environmental protection, taking into consideration the special needs and interests of all countries, particularly developing countries. Therefore, it is imperative to review legal agreements and instruments related to social, economic and environmental issues, with a view to establishing a balance between environmental and development concerns. A first step is to consider the work of the Commission on International Law.

Assessment and spheres of action of international law

Countries must evaluate the effectiveness of international agreements and instruments, especially with a view to legal instruments that will be applied in the future to sustainable development.

Another important aspect is the role international law plays in *de facto* situations, such as armed conflicts that destroy the environment. The most appropriate fora for discussion of these topics are the Assembly of the United Nations, its Sixth Commission and, as a consultative body, the International Commission of the Red Cross.

Another concern is nuclear energy, which should be used without causing risks and in an environmentally sound way in order to, among other things, strengthen international cooperation. The greatest concern is to protect nature and humankind from the misuse of nuclear energy. Efforts should be made to conclude negotiations on the convention on nuclear safety within the framework of the IAEA.

Means of implementation

International agreements should establish appropriate procedures and mechanisms that will enable states, among other things, to:

- Establish practical systems for applying international legal instruments effectively.
- Study effective ways for agencies such as the UNEP to contribute to upgrading these mechanisms.

Effective participation in the formulation of international laws

- In all these activities and others that may be undertaken in the future, the effective participation of all countries, especially developing countries, must be ensured.

These governments should receive:

- Appropriate levels of technical and financial assistance.
- Initial support in national efforts to apply national agreements and instruments.
- Transfer of specialized knowledge of international law, preferably in the area of sustainable development.
- Information on necessary scientific and technical knowledge.

Also, they should participate in the negotiation of new instruments and agreements.

Controversies in sustainable development

Mechanisms and procedures should be included for the exchange of information, notifications and consultations on situations that might lead to disputes between states in the area of sustainable development. Should a dispute arise, in most cases, the countries should act in accordance with the United Nations Charter.



INFORMATION FOR DECISION MAKING

Access to reliable data at all levels

In general terms, everyone is a user and provider of information, considered in the broad sense. In order to make decisions at the international, national, local or individual level, it is necessary to have access to reliable data and information and to draw on existing experiences and knowledge.

Bridging the data gap

Accurate information is needed for the proper administration of sustainable development and it is therefore necessary to strengthen mechanisms for processing and exchanging data, as well as expanding the types of information available. While it is true that it is important to know the GDP or pollution or resource levels, they are not enough to make sound decisions regarding sustainable development. Communities, international organizations, NGOs, as well as the public and private sectors of all countries, should carry out inventories of environmental resource and development data, including: urban air, fresh water, land resources, desertification, soil degradation, biological diversity, oceans and the atmosphere. Data should also be gathered on demographic factors, urbanization, poverty, health and the right of access to resources, among others.

Improving access to information

The first step in improving the processing of these data is to develop the concept of indicators of sustainable development. The experience of the United Nations Office on Statistics can help in this process.

In order to begin the process, the following measures should be taken:

- To prepare indicators of sustainable development and promote their use worldwide.
- To use indicators that include the deterioration of nature which will make it possible to make appropriate decisions on issues related to environment and development.
- To install computerized data collection systems, and to use geographic information programs.
- To establish a broad framework of information so that the data generated are available to the local communities, which should also participate in the management of environmental and development processes.
- To ensure effective and equitable access to information by developed and developing countries. To do this, it will be necessary to strengthen information services and systems, which can be accomplished by using networks that provide access to data bases.

Improving the availability of information

In many countries, information is not adequately managed, usually because of shortages of financial resources and trained personnel, which prevents the wealth of information available for the management of sustainable development from being used.

In order to reverse this situation, it is necessary to reinforce national and international funding mechanisms, the exchange of information, technical assistance, national capabilities and full participation.

In view of the above, specific activities should be carried out, including the generation of information that can be used in making decisions, the establishment of norms and methods, the strengthening of data bases and electronic networks, and the use of data sources on trade.



III

AGREEMENTS AND PRINCIPLES

1

AGREEMENT ON BIOLOGICAL DIVERSITY*

The objectives of this agreement are:

- To conserve biological diversity.
- To promote the sustainable use of its components.
- To ensure the just and equitable sharing of the benefits derived from the use of genetic resources.
- To ensure access to such resources and the transfer of necessary technologies.
- To respect all rights to such resources and technologies, and to secure appropriate levels of funding.

Biological diversity is important to the evolution and maintenance of the systems needed for life in the biosphere, and its conservation is of interest to all humanity.

Biodiversity has been affected by certain human economic activities. It is necessary to make substantial investment now in order to slow the loss of biological diversity in the long run. Given the role biodiversity will play in making life possible for present and future generations, such investments cannot be postponed. Indeed, the production of genetic material, which is the cornerstone of biotechnology, depends on the conservation of the ecosystems.

* For purposes of this agreement, biological diversity refers to the variability of living organisms of any origin, including, among others, terrestrial, marine and aquatic ecosystems and the ecological systems of which they are part. It also refers to the diversity within each species, among species and within ecosystems.

At the same time, it must be recognized that states have sovereign rights over their own biological resources, as well as the responsibility of conserving them and using them in a sustainable manner.

The nations have agreed:

- To identify those components of biodiversity that should be conserved *in situ* and used in a sustainable manner, monitoring carefully activities that are contrary to this goal.
- To develop national strategies, plans and programmes for the conservation and sustainable use of biological diversity.
- To establish systems for conserving biological diversity.
- Rehabilitate and restore degraded ecosystems and endangered species.
- To consider the conservation and sustainable use of biodiversity as components of planning and decision making.
- To respect, preserve and maintain the knowledge, innovations, traditional lifestyles and practices of indigenous and local communities that do not interfere with conserving biodiversity and using it in a sustainable manner.
- To use the mass media and educational programmes in making the public aware of the importance of biodiversity and the need to take steps to conserve it.
- To regulate and control the risks derived from the use of defenseless living organisms.
- To impede the introduction of exotic species that threaten ecosystems, habitats and other species.
- To accept measures for the *ex situ* conservation of components of biological diversity, preferably in the countries where those components originate.

- To adopt socioeconomic measures that will provide incentives for the conservation and sustainable use of the components of biological diversity.
- To establish and maintain educational programmes on the identification, conservation and sustainable use of biodiversity, and to promote relevant research.
- To establish procedures for demanding the execution of environmental impact studies by projects which may, in certain aspects, have adverse effects on biological diversity.
- To promote the exchange of information regarding activities which, it can be determined in advance, will have adverse effects on biodiversity.
- To promote the establishment of emergency measures to respond to activities or natural occurrences that involve dangers.
- To recognize the sovereign right of states over their own natural resources, and to regulate access to genetic resources, ensuring that access will be granted on the basis of mutual agreement.
- To recognize that technology includes biotechnology, and that access to and the transfer of the latter are essential in achieving the objectives of this agreement. Consequently, the states agree to facilitate access to technologies for the conservation and sustained use of biodiversity. This access must be granted on a just basis.
- To recognize that patents and other means of protecting intellectual property rights may be a factor in applying this agreement, and that it will be necessary to have the full cooperation of countries, while respecting national legislation and international law.
- To facilitate the exchange of information from all available public sources, bearing in mind the special needs of developing countries.

- **To foster scientific and technical cooperation among all countries, but especially developing countries, including the sharing of autochthonous and traditional technologies.**
- **To provide financial support and incentives for activities aimed at achieving the objectives of this agreement, establishing specific mechanism for developing countries, such as subsidies or concessions.**

2

**FRAMEWORK AGREEMENT
ON CLIMATE CHANGE***

The objective of this agreement is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference in the climate system. Such a level should be achieved within a time frame sufficient:

- To allow ecosystems to adapt naturally to climate change.
- To ensure that food production is not threatened.
- To enable economic development to proceed in a sustainable manner.

Changes in the Earth's climate, and their adverse effects, are of concern to all humanity. As human activity has increased, so have concentrations of greenhouse gases, which have caused the temperature of both the atmosphere and the Earth's surface to rise.

Most of these gases are generated in developed countries, as opposed to developing countries. Nevertheless, it is very likely that emissions of such gases will increase in the latter as economic activity expands.

Predictions of climatic change are less than certain, particularly as regards when and where they will take place, and their magnitude.

The scope of this problem demands the cooperation of all countries and their participation in an effective and appropriate international response. This cooperation should be part of international efforts to provide effective responses to this problem.

* For purposes of this agreement, climate change refers to the atmosphere, the hydrosphere, the biosphere and the geosphere, and the interactions among them.

The measures to be taken should be justifiable in economic terms and based on solid scientific, technical and economic data.

The developed countries, with clear priorities in mind, must reach a decision immediately on the implementation of integrated strategies at the global, national and regional levels.

Small-island states and those with coastal lowlands and arid and semi-arid zones and areas prone to floods, drought and desertification, as well as developing countries with fragile mountain ecosystems, are most vulnerable to the adverse effects of climate change.

The economies of these countries are heavily dependent on the production, use and export of fossil fuels and, therefore, face very specific problems. These problems should be solved in coordination with efforts to promote socioeconomic development, especially in developing countries, since consideration must be given to their needs and growth goals, one of which is to eliminate poverty.

In this regard, the states have agreed:

- To conduct periodic national surveys of anthropogenic emissions of greenhouse gases.**
- To promote and support, through cooperation, the execution of actions intended to prevent or reduce anthropogenic emissions of greenhouse gases.**
- To promote the sustainable management of greenhouse sinks and deposits, including biomass, forests and oceans.**
- To cooperate in taking actions to adapt to the impact of climate change, giving consideration to same in economic and social policies.**
- To promote and support scientific, technological, theoretical, socioeconomic and other types of research, systematic observation and the establishment of records on the climate system.**

- To adopt national policies aimed at alleviating the effects of climate change, limiting anthropogenic emissions of greenhouse gases and protecting and improving their sinks and deposits.
- To provide new and additional financial resources to cover all agreed-upon expenditures incurred by developing countries in complying with their obligations.
- To promote, facilitate and fund the transfer of environmentally sound technologies. The developed countries will support the development of endogenous capacities in developing countries.
- To prepare and apply education programmes to sensitize the public to climate change and its effects.
- To train the pertinent human resources required.



DECLARATION OF PRINCIPLES ON THE MANAGEMENT, CONSERVATION AND SUSTAINABLE DEVELOPMENT OF FORESTS

Everything related to forests has an effect on the environment and sustainable development, and, therefore, whatever happens in them, and everything they produce, should be examined using holistic and balanced criteria, be it in regard to the problems, or the possibilities, of silviculture.

The principles listed below represent a first-time world consensus, and are applicable to both natural and planted forests.

Forests of all kinds involve complex and unique ecological processes, which are the basis for their capacity to provide the resources needed to meet many human needs. They are a renewable source of bioenergy, firewood and resources for use in the home and industry.

Forests play a vital role in maintaining ecological processes and the ecological balance and in protecting fragile ecosystems, watersheds and freshwater resources.

States must recognize that forests are indispensable for economic development and to maintain life, and must assume responsibility in the management, conservation and sustainable development of forests.

Governmental policies must take into consideration the importance of forests for indigenous populations and women living in forested areas, and whose economic well-being depends on them.

Forests are a renewable source of bioenergy, firewood and domestic and industrial resources, and are capable of meeting a multitude of human needs.

The following are the principles on forests:

- In accordance with the Charter of the United Nations and the principles of international law, states have the sovereign right to exploit their own forest resources, ensuring that such activities do not cause damage to other states.**

- Also, states have the sovereign right to use, manage and develop their forests in accordance with their needs and on the basis of national sustainable development policies that call for the rational use of land resources.
- Such management must take into consideration the social, economic, ecological, cultural and spiritual needs of present and future generations.
- The provision of timely, reliable and accurate information on forests and forest ecosystems is essential for public understanding and informed decision making.
- National policies and strategies should provide a framework for the management, conservation and sustainable development of forests and forest lands, promoting the participation of all interested social groups.
- International cooperation should be facilitated at the institutional, organizational, financial and operating levels.
- The vital role of forests in maintaining ecological processes and the ecological balance must be recognized at the local, national, regional and global levels.
- The forestry policies of each country should take into account and support the culture, interests and rights of indigenous populations and the inhabitants of forested areas.
- Appropriate economic conditions should be promoted, which will enable these groups to carry out their activities, while maintaining their cultural identity and social organization.
- Likewise, the full participation of women in all aspects of the management, conservation and sustainable development of forests should be encouraged.
- All types of forests play an important role in supplying a renewable source of bioenergy, and should be protected through sustainable management, afforestation and reforestation.

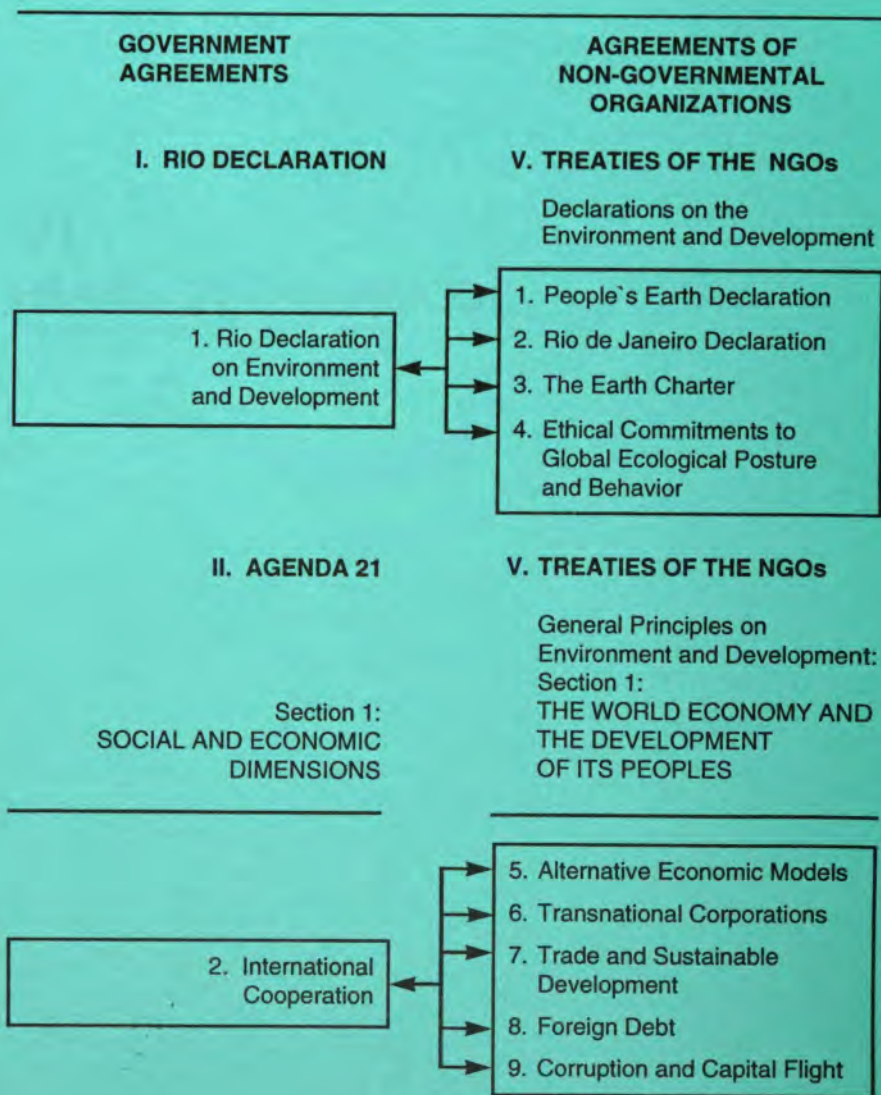
- The development and improvement of methods for evaluating the economic and non-economic value of forest goods and services should be fostered.
- Efforts should be made to promote an international economic climate conducive to sustained and environmentally sound development of forests, including the promotion of sustainable patterns of production and consumption, the eradication of poverty and the promotion of food security.
- Efforts should be undertaken toward the greening of the Earth, and positive and transparent action toward afforestation, reforestation and forest conservation should be taken.
- Regarding access to biological resources, including genetic material, the sovereign rights of countries in which forests are located will be taken into account.
- The efforts of developing countries to strengthen the management, conservation and sustainable development of forests should be supported by the international community, with special attention being given to countries moving toward market economies.
- In formulating national policies on forests, the pressures and demands placed on ecosystems and forests by factors outside the forest sector should be taken into account.
- New and additional financial resources should be provided to developing countries to enable them to manage, conserve and develop their forest resources in a sustainable manner.
- In order to enable developing countries to enhance their endogenous capacity, access to environmentally sound technologies on favorable terms, in accordance with the relevant provisions of Agenda 21, should be promoted, facilitated and financed.
- Scientific research and forest inventories carried out by national institutions should be strengthened; special attention should be given to sustainably harvested non-wood products.

- Trade in forest products should be based on non-discriminatory and multilateral rules, facilitating the open and free international trade of such products and promoting the reduction of tariff barriers.
- Environmental costs and benefits should be incorporated into market forces and mechanisms.
- Unilateral measures intended to restrict international trade of timber and other forest products should be avoided.

IV
COMPARATIVE GRAPH

COMPARATIVE CHART

The following chart presents a comparison of the agreements reached at Rio by governments and those adopted by non-governmental organizations, in order to facilitate a better understanding of their similarities and differences. The empty boxes represent topics for which specific chapters or treaties were not drafted.



