

INTER-REGIONAL CONFERENCE OF SMALL ISLAND COUNTRIES  
ON SUSTAINABLE DEVELOPMENT AND ENVIRONMENT  
IN AGRICULTURE, FORESTRY AND FISHERIES

CHRIST CHURCH, BARBADOS  
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AGRICULTURE, FORESTRY AND FISHERIES IN  
SMALL ISLAND COUNTRIES WITHIN THE  
FRAMEWORK OF UNCED AGENDA 21

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*This document is the result of the cooperative work of several FAO technical experts, including A. Dahl, UNCED Secretariat Consultant on second-order issues, and the Small Island and Coastal Areas Programme, whose substantive*

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## AGRICULTURE, FORESTRY AND FISHERIES IN SMALL ISLAND COUNTRIES WITHIN THE FRAMEWORK OF UNCED AGENDA 21

### Abstract

*Of UNCED's Agenda 21 programme areas, about two thirds are of special interest to the agricultural sector. Particular emphasis is given here to the chapters on agriculture, forestry and fisheries within Agenda 21, as a global partnership to meet in a more balanced and integrated way the intertwined challenges of environment and development. While most of the chapters which examine the various sectors and cross-cutting issues contain activities of interest to small island countries, those of greatest interest in the context of this Conference are the chapters on Integration of environment and development in decision-making; Integrated approach to planning and management of land resources; Combating deforestation; Managing fragile ecosystems: sustainable mountain development; Promoting sustainable agriculture and rural development; Conservation of biological diversity; Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas and coastal areas, and the protection, rational use and development of their living resources; Protection of the quality and supply of freshwater resources: application of integrated approaches to the development, management and use of water resources. There is a specific programme area on "Sustainable development of islands" in the chapter on oceans and coastal areas which includes medium and long-term plans for sustainable development; coastal area management techniques adapted to the special characteristics of islands; inventory of natural resources and species; development strategies, taking into account the special characteristics of islands; carrying capacity of islands under different development assumptions and resource constraints; new technology for development within island limits; response options to global change and sea-level rise.*

The United Nations Conference on Environment and Development (UNCED) will be held in Rio de Janeiro, Brazil, 1 to 12 June 1992. The Conference, called for by the United Nations General Assembly, is expected to bring together delegations from about 160 countries, many led by Heads of State or Government, to adopt plans for more effective approaches by states and the international community to the intertwined challenges of development and environment. One specific outcome of UNCED will be the adoption of Agenda 21, a detailed programme of activities to address these issues.

Agenda 21 has gone through an extensive preparatory process overseen by the Preparatory Committee of all states participating in the UNCED process. The Preparatory Committee (PrepCom) defined the issues to be addressed at its first session, on the basis of which extensive background documentation was assembled by the UNCED Secretariat with the cooperation of all parts of the United Nations system and many outside experts and organizations. Two further meetings of the PrepCom in 1991 debated, refined and distilled

the proposals for each issue, resulting in a revised draft of Agenda 21, which will be finalized at the Fourth Session of PrepCom in New York, 2 March to 3 April 1992. The references in this paper to Agenda 21 are thus based on the draft documents being submitted to PrepCom IV, and may undergo considerable change in the final negotiating process.

## **THE "AGENDA 21" APPROACH**

In general terms, Agenda 21 sets out to define a global partnership to achieve sustainable development, based on a balanced and integrated approach to environment and development questions. It is grouped around a series of themes/imperatives, each representing an important dimension of the overall strategy for global transition. These include revitalizing growth and development; raising living standards, especially of the world's poor; combining an anti-poverty and resource management orientation and a focus on alternate livelihood opportunities in fragile ecosystems; changing consumption patterns and reducing demographic pressures compatible with the capacity of the ecological systems of the globe; better management of human settlements; use of land, water, energy and biotic resources in a manner that increases productivity and meets rising demands, while conserving the resource base; responsible and fair use of shared resources, such as the atmosphere and the high seas; reduced generation, increased recycling and safe disposal of wastes; and cooperative arrangements for anticipating and managing risks, such as those related to biotechnology and toxic chemicals.

