# REPUBLIC OF TUNISIA

# MINISTRY OF ENVIRONMENT AND LAND USE PLANNING



CONFERENCE «MED 21»
ON SUSTAINABLE DEVELOPMENT
IN THE MEDITERRANEAN

DOCUMENT MED 21/ PC2 / Rev 3 November 94

ORIGINAL: French

4

# Agenda MED 21

November 1st 1994



Tunisia 1994

# TABLE OF CONTENTS

	page
PREFACE	1
CHAPTER I Preamble to MED Agenda 21	2
SECTION I: Social and economic aspects	
CHAPTER II International cooperation aiming at accelerating sustainable development in the developing countries and related national policies	4
CHAPTER III Combating poverty	6
CHAPTER IV Changing consumption patterns	8
CHAPTER V Demographic dynamics and sustainability	10
CHAPTER VI Protection and promotion of human health	12
CHAPTER VII Promoting a viable model for human settlement	15
CHAPTER VIII : Integration of the decision making process on the environment and development	18
SECTION II: Conservation and management of resources	
CHAPTER IX The protection of the atmosphere	21
CHAPTER X Integrated approach to the planning and management of land resources	24
CHAPTER XI Combating deforestation (management of forests, reforestation)	27

		page
(	CHAPTER XII  Managing fragile ecosystems  Combating desertification and drought	29
	CHAPTER XIII  Managing fragile ecosystems  Sustainable mountain and hinterland development	31
	CHAPTER XIV Promoting sustainable agriculture and rural development	33
	CHAPTER XV Conservation of biological diversity	36
	CHAPTER XVI Ecologically sound management of biotechnology	39
	CHAPTER XVII Protection of the sea and coastal areas: the protection, rational use and development of their biological resources	41
	CHAPTER XVIII Protection of the quality and supply of fresh water: application of integrated approaches to the development, management and use of water resources	45
	CHAPTER XIX Environmențally sound management of toxic chemicals including prevention of illegal international traffic in toxic and dangerous products	48
	CHAPTER XX Environmentally sound management of hazardous waste including prevention of illegal international traffic in hazardous waste	50
	CHAPTER XXI Environmentally sound management of solid waste and sewage-related issues	52
	CHAPTER XXII Ecologically safe management of radioactive waste	54

	page
SECTION III: Strengthening the role of the main sectors of society	
CHAPTER XXIII Preamble to the Chapters related to strengthening partnership	57
CHAPTER XXIV Global action for women towards sustainable and equitable development	58
CHAPTER XXV Children and young people in sustainable development	60
CHAPTER XXVI Recognizing and strengthening the role of indigenous peoples and their communities	62
CHAPTER XXVII Strengthening the role of non-governmental organizations: partners in sustainable development	63
CHAPTER XXVIII Local authorities'initiatives in support of Agenda 21	65
CHAPTER XXIX Strengthening the role of workers and trade unions	67
CHAPTER XXX Strengthening the role of business and industry	69
CHAPTER XXXI.  Scientific and technical community	72
CHAPTER XXXII Strengthening the role of farmers	74
SECTION IV: Implementation	
CHAPTER XXXIII Financial resources and mechanisms	77
CHAPTER XXXIV  Transfer of environmentally sound technologies  Cooperation and capacity-building	80
CHAPTER XXXV Science for sustainable development	82

•	page
CHAPTER XXXVI Promoting education, public awareness and training	83
CHAPTER XXXVII  National mechanisms and international  Cooperation for capacity-building in developing countries	86
CHAPTER XXXVIII International institutional arrangements (inter-Mediterranean)	88
CHAPTER XXXIX International legal instruments and mechanisms	90
CHAPTER XXXX Information for decision-making	91
CHAPTER XXXXI  Management of a tourism compatible with sustainable development	93

#### PREFACE

This working document is an essay aiming at creating a framework of debate and research to identify the objectives to be reached in the Mediterranean region in the framework of Agenda 21.

The articulation of Agenda 21 in independent chapters results from the mandate given by the United Nations General Assembly, in 1988, with respect to the Rio Conference.

Thus, there are some chapters useful for the Mediterranean, which do not appear as separate chapters in Agenda 21, or are partly integrated into the existing chapters.

Furthermore, Agenda 21 is universal in scope and does not address the specific problems of the Mediterranean region (such as tourism or the coastline).

For these reasons, we thought it useful to introduce certain specific chapters such as:

- Tourism and its related activities;
- Maritime transport;
- The cultural heritage;
- Energy
- Fishing
- Aquaculture

We also thought it relevant to slightly change the titles of certain chapters so that they would correspond better to the Mediterranean context.

The proposed framework of debate respects the general format of Agenda 21. It is merely a convenient intermediary, not a final product.

The titles of the chapters contained in the Table of Contents are an abridged version of the exact titles contained in the text.

### CHAPTER I

# Preamble to MED Agenda 21

- **1.** Agenda 21, to which more than 150 states committed themselves in Rio, expresses a worldwide consensus and a political commitment to integrate environment and development issues and make sustainable development a reality of the 21st Century.
- 2. The strategies which must be implemented by governments to achieve the objectives of Agenda 21 must be harmonized within the framework of international cooperation coordinated by the United Nations.
- 3. Effective achievement of the objectives set out in Agenda 21 requires the contribution of all social and work partners and the various bodies and organizations, including NGOs.
- **4.** The economic restructuring of the developing countries with a view to achieving sustainable development and the additional costs incurred to solve global environment-related problems require adequate financial assistance.
- **5.** The Mediterranean and the countries that border on it are a good example of an "ecoregion" likely to constitute a pilot area for a regional review of the decisions made in Rio on a worldwide scale.
- **6.** Agenda MED21 takes up the same topics developed under Agenda 21: social and economic challenges, conservation and management of resources for development purposes, strengthening of the role of the groups and means of implementation.
- 7. It takes into consideration the specific context of the region and reflects the state of the commitments already made by the states, each within its territory, or all together within the framework of an intra-Mediterranean cooperation: The September 86 Genoa meeting of the Contracting Parties; the April 90 Nicosia meeting of ministers responsible for the environment and of the European Union Commission; the Athens Meeting, January 1991; the Euro-Mediterranean meeting, Cairo, April 1992; the Aspen meeting, Geneva, July 1992; the Malta advisory meeting of experts, February 1993; All meetings of the Contracting Parties, particularly the Antalya meeting, October 1993.

# FIRST SECTION

Social and Economic Aspects

#### CHAPTER II

# International Cooperation Aiming at Accelerating Sustainable Development in the Developing Countries and Related National Policies

- 1. Wrong development patterns have led to a mismanaged economy in the northern part of the Mediterranean and an overtapping of natural resources in the southern part. They have brought about dramatic environmental problems.
- 2. A simultaneous consideration of all social, political and economic factors is the only way to enable needs to be met under sustainable development conditions.
- 3. Because of the decline in their export revenues and their external debt, many countries of the southern shore of the Mediterranean have lacked the investment needed for their economic growth.
- **4.** International cooperation based on common interests and shared through differing responsibility should give these countries the incentives and means to involve themselves in the protection of the global environment, while satisfying their aspirations to economic growth.

# The countries should:

- 5- encourage foreign investment:
  - by producing clear, standardized investment codes,
  - by lightening administrative procedures for greater efficiency
  - by developing free zones and technological centres.

# 6- encourage foreign trade:

- by liberalizing trade not harmful to the environment, and removing excessive protectionist barriers.
- · by economic diversification.
- · by encouraging free enterprise, and
- by limiting subsidies which distort competition.

# On a Mediterranean scale, the states bordering on the Mediterranean should:

- 7- recognize the important role of communication in the region play for sustainable development. Here, the fixed Morocco-Spain liaison may be seen as an essential factor for rapprochement and for promoting development;
- 8- consider the recycling of the developing countries'debt into projects aiming at environmental protection and sustainable development;
- 9- encourage all initiatives to promote common action for the protection of the Mediterranean environment and a balanced development between the north and south

shores of the Mediterranean;

- 10- strengthen the institutional capacities of the southern countries by developing scientific and technical cooperation and widely circulating information and enhancing training;
- 11- respect traditional negative skills and methods in any cooperation aiming introducing modern techniques that respect the environment rather better;
- 12- provide the necessary funds for sustainable development; and
- 13- act in concert and implement the relevant decisions now and henceforth made at world meetings.