GOVERNMENT AGREEMENTS

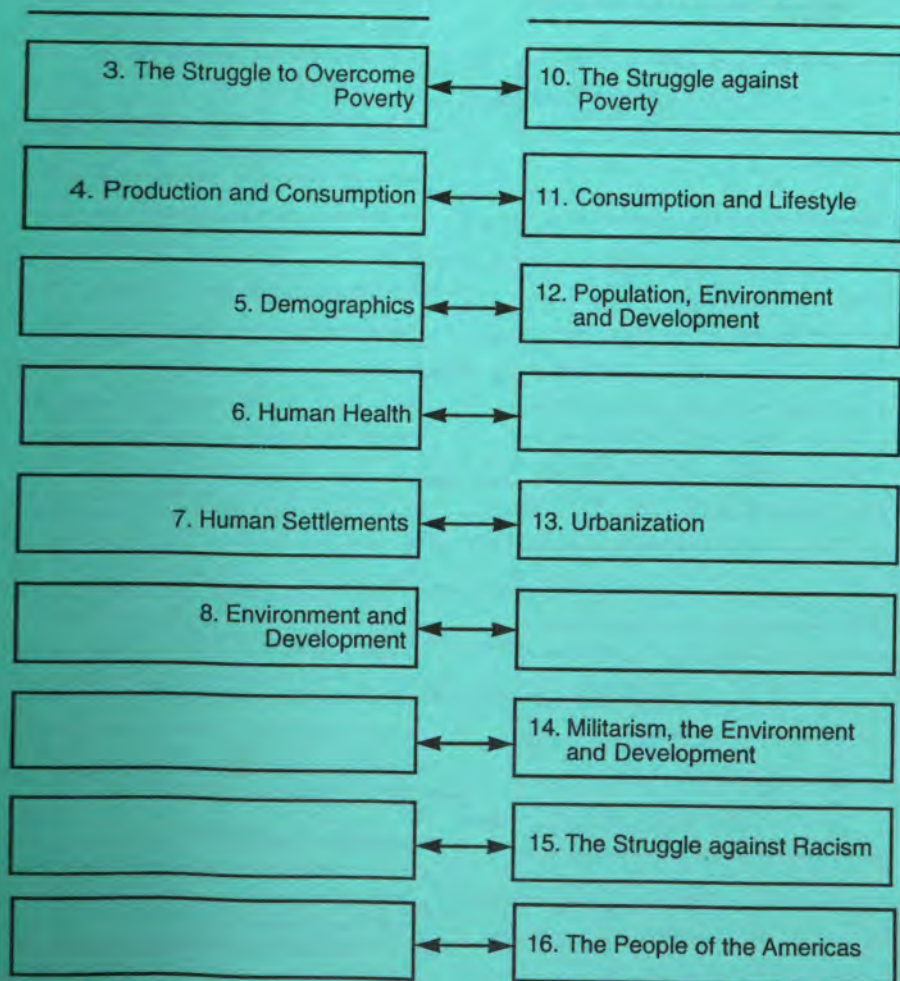
AGREEMENTS OF NON-GOVERNMENTAL ORGANIZATIONS

II. AGENDA 21

V. TREATIES OF THE NGOs

Section 1:
SOCIAL AND ECONOMIC DIMENSIONS

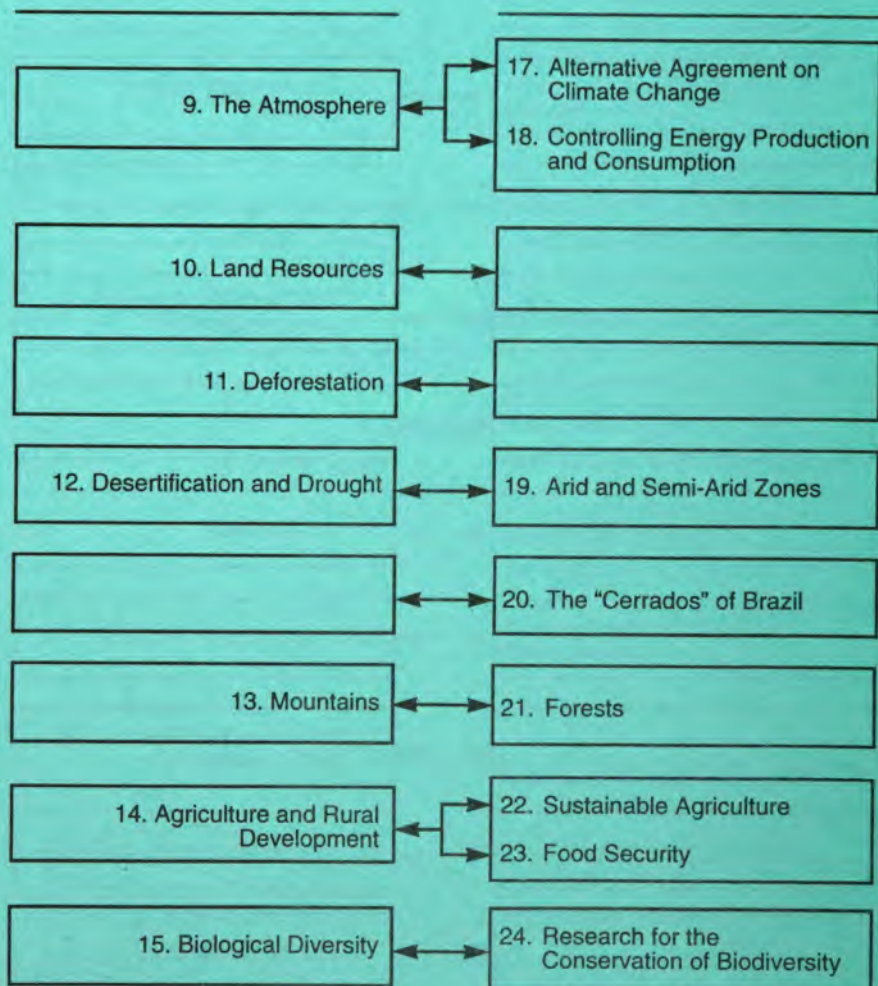
General Principles on Environment and Development:
Section 1:
THE WORLD ECONOMY AND THE DEVELOPMENT OF ITS PEOPLES



**GOVERNMENT
AGREEMENTS**
**AGREEMENTS OF
NON-GOVERNMENTAL
ORGANIZATIONS**
II. AGENDA 21
V. TREATIES OF THE NGOs

Section 2:
RESOURCES FOR
DEVELOPMENT

General Principles on
Environment and Development:
Section 2:
NATURAL RESOURCES
AND HUMANITY



GOVERNMENT AGREEMENTS

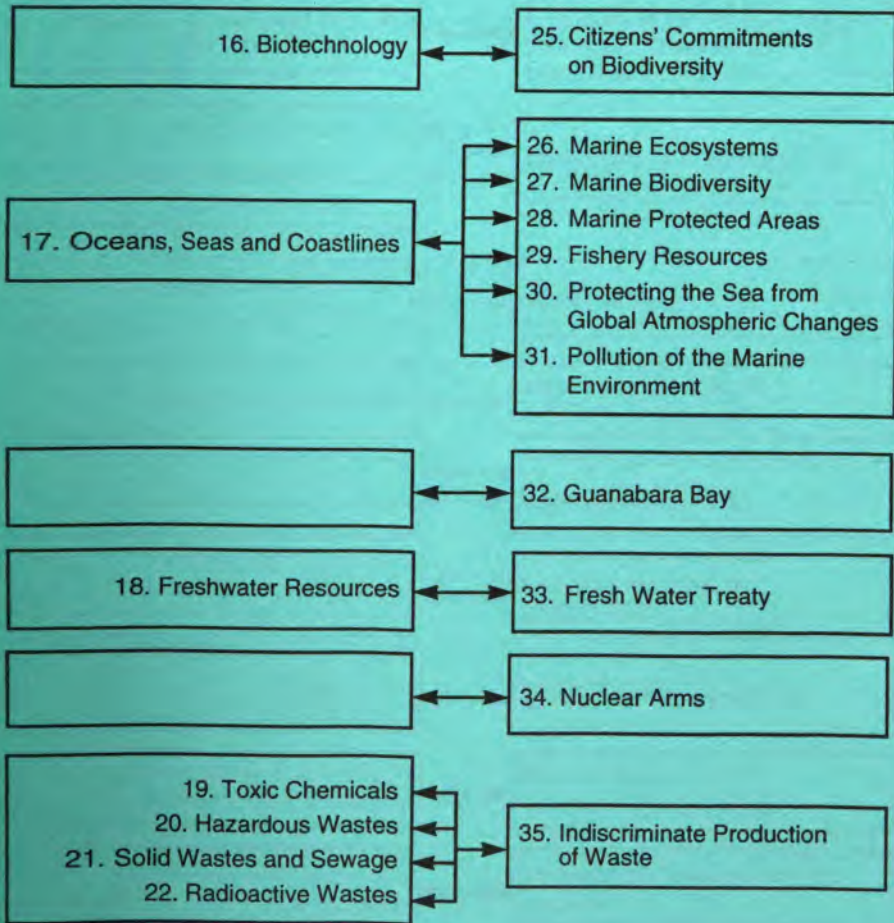
AGREEMENTS OF NON-GOVERNMENTAL ORGANIZATIONS

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V. TREATIES OF THE NGOs

Section 2:
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General Principles on Environment and Development:
Section 2:
NATURAL RESOURCES AND HUMANITY



**GOVERNMENT
AGREEMENTS**

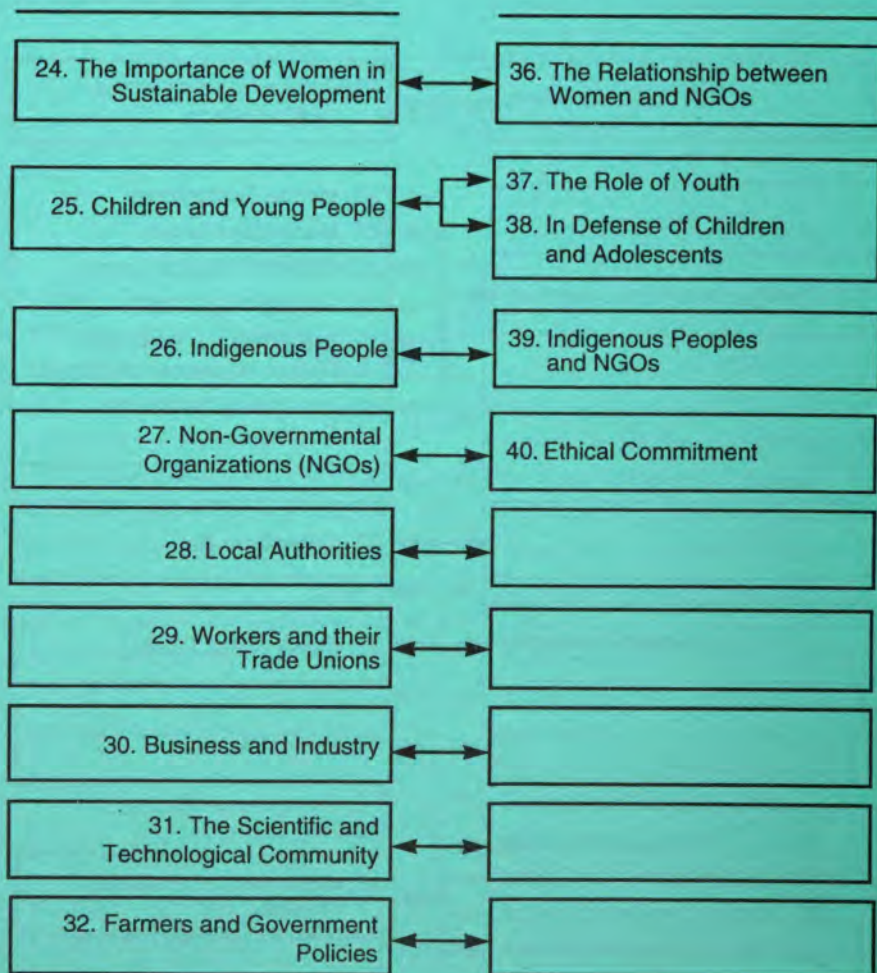
**AGREEMENTS OF
NON-GOVERNMENTAL
ORGANIZATIONS**

II. AGENDA 21

V. TREATIES OF THE NGOS

Section 3:
STRENGTHENING THE
ROLE OF MAJOR GROUPS

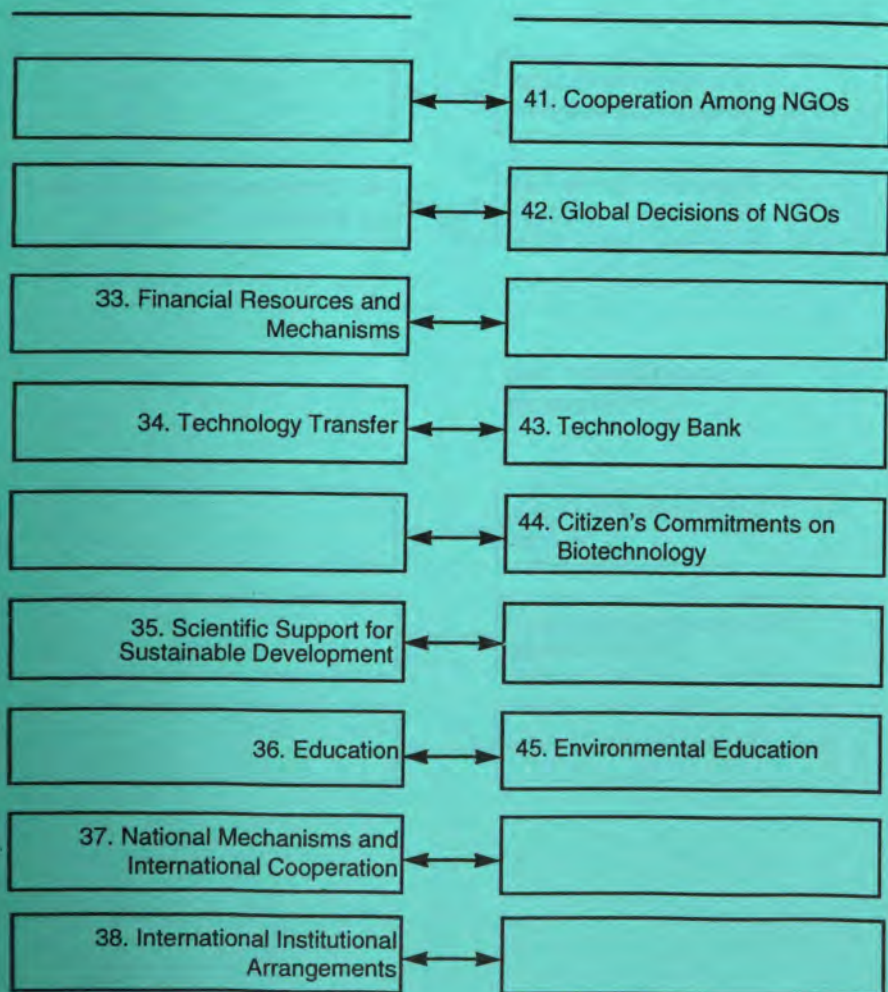
General Principles on
Environment and Development:
Section 3:
NGOs AND THE MOST
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Section 4:
MEANS OF
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TECHNOLOGY, EDUCATION
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**GOVERNMENT
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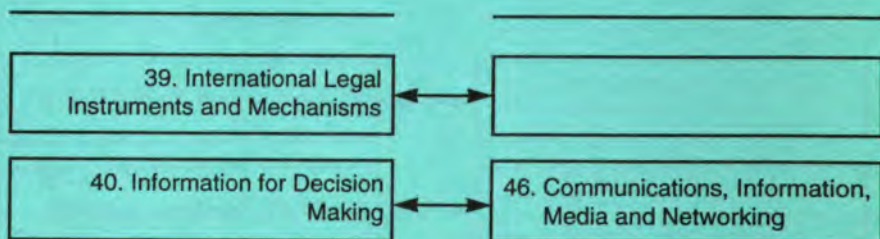
**AGREEMENTS OF
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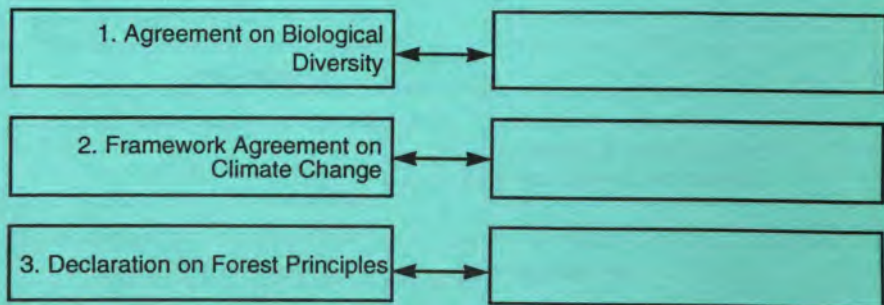
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**III. AGREEMENTS AND
PRINCIPLES**



V
TREATIES
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TREATIES OF THE NGOs

**Declarations
on the Environment
and Development**

SECTION ONE

The World Economy and the Development of its Peoples

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ALTERNATIVE ECONOMIC MODELS

Preamble

Today, the world is marked by an interrelated crisis of environment and development. This crisis is rooted in the dynamics of an economic model which is centered on the pursuit of profits rather than the promotion of the welfare of humanity.

Its most outstanding characteristics are:

The free trade model legitimizes an economic order in which unbelievable affluence is the privilege of a few and globalized poverty becomes the common condition of humanity.

The social, cultural, political and economic injustices in the international system support the elites of both North and the South, and widen the gaps among classes, races and sexes.

The neo-liberal state uses its power and violence to reinforce this economic system, for the benefit of the transnational corporations' growing monopoly and their control over the world's resources.

Present expansions of the free trade ideology undermine the power of the states to formulate policies for the protection of natural resources and human livelihoods.

The nature of the dominant industrial system has the effect of increasing the gap in power and income between men and women and between children and adults. The representatives of NGOs reaffirm their autonomy regarding the market and the power of the state.

Principles

The fundamental purpose of economic organization is to provide for the basic needs of a community, in terms of food, shelter, education, health, and culture. The economic model that promotes the concentration of wealth is opposed to this purpose, inasmuch as, in it, the expansion of production is a goal in itself.

The alternative to the current system must be based on indigenous and community-based models that are rooted in people's experiences, history and eco-cultural reality.

The alternative economic model should be based on the relative self-sufficiency of communities, regions and nations, rather than on free trade and on the world market, dominated by large domestic and transnational corporations.

The alternative economic model must recognize and institutionalize a central role for women in shaping economic life.

The economic model should be based on strategies drawn up at the grassroots level, enabling individuals and communities to participate in decisions on problems that affect them directly.

One of the central foundations of the alternative economic model we are striving to achieve is the interdependence of peoples, communities and the material world. This interdependence demands relations based on autonomy, equality, democracy and solidarity.

Social and economic development indicators should not reflect only material growth and technological advances, but also individual, social and environmental well-being.

In an alternative economic system, the state will cease to be an instrument at the service of large corporations. The actions of the state will focus primarily on meeting the needs of individuals and on developing strategies that are of interest to the community.

Political commitments

- Return to and identify with our communities, participating with them in building an alternative economic model.
- Build mutually empowering mechanisms and institutions to establish the alternative economic order.
- Participate in creating people's movements to protect the environment and development.

Principal actions

- To direct our efforts against the economic model imposed by transnational corporations and the Bretton Woods institutions.
- To work to eliminate existing international debt and to dismantle the unjust system on which it is based.
- To pressure our governments to reformulate the GATT and to work toward creating a global trading system that is fair and serves the interests of all people.
- To mobilize for the reduction of military budgets in all countries, and for the abolition of the international sale of military weapons, and to transfer these budgetary resources into socially and environmentally appropriate projects in both the North and the South.
- To create a tax on carbon dioxide emissions, to be used in financing the Fund of the People of the Earth for the development of alternative technologies



TRANSNATIONAL CORPORATIONS

Democratic regulation of their conduct

Background

Transnational corporations (TNCs) are responsible in large part for the global environmental crisis and for many social and economic problems resulting from "development." TNCs are the main actors in a development process which involves concentration of economic power and production and which leads to social and political injustice and loss of cultural diversity.

TNCs in oil production, road transport, chlorofluorocarbon (CFC) production, electricity generation, metals production and agriculture account for roughly 50% of greenhouse gas emissions and virtually all ozone-destroying chemicals.