All the above imperatives need to be undertaken within an integrated framework. This integration of environment and development must be reflected in a reorientation of attitudes, in changes in decision-making processes and in the data and information systems used for monitoring development and environment. Hence, Agenda 21 includes proposals for strengthening the role of major producer groups, NGOs, local authorities and groups such as women, youth and indigenous people, who are often excluded from decision-making processes. It contains suggestions for methodological and procedural changes in decision-making. It puts forward a programme for the collection, processing and dissemination of data and information, including proposals for environmental accounting. All of these taken together aim at placing issues of environment and development at the heart of decision-making at all levels and ensuring full participation of those affected by such decision-making.

The implementation of Agenda 21 will require a major transformation of technology in virtually all sectors, involving science and technology cooperation and technology transfer. There are thus proposals for a substantial strengthening of technical expertise, institutions and legal systems in developing countries through capacity-building activities.

The development and environment objectives of Agenda 21 will require a substantial flow of new and additional financial resources to developing countries and a strengthening of the capacity of international institutions to respond to the needs identified. These will be the principal subjects for discussion during PrepCom IV.

In brief, Agenda 21 is a programme of action for the sustainable future of the human race and the first step towards ensuring that the world becomes a more just, secure and prosperous habitat for all humanity.

## **STRUCTURE OF AGENDA 21**

Agenda 21 is broken down into a series of chapters, some examining different sectors, others different actors or stakeholders, and still others looking at cross-cutting issues. Each chapter may be sub-divided into a number of programme areas, of which there are well over 100 in the present draft of Agenda 21. Each programme area describes the basis for action, the objectives, a series of activities necessary to achieve these objectives, and the means of implementation, including financing and cost evaluation, scientific and technological means, human resources development and capacity building. The chapters cover four major areas:

- Social and economic dimensions
- Conservation and management of resources for development
- Strengthening the role of major groups
- Means of implementation

The structure of the various chapters of Agenda 21 under these four areas, as proposed for discussion at PrepCom IV, is given in the Appendix.

While most of the chapters contain activities of interest to small island countries, those of greatest interest in the context of this Conference are the chapters on Integration of environment and development in decision-making; Integrated approach to planning and management of land resources; Combating deforestation; Managing fragile ecosystems: sustainable mountain development; Promoting sustainable agriculture and rural development; Conservation of biological diversity; Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas and coastal areas, and the protection, rational use and development of their living resources; Protection of the quality and supply of freshwater resources: application of integrated approaches to the development, management and use of water resources. There is a specific programme area on "Sustainable development of islands" in the chapter on oceans and coastal areas.

Although the content of Agenda 21 has been greatly condensed, it is only possible here to mention some of the themes and concepts of particular interest to small island countries.

## **AGRICULTURE**

The Agenda 21 chapter on agriculture draws heavily on the results of the den Bosch Conference and deals with the major adjustments needed in agricultural, environmental and macro-economic policy, at both national and international levels in developed as well as developing countries, to create the conditions for sustainable agriculture and rural development (SARD). The major objective of SARD is to increase food production and food security. This will require an appropriate balance between self-sufficiency and production for markets; employment and income generation to alleviate poverty; and natural resource management and environmental protection.

Priority is placed on maintaining and improving the capacity of the higher-potential agricultural lands to support an expanding population. However, conserving and

rehabilitating the natural resources of lower-potential lands in order to maintain sustainable man/land ratios are also considered. The main tools of SARD are policy and agrarian reform, people's participation, income diversification, land conservation and improved management of inputs. The success of SARD will depend largely on the support and participation of rural people, national governments and the private sector, and on international cooperation, including technical and scientific cooperation.

The programme areas under agriculture are as follows:

- a) sector policy review, planning and programming, with emphasis on food security;
- b) ensuring people's participation and promoting human resources development;
- c) improving farm production and farming systems through diversification of farm and non-farm employment and infrastructure development;
- d) land resources planning for agriculture;
- e) land conservation and rehabilitation;
- f) water for sustainable food production and rural development;
- g) conservation and utilization of plant genetic resources for sustainable agriculture;
- h) conservation and utilization of animal genetic resources for agriculture;
- i) integrated pest management in agriculture;
- j) sustainable plant nutrition to increase food production;
- k) rural energy transition to enhance productivity.

The need to optimize land use and to ensure the best sharing of scarce land among users was considered so important that a separate chapter of Agenda 21 is devoted to an integrated approach to planning and management of land resources.