# CHAPTER III

# Combating Poverty

- 1. Poverty means a decline in productivity and the loss of sustainable existence means resulting from a development pattern which aims at increasing production of goods while neglecting the durability of the resources which constitute the basis of development.
- 2. It affects, in particular, the countries of the southern shore (over 200 million persons). Whether it results from internal or external factors, its concrete forms appear at the local level.
- **3.** Disparities within the same country are quite considerable: they add to the disparities between Mediterranean countries.
- 4. The disparity between northern and southern countries with regard to the national product per capita in 1991 was of the order of 12 to 13.
- **5.** Each of the countries bordering on the Mediterranean shall devise a long-term integrated strategy and short-term specific programs to solve at one time and the same time the problems of poverty, the environment and development in all the poor regions.

The essential measures that must be taken relate to the different factors of human development:

- 6- housing: a clear and voluntarist policy of slum clearance and promotion of low-cost housing (provision of developed, income-relate, access to credit particularly for the underprivileged);
- 7- access to education: creation of more schools in rural areas for those living far apart and marginalized;
- 8- the fight against illiteracy among children who fail primary school through the establishment of basic (9 year) school;
- 9- free health care for the poor;
- 10- social solidarity (support networks, charity NGOs, etc.);
- 11- family planning: birth control as a fundamental way to improve per capita GNP; and
- 12- control of the rural exodus by considering basic infrastructure needs at the local level: village water supply, sanitation, farm roads, rural transportation, basic health care, protection of mothers and children.

Other measures relate to various factors which will ensure a sustainable economic growth:

13- employment: promotion of micro-enterprises, handicrafts and small scale jobs, promotion of work near the home and of work at home, especially for women;

- 14- assistance on to persons facing critical situations on a personal or family level due to structural adjustment policies;
- 15- income redistribution policies to reduce unplanned trends towards marginalization;
- 16- taking poverty into consideration in urban development plans and in urban policies, especially with regard to the suburbs;
- 17- increasing and decentralizing the banking network: easy access to credit and various forms of aid, subsidies (including interest subsidies), tax exemptions, various customs facilities, etc.:
- **18-** promotion of all tertiary activities likely to reduce the overtapping of natural resources in degraded sectors to maintain their productivity; and
- 19- support of all NGOs working for the achievement of sustainable development through the mobilization and supervising of the local population, especially the women.

On a Mediterranean scale, the states should:

- 20- carry out in-depth studies on situations and socio-economic mechanisms that generate poverty;
- 21- identify the various Mediterranean ecosystems and class them from the point of view of their vulnerability to various patterns of agricultural development in order to preserve the sustainability of the production systems, which represent the main line of defence against poverty, and to ensure that the ecosystems complement each other;
- 22- support all types of solutions likely to bring extra income to the hinterland areas;
- 23- to set up a policy to compensate for and reduce the effects of poverty;
- 24- handle immigration in the mutual interests of the countries involved;
- 25- organize a fair division of labour between the countries of the northern shore and those from the southern shore of the Mediterranean, through economic development partnership, especially when development is likely to generate poverty; and
- 26- affirm the equal right to work for both men and women.

### CHAPTER IV

# **Changing Consumption Patterns**

- 1. Consumption patterns are linked to several factors such as: culture, history, climate, relief, quality of products, etc.
- 2. Disparities with respect to consumption patterns are considerable in the Mediterranean basin. For instance, the share of income devoted to food products ranges from 15 and 40%.
- 3. Internationalization of the economy and the development of the mass media (especially television) have led to a worldwide diffusion of more or less standardized consumption patterns, mainly drawn from those of the most developed countries (USA, Western Europe, Japan).
- 4. Household consumption differs greatly from country to country according to the level of development and living standard. In the north, overall expenditure for health, leisure and transport, is now larger than expenditure for food and accommodation. In the south and east, food and accommodation expenses still represent a considerable share of the household consumption.
- **5.** A common feature in changing consumption relates to the relative shift from local products (olive oil, hard wheat etc.) to imported goods. This is partly due to the growth of tourist activities, although the real impact of the latter is not easy to assess. The same applies to the role of the mass media and advertising.
- **6.** The Mediterranean countries should consider consumption as a dynamic element of a broader whole which includes society as a whole and the production system. A better understanding of these relationships is essential in order to combat waste and to promote sustainable development. It is also important to acquire knowledge on developments and trends (observatories focusing on behavioral patterns).

The states of the Mediterranean region should:

7- ensure that consumers are well informed and that the environment is protected:

- by supporting consumer-protection and sustainable development groups.
- · by encouraging the introduction of deposit systems in order to facilitate recycling,
- by providing information on products, their origin, composition and impact on health and on the environment.
- by punishing misleading advertising and discouraging advertising of products harmful to the environment (CFCs, PCBs, etc.),
- by setting toxicity safety standards and monitoring product quality,
- by launching scientific information campaigns of general interest (for instance, on the nutrition of infants), and
- by reviewing packaging policy to promote more environment-friendly materials and to eliminate toxic packaging materials, among other things;

8- set up bodies and institutions entrusted with the follow-up of these actions; and

9- encourage consumers and industries to become more aware of the environment and more concerned with sustainable development.

At the level of the Mediterranean region, it would be useful to:

- 10- start research and collect information on Mediterranean resources and products, as well as on their development at regional level;
- 11- promote research programs on the best adapted Mediterranean agricultural species, the consumption of which should be encouraged;
- increase the number of surveys, publications and consciousness-raising campaigns to encourage a re-thinking of lifestyles and behaviour patterns of citizens with respect to certain consumption (water, energy, etc.), leading to waste and excessive consumption, depleting resources;
- 13- promote new concepts of prosperity, taking into consideration the heritage value of natural resources, securing a better quality of life while reducing our dependence on non-renewable resources;
- 14- encourage the transfer of environment-friendly technologies to regions not yet affected by overconsumption patterns;
- 15- make an inventory, at Mediterranean regional level, of the consumption patterns most harmful to the environment and to sustainable development, as well as solutions likely to constitute alternative options; and
- 16- establish fairer trade between countries, bearing in mind the living conditions and quantity of work of producers, particularly in the countries of the South and East Mediterranean.

چ

### CHAPTER V

# Demographic Dynamics and Sustainability

- 1. The slowing down of the rate of population growth in the Mediterranean region is quite clear: between 1980-1985 and 1990-1995 the growth rate in the southern countries has gone from 2.5-3 to around 2-2.7%.
- In the north, where the renewal of the population is at stake, the decrease is becoming sharper: from 0.47 to 0.37 in France, from 0.49 to 0.16 in Spain, and from 0.25 to 0.09 in Italy.
- 2. There is a sharp contrast between demographic situations. In the countries of the northern shore, fertility rates have been falling but life expectancy is slowly but constantly rising. Southern and eastern Mediterranean countries have been witnessing, at different degrees, a demographic transition. Their potential for life-expectancy gains remains considerable.
- 3. Consequently, the Mediterranean countries will face, within the next 10 to 15 years, entirely different problems. In the south and east, the states should encourage and support demographic transition and strive to meet the needs of a still fast-increasing young population. In the north, there is a need to stabilize the decrease in fertility rates in order to ensure the renewal of the population and handle the ageing of the population, which is increasing very slowly, if not decreasing.
- **4.** The multiple factors interacting on demographic dynamics relate to: health, education, employment, living standard, international migration, urbanization, organization and structure of society.
- 5- the states should optimize the harmonization of statistical criteria on a regional, national and sub-regional scale to evaluate and predict demographic trends and population structures in order to obtain a homogeneous knowledge of the situation;
- 6- the southern countries should assess the factors of interaction between man, his environment and his development pattern within the present context of demographic growth, in urban and rural areas. They should be encouraged to implement firm policies in order to ensure, in particular:
  - education (schooling) for women, especially in rural areas,
  - participation of women in working life,
  - · information of young people on population-related problems,
  - · development of family planning services, and
  - handling of rural exodus not compatible with the sound management of rural areas:

# 7- the northern countries should:

 maintain a certain balance between the different age groups through a policy of assistance to families, and admit, if they deem it desirable and in a strictly controlled manner, a certain number of migrants, especially within the framework of a national land development policy; and  maintain and develop the integration of older persons into the social life of the country and the interaction among generations.