TNCs dominate the trade in natural resources and commodities, resulting in depletion and degradation of forests, soils, water and marine resources and biodiversity, through mining, drilling, logging and industrial agriculture.

TNCs dominate the production of most of the world's toxic chemicals, resulting in air, water and soil pollution and occupational hazards.

TNCs are the main entities involved in the production of hazardous materials to the South and in the transfer of environmentally unsound production systems.

Presently there is no force, governmental, intergovernmental, or nongovernmental, which is capable of monitoring or regulating the activities of these large corporations. The United Nations system has given up on preparing a code to regulate the operation of transnational corporations, and the Center on Transnational Corporations has been weakened. Proposals on trade-related investment measures and intellectual property rights in the Uruguay Round of the GATT would

strengthen the power of TNCs vis- a-vis governments, parliaments and the public.

General principles

This treaty has as its aim democratic regulation of TNC conduct. TNCs have the duty to respect national sovereignty, respect the health and environmental rights of the public, and refrain from financial, pricing or technological activities that cause socioeconomic difficulties to host countries. International mechanisms should exist to hold TNCs liable for the harmful effects caused by their operations, and TNCs should be held to the highest environmental, health, safety and labor standards in all countries of operations. Workers and unions have the right to representation and participation in environmental and health audits. Workers have the right to receive training and to control and negotiate social and economic conditions related to health and environment. Freedom of information for all citizens should be guaranteed and promoted.

TNCs shall not trade in wastes or banned or unregistered products, and shall not transfer obsolete or hazardous technologies. Workers displaced by conversion to ecologically sound practices should be retrained and compensated by the TNCs.

Proposals on information

- Create regional TNC centers on each continent to coordinate information and actions.
- Create a TNC information clearinghouse connected to the regional centers.
- Create an e-mail conference on TNCs.
- Produce a newsletter and a list of activities of NGOs regarding TNCs.

Principal actions

- Support the building up of a countervailing power within countries, involving NGOs, consumer associations, trade unions, community organizations and other grassroots groups, and coordinate regional and international campaigns to denounce specific TNC activities and products.
- Hold regional seminars with people directly affected by the activities of transnational corporations, and publish a bulletin within a year.
- Present a "Greenwash Award" for the most absurd environmental advertising by a TNC.
- Create a registry of toxic technologies.

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TRADE AND SUSTAINABLE DEVELOPMENT

Alternative treaty

Whereas:

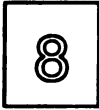
- International trade should be conducted with the objective of improving the well-being of people.
- Current negotiations such as the North American Free Trade Agreement (NAFTA) and the Enterprise for the Americas Initiative perpetuate the predatory model of development.
- International trade should be part of sustainable development strategies that guarantee a just distribution of wealth, the self-determination of peoples and participatory democracy.
- The strengthening of multilateral relationships between nations must be based on the principle of equality.
- Compensation, working conditions, land use and the exploitation of natural resources must be directed towards sustaining socially and ecologically balanced communities.
- External debt has become an instrument of political domination, used as leverage by creditor countries to impose the liberalization of the economies of debtor nations.
- Improving the terms of trade of developing countries, eliminating distortions caused by unfair trade policies and preserving the right to enact fair policies are important prerequisites for achieving sustainability locally and globally.
- Environmentally and socially destructive agricultural trade practices must be eliminated through open, balanced, non-discriminatory, multilateral negotiations.

- In order to achieve sustainable agriculture, it is necessary to understand the ecological and social system of agricultural production, distribution and consumption.
- The patenting of intellectual property, which by definition grants private ownership to discovery and invention, nullifies collaboration and the sharing of knowledge.
- Communities, states and nations have the right to set their own health, social and environmental standards, as well as development priorities, as an expression of the desire of societies to protect their present and future well-being.
- People have the right to full access to all scientific information, especially that which refers to environmental and risk assessments and risk management.
- Decision-making processes should rely primarily on participatory democracy and not market forces.
- Full democracy depends on the implementation of decision-making process in which lower levels of the political structure participate on an equal basis with higher levels, and in which there is transparency, a clear division of responsibilities, equality, full information and participation of civil society.
- Conflicts between the provisions of international trade and environmental agreements must be settled on the basis of maximum protection of the environment and the best means of achieving socially just and ecologically sustainable development.
- Trade in armaments should be prohibited. States should comply with mandatory arms transfer registration, bar transfer of weapons prohibited under international law (weapons of mass destruction), and establish an international agency under United Nations auspices that would be responsible for monitoring, regulating and eliminating the international arms trade.
- Transnational corporations must be regulated by open, balanced, non-discriminatory multilateral mechanisms conducted with transparency and subject to fully democratic processes.

- The Draft Final Act of the Uruguay Round of the GATT and the GATT's February 1992 Trade and Environmental Report discuss environmental regulations in terms of their functioning as barriers to trade, and support the broadest deregulation of transnational corporate behavior.
- In addition, the Draft Final Act proposes expanding and institutionalizing the authority of the GATT as a Multilateral Trade Organization (MTO) with obligatory review mechanisms and binding dispute resolution mechanisms overriding national standard-setting processes.

Therefore, we pledge:

- To work to replace GATT with an alternative International Trade Organization (ITO) designed with a participatory and democratic structure, and which will pursue the public interest instead of the corporate interest.
- To support alternative models of international trade based on cooperatives of producers and consumers and federations of cooperatives working together to avoid the presence of multinational enterprises in commerce between countries of the North and the South.
- To share information, to work with the broadest possible network of community organizations, to join electronic communication networks as soon as possible, and to develop a bibliography and a common research program.



FOREIGN DEBT

Social movements and NGOs*

Considering:

- That foreign debt is the most recent mechanism of the exploitation of Southern peoples and the environment by the North.
- That the North has a planetary ecological debt, essentially constituted by economic and trade relations based on the indiscriminate exploitation of resources, and should assume responsibility for the ecological impacts and global environmental deterioration resulting from such exploitation.
- That the Southern countries' debt, on which they pay US\$50 billion per year, is a major drain on their development and ecological resources.
- That the indebtedness of Southern countries is rooted in a development model which is not responsive to the needs of the majority of their populations, but rather, exploits people, resources and the environment, through adverse terms of trade, trade protectionism and the power wielded by international capital, especially transnational corporations.
- That the debt crisis has generated massive net financial transfers from the poor to the rich, thus perpetuating a process of decapitalization, impoverishment and environmental destruction that has devastating consequences for the South.
- That these illegal and fraudulent debts are characterized by violation of national laws, capital flight and corruption, and have

* Social movements and NGOs cover all countries. Regarding the socioeconomic level of each, it can be said that "There is a North in the South and a South in the North."

been used to finance over-priced and substandard projects, with the complicity of both creditors and debtors.

- That steps to reduce or cancel the debt are necessary to overcome social inequity and environmental degradation.
- That it is necessary to undertake a structural transformation of so-called development objectives, priorities and methods; this includes structural transformation in the financial, commercial and technological relations between rich and poor, and a participatory and democratic political process.
- That the structural adjustment policies applied by the IMF and the World Bank and supported by the Southern governments ignore the roots of the problems afflicting the Southern countries, such as unequal income and knowledge distribution, high inflation and ever-increasing foreign and domestic debts.
- That such policies force poor countries to adopt unsustainable patterns of export-oriented production, with perverse impacts on the value of those products in the global market, as well as on the lives of the rural and urban populations and on non-renewable resources.
- That such policies weaken the domestic economies, the purchasing power of wages and salaries, public assets, and the capacity of the state to intervene in, regulate and control the private sector, in accordance with domestic and environmental protection priorities.
- That such policies result from the transfer of sovereign decisions to the realm of the creditors and interfere with the social, economic, commercial and technological policies of the Southern countries.
- That swap and buy-back mechanisms do not resolve the debt nor the environmental crisis.
- That local communities must take greater control of their own development.

- That the peoples of Southern and Northern countries need to create and implement diversified, sustainable and equitable models of development.
- That sustainable and equitable development in the South can only be fully viable and effective if the North also undertakes a structural transformation, overcoming the unlimited and indiscriminate growth of production and consumption.
- That decisive actions on the debt will generate more resources with which to promote socially just and environmentally sustainable development models.

We pledge to:

- Pressure governments and banks to establish a democratic process for the resolution of the debt problem.
- Work for the recognition and compensation of the planetary ecological debt of the North with respect to the South.
- Work strategically for the effective cancellation of the debt, for the elimination of net transfers of resources from the South to North, for the generation of local technologies and for the transfer of appropriate technology to the South within this decade.
- Work to reduce the debt burden, starting with the immediate repudiation of all illegal and fraudulent debts.
- Oppose all debt conversion measures that do not meet people's interests.
- Undertake appropriate actions consistent with our debt-management strategies.

* All commitments assumed include the full participation of women and indigenous peoples.

- **Strive to replace the present global development model with sustainable, equitable and participatory models, including structural transformation in the North, global and national redistribution of income, wealth and access to resources, and the transfer of power and the management of resources to local communities and organized society.**
- **Put pressure on Northern governments and international institutions, with a view to ensuring more just terms of trade for the South.**
- **Hold Northern governments accountable to the minimum level of Overseas Development Assistance, at 0.7% of Gross National Product.**
- **Initiate joint campaigns for the elimination of destructive structural adjustment conditionalities, through the overall restructuring of multilateral agencies.**
- **Work together with key social, cultural, professional and religious institutions and the media to publicly address the ethics of the debt and structural adjustment programs.**
- **Work for the establishment of democratic institutions independent of states, with the power to monitor, regulate and sanction global economic agents and their transactions.**
- **Pressure governments of the South to establish a collective debt resolution strategy.**
- **Repudiate the administration of the Global Environmental Facility (GEF) by the World Bank, and work to have the GEF replaced with a transparent, democratic and ecologically responsible institution.**
- **Put pressure on the United Nations system, governments and commercial banks to hold meetings on foreign debt and related issues.**

Principal actions

- **Set up a coordinating committee whose principal task is to carry out the campaigns and pledges contained in this treaty.**
- **Put pressure on international organizations for the establishment, by the end of 1995, of a system of accounting of planet Earth, in order to quantify the cumulative debt of the Northern countries, which results from the resources they have wasted and the destruction and waste produced in the course of the last 500 years; and to establish a "Global Day for Freedom from Debt."**
- **Pressure for bank transparency regarding annual bank deposit statements by countries, and withdraw our funds from those banks and companies which support or implement environmentally and socially destructive activities, initiating campaigns to target such banks and companies.**



CORRUPTION AND CAPITAL FLIGHT

Capital flight and corruption are the main causes of poverty in the South and are responsible for the foreign debt crisis.

More than half of the Southern countries' debts are in the form of private capital deposited in the tax havens controlled by the banks of the North. The five leading countries that host this type of capital are Panama, Cayman Islands, Switzerland, Luxembourg and the United States.

The many different forms of corruption include bribery, fraudulent enrichment of public authorities and tax evasion.

Pledges

There is a need to introduce legislation to act against passive and active capital flight and tax evasion.

There is a need for the creation of a mechanism which will force the banks to become transparent. Transparent statistics on the transfer of capital by banks must be sent to the country of origin.

In order to combat corruption we need an International Legal Assistance System.

Principal actions

- **To pressure governments to adopt regulations and laws in order to combat corrupt practices. To create a specialized "Economic Interpol" in order to investigate capital flight.**
- **To send letters to dictators and leading public authorities warning them about the campaigns we are launching and the insecurity of**

depositing funds in the tax havens. We feel that such public campaigns are essential to fight capital flight.

- To demand that the United Nations, through its Vienna-based institution specialized in criminal prevention, work to harmonize all the existing laws on the subject, in order to avoid the transfer of capital from one financial center to another.



THE STRUGGLE AGAINST POVERTY

Thirteen million children die annually

Poverty is the state of deprivation of essential elements necessary for a human being to live and develop with dignity physically, mentally and spiritually, while accounting for specific needs related to gender, ability/disability, cultural values, age and ethnicity.

Every year 13 million children die from hunger-related diseases due to poverty. The unequal distribution and accumulation of wealth, and over-consumption, are the greatest causes of poverty, leading to the destruction of life and the loss of people's civil rights and cultural identity.

Historically, the concentration of wealth in the hands of a few has led to poverty.

Dominant policies of international trade and structural adjustment programs, as well as exploitative practices of national and transnational corporations, are responsible for the growing poverty in the South as well as the North.

The undemocratic policies of national governments have increased poverty and concentrated wealth in the hands of the elite. Particularly in the South, these processes lead to the disruption of traditional agricultural systems and to the unsustainable use of land.

The loss of local food production and national food self-sufficiency has been a major cause of starvation.

Poverty is the result of the present development model, rooted in the exploitation of people and of nature. As demonstrated by the 1991 United Nations Human Development Report, even governments recognize that poverty does not result from a lack of resources, but rather from a lack of political will to eradicate it.

The Report also points to debt and militarism as other leading causes of continuing poverty. In order to build a democratic world based on

social justice and ecological equilibrium, poverty must be tackled through real changes in development models, international relations and local political structures.

Principal actions

- **Eliminate the causes of poverty, demonstrating that the outflow of resources from the poor countries to the rich countries due to debt servicing must be stopped and debt must be canceled.**
- **Eliminate unfair terms of trade which benefit wealthy nations or wealthy social groups inside nations.**
- **Reduce military expenditure.**
- **Control the concentration of physical wealth by law or by taxes on unnecessary consumer items or non-durable resources, or directly on physical wealth.**
- **Guarantee the basic rights of all human beings through sustainable livelihoods.**
- **Form a coalition of NGOs and social movements at the local, national and international level to share experiences, information and resources and to develop joint strategies, campaigns and policies on poverty eradication.**
- **Use these coalitions to focus government's primary care structures on providing essential elements to enable all human beings to live with dignity and to democratize the decision-making processes.**
- **Support social movements and communities in the creation of committees to assess the social and environmental impacts of projects that may cause harm to their communities.**
- **To monitor the activities of the World Bank, IMF, GATT and UN related to policies aimed at sustainable livelihoods.**
- **Work to empower those sectors of the society most affected by poverty, i.e. women, children, indigenous people and other**

marginalized groups, through their full participation in decision-making at every level.

- **Help to create locally administered banks, in order to achieve self-sufficiency.**



CONSUMPTION AND LIFESTYLE

Inequality between and within nations

Introduction

The most serious global environmental and development problems facing the world arise from a world economic order characterized by ever-expanding consumption and production, which exhausts and contaminates our natural resources and creates and perpetuates gross inequalities between and within nations.

Twenty percent of the people consume eighty percent of the world's resources. We must act to balance ecological sustainability with equity between and within countries.

Principles

Reassessment

We must awaken to the reality that quality of life is based on the development of human relationships, creativity, cultural and artistic expression, spirituality, reverence for the natural world and celebration of life, and is not dependent upon increased consumption of non-basic material goods.

Restructuring

The economic system should be restructured away from production and consumption of non-basic goods for a few, to focus on production of goods to meet basic human needs for all persons.

Macroeconomic systems should be restructured to include ecological and social costs in the prices for all goods and services.

Local communities must have full participation in the control of and decisions related to the management of the use of natural resources on which their economy depends, to assure that these resources are produced and consumed in an equitable and environmentally sustainable way.

Continuation of the current economic order carries with it the threat of serious or irreversible environmental damage and associated social disruption. Therefore, lack of full scientific certainty regarding potential impacts of conversion should not be used as a reason to avoid immediate action.

Because the industrialized countries consume the vast majority of the world's natural resources and create most of the global pollution, they must bear the primary responsibility for restoring the natural environment and compensating the victims of environmental degradation.

Redistribution

The concept of environmental space, whereby all people have the right to equitable shares of water, food, air, land and other resources within the carrying capacity of the earth, should be the basis for equitable production and consumption.

Population growth in the North, which leads to extremely high levels of per capita consumption, is a far greater immediate environmental threat than population growth in the South. Meeting basic needs is a prerequisite for stabilizing population growth.

Reduction

Overall consumption and production must be reduced to fit within the regenerative carrying capacity of the Earth.

Renewable energy sources which are less environmentally damaging should be promoted.

Due to their destructive social and environmental impacts, production and use of military goods and weapons are not an acceptable part of an equitable and environmentally sustainable society.

Production and consumption of products with built-in obsolescence should be stopped; consumption of products which are transported over long distances should be reduced; and production processes which create toxic, hazardous, or radioactive wastes should be halted.

Reduction in consumption should have priority over reuse or recycling of products.

Reuse

Goods should be produced in closed cycles, whereby substances are continually reused to the greatest extent.

Goods should be produced to have the least impact on the environment, with long durability, high efficiency and simple reparability.

After reduction, reuse of goods should have priority over recycling.

Recycling

Industries and government must take full responsibility for proper treatment throughout the life cycle of the production process.

Local decentralized recycling units should be a priority over large-scale centralized recycling units, due to their greater employment creation and lower use of energy and transport.

Incineration of waste should not be considered as an alternative to recycling.

Principal actions

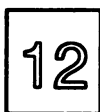
- Analyze, together with institutions and organizations, ways in which we can improve our production and consumption models, with a view to meeting basic needs worldwide by preparing new concepts of wealth and indicators of development.
- Recognize the things in life which truly bring joy and satisfaction.

- **Appreciate and care for the relationships that sustain us, whether with our fellow human beings or with the natural world of which we are a part, and spend time enjoying and enlivening them.**
- **Learn from communities which live in sustainable ways and use appropriate technologies.**
- **Influence international and national fiscal, monetary and trade policies, ensuring that social and environmental costs are included in product prices, land is redistributed fairly, debts are reduced, equitable tax systems are established, transnational corporations are regulated, and structural adjustment policies are eliminated.**
- **Reduce the impacts from "industrialized agriculture" by consuming foods which are locally grown by organic methods; and reduce energy consumption in as many organizations as possible, especially those related to consumers and women, which agree with the precepts of this treaty.**

Commitments

Signatories and supporters of this treaty will:

- **Urge NGO networks to commit staff time and administrative resources to the implementation of coordination, monitoring and evaluation activities.**
- **Commit significant material, financial and human resources to carrying out the activities stipulated herein and encourage the widest participation.**
- **Demand that companies provide part of their budgets, personnel and training time to support positive change in consumption and production patterns.**
- **Encourage funding agencies to support the activities in the treaty.**
- **Encourage the United Nations, governments and funding agencies to support the actions of this treaty.**



POPULATION, ENVIRONMENT AND DEVELOPMENT

Preamble

Women's empowerment to control their own lives is the foundation for all actions related to population, environment and development. We reject and denounce the concept of control of women's bodies by governments and international institutions. We reject and denounce forced sterilization, the misuse of women as subjects for experimental contraceptives and the denial of women's free choice. Problems arising from the relationship between population, environment and development should be analyzed worldwide, within a frame of reference and limits established by ethics, democracy and human rights. It must also be recognized that one-quarter of the world's population —predominantly in the industrialized nations— consumes over 70% of the earth's resources and is responsible for most of the global environmental degradation.