## **FORESTRY**

As in other sectoral areas, an overall integrated approach to forestry is emphasized. Specific programme areas focus on:

- a) the multiple roles of trees, forests and forest lands;
- b) forest protection;



- c) promoting afforestation and reforestation; recognition of the value of trees, forests and forest lands and their better utilization;
- d) assessment and monitoring of forest-related programmes and processes;
- e) international and regional cooperation.

## **FISHERIES**

The chapter on oceans, coastal areas and their living resources starts with the actions necessary to achieve integrated management and sustainable development of coastal areas, exclusive economic zones and marine ecosystems. Within that framework are included sections on pollution control, global monitoring, international and regional cooperation, and the sustainable use of living marine resources on the high seas and under national jurisdiction. The focus is on strengthening management mechanisms based on better information, and on restructuring the fishing industry to reduce over-investment and over-fishing and to make the industry more productive and more economically successful. Specific activities are aimed at small-scale artisanal and indigenous fisheries, coral reefs and other sensitive coastal ecosystems.

The structure of this cluster is the following:

- a) integrated management and sustainable development of coastal areas, exclusive economic zones and marine ecosystems;
- b) marine environment protection;
- c) sustainable use and conservation of high seas: living resources;
- d) sustainable use of living marine resources under national jurisdiction;
- e) addressing critical uncertainties for management of the marine environment and climate change;
- f) strengthening international, including regional, cooperation and coordination;
- g) sustainable development of islands.

## **SUSTAINABLE DEVELOPMENT OF SMALL ISLANDS**

In the draft submitted to PrepCom IV, a specific programme area on islands, within the chapter on oceans, sets as its objective "to adopt and implement sustainable development plans for islands, including meeting essential human needs within island limits, maintaining biodiversity, and increasing the quality of life for island peoples."

It proposes the following activities for island states and territories with the assistance of international and regional organizations:

- to prepare medium and long-term plans for sustainable development, integrating the multiple use of limited island resources and identifying types of development compatible with island limits;
- to adapt coastal-area management techniques to the special characteristics of islands;
- to prepare an inventory of the natural resources and species of islands, and define measures to protect endangered species and to maintain biodiversity, with the assistance of the international community;
- to study the special environment and development characteristics of islands and appropriate development strategies;
- to develop techniques to determine the carrying-capacity of islands under different development assumptions and resource constraints;
- to explore new kinds of technology for development within island limits and identify chemicals and technologies which should be excluded because of their threat to essential island systems;
- to study the vulnerability of islands to global change and sea-level rise and possible response options;
- to compile and assess information on the geographic, environmental and socio-economic characteristics of islands to assist in the planning process;
- to develop inter-island, regional and inter-regional cooperation and information exchange among states, and regional and international organizations, including periodic regional and global meetings on sustainable development of islands.

Because of the summary format of Agenda 21, it has not been possible to give much detail on the implementation of the activities proposed. These are to be discussed at the PrepCom IV session, to be held just prior to this present Conference and will be presented to the participants verbally by the UNCED Secretariat. The decisions taken at the level of Heads of State and Government in Rio de Janeiro will require extensive effort after UNCED to put them into action. This inter-regional Conference is an ideal opportunity for island countries to begin considering the specific activities to be carried out in the coming years to fulfil the promise of Agenda 21.

CHAPTER TITLES AND PROGRAMME AREAS<sup>1/</sup>  
OF UNCED "AGENDA 21"

OVERVIEW OF GOALS AND IMPLEMENTATION MECHANISMS

ACTION PROGRAMMES

I. SOCIAL AND ECONOMIC DIMENSIONS

1. International Policies to Accelerate Sustainable Development in Developing Countries and Related Domestic Policies:

- A. International trade
- B. Providing adequate net financial flows to developing countries
- C. Related domestic policies

2. Combatting Poverty

- A. Providing sustainable livelihoods for the poor

3. Changing Consumption Patterns

- A. Adopting less wasteful lifestyles
- B. Achieving sustainable consumption levels
- C. Assisting consumers to make informed choices

4. Demographic Dynamics and Sustainability

- A. Meeting the global challenges
- B. Formulating integrated national population and environment programmes
- C. Implementation of integrated population programmes at the local level