On a Mediterranean region scale, it is necessary to:

- 8- promote north-south partnership to raise the living standards of poor populations and accelerate the effective control of demographic growth, which is the main reason for the depletion of resources and environmental degradation;
- 9- launch a comprehensive study to assess the carrying capacity of all the Mediterranean ecosystems on which the population depends: capacity of the resource base (especially in water and soils) to satisfy sustainably the needs of the population.

The Mediterranean Observatory for the Environment and Development should be called upon to regularly follow up and disseminate information on demographic trends and future developments.

Research should be done on the concentration of populations (whether resident or tourist) and their impact on resources and the environment in particular, especially the coast, where population and activity are increasingly concentrated; and

**10-** avoid decentralization policies resulting in pollutant industries being concentrated in under-industrialised areas.

----

# CHAPTER VI

# Protection and Promotion of Health

1. The protection and promotion of health require coordinated action in the fields of education, clean environment (water-air), nutrition (food safety, nutrition), prevention, the fight against poverty, the fight against drug abuse (alcohol and tobacco and other drugs), housing and health care (access and insurance).

The problems concerning the protection and promotion of health depend on population structure and dynamics and on the level of economic development. Other factors are also involved, relating to culture and taking account of the geopolitical, natural and migration situation.

- 2. Important disparities still exist between the countries of the Mediterranean basin, with respect to:
  - living standards: the per capita GNP of the most developed country is more than 30 times that of the least developed country;
  - the population structure: in Greece 20% of the population are over 60 years of age, while in Egypt only 6%;
  - health expenditure per capita: a factor of 100 separates the country with the lowest level (\$18) and the country with the highest level (\$1869); and
  - life expectancy: there is a 15 year difference between the country with the shortest life expectancy (62 years) and the country with the longest life expectancy (77 years).
- 3. The progress achieved during the last 20 years in the field of public health and hygiene is considerable. Indeed, infant mortality rates fell more than twofold for the whole Mediterranean region.

Priority national actions in the field of health in its relation to the environment should, inter alia, be concerned with:

- for the northern countries:
- 4- the increase of the population over 60, which gives rise to specific health care problems,
- 5- the high living standards linked to urbanization and a sedentary lifestyle, which have resulted in nutrition problems and the proliferation of certain diseases, and
- 6- the disparities in health care services between the different regions and the problem of the availability and quality of medical services and hygiene in areas of low population density;
- for the southern and eastern countries:
- 7- the fight against poverty in order to attain the minimum resources needed to cover health-related expenses and to satisfactorily meet the basic needs of the population (accommodation, food), which secure good health,

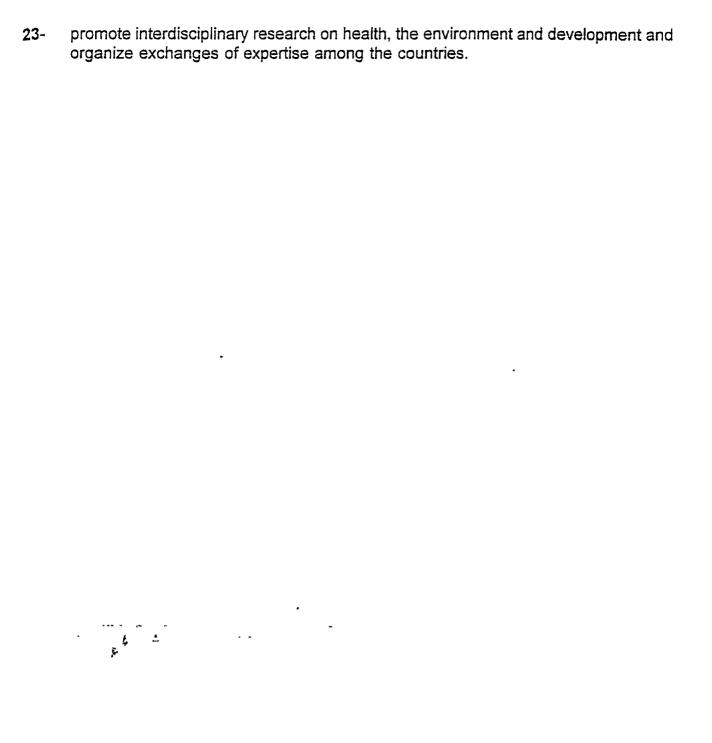
- 8- demographic growth that is responsible for the population's growth rate and the need to develop, for young people, prevention and education programmes,
- 9- efficience and access for all to effective health care systems in order to improve the health of the population in general and improve life expectancy. A primary health care network should be set up with the greatest care, as a priority in underprivileged rural and urban areas, so that the poor can have easy access; and
- 10- the progressive rehabilitation of shantytowns and areas of high concentration of rundown housing lacking minimum health infrastructure;

The states of the Mediterranean should:

- 11- prepare an effective national policy of public health protection, at the required level;
- **12-** develop a policy of drinking water and sanitation satisfying the needs of the whole population, especially those living in rural areas;
- 13- develop preventative community medicine parallel to curative medicine:
- 14- develop programs to combat under-nutrition or malnutrition of vulnerable social groups (infants, mothers, the unemployed, the poor);
- 15- strengthen the network of basic health care centres throughout the country, as well as the network of regional hospitals and emergency care:
- 16- develop a system to monitor the safety of seafood and fish along with the monitoring of the coastal marine environment;
- 17- promote a policy of prevention against pesticides used in agriculture which present a risk to human health;
- 18- ensure compliance with the regulatory standards relating to waste discharged into the receiving environment; and
- 19- ensure that industrial enterprises comply with safety and "polluter pays" principles.

On the scale of the whole Mediterranean region, the states should:

- 20- gather, within an exchange and cooperation network, the regional health observatories, in particular those handling problems of air and noise pollution and water quality, and conduct all surveys establishing a link between human health and the state of the environment;
- 21- enhance national capacities for monitoring drinking water and treated sewage to reduce the risks of diseases induced by water contamination;
- 22- enhance the harmonization of methods used to measure the quality of bathing waters along the coast, the circulating of results ("blue flag" style), and informing tourists on health precautions in general; and



# CHAPTER VII

# Promoting A Viable Model for Human Settlement

- 1. The urban problem is a major one in the Mediterranean because the "city" originated in this region and because its balance could be upset since large numbers of people must be housed in what are great urban centres, conurbations and megalopolises rather than "cities" and since it is expected that the urban population of the coastal areas will increase threefold in the next four decades.
- 2. The accelerated growth of human settlements results in problems of housing, transport, work, land resources and construction. This growth is putting great pressure on the environment.
- 3. Sustainable management of human settlements should be based on a rational occupation of the land, an integrated consideration of sanitation and waste treatment, an economical policy of urban transport and on environment protection.
- **4.** The countries bordering on the Mediterranean should prepare land development policies within their respective territories to:
  - reduce the pressure on the coasts (70% of the total growth, at present), in order to achieve carrying capacity levels conforming to sustainable development for the Mediterranean regions;
  - protect a significant part of the coast which is progressively being 'nibbled away" (the Mediterranean littoral has 47,000 km. of coastline) by ensuring that the protected area network set up is representative of the diversity of species and ecosystems present right round the Mediterranean basin.
  - avoid continued urbanization and control urban growth, which is expected to be high (now 70% urban in the north and 50% in the south, and 80% and 70% respectively by the year 2025).
- **5.** National policies of regional development which will lead to a better balance are indispensable. Such policies should be based on tools such as:
  - incentives for employment at local level;
  - priority for building housing in certain areas;
  - communication systems (to avoid isolation);
  - creation of nature parks and reserves and protection of natural areas, notably on the coast; and
  - creation of green areas in urban regions.
- **6.** National regional development strategies should put more emphasis on correcting the excessive and chaotic development of large cities and their suburbs.
- 7. In order to control urban development, national policies should insist on a better monitoring of land and control of suburban sprawl, especially by providing the necessary infrastructure, roads and networks.