Demands and commitments

Birth rates decline when women's social, economic and health status improves and general living standards rise. The political and economic mechanisms operating within the prevailing world order and within each country, which create and perpetuate poverty, inequality and marginalization of people in the South —as compared to the North— must be transformed. Militarism, debt, structural adjustment and trade policies being promoted by corporations and international financial and trade institutions are degrading the environment, impoverishing the majority of the world's people and perpetuating the inequality of the existing world order.

Nuclear testing and toxic waste dumping are poisoning the environment, threatening food security and causing sterility, birth defects and disease. Patterns of consumption and production in the North and among the privileged of the South, which are the main threat to the

survival of life on Earth, must be changed in order to halt the squandering of natural resources and the exploitation of human beings.

We condemn and call for an immediate end to policies and programs, whether by governments, institutions, organizations or employers, that attempt to deprive women of their freedom of choice or the full knowledge or means to exercise their reproductive rights, including the right to end unwanted pregnancies.

We denounce and reject violence against women, many of whom are victims of racial and class discrimination and suffer from extreme poverty, and who are subjected to coercion, forced sterilization, experimental drugs and lack of proper medical care and information about health risks and alternatives.

We pledge to expose and oppose any coercive population control programs.

We demand women-centered, women-managed and women-controlled comprehensive reproductive health care, including pre- and post-natal care.

We demand day-care centers, leaves for new fathers and health centers for the elderly and handicapped as family support services.

We demand that scientific experiments related to reproduction be transparent and respond to the concerns of women and to criteria rooted in the defense of humankind and human rights.

We demand that governments comply with international law and commitments in the area of reproductive rights, and assume responsibility for implementing the Nairobi Strategies for the Future, the Report of the 1984 Conference on Population, and the agreements issued by UNCED.

We demand urgent ratification and execution of the Convention of the United Nations System on the Elimination of all Forms of Discrimination against Women.

We demand that the national and international community support public responses to the AIDS epidemic, conduct more research in this field, provide women, men and children with services and information on the prevention and treatment of AIDS and other sexually transmitted diseases, and respect the human rights of those affected.



URBANIZATION

Toward democratic and sustainable cities and towns

Preamble

The end of World War II brought about a model of development focused on economic growth, capital accumulation and profit; this has now been consolidated.

Economic growth based on industrial expansion and consumption has displaced rural populations from their land and intensified urbanization, creating megacities and generating problems of impoverishment and environmental degradation.

Millions of people who live in urban centers are faced with problems of air pollution, with no resources to meet their basic needs for food, housing, water, sanitation, drainage, waste disposal and public transport. This jeopardizes their health, including reproductive health, and overburdens women, who have the main responsibility for managing everyday life within the family and the community.

This crisis is becoming more acute as a consequence of neoliberal policies imposed by multilateral financial institutions on governments, which are shirking their obligation to invest in infrastructure and social programs.

Regulatory action by governments is necessary to guarantee social justice. States should reverse the priorities of the neoliberal vision.

We need to create a new sustainable development model, the objective of which is humanity's well-being, in harmony with nature, based on participatory democracy and social justice for today's and future generations, and freedom from gender, economic, social, political or religious discrimination. This model calls for the active participation of civil society.

In order to address this situation, radical changes are needed, such as the implementation of broad agrarian reforms, urban reform and the reform of the state.

Basic principles

The right to citizenship, understood as the participation of all inhabitants of cities, towns and villages in deciding their own future. It includes freedom of organization, respect for the diversity of minorities, cultural plurality, preservation of our cultural and historic heritage and access to a culturally rich and diversified environment in which distinctions are not made on the basis of gender, nationality, race, language or creed.

Democratic management at the local level, which means that civil society must participate in planning, producing, operating and governing cities, towns and villages, increasing popular participation and strengthening local autonomy and self-governance.

Social function of the city and property, understood as enabling common interest to prevail over individual rights to property, opening up a social space for citizens, with control over their own territories, a democratic decision-making process, and the production and creation of knowledge for social justice and sustainable development conditions.

Proposals

- To democratize cities, towns and villages, ensuring fulfillment of all national and international rights, creating new rights, changing the priorities for allocation of common resources locally, nationally and internationally, in support of the impoverished populations.
- To improve the process of production, appropriation and consumption of living space, in its public and private character, within the physical limits of environment, infrastructure, ecological balance, conservation of historical heritage and cultural practices.
- To create mechanisms to control resource obtained, including international debt, which should be administered by society and

local governments. These resources should be invested in the areas under their control.

- **To guarantee a new balance between cities and rural areas, eliminating intermediaries in trade and establishing direct relations between producers and consumers, decentralizing supply centers and generating forms to organize the popular in the acquisition of goods and services. It is necessary to manage technology and promote recycling in order to increase the availability of clean air, pure water and fertile soil for rural inhabitants.**
- **To enlarge and ensure the participation of the population, especially women, in legislating on and managing the institutions that promote their role in planning, control and decision-making processes.**
- **To promote the right to information, with access of popular sectors to the mass media.**
- **To promote and facilitate the use of public financial resources for the creation of productive employment, microenterprises, cooperatives and other income-generating activities.**
- **To improve public transportation by introducing non-polluting and energy-saving transport systems.**
- **To support equal rights to land and housing for women and to reinforce the leadership roles of women and social movements.**

Commitments

Signatories of this treaty agree to create and participate in a global forum toward just, democratic and sustainable cities, towns and villages, which will contribute to work of social movements to build a life with dignity in cities, towns and villages, will support respect for the environmental, economic, social, cultural and political rights of the residents, will change the management of settlements, will improve quality of life and will create an environment to be enjoyed by people today and generations to come.

This forum attaches priority to actions intended to benefit sectors which have suffered most from the process of social exclusion imposed by the current development model.

Commitments to this treaty include:

- Documenting and denouncing evictions, other violations of housing rights, and those related to environmental deterioration and destruction.
- Promoting local, national, regional and international exchanges of experiences, information and technical assistance among the signatories of this treaty.
- Supporting individuals, groups and organizations facing oppression in retaliation for their work in defence of the right to live in the city, the right to housing and the protection of the environment.
- Systematizing, analyzing and disseminating knowledge, and facilitating new research which will further advance actions toward social progress in the area of life in the cities, towns and villages, housing and environment, linking popular organizations, support institutions and social research for the purpose of strengthening this work and social struggle.
- To support the operation of coordination networks, apply pressure and lobby at the local, national and international levels, in defence of the principles of this treaty.
- To use all opportunities to strengthen local, national, regional and international linkages among social movements, NGOs, forums and local self-governments.
- To facilitate joint actions among the signatories of this treaty, with a view to enhancing the effectiveness of local actions.

To ensure that a global forum for just, democratic and sustainable cities, towns and villages is held, the signatories agree to set up a joint committee made up of one representative each from HIC, CFCO and the Brazilian Forum for Urban Reform.



MILITARISM, THE ENVIRONMENT AND DEVELOPMENT

Principles

Military activity destroys life, wreaks havoc on the environment and depletes resources. We, the peoples of the Earth, demand a general demilitarization that is environmentally sound and frees us from war, nuclear waste and regional conflicts and military dictatorships.

As long as 20% of the world's population devours 80% of the world's resources and energy, military force will be used to maintain this inequitable situation.

Demilitarization is a prerequisite for the abolition of war, for lasting world peace, for the well-being of present and future generations, and for social and economic equity.

Security must no longer be defined in exclusively military terms, but rather in a comprehensive way, encompassing: personal security, freedom from violence and sexual abuse; local security, where all basic needs are met; and common, global security, where the rights of people and other species to live in a healthy environment are respected.

Huge military expenditures that burden nations with external debts, siphon off precious resources and impede the fulfillment of societal needs must be stopped immediately.

A new world order demands that no country police the world, intervene militarily and extend its vital space to foreign bases and outer space.

We repudiate all forms of violence, including rape, torture, summary executions, disappearances and the loss of life through warfare and intelligence work.

Environmental destruction and the depletion of resources are causes and consequences of armed conflicts. Also, together with the use of outer space for military purposes, they threaten the biosphere.

Principal actions

- **Demand that our governments ratify a treaty forbidding nuclear testing.**
- **Support all those facing military or police repression because of their opposition to war or their opposition to projects with negative environmental or developmental consequences.**
- **Hold governments and the military-industrial-university complex responsible for any damage they cause to the environment.**
- **Campaign for the simultaneous and total reduction of military spending in all countries and for the transfer of these human, economic and technical resources to meet social and environmental needs, including the clean-up of contamination caused by military actions.**
- **Promote peaceful solutions within and between nations or ethnic and religious groups in conflict.**
- **Promote education for peace.**
- **Oppose the use of land, sea, air and outer space for nuclear experiments, nuclear waste disposal and other military actions which harm the environment.**
- **Insist that all military-related activities be subject to the judicial, legislative and regulatory processes of civil society.**
- **Work for an end to the exploitation of women, children and other peoples marginalized by dominant military systems.**

15**THE STRUGGLE AGAINST RACISM****Equality for all peoples**

Racism is a form of ethnic, social and economic oppression which imposes racial supremacy and deculturalization on our peoples.

Requests

- To recognize the inherent and equal value of all people.
- To recognize the manipulative manner in which racism functions, negatively affecting and impacting upon all people.
- To recognize and respect the special care-taking and protective role and knowledge that indigenous peoples possess in relation to those areas of the Earth which they have occupied for millenia.
- To support cultural, spiritual and curative practices based on traditional knowledge and our unique relationship with the Earth and its ecosystems.
- To recognize the collective intellectual property rights to the wisdom of our traditional cultures, religious and ecological ways of life.
- To recognize and support the right of indigenous people to struggle for land rights, and of dispossessed and oppressed peoples for reparation and restoration.
- To initiate and support sustainable development which empowers communities and is economically cooperative, humanitarian, environmentally sound and culturally and spiritually sensitive.
- To fight developmental racism and the imposition of Eurocentric models of development that are not environmentally sound.

- To fight environmental racism and the dumping of hazardous and toxic waste in developing countries.
- To struggle for the establishment of a new technological and scientific ethic, where biodiversity cannot be patented or monopolized by any corporation, scientific institution or individual of any country in the world.
- To initiate action with the objective of stopping the use of women and children as "guinea pigs" for biotechnological research.
- To prevent the imposition of demographic control policies on developing countries.
- To support the creation and implementation of an international network to provide educational, technological and economical assistance in eradicating the poverty and social misery of people.
- To support cultural diversity, thus perpetuating our individual cultures.
- To eliminate all forms of genocide (the killing of races), ethnocide (the killing of cultures), and ecocide (the killing of our environment), which are the most perverse forms of racism.



THE PEOPLE OF THE AMERICAS

The Enterprise for the Americas Initiative is designed to reinforce the prevailing development model, which supports the transnationalization of the economy, with long-term social and environmental consequences. This process also undermines the organization of community challenges and strongly affects the possibility that local populations can, with autonomy, chart their own development course.

We reject the Enterprise for the Americas Initiative, the payment of the debt and structural adjustment, and we commit ourselves to promote an initiative of the People of the Americas and models of decentralized development via the following agreements:

Structural adjustment

The financial policies of the IMF and the World Bank in Latin America since the decade of the 1970s have been defined fundamentally by:

- Freedom for foreign investments.
- Increased production in the export sector.
- The promotion of specialization by country.
- The deepening of a process of impoverishment and marginalization of large sectors of the Latin American and Caribbean population.
- Overexploitation and contamination of natural resources.
- Increases in foreign debts.
- Increased concentration in the ownership of land.

In general, there has been a transnationalization of economies, in which the basic necessities of the people have been put aside. Denouncing the concentration of power and income caused by this model, and considering that all economies need profound changes in their organization to make possible a focus on sustainability, we commit ourselves as well to support new forms of economic organization, based on the decentralization of productive activity and the autonomy of populations.

Free trade and integration

The liberalization of national economies, in the form of programs of structural adjustment, has been a prerequisite for the effective implementation of the North's program for trade liberalization. Transnational corporations need a deregulation of national economies and an absence of labor-related and environment-related restrictions in order to move their capital and sell their products in the North without encountering major obstacles. We reject proposals for free trade and integration that do not ensure protection and improvement in the areas of labor, the environment and citizen control.

External debt

The present neo-liberal economic program has deepened in great measure the enormous economic, political and social inequality that exists between the North and the South. It has also increased loan payments and debt servicing, which cause a greater impoverishment of the already poor countries, as well as environmental destruction generated by production and exportation at any cost.

We thus commit ourselves to fight against the payment of the debt by Third World countries, considering most of it illegitimate and already paid in the form of unjust interest charges and debt-service payments. For the same reason, we do not accept debt-for-nature swaps or other such mechanisms. We also reject forms of debt relief conditioned on the implementation of structural adjustment programs. And we call for a complete audit of the debt of the countries of the Third World.

Ecological debt

This imposed development model guarantees the intensified destruction of nature and the marginalization of important sectors of the populations of Third World countries.

Therefore, it is necessary that the system as a whole and its central agents provide restitution for this growing debt to the biosphere, the effects of which vitally alter the quality of life and the capacity to sustain it.

We commit ourselves to work for the international recognition of ecological debts.

At the same time, we commit ourselves to a recognition of the ecological creditors (ethnic groups, communities, countries or regions affected by the exhaustion of resources), the ecological debtors (responsible for environmental and social deterioration) and the necessity of applying measures of ecological adjustment (necessary modification and changes in the present patterns of production and consumption) so that actions of devastation and contamination cease as soon as possible.

Cultural diversity

The diversity of cultures and civilizations is a characteristic of the Americas, which for 500 years have been suffering a violent process of homogenization and disappearance of cultures that is associated with a shameful fall in the quality of life and of the environment.

We assume the commitment to fight for the defence of cultural diversity and for the civilizations of our peoples.

Some alternatives

- To fight so that the transfer of technology is oriented toward sustainable development and so that the practice of transferring dirty technologies to the Third World is suspended.

- **To promote the design and dissemination of clean technologies appropriate to the ecological, social and cultural conditions of each country.**
- **To support urban and rural micro-industry and the development of small producers as the basis of a new model of development that is multiple and diverse, integrated, community-controlled, self-managed and consistent with the environmental and social diversity of our peoples and their localities.**
- **To promote in all cases the economic and social equality and advancement of women and minorities.**
- **To increase communication of our experiences, to expand our sharing of information, to develop mechanisms of solidarity and joint action.**
- **To link NGOs in the search for decentralized forms of ecologically sustainable and socially just development and for a profound democratization of our societies.**

SECTION TWO

Natural Resources and Humanity

17

ALTERNATIVE AGREEMENT ON CLIMATE CHANGE

Preamble

Whereas:

- The grave threats to global environment posed by the increasing concentrations of greenhouse gases in the atmosphere threaten the sustainability of life on this planet.
- The increase of such concentrations is a consequence of current development and consumption patterns that encourage excessive use of non-renewable fuels and inappropriate land-use patterns.
- Industrial development is characterized by social injustice, as well as inequitable and inappropriate consumption patterns.
- Industrialized countries have exploited and consumed the largest proportion of fossil fuels.
- The major responsibility to avoid the negative effects of climate change, such as sea level rise, droughts, desertification, impoverishment of biological diversity and others, lies with developed countries.
- The "Agenda Ya Wananchis – Citizen's Action Plan for the 1990s" was adopted at the International Non-Governmental Organization (NGO) Conference "Roots of the Future," held in Paris in December 1991.

The representatives of NGOs and social movements from around the globe, gathered at the International NGO Forum "Commitments for the Future," held in Rio de Janeiro in June 1992, have adopted the following objectives, principles and commitments as a basis for future actions:

Objective

The objective of this convention is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

Principles

The earth with its diverse life forms is a functioning whole.

Ecological integrity must be maintained; this includes the reduction of social vulnerability and the preservation of biological diversity.

The real issue of the environmental crisis is not the protecting the environment per se, but rather the managing of resources to attain the social, economic and physical development of human societies.

This issue has to be tackled by altering excessive consumption patterns, as well as through the acknowledgement of citizens' rights to economic and social improvement.

Citizens, enterprises and governments must work together to protect the global climate system.

Strategies and action plans to reverse human-induced climate change must be developed and implemented on the basis of the precautionary principle.

Efforts to address climate change should ensure a levelling off of the worldwide flow of resources between the South and the North and involve NGOs in all stages.

All human beings should have equal access to the production of a total amount of greenhouse gas emissions that the atmosphere can bear on a sustainable basis.

Principal actions

- **Act in solidarity with other NGOs and social movements, sharing information and supporting an open-ended network of local, national and international groups dealing directly or indirectly with climate issues.**
- **Contribute to the identification, development and implementation of technologies, practices and lifestyles which promote more efficient use of energy and other natural resources.**
- **Support maximum reliance on renewable energy sources in order to minimize greenhouse gas emissions.**
- **Support citizen activism at all levels, as the basis for developing choices with regard to transportation, waste treatment and the adoption of full social and environmental pricing of natural resources.**
- **Demand that governments take actions aimed at reducing CO₂ emissions in developed countries, in 2025, by at least 25% from 1990 levels; and to take measures which will eventually reduce greenhouse gases by 60%**
- **Demand that the industrialized countries provide developing countries with the resources they need to address issues related to climate change; that they ensure the participation of NGOs and social movements throughout the decision-making and control process, as well as their eligibility as potential beneficiaries of such funds; that they provide adequate opportunities for the sharing and transfer of protected technology, developed by governments and enterprises on a non-commercial basis; and that they convert current military expenditures to these purposes.**
- **Demand that governments ratify the Framework Convention on Climate Change.**

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CONTROLLING ENERGY PRODUCTION AND CONSUMPTION

Preamble

The dominant undemocratic development paradigm, including supply-oriented energy policies, is unsustainable, creates unacceptable debt and imbalances in energy consumption, produces high pollution levels and destroys cultures, local economies and nature. Energy decisions have a profound effect on the development of every society and economy, on the international division of labour, on the sovereignty of nations and even on world geography.

Powerful and largely unaccountable corporations and interests control energy production and distribution, as well as related goods and services, and are responsible for severe social and environmental problems, in particular, those related to all forms of nuclear energy.

Greatly increased financial and human resources must be devoted to promoting the conservation and efficient use of energy and to developing alternative renewable energy sources to provide ecological sustainability for present and future generations. This must include the development of means of transportation and production that are ecologically sustainable, as well as the reduction, reuse and recycling of wastes.

Principles

Decisions on the use, production and distribution of energy must be made in accordance with the following principles:

Ethical Principle. Energy must always be used, produced and distributed with maximum efficiency and minimal impacts on the well-being of people and nature.

Equity Principle. Equal access to the goods and services that energy provides is a right of all peoples, communities and nations. This implies equitable use, production and consumption at all levels.

Decision-Making Principle. Energy decisions must be democratic and participatory, with balanced ethno-cultural, socio-economic, colour and gender participation. In particular, people directly affected must play a central role. All impacts on the biosphere resulting from the qualitative and quantitative transformation of material and energy must be taken into account.