5. Protection and Promotion of Human Health Conditions

- A. Reducing health risks from environmental pollution and hazards
- B. Meeting the urban health challenge
- C. Meeting basic health needs
- D. Control of communicable diseases
- E. Protecting vulnerable groups

6. Promoting a Sustainable Pattern of Human Settlements

- A. Providing adequate shelter for all
- B. Improving human settlements management
- C. Promoting effective land resource management
- D. Promoting the integrated provision of environmental infrastructure: water, sanitation, drainage, and solid waste management
- E. Promoting sustainable energy and transport systems in human settlements
- F. Promoting human settlements planning and management in disaster-prone areas
- H. Promoting human resources development and capacity building for human settlements development

7. Integration of Environment and Development in Decision Making

- A. Integrating environmental and development at the policy, planning and management levels (AMB)

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<sup>1/</sup> As formulated in January 1992 for review by UNCED's PrepCom 4 in March 1992.

- B. Providing an effective legal and regulatory framework (PS)
- C. Making effective use of economic instruments and market incentives (AP)
- D. Establishing systems for environmental accounting (LA)

## II. CONSERVATION AND MANAGEMENT OF RESOURCES FOR DEVELOPMENT

### 1. Protecting the Atmosphere

- A. Promoting sustainable energy development
- B. Promoting transport systems which are specifically safe and environmentally sound
- C. Promoting industrial development that does not adversely impact the atmosphere
- D. Promoting agricultural (and forestry) development that does not adversely impact the atmosphere
- E. Promoting sustainable energy consumption patterns and life styles
- F. Addressing the uncertainties
- G. Preventing stratospheric ozone depletion

### 2. Integrated Approach to Planning and Management of Land Resources

- A. Integrated planning and management of land resources

### 3. Combatting Deforestation

- A. Securing the multiple role of trees, forests and forest lands
- B. Towards a greener world
- C. Promoting a better utilization and value of trees, forests and forests lands
- D. Assessment and monitoring of forest-related programmes and processes
- E. International and regional cooperation

### 4. Managing Fragile Ecosystems: Combatting Desertification and Drought

- A. Strengthening the knowledge base and developing information and monitoring systems of regions prone to desertification and drought, as well as the economic and social aspects of these systems
- B. Combatting land degradation and intensifying afforestation and reforestation activities
- C. Developing and strengthening integrated programmes for eradication of poverty and promoting alternative livelihood systems in areas prone to desertification
- D. Developing and integrating comprehensive anti-desertification programmes into national development plans and national environmental action plans
- E. Developing comprehensive drought preparedness and drought relief schemes for drought-prone areas and designing programmes to cope with environmental refugees.

### 5. Managing Fragile Ecosystems: Sustainable Mountain Development

- A. Generating and strengthening knowledge about mountain ecosystems
- B. Promoting integrated watershed development and alternative livelihood opportunities

### 6. Promoting Sustainable Agriculture and Rural Development

- A. Sector policy review, planning and programming with emphasis on food security
- B. Ensuring people's participation and promoting human resource development

- C. Improving farm production and farming systems through diversification of farm and non-farm employment and infrastructure development
- D. Land resources planning for agriculture
- E. Land conservation and rehabilitation
- F. Water for sustainable food production and rural development
- G. Conservation and utilization of plant genetic resources for sustainable agriculture
- H. Conservation and utilization of animal genetic resources for sustainable agriculture
- I. Integrated pest management in agriculture
- J. Sustainable plant nutrition to increase food production
- K. Rural energy transition to enhance productivity

7. Conservation of Biological Diversity

- A. Providing information on biodiversity
- B. Maximizing and spreading the benefits of biodiversity
- C. Improving the conservation of biological diversity and wildlife
- D. Enhancing the capacity to manage biological resources, including wildlife

8. Environmentally Sound Management of Biotechnology

- A. Increasing productivity for food and feed renewable raw materials
- B. Improving human health
- C. Enhancing protection of the environment
- D. Enhancing safety and developing international mechanisms for cooperation
- E. Establishing enabling mechanisms for the environmentally sound application of biotechnology

9. Protection of the Oceans and All Kinds of Seas, including Enclosed and Semi-Enclosed Seas, and Coastal Areas and the Protection, Rational Use and Development of their Living Resources