The Mediterranean states should:

- 8- develop, particularly through fiscal modulation, a policy to promote low-cost and private housing based on the utilization of low-energy consuming local materials and the employment of available local labour;
- 9- combat unplanned building on the outskirts of great metropolises through a policy of prevention and balanced regional development, as well as through real administrative decentralization ("in depth" land development, development of small and medium size cities);
- 10- promote the rehabilitation of illegal buildings in existing districts by improving basic infrastructure and creating socio-cultural and green areas;
- 11- generalize district committees committed to protection of the urban environment; and
- 12- help the underprivileged get access to land property in areas identified as areas of urban development.
- **13-** make further studies for preparing and drafting municipal or inter-district sustainable development strategies.

On a regional scale, the states should:

- 14- promote research and information exchanges on town planning and management in Mediterranean cities, taking into consideration all the factors that make them viable:
- 15- conduct thorough seismo-volcanic surveys of the Mediterranean basin and define the necessary standards for building and protection;
- 16- promote technological assistance and cultural exchanges between cities by strengthening twinning; and
- 17- enhance partnership throughout the urban infrastructure sector.

The states bordering on the Mediterranean could also:

- 18- exchange information on their successes, difficulties and even setbacks;
- 19- develop professional networks, for instance:
  - among cities (Medcities),
  - among protected areas (Medpan);
- 20- convene the officials entrusted with coastal protection, such as public land managers (e.g. Le Conservatoire du Littoral in France);
- 21- create a Euro-Mediterranean coordination body which would participate in buying back, on behalf of the states, the sites which are ecologically most worth protecting;

- commit themselves to protecting by the year 2010 for instance, 10% of the coastal 22areas, not only by strengthening laws or regulations but also by implementing a protective land policy to definitively protect and handle the most precious environments and landscapes for the purposes of sustainable development; and
- 23commit themselves to a scheme whereby 100 cities of the entire basin would prepare, adopt and implement municipal or, better still, inter-municipal sustainable development strategies.

# CHAPTER VIII

# Integrating the Decisio-Making Process on the Environment and Development

1. The precepts and orientations contained in Agenda 21 constitute guidelines for what the states can do, in their respective territories, to link the environment and development, as they have together committed themselves since 1975 in Barcelona.

Nevertheless, it is not sufficient to establish a body responsible for environmental matters. The existing structures should integrate environmental aspects into their political and operational development decisions.

Here each state of the Mediterranean is asked to:

- 2- prepare and adopt a national sustainable development strategy. It would be useful that the states commit themselves on this point and make known their choices by the year 1996 or earlier, if possible;
- 3- promote integrated ecological and economic balance sheets in cooperation with international bodies, so as to have a sounder basis for fiscal or pricing policies;
- 4- promote tools to help in decision-making, especially systems and prospective analysis, giving great importance to the identification and follow-up of sustainable development indicators:
- 5- promote a policy change by relying on all the actors of civil society and all means of communication to establish a new dialogue at the national and local level;
- 6- make sure environment protection is systematically borne in mind when decisions are made on economic, tax, energy, social, commercial, transport and other policies;
- 7- develop or improve the involvement and participation of concerned persons and NGOs in decision-making at every level;
- 8- make sure the public has free access to all information touching on envisaged development projects and current industrial activities which affect the environment;
- 9- encourage and promote local traditional methods of handling natural resources;
- 10- establish procedures to involve local communities in all possible future planning concerning ecological and industrial accidents; and
- 11- improve the degree to which existing laws on the environment and established regulations are implemented, and adopt or improve their strict implementation and agreed procedures, including sanctions, that have been provided for to punish violations effectively:

At the level of the Mediterranean countries as a whole, three commitments could be

# considered:

- 12- that MAP draft, on the basis of existing work, a guidebook of economic and environmental accounting in order to assist the states in the process of taking on board environmental considerations;
- 13- that universities cooperate for the implementation of a programme of studies giving greater importance to the concept of sustainable development in Mediterranean countries, and develop exchanges among them; and
- 14- that the Mediterranean Commission on Sustainable Development strive, as a priority, to:
  - encourage the states to refocus their price, taxation and subsidies policies to fully integrate environmental and social costs and to ask industries to internalize these costs at production level; and that a report be made out in collaboration with the main international financial institutions,
  - elaborate methodological tools for the development of sustainable development strategies,
  - explain the advantages, from the point of view of environmental protection, of internalizing external costs and use of the markets to promote sustainable development; and
  - promote interdisciplinary exchange and training sessions within the context of the systems approach, at national and Mediterranean level.

<u></u>

# SECOND SECTION

**Conservation and Management of Resources** 

20

### CHAPTER IX

# The Protection of the Atmosphere

- 1. The use of fossil fuels is the main cause of green-house effect gas emissions, carbon dioxides (Co<sup>2</sup>).
- 2. Industrial development is also a source of noxious substances, such as sulphur oxides (Sox) and nitrogen oxides (Nox) harmful to the atmosphere and the ozone layer (CFCs).
- 3. Desertification contributes to the increase of the rate of suspended particles.
- **4.** However, energy consumption and industrialization will continue to play an essential role, during the next several decades, in the economic development of the southern countries, particularly with regard to the eradication of poverty.
- **5**. Thus there is a need to rationalize this legitimate demand, in a way likely to ensure sustainable development and protection of the atmosphere.

# Each state should:

- 6- draw up a national strategy in order to attenuate, within a period of time, the inconsistency between development requirements and the need to protect the atmosphere;
- 7- set up an ad hoc network for measuring and monitoring the relevant parameters of atmospheric pollution and ensure regular publication of the data on the state of the atmospheric environment of the country;
- 8- promote, in accordance with local climatic and socio-economic specificities, the use of renewable forms of energy: hydraulic, solar, wind, geothermal, animal or biomass, provided they are compatible with the objectives of sustainable development;
- give priority to renewable energy and gas-fired or mixed energy generators. Devise strategies on gas emissions in town and country. Give greater importance to fluorescent lighting and refrigeration respecting ecological standards (no CFCs and high-yield). Give greater importance in cooking to sustainable production firewood projects and solar energy systems, particularly in rural areas;
- 10- set up an Energy Agency as an institutional operator to achieve integrated planning of resources, the Energy Agency will help:
  - the government draw up regulations to attain its efficiency aims and carry out training and popularizing programs;
  - industries, by providing them with know-how on efficient technologies and renewable sources.
- 11- make mandatory studies on the impact on the atmosphere in order to ensure the conditions for sustainable development;

- reinforce and modernize the basic railway and road infrastructure as well as the common transport fleet equipment within the framework of a voluntarist policy of urban and inter-urban transport, to reduce the need to use individual means of transport, which are not environment-friendly;
- respect national obligations on the use of safer alternatives to chlorofluorocarbons (CFCs) in industry and prohibit all audio-visual advertising which boosts demand;
- 14- promote the recycling of plastic waste and the disposal of urban waste under-ground as an alternative to incineration, to protect the quality of the atmosphere and improve the soil: and
- 15- encourage all initiatives which aim at reducing deforestation of vulnerable ecosystems, particularly in arid areas.