Principal actions

- Change wasteful energy consumption patterns in favor of energy frugality, efficiency and conservation.
- Reduce greenhouse gas emissions and other pollutants, favor decentralized production of energy and oppose gigantic energy projects.
- Insist on fully integrated environmental, ecological and economic accounting of all energy options.
- Conduct political and educational campaigns to transform existing consumer behavior and agricultural, commercial, industrial, residential and transportation models in order to meet social needs and minimize the consumption of resources, including energy.
- Promote the development, promotion and transfer of sustainable, efficient and decentralized technologies for the development of renewable energy sources.



ARID AND SEMI-ARID ZONES

Preamble

Arid and semi-arid zones comprise a group of complex natural areas distributed in various locations throughout the planet.

Arid and semi-arid zones must be considered in terms of their complementary interrelations with other ecological zones of the planet. They exhibit a natural and cultural potential for sustainable development —biodiversity, biomass, water and soil, among others. Nevertheless, they have suffered an accelerated process of environmental degradation, the principal causes of which are:

- The increasing adoption of the "Green Revolution" technology package, particularly agriculture using modern irrigation techniques.**
- The construction of large dams.**
- Population growth, which is causing over-exploitation in some arid zones.**
- Low population density, which is permitting the degradation of cultivated ecosystems through the lack of adequate upkeep.**
- Unequal access to natural resources (land, water, biomass).**

The rapid degradation of natural resources and the alteration of water systems in these regions have reduced food production.

These problems, linked to global climate change, produce local climate alterations which manifest themselves in hotter and prolonged dry seasons and the occurrence of more intense and frequent droughts.

Desertification is another facet of this problem; it affects 1/6 (one sixth) of the world's population and has caused increased rural poverty and country-city migration.

Politics and public works in the arid and semi-arid regions of the Third World have historically assumed the character of emergency treatment of drought and hunger, without confronting structural problems such as access to land and water, which contributes to the perpetuation of structures which are socially unjust and degrade the environment.

Principles for an alternative method

Arid and semi-arid zones are complex ecosystems with natural potential sufficient to provide a good quality of life for their populations.

The development of these zones should be planned and executed in harmony with the development of the other zones of the Earth.

The governments of different countries need to exercise cooperation and solidarity in order to surmount the present problems of these zones.

The effective participation of NGOs, of social movements and of the populations directly involved is indispensable in all stages of sustainable development.

The quality of life of human beings and the preservation, conservation and restoration of the environment of these zones must come before the interests of economic corporations and dominant political and economic groups.

To support sustainable development, those working for the economic incorporation of arid and semi-arid zones should seek food self-sufficiency on a regional scale, give priority to the exchange of local products between areas with production surpluses and those with deficits, and avoid the use of resources at levels that would continue to reproduce the same social, economic and environmental conditions.

In these zones, the social and environmental costs must be analyzed and seriously considered in the evaluation procedures for all development projects. A general redefinition of economic indicators will also be necessary.

Principal actions

- **Support and develop concrete actions toward the democratization of access, use and conservation of natural resources, and intensify efforts at agrarian reform in areas where land ownership is concentrated in the hands of a few.**
- **Democratize government information on the realities of the social and environmental situation, as well as on the public works relating to environment and development in these regions.**
- **Restructure and integrate educational research and rural communications, in accordance with social, cultural and environmental needs.**
- **Adopt the principle that genetic resources are the cultural inheritance of small-farmer, traditional, indigenous and tribal communities.**
- **Define a political platform in support of dry regions, as regards agricultural, grazing and forestry activities.**
- **Implement warning systems to prevent the consequences of climate change, over-utilization of resources, dislocation of populations and the resulting conflicts.**
- **Carry out initiatives, projects and campaigns to promote the conservation of genetic resources and biodiversity, and to oppose the appropriation of genetic capital through patents on living beings or any other form of monopolistic control.**



THE "CERRADOS" OF BRAZIL

Introduction

The area of the "Cerrados", which corresponds to 25% of Brazil's territory, is situated principally in the central plateau of the country, extending, totally or partially, to the states of Goias, Tocantins, Mato Grosso, Mato Grosso do Sul, Minas Gerais, Bahia, the Federal District, Maranhao, Piaui, Sao Paulo and Roraima and certain other areas of the Northeast.

The central plains occupied by the Cerrados constitute the central ridge of Brazil and of South America, where the significant quantities of water which feed the hydrographic basin of the continent are distributed. Accordingly, they play a fundamental role in maintaining the equilibrium of the other biosystems, meaning that changes in their usage patterns could produce profound changes in the ecosystems of the Amazon, the Pantanal, the Mata Atlantica, the Caatinga and Mata de Araucaria.

The Cerrados were settled by aboriginal peoples, who left evidence of over 15,000 years of occupation. After suffering from the colonization process, many were able to establish production methods relatively well adapted to the environmental conditions. However, in the 1960s, an intense process of occupation and crop production began, including export crops and monocultural forestry projects.

Diagnosis

The current occupation of the Cerrados is based on financial subsidies and fiscal incentive, on the concentration of land ownership, and the expulsion of rural populations as a result of the destruction caused by their production methods. Approximately 75% of its total area has already been destroyed through:

- Indiscriminate clearing of its vegetation and the establishment of massive homogeneous plantations of eucalyptus to produce fuel.
- The opening of huge extensions of homogeneous pasturage lands to the production of exports for the industrial-technological interests.
- The construction of huge irrigation projects with intensive and indiscriminate use of the water resources and energy.
- The installation of huge hydroelectric dams along the principal waterways to generate electrical energy.

These actions are having widespread social and environmental impact, including:

- A drastic reduction of the enormous and still unexplored biodiversity that exists in the Cerrados.
- Degradation of the soil.
- Contamination of water and all the animals that depend on it.
- Sedimentation and the reduction of surface and underground water sources as a result of soil erosion.
- Intensification of the process of land concentration, with the expulsion, migration and impoverishment of the small land owners and rural workers.
- Disappearance of the cultural values, customs and symbols of local communities.

Principal actions

- Ensure the participation of local populations in the planning and establishment of development policies, and create a permanent action network of the NGOs and social movements of the Cerrados areas, anticipating joint actions for its defense and the interchange of information.

- Campaign for the unification of societies in all countries where there are Cerrado and savanna ecosystems, in order to extend knowledge and to adopt action plans to support preservation, sustainable development and environmental education.
- Change the institutionalized view that the Cerrados offer no resources for the survival of human beings.
- Campaign for the Cerrado ecosystem to be recognised as a national patrimony in the Brazilian Constitution, in the same way as the Amazon, Pantanal and the Mata Atlantica Coastal Zone have been.



FORESTS

Their role in maintaining ecological processes

Definitions

Natural forests: ecosystems, including mangroves, dominated by trees or shrubs in an original or nearly original fashion through natural generation.

Restored forests: forests planted, seeded, or otherwise restored in such a manner as to emulate the original natural forests of an area.

Plantations: artificially cultivated trees, primarily for specific commercial purposes.

Sustainable forest management: forest cultivation which ensures that the benefits of forests meet human needs, while maintaining the structure, function and integrity of ecosystems on a bio-regional basis, incorporating in perpetuity complete forest successions.

Colonist: non-aboriginal and non-traditional people who have recently moved into an area.

Native, Indigenous and aboriginal peoples: those who have lived in relative harmony with their environment through many generations, and whose origins, as a people, are in that area.

Traditional peoples: non-native populations who have established a non-destructive relationship with their environment and have lived there for generations.

Preamble

The undersigned non-governmental organizations:

Recognize the vital role of all types of forests in maintaining the ecological processes of the Earth and in protecting ecosystems, watersheds, freshwater resources, coastal areas, estuaries and adjacent seas. They also recognize that all types of forests embody complex and unique ecological processes which are the basis of their present and potential capacity to provide resources to satisfy the biological needs of all forest-dependent species.

Believe that forestry issues and opportunities should be examined in a holistic manner, taking into consideration the multiple functions and uses of forests.

Recognize that many traditional forest-dwelling people have had their territories and their ability to pursue their historic cultural activities encroached upon or destroyed.

Note that the world's forest ecosystems have been dangerously reduced and degraded during more than a century, that the consumption of wood products is at a non-sustainable level, that indigenous forest land-tenure systems are highly structured and defined and that the concentration of power and control over natural resources has resulted in an increase of poverty.

Note the heavy participation of national and international corporations in the degradation of forest ecosystems, by exploiting and commercializing forest products.

Emphasize that the concentration of the control of forest lands and resources in the hands of a few owners and national and multinational corporations is a major factor responsible for deforestation and degradation of forests.

Acknowledge that responsibility for forest management must be accepted by governments, NGOs, business and individuals, without prejudice to the rights of indigenous peoples.

Acknowledge that indigenous territories, including forests, must be exclusively managed by indigenous and local people.

Declare that all types of forest areas have intrinsic values of their own, are essential for the conservation of biodiversity, and are a source of knowledge, inspiration and spiritual renewal for humanity.

Assert that this applies to all types of forests and that the purpose of this treaty is to ensure the conservation, rehabilitation, enhancement, enlargement, natural regeneration, planting, protection and sustainable use of the world's forests.

Principles

Forests are essential to life on earth. The structure, function and integrity of ecosystems must be seen to have infinite value.

Forests must be protected, to supply the social, economic, ecological, cultural and spiritual needs of present and future generations.

Policies on forest conservation shall include the full, permanent protection of all forest ecosystem types.

Forest programs must be developed with maximum public consultation and participation, especially that of local forest people and community groups.

Forests are the very life of many indigenous peoples, and therefore their traditional territories must be legally recognized and guaranteed. Also, the traditional forest knowledge and practices of indigenous peoples should be recovered and maintained.

The struggle for forest conservation cannot be separated from the struggles for agrarian reform in some countries, nor from the general principles of democratization, social justice and respect for the environment.

The rights of indigenous and traditional peoples who make a living from the non-destructive extraction of forest products should be legally guaranteed in areas they have traditionally occupied.

Existing monocultural and exotic plantations which have been planted for timber production should be preferentially harvested in order to take the pressure off the cutting of natural forests.

In order to maximize biological diversity, natural regeneration of trees should be implemented wherever possible.

The role of plantations, restored forests and tree crops (such as fruits and nuts) as sustainable and environmentally sound sources of renewable energy should be recognized, enhanced and promoted.

Plantation forestry should only occur on non-forested areas, degraded areas and areas no longer able to support natural regeneration of native forests.

Before any plantation project is undertaken, environmental impact studies should be done to ensure there are no adverse effects on local economies or environment.

Logging practices that do not take into account habitat destruction, soil erosion, loss of biomass, adverse cultural and economic effects, or the securing of ecologically appropriate regeneration, must be internationally condemned.

Environmental costs and benefits should be incorporated, through ecological accounting, as values added to forest resources.

Government forest agencies should not sell, allocate, or otherwise dispose of forest products unless those transactions show a profit based on the real value of all assets used, including trees, land, soil and water in each forest area involved.

Recycling of wood products, especially paper, along with less wasteful logging and processing practices, should play a significant part in protecting environmental values and relieving pressure of demand for new wood.

Principal actions

- Participate actively in environmental and social impact assessments of projects which affect forests and their habitats to ensure that the results of these studies are analyzed in a public forum before decisions are made; and to use all means to ensure that the purposes of this treaty are understood, open and applied by all pertinent sectors of society.
- Campaign for the conservation of forests, for survival and improvement in the quality of life for people living in forests, the

implementation of development projects which reduce pressure on forests, and the elimination of pollutants, particularly those contributing to acid rain.

- **Make every effort to ensure that the communities affected by forest conservation and sustainable management projects are consulted in advance and are able to participate effectively in all stages of decision making.**
- **Support popular agrarian reform initiatives based on criteria of social justice and which focus on land distribution and the right to use forests.**
- **Vigorously oppose the industrial clearcutting of remaining primary and old-growth forests, and seek alternative work opportunities and methods of survival for communities which depend on this practice.**
- **Encourage and organize recycling and reuse of forest products and the general reduction of waste where forest resources are concerned.**

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SUSTAINABLE AGRICULTURE

Current policy and critique

The dominant global socioeconomic and political system which promotes the model of industrial agricultural production and rural development is the root of the social and environmental crisis in agriculture. Increased food production has not solved the world's hunger problem, but has contributed to the deterioration of ecosystems and reductions in the natural resource base.

To this we must add the intensive use of chemicals, which degrade the fertility of soils, intensify the effects of droughts and contribute to desertification, pollute water resources, cause salinization, increase non-renewable energy dependence, destroy genetic resources, contaminate the food supply and contribute to climatic change.

The prevailing agricultural model, which concentrates land tenure in the hands of a few and exploits small farmers and day laborers, forcing them to migrate from country to city, blocking effective agrarian reform.

The so-called "liberalization" of agricultural trade, as proposed in the General Agreement on Tariffs and Trade (GATT), will strengthen the monopoly of the present agro-economic system and uniformity of production systems, making it impossible to democratize and achieve active participation of small farmers. This dominant economic model has a corresponding vertical communication model that has been used as an instrument of domination and disinformation of rural producers.

In order to achieve new patterns of equitable and participatory sustainability, it is urgent to break with the prevailing predatory agricultural model.

Principles of an alternative approach

Agriculture is sustainable when it is environmentally sound, economically viable, socially just, culturally appropriate and based on an

integrated scientific approach. Sustainable agriculture is a model of social and economic organization based on an equitable and participatory vision of development which recognizes the environment and natural resources as the foundation of economic activity. It preserves biodiversity, maintains soil fertility and water purity, conserves and improves the chemical, physical and biological qualities of the soil, recycles natural resources and conserves energy, and uses locally available renewable resources, appropriate and affordable technologies and minimizes the use of costly external and purchased inputs, thereby increasing local independence and self-sufficiency and insuring a source of stable income for small farmers.

Sustainable agriculture respects the ecological principles of diversity, interdependence and self-sufficiency.

Today, it is urgent to identify and eliminate the fundamental causes of environmental degradation in different regions of the world.

Principal actions

We non-governmental organizations (NGOs) and social movements pledge to:

- Work for democracy and participation in order to accomplish political objectives connected with sustainable agriculture as an essential condition to construct new patterns of social, economic and technical organization of rural areas.
- Support efforts and interaction among people's movements, women's groups, youth, indigenous peoples, local communities and small farmers' organizations to preserve, enhance and maintain intact sustainable farming systems.
- Conduct voluntary education and promotion campaigns to introduce principles and methods of agrarian reform, and through them, foster awareness of the need for sustainable agriculture.
- Preserve the wealth of the land, conserving the principles of agrarian reform, based on the control of the land by workers.
- Campaign for international negotiations on agricultural trade practices, which encourage and support policies on sustainable

agriculture, ensuring that the issue of food security and the health and nutrition of all people be given top priority, with emphasis on poor people.



FOOD SECURITY

Meeting nutritional needs

Preamble: Current policy and critique

Food security is having the means as an individual, family, community, region, or country to adequately meet nutritional needs on a daily and annual basis.

Despite significant increases in food production in recent years, food insecurity has increased. Recent estimates by the Food and Agriculture Organization (FAO) place deaths due to hunger-related problems in rural areas of the developing world at more than 15 million for 1990 and about 500 million from the same areas are likely to remain chronically undernourished.

Presently, the world food insecurity problem is a result of an undemocratic and inequitable distribution of and access to resources (such as land, credit, information and other incentives).

The main cause of hunger is chronic poverty—a poverty so absolute that its victims possess neither the resources to buy food nor control over the resources needed to produce it.

The food security problem can be addressed in two ways: local self-reliance and trade policy.

The prevailing export-oriented development strategy has led to numerous problems. These include having four multinational corporations control ninety percent (90%) of world trade in cereals.

Developing countries depend on a few exportable products which are vulnerable to falling prices for raw materials on the international market, large-scale cash crop production at the expense of local food production; and the gradual isolation of small farmers.

Dependency on food imports also leads to numerous difficulties: increased debt and compounding of balance of payment problems; fluctuating external market prices for developing countries, which face a sharp reduction of their import capacity; and increased energy consumption in food transportation.

Additionally, importing countries are vulnerable to political unrest and they have less control over food quality, which requires increased chemicals to preserve food being transported long distances.

Principles of food security

We agree that:

Food security is a basic human right.

Every person must be assured access to safe, high-quality food. To ensure the right of people to feed themselves, food security must be based on local self-reliance.

Food security is vital to sustainable development. People have the right to sustainable self-reliance with dignity.

National and international trade policy must not be allowed to undermine this basic right.

The right to food encompasses not only material aspects such as quantity and quality, but also the cultural aspects of food. However, unhealthy food consumption patterns should be discouraged.

The community should decide for itself what is healthy or unhealthy.

Just and democratic forms of land ownership, use and access are essential to the creation of sustainable food systems and food security.

The application of the principles of sustainable agriculture and biodiversity maintains the health of the resource base critical to food security.

The strengthening of people-oriented initiatives in the area of agrarian reform, community organization, development activities and enterprise,

can create strong foundations for eventual community control over food-related decisions, strategies and economic sustainability.

Women play critical roles in food production and have the responsibility for the storage of food and seed. In addition, they play an important role in the process of ensuring nutrition, health care and income generation for the family and society at large.

A full understanding of the ecological, economic and social aspects of agricultural systems is a pre-condition to sustainable agriculture and food security.

The guarantee of food security is a policy that should be adopted by governments. There is an important difference between the subsidies used to protect farmers, which promote overproduction, and those that are used to increase local self-sufficiency.

The geographic distance between consumers and producers should be kept to a minimum, in order to guarantee food security.

It is necessary to pay special attention to those groups who suffer most from a lack of food security, such as indigenous peoples, refugees, displaced persons, the unemployed, the handicapped, and minorities.

People who have always worked in agriculture have substantial knowledge of the principles of food security, which is applicable to sustainable production systems.

Opportunities to exchange information, ideas and experiences relating to the principles of food security are essential.

In achieving food security, it is essential that farmers receive just benefits for practicing sustainable agriculture, through the internationalization of the environmental and social costs of agriculture.

Principle actions

- Advocate food security as a central objective in the agricultural and food policies of governments.

- **Encourage intra-regional trade in food products in both primary and processed forms to increase diversification in food production within countries and to guarantee regional food security.**
- **Actively promote democratic and just forms of land ownership and land tenure systems, including community control over land use, access and ownership, as well as water resources, and over food-related decisions and strategies.**
- **Press national and local governmental agencies, intergovernmental organizations and NGOs to give priority to integrating women's roles into mainstream agricultural development.**
- **Advocate food security as a central objective of trade policies—especially in the GATT— including the right of countries and regions to regulate imports in order to achieve food security as long as it is linked to effective systems that prohibit overproduction and export dumping.**
- **Demand that governments and multilateral institutions that support structural adjustment policies eliminate their support for measures and mechanisms that threaten rather than promote the food security of developing countries.**

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**RESEARCH FOR THE CONSERVATION
OF BIODIVERSITY****Draft protocol on components**

We, the undersigned nongovernmental organizations (NGOs), commit ourselves to our best abilities and knowledge to participate in the planning, coordination, implementation and monitoring of research activities which will fully address all issues of protecting and managing the planet's biodiversity.