- A. Integrated management and sustainable development of coastal areas, exclusive economic zones and marine ecosystems
- B. Marine environmental protection
- C. Sustainable use and conservation of high seas: living resources
- D. Sustainable use of living marine resources under national jurisdiction
- E. Addressing critical uncertainties for the management of marine environment and climate change
- F. Strengthening international, including regional, cooperation and coordination
- G. Sustainable development of islands

10. Protection of the Quality and Supply of Freshwater Resources: Application of Integrated Approaches to the Development, Management and Use of Water Resources

- A. Integrated water resources development and management
- B. Water resources assessment
- C. Protection of water resources, water quality and aquatic ecosystems
- D. Drinking water supply and sanitation
- E. Water and sustainable urban development
- F. Water and sustainable food production and rural development
- G. Impacts of climate change on water resources

11. Environmentally Sound Management of Toxic Chemicals and Prevention of Illegal International Traffic in Toxic and Dangerous Products and Wastes

- A. Expanding and accelerating the international assessment of chemical risks
- B. Harmonization of classification and labelling of chemicals
- C. Information exchange on toxic chemicals and chemical risks
- D. Establishment of risk reduction programmes
- E. Strengthening of national capabilities and capacities for management of chemicals

12. Environmentally Sound Management of Hazardous Wastes

- A. Promote waste prevention and minimization through "cleaner production" methods avoiding the use of hazardous substances where substitutes are available, through resource recovery, recycling, reclamation, direct re-use or alternative uses of wastes
- B. Promote and strengthen institutional capacities for hazardous wastes management including improving knowledge about health and environmental impacts of hazardous wastes
- C. Promote and strengthen international cooperation in management of transboundary movements of hazardous wastes, including control and monitoring, consistent with international and regional legal instruments

13. Environmentally Sound Management of Solid Wastes and Sewage Related Issues

- A. Minimizing wastes
- B. Maximizing safe waste re-use
- C. Promoting safe waste disposal
- D. Extending waste service coverage

14. Safe and Environmentally Sound Management of Radio-Active Wastes

- A. Promote the safe and environmentally sound management of radioactive wastes through international agreements

III. **STRENGTHENING THE ROLE OF MAJOR GROUPS**

1. Global Action for Women Towards Sustainable and Equitable Development

2. Strengthening the Role of Youth

- A. Advancing the role of youth and actively involving them in the protection of the environment and the promotion and economic and social development

3. Recognizing and Strengthening the Role of Indigenous People

- A. Recognizing and strengthening the role of indigenous people

4. Non-Governmental Organizations: Partners for Sustainable Development

- A. Non-governmental organizations: partners for sustainable development

5. Local Authorities Initiatives in Support of Agenda 21

- A. Local authorities initiative in support of Agenda 21

6. Strengthening the Role of Trade Unions

7. Business and Industry
  - A. Promoting cleaner production
  - B. Promoting entrepreneurship
8. Scientific (and Technological) Community
  - A. Improving communication and co-operation between scientists and decision-makers
  - B. Promoting ethical principles and codes of practice related to science and technology
9. Primary Producers
  - A. Strengthening the role of farmers
- IV. **MEANS OF IMPLEMENTATION**
  1. Financial Resources and Mechanisms

No programme areas
  2. Transfer of Environmentally Sound Technology
    - A. Improving access to environmentally sound technology information, proprietary or otherwise
    - B. Improving capacity to develop and manage environmentally sound technologies
  3. Science for Sustainable Development
    - A. Strengthening the scientific basis for sustainable management
    - B. Enhancing scientific understanding
    - C. Improving long-term scientific assessment
    - D. Global cooperative programmes
    - E. Tapping traditional knowledge and harmonizing environment and development issues
    - F. Science, people and economics
    - G. Strengthening the scientific basis for health planning in economic development
    - H. The engineering sciences
  4. Promoting of Education, Training and Public Awareness
    - A. Reorienting education towards sustainable development
    - B. Increasing public awareness
    - C. Promoting training
  5. National Mechanisms and International Cooperation for Capacity Building in Developing Countries
  6. International Institutions Arrangements
  7. Regional Organizations
    - A. Role of regional organizations and co-operation
  8. International Legal Instruments and Mechanisms
  9. Providing Data and Information for Sustainable Development
    - A. Collecting and assessing data
    - B. Improving access to information
    - C. Monitoring, review, and evaluation of Agenda 21