On a Mediterranean scale, it is necessary to:

- **16-** strengthen cooperation between the states aiming at:
  - the strengthening of scientific and technical capabilities of institutions in the southern countries entrusted with observing and protecting the atmosphere;
  - the implementation of the Treaty on long distance transboundary atmospheric pollution of 1979, the Vienna Convention of 1985 for the protection of the ozone layer, the Montreal Protocol of 1987 on substances harming the ozone layer, and the Convention on climatic changes of 1992;
  - the simulation and forecasting of the impact of climatic changes on the configuration of the Mediterranean coastline and on agriculture in the arid fringes of the region in particular;
  - understanding the interaction between pollution and human health on the one hand, and atmospheric phenomena and the environment on the other;
  - the development of coherent educational material to educate the public into an awareness of the reality of the dangers;
- 17- to review and coordinate national energy policies to promote greater use of the cleanest energy forms (natural gas) or those that are renewable (solar and wind energy in particular);
- 18- to encourage the development and transfer to southern countries of technologies to improve the efficiency of energy production and consumption systems;
- 19- to organize international assistance, as well as assessment and follow-up, of the impact on the atmosphere of major ecological accidents occurring in the region;
- 20- to supply financial assistance to developing countries exploring renewable forms of energy (solar, wind, etc.);

- 21- to promote the interconnection of energy networks based on natural gas and electricity; and
- 22- to take into consideration, in atmospheric monitoring, of radioactive pollution loads.

### CHAPTER X

# Integrated Approach to the Planning and Management of Land Resources

- 1. Land has been registering losses estimated from 5 to 50 t/ ha / year because of the action of steep slopes and violent rains exposing it to sharp erosion.
- The need to protect the particularly vulnerable land of the Mediterranean basin for sustainable coverage of the food needs of an ever increasing population requires strict control of its development patterns, prohibiting all forms of overuse which cause degradation.
- 2. In this respect, it is essential to be aware of the fact that beyond the common features of the Mediterranean region (steep slopes and violent rains) there is a fundamental difference between the two shores of the Mediterranean. The north enjoys the stabilizing and healing effects of the temperate zone, while the south faces the devastating effects of the desert. However, this arid or semi-arid space, which faces severe dangers, guarantees the conservation of the Mediterranean ecosystem on the southern shore of the basin.

# Each state should:

- 3- develop institutional structures and establish inventory methods for the definition and evaluation of the vulnerability of its land resources according to its topographical and bio-climatic context;
- 4- draw to suitable scales a soil map and endorse a consistent policy of land development;
- 5- adopt a clear policy of land occupation and use taking into full consideration the land's nature and degree of vulnerability and ensuring its sustainable productivity;
- 6- enact laws and regulations to protect farm lands against urbanization, ensuring the protection of vulnerable soils;
- 7- develop a national strategy for conservation of water and soil resources and rehabilitation of agricultural land suited to the local bio-climatic context, taking into consideration traditional methods to control runoff and erosion, and mobilize and closely involve the local population in the decision making process;
- 8- encourage traditional and modern ecological agricultural practices that are adapted to the region's agro-economic features and prevent soil impoverishment and erosion.
- 9- promote the growing of traditional local species and varieties that are well adapted to the ecological conditions and enrich local and global biodiversity.
- 10- promote the diversifying of cereals (intersecting, mixing, rotation) instead of the grand monoculture and selection of a single cereal.
- 11- promote creation of nature reserves, buffer areas and integrated settlement plans

while protecting the wetlands under pressure and farm lands in the vicinity of urban districts:

- 12- combat all intensive farming that in the long run causes salination and sterilization of soils, especially in arid areas;
- 13- protect soil surface from wind action generating dust storms by combating all farm practices and energy consumption patterns which have an impact on the protective plant cover and endanger the sustainability of the exploitation system itself;
- 14- combat all practices of dry farming on light soils, since the use of such a system in Pre-Saharan areas involves soil deterioration by wind lifting and generates dust storms;
- 15- develop national plans for the treatment of urban household waste through underground disposal; such waste should be used as organic fertilizers for mineral soils, particularly in arid regions;
- 16- revise legislation on land property towards less chopping-up and more collective land management and use of land resources for the achievement of sustainable development; and
- 17- take into consideration the ecological consequences of land neglect in the hinterland.

On a Mediterranean scale, the states should:

- 18- coordinate their policies for the fullest use of farm lands to meet ever-increasing inter-Mediterranean needs for food products, without at the same time accelerating the degradation of soils, especially on the southern shore;
- 19- promote integrated disease-handling practices as a means to diminish and then eliminate dependence on pesticides.
- 20- adopt action programmes to eliminate the use of organo-chlorates and organophosphates by around the year 2005.
- 21- promote regional biodiversity by avoiding monoculture as far as possible.
- 22- cooperate on drawing a vulnerability map of Mediterranean soils and raising the considerable necessary funds to eliminate the most important threats: fires, erosion, desertification, loss of arable land to urbanization, salination, loss of biological productivity particularly by implementing a land policy to definitively withdraw from urbanization the most vulnerable agricultural land, and by encouraging in the areas thus protected agro-pastural techniques to help sustainable development;
- 23- cooperate to make operational the Mediterranean Observatory for the Environment and Development as the main tool for the follow-up of the state of land and the degradation processes affecting it;
- 24- cooperate for the development of techniques and tools more suited to the nature of the soil as well as chopped-up and often fragmented land relief;

- 25- draw up a massive comprehensive Mediterranean-scale programme for protection or restoration of hedges; and
- 26- have systematic recourse to native forest species (fodder shrubs, trees) for reforesting operations.

£ ...

#### CHAPTER XI

# Combating Deforestation (Management of Forests, Reforestation)

1. Forests cover 5% of the Mediterranean region. They are supplemented by maquis. In the countries of the southern shore of the Mediterranean, their overuse for grazing and wood cutting affects their capacity of renewal and reduces their contribution to the regulation of the water balance, soil conservation, air purification and biological diversity. In the countries of the northern shore, fires and urbanization constitute major causes of deforestation.

Each of the states of the Mediterranean region should:

- 2- make a comprehensive inventory of the public and private forest domain for efficient control of its management, ensuring sustainable use;
- 3- encourage prohibition of access to degraded forest lands, whether public or private, for the purpose of their rehabilitation as renewable resources that are essential to development;
- 4- formulate a "forestry code" taking fully into consideration the need for sustainable development of the forestry heritage;
- 5- develop a contingency plan for mobilization of public and private means of intervention in case of fire;
- 6- involve the local population, which benefits directly from the use of forest products and services, in monitoring, warning and generally protecting the forest;
- 7- regenerate the lands of the foothills, often degraded and deforested under the effect of demographic pressure, through the introduction of forest species likely to constitute fodder reserves for animals during drought periods;
- 8- draw up a region-by-region master plan for the development of forest resources and products, taking into consideration research, education, training, information and publicizing on forestry and the collection of basic data necessary for the management, planning and evaluation of forestry programmes;
- 9- harmonize the policies related to reforestation and protection of the natural coast environment, particularly by encouraging, for protected species, applied ecology studies to give a scientific basis for management and development choices;
- 10- mobilize young people in forestry and reforestation activities within the framework of the National Service:
- 11- promote job-creating forestry activities and develop wood-related activities, especially handicrafts, to increase people's incomes;
- 12- promote eco-tourism, and tourism for scientific purposes through the increase and

- diversification of protected marine and land areas (nature parks, reserves outstanding landscapes); and
- 13- institute the yearly celebration of the day of the tree, as a symbol of life and protection of the natural heritage, and accompany it with consciousness-raising and replanting campaigns.
- On a Mediterranean scale, the states should:
- 14- recognize the ecological and climatic regulatory function of forests, and promote a voluntarist policy of protection, rehabilitation and extension of the Mediterranean forestry heritage;
- 15- through education and consciousness-raising activities, make young people aware of the social and economic value of forests in meeting human needs;
- 16- cooperate on monitoring the forest heritage and implementing a warning and intervention system in order to prevent large-scale fires and to strengthen the institutional capabilities and the human resources entrusted with the study and management of forests;
- 17- ensure implementation of the decisions and recommendations on forests made by the FAO, UNEP, and IUCN and the declaration on principle adopted in Rio with respect to the management, conservation and ecologically sound use of forests, as well as the commitments at Mediterranean level contained in the Nicosia Charter and the Genoa Declaration:
- 18- cooperate on implementing regional large-scale programmes of reforestation such as the "green belt" programme elaborated for the whole of the North African region:
- 19- raise the necessary financial resources for the implementation of urgent actions of common interest. Setting up a Mediterranean network of forests classified as representative of the original wealth of the Mediterranean basin could constitute an important contribution to the conservation of bio-diversity; and
- 20- enhance the contribution of Mediterranean NGOs (Sylva Mediterranean, Forêt Mediterranéenne), and UN organizations and programmes (MAB/UNESCO, FAO) active in the fields of conservation of the forestry heritage and related education activities.