In order to address research components for the conservation of biodiversity, the following subjects deserve special attention:

- Regional management plans and actions which adhere to the principle of proportionality and priority in allocating agricultural, residential, industrial, recreational and conservation areas. In practice, this will contribute to preserving and defining the ecological status of rare and/or endangered species.**
- Basic inventories of ecosystems with regard to their biophysical, socioeconomic and cultural assets, and their relationship with neighboring and/or related ecosystems. In particular, we emphasize the conservation of traditional practices, in written form, and spiritual and religious conceptions of nature and its conservation.**
- Application of methodologies appropriate to biological, socioeconomic and cultural conditions.**
- Analysis of the dynamics of interactions and interlinkages of ecosystems, especially those which are sensitive to threatened species and habitats which are home to societies characterized by specific traditional concepts of the use and preservation of their natural resources.**
- The need for an obligatory environmental impact assessment in any case of industrial and high-tech use of natural resources**

which may have substantial impact on ecosystems and their biodiversity and on human health.

- Identification of actors and processes which alter ecosystem and species, and making the results publicly available.
- Evaluation of existing and potential impacts resulting from introduction of exogenous species.
- Study and quantification of the impact of militarism on biodiversity.
- Study and, if possible, assessment of the cultural and social values of biodiversity.
- Addressing environmental research needs of the various legal, institutional and political systems at national, regional and international levels, thus contributing to the overall goal of orienting the public to ongoing or planned activities which have potential impact on biodiversity.
- Where applicable, the propagation of traditional knowledge via technical assistance, taking into account the important role women play in managing natural resources.
- High-level studies on biological pest control and on habitats, with a view to increasing the species which are vital to the reproduction of and serve as food for threatened animals.
- Rehabilitation of damaged ecosystems.

We, the undersigned NGOs, will exchange information obtained in our specific fields of competence with other disciplines; in particular, we will stimulate the exchange of information between biosciences and socioeconomic and ethnic studies.

We emphasize the creation of an international code of ethics for biodiversity studies which underlie the researcher's commitment to fully respect the intrinsic value of the living organism to be studied.

In studying, monitoring and researching biological diversity, the undersigned NGOs will follow the principles of this treaty. Scientific

research carried out in this context is meant to fully respect the ecological and cultural integrity of all components involved.

In particular, research programs for biodiversity will address the following principles:

- The social and cultural integrity of indigenous peoples shall be respected. Research on the relationship between physical and cultural biodiversity shall only be done in full agreement and cooperation with the indigenous people concerned.
- The ecological integrity of ecosystems and their components shall be defended.
- Studies which require sampling of wild species will strictly adhere to the "sustainability principle" and will be avoided in sensitive ecosystems.
- The results of all biodiversity studies should be of lasting benefit to the communities living with and dependent on the natural resources studied.

The need to generate instruments to transfer the knowledge obtained through international studies on biodiversity require increased funding through international agencies and through technical assistance for development projects.

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CITIZENS' COMMITMENT ON BIODIVERSITY

Preamble

The concept of biodiversity should be an expression of life which includes the variability of all life forms and their organization and inter-relationships from the molecular to the biosphere level.

Threats to biodiversity are threats to all components of life; therefore, we reject the fragmented treatment of biodiversity.

We emphasize that biodiversity conservation is essential in enhancing the ability of communities to maintain their own culture and that biodiversity has a strong influence on the cultural, economic, social, spiritual development and on the quality of life.

We insist that the present unjust economic world order and the serious inequalities generated by it do not form a proper framework for maintaining biodiversity.

We underscore the fact that biodiversity is being threatened by the destruction and contamination of natural habitats and by the exploitation of species and ecosystems, through social development policies and economic systems incapable of recognizing and assessing the intrinsic social, cultural, economic and spiritual value of biodiversity.

Principles

The conservation of biodiversity is a pressing responsibility of all people and institutions. This implies that:

- All members of present and future generations receive a socially equitable share of and access to the benefits of natural resources.

- **The basic structure of genetic resources and their ecosystems should not be depleted by the use of their components.**
- **All life forms should be treated in a way that respects their intrinsic, social, aesthetic, cultural, traditional, spiritual and other values.**

Conserving biodiversity requires fundamental changes in patterns and practices of socioeconomic development worldwide, as well as changes in the mindset of individuals and respect for the integrity of ecosystems and for their conservation.

All social groups, governments and enterprises should be fully responsible and liable for the social and ecological damage caused by their technologies and actions to biological and cultural diversity.

Infrastructure projects should be sensitive to impacts affecting regional and global ecological balances.

The important roles played by women in managing, caring for and understanding the components of nature merit particular respect and attention.

The knowledge, cultural traditions, innovations, spirituality and management practices of indigenous peoples, and traditional practices of farmers and other rural communities concerning biodiversity are an essential basis for both sustaining biodiversity and human life.

The collection of information and the findings of research deposited in national or international agricultural research centers, gene banks or other venues, shall not be the object of restrictions, or in any way be considered as intellectual property.

Increased resources, technical assistance and other resources are needed to support groups and countries which are not in a position to do so, to make the necessary investment in the conservation of biodiversity.

We reject the administration of environmental funds by the World Bank and, in particular, by the FMAM/GE.

Increased public participation, respect for human rights, respect for the planet, improved access to education and information, and greater

institutional accountability are fundamental prerequisites for effective biodiversity conservation. Consequently, we reject all initiatives attempting to divide society by seeking alliances between governments and sectors of power. Consultation and agreement of all peoples' groups involved in conservation action are essential.

Principal actions

We will take all possible actions to conserve biodiversity and respect the independent rights of indigenous people and traditional cultures. We will cooperate with other individuals and organizations for the conservation of biodiversity by exchanging and sharing actively, building upon new and existing structures and networks:

- **all available information**
- **financial resources**
- **technical assistance**
- **human resources and capacities**
- **all other appropriate and adequate resources**
- **individuals working for in-situ conservation**



MARINE ECOSYSTEMS

Minimizing their physical alteration

Preamble

Because marine species are adapted to some physical conditions and not others, physical conditions are very important in determining the community of species that live in each marine ecosystem. By changing the structure of the substratum and characteristics of the overlying waters, humans are simplifying, fragmenting and even eliminating species' habitats, and thereby changing ecosystem processes. Some kinds of physical alteration are intentional, such as logging in mangrove forests, mining, dredging, filling, channelizing wetlands and dynamite fishing in coral reefs.

The greatest threats to marine ecosystems come from the land, including silting from logging, destruction of vegetation, agriculture, aquaculture, road building, urbanization of shorelines and the construction of sea walls, jetties, harbors, marinas and dams, which alter the flow of freshwater and cause other problems.

Loss of marine wetlands, including mud flats and salt marshes, is essentially complete along some coasts. Few, if any, governments regulate physical alteration comprehensively. Rather, different agencies are often responsible for farming, logging, trawling, dredging and dam building. This fragmentation of authority contributes to accelerated simplification, destruction and fragmentation of marine ecosystems.

The diversity of physical alterations of marine ecosystems creates special problems for governments seeking to protect marine ecosystems and sustain their use. Regulations need to be tailored to the different kinds of physically damaging activities, but there is also a need for comprehensive monitoring and management.

It is important to maintain the volume and timing of freshwater flow into estuaries and coastal waters. For ecosystems, including kelp beds, seagrass beds, mangrove forests, coral reefs and shellfish beds, no

further physical alteration should be allowed. These ecosystems are especially vulnerable to anything that increases turbidity, and they need protection from land-based sources of silting.

Even sandy or muddy seabeds that seem featureless from above contain many biologically diverse structures under the surface. These, of course, are the ecosystems most likely to be subjected to dredging, filling and severe, repeated trawling. Given the especially low resilience of most deep sea ecosystems, international treaties and governments should be specially careful about sanctioning deep sea mining.

Principal actions

- Urge nations to adopt environmental impact assessment procedures for any projects that affect physical conditions in their marine ecosystems and pressure the UNEP to work with the World Bank and other international organizations and national governments to establish methods of assessing the cumulative effects of physical alteration from each proposed coastal or marine development projects.
- Encourage governments to establish and manage marine protected areas, and demand that the exploitation of coral reef species end, unless carried out in an environmentally sound manner.
- Pressure governments to enact special laws relating to the construction of nuclear plants in coastal zones.

Commitment of NGO resources

- Initiate regional workshops in order to exchange and share scientific information.
- Form an electronic network to share information.
- Develop a complete list of NGOs, to encourage regional network-building and meetings.
- Initiate a newsletter to inform each other of actions taken.

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MARINE BIODIVERSITY

A key factor in the health of the Earth

Preamble

Maintaining the biological diversity and integrity of the sea is a key factor in the health of the planet. Today, exploiters are far more numerous, technologies are far more powerful and predatory practices have prevailed over traditional ways. For these reasons, humans have hunted some species to extinction and pushed many others to the brink. There is a dire need for ecologically sustainable practices that directly or indirectly conserve the marine environment and its species.

Non-indigenous species compete with native species and are probably the least recognized of the serious threats. Accidental releases of genetically altered species from fish farms are also an increasing problem in some areas. These practices alter the natural biological diversity of inland waters.

Principles

Sustainable fisheries, such as traditional artisanal fisheries, do not threaten marine biodiversity, but must be effectively maintained and enforced.

Preventing the introduction of non-indigenous species is far less costly and far more effective than their eradication and requires that ships must take all necessary precautions to avoid the transportation of species across the oceans.

The operation of fish farms should follow the same principle of precaution to be followed in the use of toxic materials and in the secure containment of stock.

Principal actions

- Urge nations to adopt procedures for implementing recommendations in the position statement "Translocation of Living Organisms" of the UICN, and in "The Code of Practice to Reduce the Risks for Adverse Effects Arising from the Introduction and Transfer of Marine Species" of the IECS.
- Urge UN agencies and international lending institutions to take no actions that encourage the proliferation of technologies that lead to the degradation of marine ecosystems or the depletion of marine species below sustainable levels.
- Urge all coastal countries to have a management agency with responsibility and authority to protect living marine resources and manage them on a sustainable basis.

Commitment of NGO resources

- Initiate regional workshops in order to exchange and share scientific information and procedures for dealing with environmental problems.
- Form an electronic network to share information.
- Develop a complete list of NGOs, to encourage regional network-building and meetings.
- Initiate a newsletter to inform each other of actions taken to implement this treaty.

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MARINE PROTECTED AREAS

Preamble

Marine protected areas are vital for the preservation of ecosystems that are of special importance. These coastal environments, including bays, estuaries, lagoons, mangroves, wetlands, seagrass beds and coral reefs, are highly productive and diversely complex. These areas are also environmentally susceptible to natural and human-related activities, such as climatic changes, sea level rise, dredge and fill activities, channelization, sedimentation, sewage discharge and shoreline development, among many others.

There is an urgent need for immediate action to stop further destruction of these invaluable marine ecosystems. This causes an unsustainable environment for the native population, whose survival depends on the living resources of this ecosystem; this results in the native population being displaced. Both factors cause unemployment, poverty and hunger.

The governments of the world need to listen to the wisdom of all native peoples, including fishers and all other users of the marine environment. It is important to understand that unless the peoples of the world work together to solve these problems, even greater catastrophes will occur. We need a global mind change. We need a well-informed citizenry, aware of the environmental problems, anxious to seek solutions to existing problems and interested in applying knowledge for the prevention of future problems.

Principles

Marine protected areas must be created to preserve biodiversity, including special attention and actions to support the native people.

Strict regulations and policies are needed. Monitoring, surveillance and enforcement are absolutely necessary. Unless public awareness and education is promoted, the public will not support a marine conservation concept; the establishment of marine parks by force is futile.

Indigenous and other peoples must be empowered so that they may have a greater voice in the decision-making process.

Principal actions

- Recommend proposals to governments on subjects such as the preservation of undisturbed areas, protection of breeding areas of endangered and threatened species, subsistence fishing, restoration of deteriorated habitats, abatement of all external sources impacting the coastal environment, sustainable harvesting of commercial species, monitoring of the marine environment, enforcement of regulations, proposals for new legislation, funding for basic marine science research, funding for mariculture projects, and funding for marine education programs through educational institutions, interpretive centers, public aquariums and museums.
- Lobby government to ban the illegal use of toxic chemicals or poisons, explosives and destructive harvesting methods in marine protected areas, reserves, sanctuaries and parks.
- Insist that legislators allow coastal residents to review and change decisions when necessary, and urge governments to adopt principles of "eco-tourism" and environmental ethics and to proceed cautiously when developing coastal shorelines.

Commitment of NGO resources

- Initiate regional workshops in order to exchange and share scientific information and procedures to deal with environmental problems.
- Form an electronic network to share information.

- **Develop a complete list of NGOs, to encourage regional network-building and meetings.**
- **Initiate a newsletter to inform each other of actions taken to implement this NGO treaty.**

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FISHERY RESOURCES

A vital source of food

Preamble

Fishery resources are a vital source of food and make a valuable economic contribution to the peoples of the world. Traditional fisherfolk are among the poorest and most socially, politically and economically disadvantaged segments of society. Fishers around the world face resource depletion, loss of access to resources, competition from industrial and deep-water fleets. The resources themselves suffer ecosystem destruction from various sources, including industrial and urban pollution, overfishing and destructive and non-discriminatory fishing technology. Fisherfolk organizations and NGOs pledge to work together to preserve fishing communities and conserve and protect aquatic ecosystems.

Principles

Priority should be given to artisanal fishing in recognition of its importance as a means of promoting community stability, resource conservation and the environmental protection of marine, coastal and inland waters areas.

Fishing should be conducted in a manner that is ecologically sound, to sustain the resource for present and future generations, and that is socially just, respecting cultural, biological and ecosystem diversity.

Equitable Principle. Access to fishery resources should recognize the needs of fishing communities and be based on equitable principles and respect for the environment.

Ecosystem Approach. Fisheries should be managed from a ecosystem perspective, utilizing integrated management principles which take into consideration human activities leading to degradation of aquatic ecosystems and the environment. The common recognition of, and

agreement to act to solve, these problems are the main challenges facing the cooperative endeavors of fishers, environmental NGOs and development NGOs.

Participation. Successful management of fisheries and other factors affecting the aquatic environments should have the full and meaningful participation of all interested parties.

Women in Fishing. It is essential to recognize and strengthen the vital role of women in fishing and in integrated community development, and their participation at all levels in decision making.

Precaution. A precautionary approach should be taken in making decisions that affect fisheries and aquatic environments.

High Seas Fishing. The special rights and needs of coastal states and coastal fishing communities with respect to straddling stocks and highly migratory species, protected under the UNCLOS, should be recognized and high seas fishing should be subject to a legally constituted system.

Basic Rights. Basic rights should be observed for fishers and fishworkers in all sectors, and minimum standards of safe working conditions must be developed, adopted and applied.

It is essential to recognize the right to:

- form their own organizations, which can participate by voting in national planning commissions, fisheries management decisions and fisheries development plans.
- have marine and inland water zones reserved exclusively for artisanal fishing activities.
- have access to credit and social services.

Principal actions

Recognition must be given to the need for common action to improve the quality of life of fisherfolk and fishworkers, based on the principles set out in this treaty.

In order to ensure that fisheries are conducted using an ecosystem approach, we recommend that:

- all existing technologies which reduce by-catch and protect aquatic ecosystems be implemented, and that all technologies determined to be harmful to the aquatic environment be restricted or eliminated.
- an internationally binding regime for high seas fisheries be negotiated that includes mechanisms to ensure compliance with the United Nations Driftnet Moratorium (Resolution 46/215), and that the need to upgrade biological information on the ecosystems be recognized.
- the need for cooperation among fishers and environmental and development NGOs be recognized, developing or strengthening organizations to facilitate cooperation, and coordinating political and cooperative actions with respect to national and international policy, law, investment and aid.

NGO commitments

The signers of this treaty agree to work together, following the above principles, to support and strengthen small-scale fishers' organizations, environmental groups, development NGOs and other concerned interests, with a view to holding a world conference on fisheries and environment in Rome in 1994.



PROTECTING THE SEA FROM GLOBAL ATMOSPHERIC CHANGES

Preamble

The stratospheric ozone layer is the Earth's primary shield against damaging solar ultraviolet-B radiation. Manufactured chlorofluorocarbons (CFCs) destroy stratospheric ozone. Fossil fuel burning and deforestation increase atmospheric concentration of carbon dioxide, which traps heat in the lowest layer of the atmosphere.

This will cause global warming and other changes, including changes in storm tracks, rainfall patterns and in ocean currents.

All of these factors will influence marine productivity and the balance of coastal ecosystems. Another important consequence of the climatic changes is sea level rise, which will dramatically affect these coastal areas, especially in those developing countries that have large populations living in coastal areas and lack both the technology and the financial resources to cope with the rising sea.

Principles

It is preferable to prevent increases of ozone-depleting chemicals and greenhouse gases than to deal with the consequences of such increases.

Sea level rise is primarily the responsibility of the developed countries, which should bear the related social, economic and environmental costs, since they produce most of these gases.

Principal actions

- Urge the creation of an international fund that will be used to fund projects and to help poor and less developed regions affected by sea level rise.

- Urge all industrialized nations to set specific target dates and levels for stabilizing and reducing emissions and atmospheric additions from land use of carbon dioxide and all other greenhouse gases.
- Help government efforts to detect warming and other problems related to global atmospheric change.

Commitment of NGO resources

- Initiate regional workshops, in order to exchange and share scientific information and procedures to deal with environmental problems.
- Form an electronic network to share information.
- Develop a complete list of NGOs, to encourage regional network building and meetings.
- Initiate a newsletter to inform each other of actions taken to implement this NGO treaty.

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**POLLUTION OF THE
MARINE ENVIRONMENT**

Preamble

Pollution continues globally, resulting in the steady degradation of coastal and marine ecosystems. Over 80% of all marine pollution originates from land-based sources, which are primarily industrial, agricultural and urban. Excessive urbanization of the coastline continues unabated in many parts of the world, resulting in eutrophication and reduction of marine resources. Radioactive contamination from a variety of sources and the growing problem of plutonium build-up in sediments of some estuaries also invoke concern.

The operational, deliberate and accidental pollution originating from ships and offshore installations continues, often with disastrous consequences. The world's oceans also receive pollution from and through the atmosphere

The NGO community recognizes that the above sources of marine pollution pose grave health risks, not only to humans, but to all aquatic organisms and the environments in which they live.

Principles

In accordance with the United Nations Convention on the Law of the Sea, and global and regional instruments, all states have an obligation to prevent, combat and control marine pollution.

The "polluter pays" principle is rapidly receiving global acceptance.

The precautionary principle calls for anticipatory management actions, particularly for substances that are toxic, bio-accumulative and persistent.

NGOs should be allowed standing in international tribunals regarding environmental matters, in order to provide representation and assistance to victims of pollution and to seek appropriate compensation on their behalf.

Principal actions

- **With regard to pollution from land-based sources, demand that industries review their waste disposal practices, with the aim of minimizing and eventually eliminating harmful waste discharge; study how ecologically acceptable biological and organic substances can increasingly be utilized so as to minimize and eventually phase out the use of non-biodegradable chemical substances currently in use.**
- **With regard to pollution caused by ships, demand that governments ratify international agreements and implement laws on pollution, and encourage the IMO to implement international laws intended to regulate actions, with a view to reducing pollution of international waters to a minimum.**
- **Regarding atmospheric pollution, pressure national and international scientific institutions to develop models that will enhance our understanding of air-borne pollutants; support the World Bank, United Nations Environmental Programme (UNEP), World Meteorological Organization (WMO) and the International Oceanographic Commission (IOC) to assist member nations in studies on the impact of conventional air pollutants and global atmospheric changes on marine species and ecosystems, and in the dissemination of existing analyses to nations that are likely to be harmed by these pollutants and their effects.**

Commitment of NGO resources

- **Initiate regional workshops, with assistance from international NGOs, in order to exchange and share scientific information.**
- **Form an electronic network to share information.**

- **Develop a complete list of NGOs, with names of contact persons and areas of interest and expertise, organized by region, to encourage regional network-building and meetings.**
- **Initiate a newsletter to inform each other of actions taken to implement this NGO treaty.**

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GUANABARA BAY

Resolutions of the Oceanographic Group

Humankind's Heritage

Acknowledging the historic debt and obligation on the part of the international community, caused by actions which led to the extermination of the Tupi-Guarani native people who lived in harmony with nature upon the shore of Guanabara Bay, and the destruction of whales which used to swim in its waters;

Aware of the uncontrolled exploitation of the shores and islands of Brazil, the deforestation of its shores and the increasing sedimentation of its peripheral ecosystems;

Considering the poverty of the people living along its margins and the environmental degradation —both caused by the same mindless development model imposed upon developing countries— which the peoples of the earth, represented by those here in the Global Forum, desire to change; and

Having as the central purpose of the UNCED and the Global Forum to make commitments among all here to change the world community's environmental thinking to create life which is globally sustainable.

We, the undersigned, resolve that Guanabara Bay and its surrounding environments be declared as Humankind's Heritage.



FRESH WATER TREATY

The international setting

Preamble

In recent years, most developing countries have faced a grave economic crisis which has reduced the capacity of the public sector to invest in the maintenance and expansion of irrigation, potable water and sanitation systems, as well as in environmental preservation and conservation and development programs.

This reduction of investment in developing countries is due, to a great degree, to service of external debts.

At the same time, ecosystems are rapidly deteriorating, due to inadequate exploitation of water sources, the degradation and contamination of ecosystems and natural water producers, and irrational and wasteful consumption of water.

Projects designed to drain wetlands for agriculture, livestock enterprises, large urban development projects and dumping sites all constitute serious threats to biodiversity, the equilibrium of surface water regimes, aquifer recharge and the availability of fresh water sources for natural ecosystem and human populations.

The world requires an environmental vision that incorporates the specificities and diversities of all regions, in order to be socially just and environmentally sound. This necessarily requires the active participation of a broad range of the social, economic and political groups and actors in each region.

Water and development

Water has progressively become a scarce resource both in quantity and quality for different social uses.

There is a growing realization that we must perceive water in a holistic manner. This implies an understanding of water from several distinct perspectives:

- as a vital element for the survival of biodiversity and human societies;**
- as a vital resource for the development of economic activities;**
- as a natural resource which has economic value because of its scarcity;**
- as an environmental resource which is a common patrimony that society should use, preserve and conserve.**

All inhabitants of the world should be guaranteed equitable access to potable water and sanitation as a fundamental right.

Privatization and fragmentation of the hydrological cycle worsen the existing situation. By themselves, markets cannot solve the full range of problems associated with managing hydrological systems; the environmental alternative to resolve these problems implies water management where priorities are set and decisions are made as the result of collective processes of debate and discussion involving broad popular participation, resulting in a collective sense of responsibility.

General principles

Water is critical for life on earth. It links the planet's diverse ecosystems and contributes to human health and welfare, food security and economic development.

All inhabitants of the planet have a basic right to clean, fresh water.

Scarcity, misuse and pollution of fresh water resources pose increasingly serious threats to ecologically and socially sustainable development and ecosystem maintenance.

Water resources are limited; the increased demands for water exceed supplies, which are being wasted and contaminated, as watersheds, rivers and aquifers are destroyed and fisheries resources are decimated.

It is estimated that hundreds of millions of citizens of the Third World are without access to any basic sanitation facilities. The conditions of life in some urban areas are so unbearable that mortality rates in urban areas are higher than in rural areas. In other places, the situation is so serious that water-borne diseases —schistosomiasis, bilharzia and cholera— have become epidemic.

Intensive irrigation projects and large dams are responsible for the waterlogging of hundreds of thousands of square kilometers of land, cause the salinization of other regions and use the major part of the world's available water supplies, forcibly displacing millions of people from their homes, reducing fishing capacity, destroying ecosystems and consuming enormous amounts of scarce capital resources.

Conservation and ecologically and socially sustainable water management require a different kind of development model, based on social justice and ecological concern, with popular participation and cooperation at all levels.

The central role of women in supplying drinking water, growing food and maintaining the health and welfare of families must be reaffirmed.

Citizens, local communities, NGOs and user groups should participate in the management of aquatic resources and water.

NGOs and social movements, especially in rural areas, should question large-scale dam projects associated with conventional development projects. Existing projects should be modified and new ones developed in an ecological and socially sustainable manner.

Solutions to the world's water problems go beyond new technologies and must encompass political, social, economic, environmental, cultural and spiritual issues.

The principles of existing NGO declarations, charters and agreements to promote economically and socially sustainable management of fresh water, including the June 1990 Montreal Charter on Drinking Water and Sanitation, should be endorsed.

This transition should be made to ensure that adequate, safe and clean water supplies are available to maintain biodiversity and to meet the needs of all inhabitants of the planet.

Principal actions

- **Recognize and support efforts of NGOs, social movements, indigenous peoples, women's organizations, agricultural producers' organizations, traditional fisherfolk and local communities to develop an ecologically and socially sustainable use of water, and lobby for the adoption of appropriate water policies.**
- **Create efficient information mechanisms through formal and informal education programs on the importance of fresh water to our health, welfare and economy, the scarcity of fresh water resources, the impacts of various water-use practices and the need to conserve and protect our finite water resources.**
- **Promote the conservation, preservation and restoration of aquatic ecosystems and aquatic biodiversity.**
- **Ensure the creation of river ecosystem reserves to protect representative parts of the basin.**
- **Promote efficient and environmentally sound water-use practices to reduce water waste and increase water conservation and preservation in domestic, industrial, mining, commercial, service and irrigation sectors.**

Commitments

- **To develop practices to improve the efficiency of operating systems.**
- **To develop criteria for evaluating water resource projects and policies that all NGOs may use to ensure that their efforts are consistent with the principles of this treaty.**
- **To guarantee that river basins be used as units for environmental planning and management in ecological and socially sustainable development models.**
- **To prohibit the installation and maintenance of nuclear power projects.**

- To prohibit the establishment of any activity that leads to erosion.
- To mobilize civil society to initiate public actions against those who degrade water systems.
- To develop activities on environmental education and human resources development focusing on an integrated watershed perspective.
- To lobby governments to guarantee the full functioning of agencies that regulate, monitor and audit environmental conditions.
- To guarantee that any actions that change a watershed in any way be preceded by an environmental impact assessment.
- To prohibit construction that constricts river channels and can cause rivers to shift course.
- To exert pressure to ensure that water management programs and projects are democratically debated and managed with the participation of representatives of various social sectors.
- To create breeding sanctuaries for aquatic animals where hunting and fishing are prohibited.
- To establish taxes and fines to be applied to environmental programs, ensuring democratic discussion of ways to invest these resources.
- To guarantee that financial resources for community efforts come from investments made by regional, national and international institutions.

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NUCLEAR ARMS**The atomic terror**

All attempts to accomplish arms reductions have been insufficient. The Pacific population suffered nuclear bombardment, in the form of nuclear testing, which affected their lives tremendously, along with the lives of future generations. With the end of the Cold War, the equilibrium of atomic terror was replaced by uncontrollable arms trading, primarily in Eastern European countries. Peripheral countries, which had been prohibited from entering the "Atomic Club," today, more than ever, sponsor nuclear projects with militaristic ends.

The nuclear race extends into the field of electrical energy generation. Instead of being regulated by the real consumer necessities of communities, energy is generated to feed electro-intensive industries and wasteful cities, while two-thirds of the population of the planet consumes less than the acceptable minimum of electrical energy.

The generation of nuclear energy, subsidized by the military, produces over 10,000 cubic meters of highly radioactive waste and over 200,000 cubic meters of low- and medium-range radioactive waste annually, as well as the spent fuel rods from reactors.

Many industrialized countries in the Northern hemisphere, with populations conscious of the severity of nuclear plant accidents (such as Three Mile Island and Chernobyl), decided to stop or abandon nuclear power generation. Some Third World countries have also increased the supply of electricity through the implementation of nuclear programs, but without adequate safety precautions. Poor countries, who consume little energy, are "dumping" grounds for thousands of tons of all kinds of radioactive waste. The industrial model was sold in a neo-imperialistic manner to the Southern hemisphere, and is causing even more misery there; this leads to the greater generation of electrical energy and creates the same enthusiasm among their armed forces to possess the dominant force of atomic weapons.

The energy needs of poor populations cannot be met through large-scale hydro-electric or nuclear power plants. The social and environmental destruction and the risk from radioactive waste and accidents damage the energy —producing countries and not the end consumers.

Plutonium (Pu 239), an extremely toxic and radioactive element produced in the core of the reactor, is intended to be the energy source of the future industrial societies. In addition to its principal use as an atomic explosive, plutonium is the only abundant substitute available for the limited uranium 235, a rare element in nature which will be exhausted more rapidly than petroleum. Plutonium can be produced in vast quantities, but safety control measures must also be created. The extraction of plutonium by reprocessing has led to radioactive contamination of the atmosphere and many parts of the oceans.

Alternatives to the nuclear threat

- Immediate ending of all atomic testing and compensation for all damage to the populations and environments which were affected in the past.
- Dismantling existing arms and halting their production at a world level, as well as discouraging the nuclear capacities of the armies of the world.
- Prohibiting the export of nuclear products and technology which could be used for military purposes.
- Prohibiting of the use of nuclear-propelled naval ships and nuclear energy sources on military satellites.
- Ending the cycle of plutonium (nuclear fuel cycle) or any use of this element for energy or military purposes.
- Terminating existing nuclear power programs and providing international aid to help countries which depend on this type of energy source, through the restructuring of energy consumption programs.

- **Restructuring of industries and nuclear installations, with possible "recycling" of personnel to socially useful activities.**
- **Control of all nuclear activities, including finance, security, and radiation control.**
- **Community involvement in the control of the medical and industrial radioactive materials, as well as of any type of radioactive material present in the community.**
- **Establishing more stringent methods to fight the exposure of the population to radiation.**
- **Providing special assistance to victims of radiation exposure and requiring that nuclear industries cover the cost of safety, medical treatment and equipment.**
- **Adopting international legal measures to require full compensation for all damage done by nuclear installations, as well as abolishing the Price Anderson Law, which still exists in all countries.**
- **Establishing a world fund for assisting victims of radiation exposure.**
- **Prohibiting ocean dumping of radioactive waste.**
- **Demanding the treatment and storage of radioactive waste in the countries which produce them.**
- **Prohibiting mining of elements with radioactive potential.**
- **Replacing the IAEA with an international control agency that will provide free access for interested communities.**
- **Creating an international agency for renewable energy.**
- **Including information on precautions and dangers related to radiation, at all levels of educational programs.**
- **Prohibiting the radiation of foods.**
- **Promoting the creation of non-nuclear zones on the Earth.**

Disseminating research on nuclear fusion, given its high cost and the role it plays in the creation and increased concentration of energy-producing industries.

Principal actions

- **To recognize and support the efforts of NGOs, social movements and associations of radiation victims which will contribute to increasing worldwide awareness of the dangers of nuclear fusion, and to create a network so the efforts of NGOs involved in nuclear issues will be more effective.**
- **To develop an international data base on current nuclear programs, new radiation-protection technologies, risk management, the conversion of positions in the nuclear industry to activities focused on meeting social needs, and the care of radiation victims.**

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INDISCRIMINATE PRODUCTION OF WASTE

Preamble

Considering that:

- The Earth's natural resources are finite and must be utilized in a responsible, socially just and environmentally sustainable manner;
- Active cooperation between peoples, respect of human rights and participatory democracy are fundamental prerequisites for an equitable, peaceful and just society;
- Society as a whole, and the poor in particular, suffers from the health impacts and the socioeconomic costs of soil, water and food contamination and air pollution;
- The indiscriminate production of waste causes a severe environmental disequilibrium;
- National and international legislation and regulations concerning different categories of waste are highly amorphous and heterogeneous from country to country, thus representing a great obstacle to effective and environmentally sound global action;
- Communities do not have control over the production, transportation, import, export, treatment and final destination of wastes.

Considering also the proposals contained in the "Agenda Ya Wananchi – Citizen's Action Plan for the 1990's," which was adopted at the International NGO Conference "Roots Of The Future," held in Paris in December 1991;

The following principles and commitments have been adopted as a basis for future actions:

Principles

- **Social forces in all countries have to work to reach the goal of zero production of hazardous and nuclear waste.**
- **The adoption of any new technology or industrial processes must include a precautionary principle on waste production before commencing operation.**
- **All major environmental education programs on waste should stress the importance of a pluralistic culture.**
- **All people have the right of access to full and unbiased information on all steps of waste production and management, and on the amount, distribution and risks of the waste produced in the world.**
- **The primary impact of urban waste is local.**
- **Decision making should include public participation and not be under the exclusive control of authorities.**
- **The problems induced by industrial, hazardous and nuclear wastes must be prevented and solutions must be funded by the producers themselves.**

In order to substitute nuclear power production, governments and industries must increase funding for research into renewable energy technology.

- **National and international regulations aimed at implementing clean production technologies should be adopted.**
- **Informal recycling methods must provide the basis for development of public schemes to promote the recovery of primary materials in urban waste.**
- **As an emergency measure, the global community should adopt the most strict and comprehensive environmental regulations in practice in any country.**

- **Industrial, hazardous and nuclear waste must be contained and maintained in the country where they are produced.**
- **All, including military, wastes must comply with existing rules and regulations.**
- **Countries must not affect neighbours with their waste disposal.**
- **The commitments which pertain to organizational actions among NGOs should be achieved worldwide in one year.**

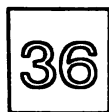
Principal actions

- **Develop, through existing international networks, a permanent inventory of accidents, transportation routes and potential problems related to hazardous and nuclear waste.**
- **Promote the formation of local, regional and international networks to share information and organize pressure groups to carry out follow-up, denunciation and solidarity actions.**
- **Influence governments to create comprehensive and effective waste management policies and regulations on waste management, and pressure business to reduce wastes by the development and implementation of cleaner production technologies.**
- **Pressure governments to establish legal, financial and monitoring mechanisms that guarantee:**
 - **the responsibility of waste producers in regard to the effects of such residues on the environment and living beings.**
 - **the strict prohibition of imports or exports of wastes and the construction and use of incinerators and similar technologies which only change the physical state of waste.**
 - **the education of waste transporters and the establishment of strict requirements regarding the issuance of permits for such activities.**

- **Organize campaigns to stress the right of the public to be informed of the production, use and commercialization of all types of waste, and denounce systematically all careless and illegal practices connected with the management of any type of waste at the national or international level.**

SECTION THREE

NGOs and the Most Vulnerable Groups



THE RELATIONSHIP BETWEEN WOMEN AND THE NGOs

Seeking a just and healthy planet

We pledge to support women in becoming the central and powerful force in the search for a safe environment, economic and social justice, equitable reallocation of resources, the survival of all species and our common goal of a healthy planet.

The participation of women—half the world's population—is indispensable in the conduct of daily life and policy-making, from the community to the national and international level.

Everywhere, women are initiators and catalysts of environmental and developmental activism. Their perspectives, values, skills and diverse experiences must be brought into policy design.

As activists in nongovernmental organizations, we pledge to demand and work for gender balance in policy analyses at senior levels in governments and NGOs, and at international, regional, national and local levels in decision making, implementation, administration, evaluation and funding.

We call on NGOs and governments to comply with the requirements of the Nairobi Forward Looking Strategies for the Advancement of Women—approved by the United Nations General Assembly in 1985—and to ratify and implement the UN Convention on The Elimination of All Forms of Discrimination Against Women, the UN Convention on Human Rights and the UN Convention on The Rights of the Child.

We recognize the failure of governments to either address the true causes of the planetary crisis or reach agreement on urgent actions to save our planet. We believe that the chief causes lie in militarism, debt and structural adjustment and trade policies being promoted by transnational corporations and international financial and trade institutions such as the IMF, the World Bank and the GATT.

We condemn these policies and call for the immediate adoption of alternative policies based on principles of justice, equity and sustainability.

We ask for cancellation of the so-called "debts" allegedly owed by countries of the South, which have been more than repaid by the inequitable prices paid for their labor and resources, the exorbitant interest charged and the consequent impoverishment of their peoples.

We pledge to promote the adoption of a development model based on sustainable livelihoods for all peoples, with full human rights.

We affirm our belief that a healthy and sustainable environment is contingent upon world peace and an end to militarism; on the immediate cessation of the production and testing of nuclear weapons and the unjustifiable generation, dumping and incineration of wastes nuclear waste, toxic or non-toxic; on a more equitable distribution of wealth, with a view to eliminating disproportionate consumption patterns throughout the world; on the self-determination of peoples; on respect for indigenous peoples and their lands, crops and traditions; and on a global effort to protect and repair our inheritance.

We insist that if the social, political and health status of women is to rise, it will be necessary to develop policies and take actions aimed at ensuring them equal access to education, information, fair wages, safe working conditions, inheritance rights, credit, appropriate technology, environmentally sound consumer products and health services.

We oppose discrimination on the basis of sex, race, ethnic group, religion, handicaps and sexual orientation, and demand that society condemn domestic and sexual violence.

We reject any attempt to deny women the right to reproductive freedom, the knowledge required to exercise that right, to reproductive health services and family planning, including the right to information, sex education, pre-natal care, abortion and the use of voluntary, safe and legal birth control methods.

We must recognize the worldwide epidemic of cancer, which demands the elimination of cancer-causing substances that have particularly adverse effects in women and children; and must alert and educate all people on the danger of AIDS and on efforts to eliminate the risks of conception in factories and offices and on farms.

We repudiate the damage that can be caused by the genetic engineering of plants and animals, and the release into the environment of genetically altered organisms.