# CHAPTER XII

# Managing Fragile Ecosystems Combating Desertification and Drought

- 1. The Mediterranean lands are very fragile ecosystems, especially in the arid lands and coastal wetlands.
- 2. The desertification process affecting them causes their degradation, decline in productivity and, in the end, poverty which, in turn, accelerates the desertification process through excessive exploitation.
- 3. Only ecologically sound, economically efficient and socially equitable management, based on the active support and participation of local populations and proposing alternative support activities, is likely to halt the desertification process, rehabilitate degraded lands and ensure sustainable development.
- **4.** In order to reduce, as soon as possible, the devastating effects of desertification, affecting several hundreds of thousands of hectares, priority shall be given to preventive measures to help threatened but not yet affected lands.
- 5. The rehabilitation of seriously degraded areas requires banning access to these lands and providing the people affected with alternative subsistence means on the spot.

Each of the countries of the Mediterranean basin should:

- 6- develop, at local level, structures and means for observation (such as remote sensing), and for the collection and analysis of data on fragile ecosystems;
- 7- prepare maps of vulnerable soils affected by desertification and of the various factors contributing to their deterioration;
- 8- conduct studies on the socio-economic conditions of the populations living in degraded areas threatened by desertification;
- 9- prepare a national strategy for the rehabilitation of degraded lands, for the protection and sustainable management of lands threatened by desertification, as well as cohesive programmes of specific actions;
- 10- promote programmes generating non-agricultural job opportunities in affected areas to help rehabilitate them;
- 11- materially and financially strengthen the capacity of local populations to undertake all traditional and novel activities for the conservation of water and soil, reforestation and land improvement;
- 12- develop all means of education, consciousness-raising, consultation and mobilization and participation of local populations, rural organizations and non-governmental organizations for an environment-friendly management;

- enact or amend legislation for sustainable protection of the heritage, confer special status on particular areas (e.g. wetlands, gradients, etc) and supplement regulations by a land policy of public acquisition, installing inalienability status and management to effectively protect the most vulnerable ecosystems;
- 14- enhance utilization of domestic energy sources other than wood in certain regions, and develop renewable energy sources;
- 15- ensure sound heritage management of available fossil waters, taking into consideration the impact on the sustainability of the plant cover; and
- 16- ensure sound management of the chronically scarce renewable water resources through parsimonious utilization in affected areas.

Together, the states of the Mediterranean basin should:

- 17- intensify scientific research on the palaeo-hydrology of the region and climatic changes in the North Saharan arid zone;
- 18- cooperate on full implementation of the provisions contained in the United Nations International Convention on desertification, as soon as it is adopted, and the regional annexes, particularly those concerning Africa (UAM sub-regional programme) and the northern Mediterranean:
- 19- develop sub-regional Mediterranean mechanisms of emergency assistance with respect to animal feeding, particularly in periods of severe drought threatening the survival of livestock:
- 20- cooperate on implementation of regional programmes concerning the Mediterranean, such as the Sahara and Sahel Observatory (Paris Agreement, May 1992); and
- 21- improve the exchange of information, data and expertise by setting up a Mediterranean network of research centres and institutes studying the problems of fragile areas (MAB, etc.).

# CHAPTER XIII

# Managing Fragile Ecosystems Sustainable Mountain and Hinterland Development

- 1. Mediterranean mountains and more generally the hinterlands are an important source of water, energy and biological diversity. The utilization of soils in a hostile environment with uneven relief was made possible through the ages by terrace cultivation, dung used as fertilizer, changing sequence and diversity of crop rotation and surface ploughing.
- 2. The modernization of agriculture with farming equipment, fertilizers, pesticides, herbicides, etc., on the one hand and transformation and conditioning on the other has upset traditional soil occupation and production systems. This has led to the marginalization of high lands unsuitable for increased productivity and the obligatory short-term profitability, impoverished non-competitive farmers and promoted migration.
- 3. This neglect mainly affects the mountainous areas not suitable for mechanized farming. It is the principal cause of the degradation process breaking up of terraces, destruction of hedges, erosion, fires, avalanches, and deterioration of rural roads and tracks.
- 4. Serious changes in demographical structures and the disturbance of the ecologic balance and agricultural areas are its logical consequences.

Each of the states of the Mediterranean should:

- 5- elaborate a national strategy for the development of highland areas, emphasizing the important role of the area upstream of watersheds in maintaining the balance of ecosystems, combating increasing soil erosion, poverty and migration;
- 6- create in each region specific institutional structures for suitable management of mountainous areas and the sustainable socio-economic development of people living off them; <sup>1</sup>
- 7- plan specific educational and health actions for isolated population groups (women and young people in particular) and organize consciousness-raising campaigns on the need to preserve the ecological balance;
- 8- identify hazardous mountain areas that are most vulnerable to erosion, landslides, avalanches and other natural disasters and take adequate preventive measures;
- **9-** provide the local population with substitute sources of energy for charcoal and firewood:
- 10- encourage at local level suitable economic activities (handicrafts, eco-tourism, small scale breeding, etc.) within the framework of land development suited to mountainous and hinterland areas; and
- 11- recognize in practice the right of the people living in mountainous areas to enjoy a share of the water resources used in the plains downstream, through interconnected schemes of lakes and dams in the hills.

On a Mediterranean scale, the states should:

- 12- Underscore the fundamental role for the balance and protection of the ecosystems played by the mountains, where a considerable part of the forests and maquis is located:
- 13- promote the setting up of research networks on the specific nature of the Mediterranean mountain, settlement and use of its watersheds and the stages of its evolution;
- 14- cooperate to improve the yield of draught animals better suited to farm work in certain mountainous regions;
- 15- promote the availability of adequate new technologies (e.g. photo-voltaic cells) to the isolated mountain populations; and
- 16- take advantage of existing schemes of international cooperation among mountainous areas.

<u>,</u>

#### CHAPTER XIV

#### Promoting Sustainable Agricultural and Rural Development

1. Agriculture still represents an important share of the GNP in southern and eastern Mediterranean countries: 15 to 18%.

In Spain, France and Italy, the figure is about 3 to 5%.

- 2. The global population of the Mediterranean countries was about 356 million in 1985. At present, the growth rate in the North, which is more densely populated, is lower than the average growth rate of the Mediterranean region as a whole, and sharply below the growth rates in southern countries. The global population of the Mediterranean region will reach 440 million by the year 2000 and 520 to 570 million by the year 2025.
- 3. This demographic growth will inevitably result in increased food needs in the southern Mediterranean countries. Nevertheless, the area under cultivation represents only 28% of Mediterranean land.
- 4. Farming intensification implies mechanization, irrigation, various inputs requiring considerable investments, and has an important impact on water and soil resources, as well as on the environment, and often results in serious degradations.
- 5. It implies, in the North, migration to higher-yield areas and standardization of exploitation systems. The search for maximum productivity implies a sharp decline in the agricultural working population and the setting aside of lower-yield areas (terrace cultivation, scrubland, maquis, etc.).
- 6. It implies, in the south, the extension of cultivation to steeply sloping areas, which receive various amounts of water, on fairly fragile soil (because of slopes, thickness or structure) causing the destruction of the plant cover and making soils vulnerable to climate and the increase in runoff.

Mechanized ploughing on fragile soils or steep slopes accelerates the process of erosion. Salinisation, due to flooding, causes loss of fertility and decline in productivity, both incompatible with sustainable development.

Each of the countries of the Mediterranean should:

- 7- develop a coherent strategy to achieve sustainable agricultural and rural development, fully taking into consideration the need for soil and water conservation and aiming to ensure adequate food supplies;
- 8- elaborate land development policies including adapted and regionalised rural development plans to improve the basic infrastructure: irrigation - drainage communications, transport, storing, processing and packaging of production. These policies should promote a progressive reduction of chemical input to replace current intensive farming systems with traditional ecological farming systems that make less call on chemical input.