We pledge to adopt and implement codes of ethics which respect people and the environment, and to ensure that technology transfer is sustainable.

We appeal to all women and men to answer the call of making immediate and profound changes in human values and activities, and, as NGOs, we pledge to incorporate into our thinking and work the demands of Agenda 21 related to the action of women, adopted initially at the World Congress of Women for a Healthy Planet, and, now, by the heads of government attending the Earth Summit.



THE ROLE OF YOUTH

Economic and social justice

We, the undersigned youth gathered in Rio de Janeiro to participate in the International Forum of NGOs and Social Movements, the Global Forum and the UNCED, commit ourselves to the following principles and actions:

Commitments

We are a strong force that can be channeled through unity in diversity. This implies economic and social justice; equal participation in decision making; peace and collective security; equal rights and education.

The inequitable relations between North and South is a result of the politics of domination and discrimination. We commit ourselves to the sincere respect of each person as an integral part of humanity. We adhere to the Universal Declaration of Human Rights.

We reject the current economic system based on the free market, the maximization of profits and over-consumption, which are the principal roots of human and environmental degradation.

We also consider it necessary to satisfy the basic human necessities.

We recognize that grassroots organizations are fundamental in achieving sustainable development at the local, regional and global levels.

We recognize education as an inherent right of each human being. We defend the principle of free and public education so as to guarantee the accessibility of education to all in order to impede the privatization of knowledge, which is amply defended by neo-liberal ideas.

We condemn the open and covert destabilization of national sovereignty and self-determination, including all violations of the most

elementary norms of international law, such as blockades, invasions and any kind of aggression, whether it be military, economic, or through the media.

Principal actions

- **Distribute, through the different communications media, meetings and debates, the experience of the events in Rio 92, the UNCED process and the Youth Treaty.**
- **Work on behalf of environmental education and increase the level of environmental awareness at all levels of society.**
- **Consciously reduce our personal consumption of products that invade the market and/or harm the environment, as well as adopt strategies to save energy, and promote campaigns that foster moderate consumption which is environmentally sustainable and supports regional economies, for example, international boycotts of large polluting enterprises.**
- **Promote campaigns against the domination of the world economy by elites, militarism, the use of nuclear power, the abuse of fossil fuels, hunger and unchecked over-consumption, the unnecessary use of pesticides, and nuclear testing.**

Mechanisms

- **Open a conference through an existing electronic mail network, such as the Association for Progressive Communications (APC), and continue and extend the existing network.**
- **Create regional information centers which are involved in the e-mail network.**

Resources

- **Exchange information through the network about different sources and mechanisms of funding.**
- **Transfer resources between NGOs from the North and South and from governments and private institutions to regional networks for youth environmental activities.**

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IN DEFENSE OF CHILDREN
AND ADOLESCENTS

The discussions related to environment and development presuppose a central idea: the preservation of life for all species. The model of development internationally adopted results in social inequality and degradation of the environment that directly influences children and adolescents, who live in a situation which systematically negates their fundamental rights.

According to the United Nations Children's Fund (UNICEF), each day 40,000 children die from malnutrition and common childhood illnesses, 150 million children live with chronic health problems and 100 million children between 6 and 11 years of age do not attend school. In addition, the rate of violence and exploitation of children in work situations, including slavery and prostitution, is extremely high.

It has become fundamental that children and adolescents be guaranteed the right to live with dignity, love and primary care, which includes food, shelter, basic medical attention, and opportunity for education and recreation.

The responsibility for the development of the child and adolescent belongs with parents, the family, society and the state.

It is necessary to propose a collective agreement which demands that the legal rights of children and adolescents be enforced; these rights should be encompassed in an agreement that all societies should adopt.

The conventions, declarations, statutes and laws that protect and defend the rights of children and adolescents should be enforced by their respective signatories.

NGOs must work for compliance with the rights of children in countries in which legislation on the subject does not exist. Also, they should share experiences on the protection and defense of children and adolescents.

The theme of children and adolescents must be included in forums, debates and agreements—national and international— related to the future of humankind and planet earth; each country will allocate within their budget funds proportional to the infant-juvenile population.

Our commitment is:

- To make known this treaty in defense and protection of children and adolescents and promote its approval.**
- To define specific actions that will result in the agreed-upon objectives.**
- To permanently direct, pressure and supervise the agencies responsible for ensuring the attainment of the proposed goals.**
- To guarantee the right of participation of children and adolescents in discussions and actions related to their interest, especially in regard to the future of the planet.**
- To hold annual national meetings among NGOs that have signed this treaty, to evaluate implementation of the planned objectives.**
- To hold, five years from now, a global meeting of the NGO signatories of this treaty, to evaluate and modify where necessary the goals proposed in this treaty.**

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INDIGENOUS PEOPLES AND NGOS

"We, the indigenous peoples of the world, since the times of our ancestors, have constructed a culture, a civilization, a history and a vision of the world that has allowed us to coexist in a harmonious way with nature." (The Earth Charter of the Indigenous Peoples, Kari-Oca, 1992). This process was interrupted by the invasion of indigenous territories in various parts of the world, which led to genocide, negated and destroyed our cultures, violated human rights and was based on racial discrimination.

Basic Principles

Territory. Indigenous peoples have lived on Mother Earth since time immemorial. For this reason, indigenous peoples have inalienable rights to their territories and the resources and biodiversity that they contain.

Self-determination. Self-determination is one of the essential bases for liberty, justice and peace, in each country as well as internationally.

Economy and Environment. For centuries, indigenous peoples have had an intimate relationship with nature, based upon respect, interdependence and equilibrium. For this reason, these peoples have developed economic, social and cultural models that respect nature without destroying it. These models provide for management and collective appropriation of natural resources, based on community participation and solidarity.

Education, Culture and Spirituality. Education is an exchange of wisdom and cultural values in continuous harmony between nature and humankind which respects traditional languages and indigenous customs.

Relations between indigenous and non-indigenous cultures should be established according to these principles.

Commitments

- To support the demarcation of indigenous territories and to continue with a system of collective ownership.
- To promote the recognition of self-determination at the local, national and international levels.
- To respect, value and promote the economic and development systems of indigenous peoples, and to avoid imposing Western economic systems and values based on the market economy.
- Not to carry out action plans that imply the imposition of the dominant culture on the education, culture and religion of indigenous peoples.
- To provide financial support for indigenous programs and projects.
- To give priority to programs that finance the demarcation of indigenous territories, strengthening of traditional political systems, plans for education, health and development carried out by indigenous peoples, improved living conditions for indigenous women and children, as well as commercial systems among indigenous peoples and other social sectors.

The relationship between indigenous peoples and NGOs will change substantially, creating relationships of equality, in order to correct the errors of the past 500 years.



ETHICAL COMMITMENT

Ecological posture and behavior of NGOs

Preamble

The current attitude of those who defend technical domination over nature has been one of irresponsibility and arbitrariness, insofar as they ignore the thousands of children dying daily of starvation, the thousands of animals, plants, fish and birds that are treated cruelly and the forests and people being eliminated on an overwhelming scale.

The NGOs cannot be insensitive to these cries of nature and do not accept the concept of sustainable development, if it is used only to produce cleaner technology, while maintaining unjust social relations for the majority of the Earth's people.

We seek to surmount the dualistic ethic that alienates human beings from nature and, therefore, base our attitudes on the following principles:

General inspiring principles

We base our reasoning upon the principle of unity in diversity, by which every individual being is part of the whole, and this whole is fully represented in each of its parts.

Therefore, we affirm that:

- All animate and inanimate beings have an intrinsic value that goes beyond their utilitarian worth, and, therefore, have the right to life.
- Each human being has the possibility of contributing or not contributing to the complex of natural relations; thus, we have the nontransferable responsibility of helping the evolution of these relations.

- **That all human beings are responsible for and committed to finding their own balance, promoting harmony in the human family and among other beings and ecosystems.**
- **In order to guarantee the value of life, efforts should focus on fostering honesty, consistency and simplicity, rather than individualism, overconsumption and utilitarianism.**
- **To solve political and social conflicts, it is necessary to adopt non-violent methods.**

Principal actions

- **Demand that governments respect and comply with the following international agreements and treaties:**
 - **The Universal Declaration of Human Rights**
 - **The Universal Declaration of Animal Rights**
 - **The Universal Declaration of the Rights of the Child**
 - **The Earth Charter.**
- **Encourage the execution of and respect for all treaties and agreements on environment and development ratified at the International Forum of NGOs and demand that legislators and governments transfer social control of biotechnological research, with a view to ensuring its expansion and application, as well as access to information and the just distribution of resulting benefits.**

SECTION FOUR

Technology, Education and Information



COOPERATION AMONG NGOS

Preamble

The protection of the environment and the achievement of ecologically sustainable development at every level and in all regions can be more quickly and effectively attained by increasing the number of NGOs committed to these objectives and to technical training.

The world's new and emerging NGOs have significant un-met needs and unrealized capabilities. All NGOs have valuable experiences, skills and resources, but an open, collaborative and mutual sharing process is needed to enable all parties to learn and benefit from each other.

NGOs with important technical skills, proven strategies and other resources should make every effort to share them with their fellow NGOs.

NGOs which offer to share knowledge, skills, experiences and resources should ensure that such sharing be transparent, accountable and available to as wide an audience as possible.

NGOs which take part in this sharing process must recognize and respect their partners' cultural and socioeconomic circumstances and make a concerted effort to overcome barriers, in order to promote an effective exchange.

Objectives

- To promote active cooperation and the exchange of information and resources among NGOs, locally, nationally and internationally.
- To strengthen the NGO community worldwide.
- To overcome cultural and communication barriers.

Principal actions

- **Overcome language barriers to the best of our ability and make a formal commitment to share our skills and information with fellow NGOs.**
- **Establish internal budgets and identify staff, volunteers or others to permit implementation of this purpose.**
- **Raise public awareness in our countries about the specific activities of signatories to this treaty in an appropriate way and on a regular basis, and assist our NGO partners in their fund-raising efforts.**
- **Share the equivalent of at least one percent of our annual budget year with other members of the NGO community, through the bilateral exchange of resources, in-kind services and direct financial grants.**

Mechanisms and monitoring

We commit ourselves to create these cooperative relationships with one or more fellow NGOs via the most appropriate channels, such as existing networks, in order to demonstrate the power of collaboration. Experience gained from this process should be disseminated as widely as possible.

We, as signatories of this treaty, do not endorse the formation of any new global mechanism, or permanent secretariat to administer it; nor do we condone the use of this treaty out of the context in which it was intended: to foster non-formal cooperation and sharing of resources among the world's NGO community.

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GLOBAL DECISIONS OF NGOS

Objectives

- To strengthen existing networks and global alliances.
- To work towards the recognition of all NGOs.
- To secure NGO participation in decision-making processes at all levels.
- To enhance and promote participatory democracy.
- To seek the empowerment of all oppressed peoples, especially those who are socially and ecologically marginalized.
- To reinforce the recognition of all NGOs at the national, regional and international level.

NGOs have capabilities and responsibilities in finding specific solutions in the North-South relationship.

We will work to build on the gains achieved in the UNCED process for NGO participation.

Through this treaty, we will work to increase our influence in decision-making processes at the local, national and international levels.

We will work for the implementation of NGO rights, as provided for in the UN Charter and UN resolutions, Agenda 21, international treaties, conventions, national and local laws and codes of conduct, in order to:

- **Secure forceful NGO participation in the work of the UN Commission for Sustainable Development and in the monitoring of the environmental programs and projects of the World Bank, IMF and other banks.**

- Organize and participate in public enquiries and environmental impact assessments.
- Monitor closely the implementation of Agenda 21.
- Monitor the implementation of international treaties on the environment.
- Monitor the implementation of laws and international treaties for access to information.
- Monitor the application of codes of conduct endorsed by private corporations in terms of right of access to information.

NGOs will work for positive changes in international institutions, international treaties and conventions, national legislation and company codes of conduct, toward:

- Revision of the Human Rights Declaration and other UN charters.
- Democratization of the decision-making structure of international lending institutions.
- Expansion of participatory institutions and laws at local, national and global levels.
- Collaboration with local communities in the design of programs and projects to secure funding at the international level.
- Execution of environmental impact assessments.
- Recognition of NGOs' right to bring action in courts of justice in case of infringement of laws, international treaties and conventions.
- Creation of a regional court of justice for the environment.

Principal actions

- **To initiate a reporting process to reflect how local communities and NGOs can participate in legal information and consultation procedures; how local communities and NGOs can participate in the implementation of the Rio Declaration and Agenda 21 and in the design of national and local plans toward sustainable development; and how information on the environment held by industrial companies, both private and state-controlled, can be obtained.**
- **Create vertical relations, from the local to national, regional, bio-regional and global levels, and horizontal relations within each level. As a result, decisions made at the global level will benefit local communities.**
- **Set up a global system of communications, cooperative action and decision-making, by means of NGO coalitions at the local, national and international levels.**



TECHNOLOGY BANK

Solidarity system for technological exchange

Introduction

The concept of development based on exploitation of natural resources has resulted in irresponsible and unrestricted exploitation of human beings, land, water and other resources through the process of industrialization and modernization during the last two centuries, creating unacceptable levels of long-term damage.

Present technology is environmentally non-sustainable and culturally insensitive and, hence, does not incorporate the creativity of the Third World population. In addition, this technology is expensive and non-accessible, within the political, economic and cultural conditions of the Third World.

This treaty, therefore, endorses technology which is pragmatic (within the available expertise and human resources), accessible (easily adaptable and financially within reach), culturally and socially compatible, small-scale in its operation, autonomous, self-reliant, sustainable in the context of local resources and reliant on lower levels of energy consumption and produces non-toxic, bio-degradable waste. It is also agreed to create a technology bank.

Basic principles

The proposal to share technology is based on an integrated approach to sociocultural and technological dimensions, and provides a methodology for evaluation which is not strictly limited to technological aspects. The system will give effective support to the South's technology and knowledge, as well as to social innovation developed in local communities, and will also accept every Northern technology which is based on the criteria that have been previously mentioned, in terms of its

social and economic appropriateness, availability, accessibility and respect for the environment.

The system will stimulate the exchange of information and data, but it will be necessary to go further and make available experience, knowledge, methodologies, opinions and practical advice between local communities and people with similar motivations and claims.

The system will include communication methods that will respect cultural diversity of values, norms and knowledge in order to ensure a genuine transfer.

Operation of the bank

The technology bank, or solidarity system of technology exchange, will be constituted on the basis of offers of technology which will be deposited in the bank in order to be shared with other groups and local communities.

The bank will approve a code of ethics among its users in order to protect knowledge and experiences which are deposited in it, will establish forms of financial support in order to ensure the transfer process between local communities, and will identify offers of technology which will reply to specific needs as required by its users.

The transfer process will be flexible and will include different steps according to the needs of the users. Some of them are suggested in the following list:

- general information on experiences validated and systematized in terms of scientific, technological, economic, social and cultural dimensions.
- social and technical advisory services.
- education and technical training programs.
- sociocultural research about local approaches to the world, values, beliefs and codes used in the production of knowledge.
- social, economic and technical feasibility studies.

- **adaptation of techniques.**
- **environmental impact studies.**
- **education on sustainable development.**
- **identification of financial sources and granting endorsements.**
- **market studies.**
- **definition of systems to protect the rights of users.**
- **maintenance and support of traditional technologies, non-scientific methods and indigenous knowledge.**

The bank will define a follow-up and evaluation system and will establish contacts with existing networks.

ACRONYMS

ACRONYMS

AIDS	Acquired immunodeficiency syndrome
APELL	Awareness and Preparedness for Emergencies at the Local Level
CFC	chlorofluorocarbon
CGIAR	Consultative Group on International Agricultural Research
CILSS	Permanent Inter-State Committee on Drought Control in the Sahel
DNA	Deoxyribonucleic Acid
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
EEZ	Exclusive Economic Zone
ELCI	Environmental Liaison Centre International
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
FAO	United Nations Food and Agriculture Organization
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch
GEF	Global Environmental Facility

GEMS	Global Environmental Monitoring System
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution
GIPME	Global Investigation of Pollution in the Marine Environment
GIS	Geographical Information System
GLOBE	Global Legislators Organisation for a Balance Environment
GMW	Global Meteorology Watch
GNP	Gross National Product
GRID	Global Resource Information Database
GSP	Generalized system of preferences
HIV	Human immunodeficiency virus
IAEA	International Atomic Energy Agency
IBSRAM	International Board of Soil Resources and Management
ICES	International Council for the Exploration of the Sea
ICSU	International Council of Scientific Unions
IFAD	International Fund for Agricultural Development
IGADD	Intergovernmental Authority for Drought and Development
IGBP	International Geosphere-Biosphere Programme
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
INFOTERRA	International Environment Information System
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change

IPCS	International Programme on Chemical Safety
IRPTC	International Register of Potentially Toxic Chemicals
ITTO	International Tropical Timber Organization
IUCN	International Union for the Conservation of Nature and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
NAFTA	North American Free Trade Agreement
NGO	Nongovernmental organization
OECD	Organisation for Economic Cooperation and Development
SADCC	Southern African Development Co-ordination Conference
SADCC	South African Development Co-ordination Conference
UNCED	United Nations Conference on Environment and Development
UNCLOS	United Nations Conference on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Fund for Population Activities
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNIFEM	United Nations Development Fund for Women
WCP	World Climate Programme
WFC	World Food Council

WHO	World Health Organization
WMI	Woodland Mountain Institute
WMO	World Meteorological Organization
WWF	Worldwide Fund for Nature

BIBLIOGRAPHY

BIBLIOGRAPHY

UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (1992. RIO DE JANEIRO, BRAZIL) 1992. Agenda 21. United Nations Report. Earth Council. National University. Earth Council Documents Series. 503 p.

UNITED NATIONS CONFERENCE ON THE HUMAN ENVIRONMENT (1972. STOCKHOLM). 1972. Report. Stockholm. United Nations.

UNITED NATIONS. 1992. Report of the United Nations Conference on Environment and Development. In: United Nations Conference on Environment and Development (1992, Rio de Janeiro, Brazil). 3p.

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The Earth Summit (ECO 92), held in Brazil in July 1992, was a landmark event in analyzing, reaching agreement on and laying the groundwork for programs aimed at developing new types of international cooperation on development and the environment. One of the objectives of the Earth Council, a nongovernmental organization headquartered in Costa Rica, is to disseminate the agreements approved by the governments and nongovernmental organizations that participated in the Summit.

In this book, the Earth Council and the Inter-American Institute for Cooperation on Agriculture (IICA), the specialized agency for agriculture of the inter-American system, are pleased to present syntheses of the following documents approved by the governments at the Earth Summit: The Rio Declaration on Environment and Development, the Agreements on Biodiversity and Climate Change and the Declaration of Forest Principles, and a condensation of Agenda 21. Also included in this book are the 46 treaties of the nongovernmental organizations at ECO 92, among them the People's Earth Declaration, the Rio de Janeiro Declaration, and the Earth Charter, which provide a different vision of the same topics.

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