Research should be directed at satisfying the region's food needs from ecological types of agriculture and minimise chemical input.

- 9- develop local educational infrastructure for young farmers and focus training on sustainable development practices;
- 10- promote a rational pricing policy taking into account costs, profits and conservation of the heritage; the costs to be considered should include ecological costs, including soil deterioration and water pollution, human health problems and those of useful organisms (such as bees because of pesticides), and energy used for making and transporting agricultural inputs;
- 11- use public lands and certain pilot areas as good examples of decentralization, efficiency and sustainable management, representative of different systems of production;
- 12- favour the return of organic material, rotation cropping and fallow fields as well as breeding on used soils;
- 13- promote balanced fertilization for a rational and sustainable use of agricultural land.

  Minimize use of chemical fertilizers and promote production and use of vegetable or animal manure; and
- 14- review and improve the existing land estate structures and the status of collective lands so that land resources can play an active role in rural development.

On the entire Mediterranean scale, it is necessary to:

- 15- develop an inventory and remote sensing follow-up of the main Mediterranean agrosystems, after dovetailing national inventories;
- 16- cooperate in the biological control of pests, using plant-care products in an ecologically rational way and adopting action plans to eliminate the use of organo-chlorate and organo-phosphate pesticides by around the year 2005;
- 17- promote research in the field of plant and animal biogenetics and the dissemination of results;
- 18- promote an integrated approach combining biological control, selection of species resisting to salinity- and drought-induced stress and pests, and implementation of appropriate production methods toward production improvement, cost effectiveness and environmental protection;
- 19- Increase the variety of cereals and livestock; promote local species and varieties; recognise that traditional and modern ecological farming practices may help increase the long-term productivity of agro-systems;
- 20- develop scientific and technological cooperation in the field of agronomic education and research around the Mediterranean, (soil salination, adaptation of species to saline soils and the impact of climatic changes, etc.);
- 21- enhance cooperation towards establishing a Mediterranean network of gene banks in situ, in cultivation and ex situ; especially on local species well-adapted to the

region's eco-systems and often replaced by genetically-uniform hybrids;

- 22- cooperate towards the elaboration of a balanced Mediterranean agricultural policy, taking into account both demographic trends and available real potentials (land and water), minimizing possible negative effects on the environment and ensuring, for the long term, sustainable development;
- provide financial assistance to the considerable efforts the southern countries will have to make to intensify their agriculture in accordance with demographic developments; and where possible adapt traditional ecological farming practices which help protect the environment and the long-term productivity of the soil;
- 24- decide on and implement technical, socio-economic and commercial supplementary measures to support fragile agricultural production systems, particularly those which can only face up to competition with difficulty. These measures should help promote traditional and modern ecological farming practices and diminish the subsidies which support present farming practices that are based on chemical inputs;
- 25- ensure, through special clauses, that trade agreements take into account the specific nature of the Mediterranean region with respect to environment-friendly production.

#### CHAPTER XV

#### Conservation of Biological Diversity

- 1. The Mediterranean region still constitutes one of the world's large repositories of biological diversity.
- 2. Many mistakes have been made there; the most important one is deforestation. The disappearance of certain specific biotopes and more recently pollution in its different forms, are the other two grave errors. All three threaten the original ecological balance and biodiversity of the region. This damage, linked to human activity, is a serious threat to future development.
- 3. The genetic heritage of plants, animals and micro-organisms and more generally of species, ecosystems and habitats should be preserved for the good of humanity.
- 4. The proportion of protected areas, (parks and reserves) is about 0.8% in the south and east, 9.6% in France and 6.8% in Italy and Spain, if we consider IUCN norms.

Each of the states of the Mediterranean should:

- 5- develop a strategy of biodiversity conservation to be integrated into its national development and land development plans;
- 6- encourage collection, conservation and characterization of traditional useful seeds adapted to the local conditions;
- 7- set up gene banks;
- 8- protect all types of wetland, particularly those not yet affected by the waste water and agriçultural exploitation reasoning, and explain their role in the ecological equilibrium and their extreme biodiversity richness;
- 9- set up sanctuaries, parks and nature reserves on part of each state's territory which will be representative of the biodiversity present within the bounds of this state; involve scientists, NGOs and the local population in monitoring and preserving of their ecosystems and propose the objectives to be reached by the year 2010;
- 10- develop pilot sustainable development areas integrating diversity and the time factor in the concept of land development;
- 11- integrate the continuity of commonage for the natural fauna into land development plans and important infrastructure systems, while respecting biological corridors;
- 12- adapt and implement strict monitoring measures for the elimination of any destructive fishing system, such as trawling; and
- **13-** regulate, rationalize and try to reduce, use of pesticides and eliminate or reduce the subsidies related thereto.

On a Mediterranean scale, all the coastal states should:

- 14- develop international cooperation to ensure in situ protection of ecosystems and species as well as ex situ conservation of biological and genetic resources;
- 15- ratify and implement the provisions contained in the Convention on biodiversity and relevant international texts;
- 16- define appropriate measures to protect the rights of the countries of origin of these resources and of local communities;
- 17- continue work on an inventory, on a Mediterranean scale, of plant and animal species of the Mediterranean ecosystem;
- 18- reiterate the commitments made in Nicosia in 1989 to make management plans for the most endangered biotopes;
- 19- provide financial assistance to projects of Mediterranean interest aimed at reconstituting specially protected species;
- 20- strengthen monitoring of illegal trade in protected species by the ad hoc international legislation endorsed or to be endorsed by the states, and adopt as a legal obligation any international agreement or convention on the subject:
- 21- ban any import of non-endogenous species for aquaculture needs and halt the extension of destructive and inappropriate aquacultural systems;
- 22- develop a new approach for planners in which conservation of natural habitats will take turns with a pattern of environmental management more compatible with the requirements of sustainable development;
- 23- fully implement the provisions of the Barcelona Convention and the international agreements banning waste discharge into the sea;
- 24- confirm the commitments made in Genoa in 1985 on the protection of endangered species;
- 25- protect phanerogams, particularly the Posidonia beds (which play an important role in the food balance of the entire Mediterranean and constitute a privileged habitat) and the continental shelf against any activity not compatible with the maintenance of its ecological resources. Pressure from tourism and pleasure boats should also be considered;
- 26- increase the number of protected areas, especially biosphere reserves in the Mediterranean context (32 at present) and extend study on them through consultation among those responsible for MAB programmes draw up development and management plans for such areas, give them suitable funding to enable promulgation of those plans, which should take into account the rights of the local communities likely to be affected;
- 27- develop land or marine areas of Mediterranean interest by laws and regulations and

land measures, to permit the definitive protection of these habitats and their efficient management in the spirit of sustainable development;

- 28- encourage selective fishing methods that are compatible with the repopulation or protection of certain species and habitats; and
- 29- monitor the practice of underwater fishing and set up underwater biological reserves on the coast or the continental shelf.

. F

#### CHAPTER XVI

#### **Ecologically Sound Management of Biotechnology**

- 1. Modern biotechnology, in particular genetic engineering, promises to improve human health and agricultural production and contribute generally to environment protection.
- 2. Like much other technology, however, genetic engineering can cause a great deal of harm. Genetically modified organisms (GMOs) can constitute a great danger to ecosystems and the natural renewal of species (e.g. by replacing them by pathogenetic organisms or production of toxic substances).
- GMOs can change, multiply and spread but cannot be eliminated from the environment once released. GMOs can cross borders and harm neighbouring countries' environments.
- 3. Intellectual property systems relating to genetic material and to GMOs can cause negative socio-economic effects and undermine the aims of the Convention on Biodiversity.
- 4. The development of biotechnology requires the availability of existing genetic resources and also considerable scientific, technological and financial means.

Each of the states bordering on the Mediterranean should:

- 5- work out a master plan for the sound management of biotechnology;
- 6- make an assessment of priority needs in the fields of public health, agriculture and environment protection;
- 7- insist on the fact that an internationally binding protocol on biological security, regulating the transfer, detention and use of GMOs, exists as part of the Convention on Biodiversity.
- 8- demand that products composed of or containing GMOs be registered.
- 9- demand access to scientific information concerning GMO risks.
- 10- strengthen internationally competitive biotechnology laboratories and research centres and develop research programmes compatible with national priorities;
- 11- implement progressive biotechnological policies, particularly as regards genetic engineering, based on safety measures for the environment and public health and bearing in mind their ethnic and socio-economic effect.
- **12-** ensure that it is not being misused as a testing ground for GMOs. Here it must demand:
  - access to all information concerning the improvement of knowledge about GMO risks acquired in other countries.

- information on any ban on release into the environment of any GMOs in any country and on the reasons for this ban.
- that people and societies testing GMOs bear all the costs of potential damages and prove that damages are not the work of their GMOs.
- 13- make obligatory the labelling of products made up of GMOs or their derivatives or containing GMOs.
- 14- ban production and use of herbicide-tolerant cereals which would increase the use of toxic chemical products in agriculture.
- **15-** establish forward-looking national legislation and take the necessary measures which would promote:
  - financial and tax incentives to give greater importance to sustainable technology and necessary developments which do not harm either the environment or public health, e.g. developing ecological agricultural systems,
  - supplying enterprises in the sector with qualified personnel able to ensure technological change,
  - development of link-ups with research bodies,
  - public and private financing of biotechnology-related research programmes,
  - protection of intellectual property rights on the products derived from new biotechnologies after a careful assessment of the effects any production would have given rise to on a national or international scale, and
  - protecting the interests of farmers providing the genetic resources used in biotechnology.
- 16- ensure training and development of human resources in this advanced sector of technology; and
- 17- set up standards to be observed for the protection of public health and the environment.

Together, the Mediterranean states should:

- **18-** ensure free circulation of *ad hoc* scientific information;
- 19- promote scientific and technological cooperation among countries through networking of Mediterranean laboratories and research centres;
- 20- collectively review the ethical problems related to biotechnology, at the level of the individual and of society; and
- 21- make sure that benefits accruing from the use and exploitation of various aspects of biotechnology return to the countries of origin.

#### CHAPTER XVII

## Protection of The Sea and Coastal Areas: Protection, Rational Use and Development of their Biological Resources

- 1. Some one third of the population of the Mediterranean countries lives in the coastal areas, a group of littoral areas directly influenced by the sea, with a vast disparity between countries, since the coast represents up to 90% for certain countries (Greece, Lebanon, Algeria) not mentioning the island States.
- 2. All countries have been witnessing fast degradation and erosion of their coastal environment.
- 3. Growing and mismanaged urbanization (90 to 170 million residents by the year 2025 in the coastal areas, with threefold rise, on average, from Morocco to Turkey), the various economic and industrial activities, and tourism (260 million by the year 2025) all take place in a narrow and fragile coastal strip. It is on the effective management of this situation that will depend the sustainable development of coastal areas, which represent a vital resource for the development of many Mediterranean countries.
- 4. More than 80% of the pollution in the Mediterranean Sea results from such land-based activities (direct land-based pollution, air pollution).
- 5. If the exploitation of natural resources of the coastal areas is worrying, that of fisheries in zones under national law and on the high seas, is unsustainable. The quality of water has been severely affected by industrial, agricultural and household pollution in 20 out of 29 watersheds.
- 6. As an important area for the history of humanity, the Mediterranean should be paid particular attention by both the Mediterranean countries and the regional and international institutions.

#### The Mediterranean countries should:

- 7- consider coastal areas as dynamic systems; define action objectives suited to the regions in order to conserve them and allow sustainable use of their resources; adopt coherent policies of integrated ecologically sound coastal management; in the context of coherent policies of conservation and land development;
- 8- set-up coastal development programmes in accordance with the principles and recommendations of Agenda 21, Chapter 17, and the manual drafted within the MAP framework:
- 9- monitor the integrity of the coastal ecosystem;
- 10- ensure the integration of conservation actions carried out by decision centres at local, national and regional level, as well as integration of management of all biotic and abiotic components in the coastal and marine areas national jurisdiction;

- 11- set up organizations specially entrusted with the conservation and management of these areas and with establishing formal and informal linkages between the various competent bodies in order to dispose of an appropriate management mechanism, based on coherent legal and jurisdictional bases;
- 12- establish, develop and maintain information systems to evaluate, manage and protect the coastal regions and the exploitation of their resources. Here IMSs and remote-sensing are useful tools.
- develop indicators to monitor trends in the evolution of the state and quality of the resources of the coastal areas and watersheds;
- 14- take account of cultural, historical, social and environmental considerations for requests for tourist development, ensure that these values as well as historical, cultural, ecological or natural areas are protected, prevent the development of mass tourism irrevocably destroying this cultural heritage, as has been the case in certain parts of the Mediterranean.
- 15- follow-up and assess, on a regular basis, sources of land pollution and their impact on land and marine resources, and take the appropriate preventive, curative and control measures to stop this dumping of waste;
- 16- take clear measures of lasting precaution to protect the water and soil resources and eliminate hazards to public health;
- 17- develop their own laws in conformity with international agreements.
- 18- encourage local authorities to manage better their coastal areas through incentive measures such as investment, training, promotion and even by awarding prizes;
- 19- use financial incentives or disincentives such as taxes on pollution and the application of the "polluter pays" principle, recycling energy saving, abatement and prevention of pollution etc bonuses; and
- 20- take into consideration the specific socio-economic and cultural features of islands as vulnerable ecosystems.

At the level of the Mediterranean as a whole, it is advisable to:

- 21- ensure the enforcement of the Barcelona Convention and its Protocols by encouraging, developing and strengthening the necessary cooperation among the Mediterranean countries and regional institutions (notably MAP) and international bodies (EU, METAP, UNDP, FAO, WHO, IMO, etc.);
- 22- promote inventories of natural land and sea resources and how they are used in relation to conservation of biodiversity and of the Mediterranean countryside;
- 23- develop programmes of surveillance and monitoring of discharge of waste into territorial waters and high seas, as well as methodologies for the interpretation of the data collected and evaluation of the effectiveness of measures taken;

- 24- develop programmes of prevention, assistance and aid in case of accidents at sea;
- 25- promote coordinated scientific research programmes on Mediterranean ecosystems, on food chains, life in the sea and in coastal areas and develop information exchange to ensure protection;
- 26- promote research, transfer of ecologically appropriate and clean technologies and of dynamic and evolutive structures of assimilation and innovation of technology for a rational and sustainable use of land and marine natural resources;
- 27- strengthen cooperation among the countries and the regional and international institutions for the protection of the Mediterranean coast and, as a priority of fragile ecosystems and historic sites. This policy could be based on the creation in MAP of a Mediterranean littoral conservatory with the task of promoting and supporting, in countries bordering on the Mediterranean, the implementing of three action guidelines, whose validity has been proved by experience.
  - a land action leading to granting of inalienability status to sites that must be protected, chosen for their natural and/or cultural qualities.
  - a specialist body of the littoral conservatory type, whose essential task will be to guarantee the inalienability and active management of sites, directed towards protecting and developing them.
  - standardised, decentralised management arrangements under the control of this body, working closely with the local communities and people.
- 28- strengthen cooperation and joint research to ensure the conservation and long-term sustainability of use of renewable natural resources;
- 29- strengthen national, local and sectorial capacities in respect of the management of coastal resources by encouraging pilot programmes and projects, and developing information systems and environment and development observatories, and focusing on the identification, development and use of methodologies, tools and techniques of integrated coastal management suitable for the Mediterranean;
- 30- ensure that the public is trained and made aware of the problems of the coastal area, provide technical assistance where necessary and draft a code of practices for national and local decision-makers;
- 31- encourage demonstration programmes of integrated and ecologically appropriate management of coastal areas with regard to their environmental and cultural makeup, and ensure their promotion through at least two projects per country for the next decade, with the technological and financial assistance, if necessary, of the competent regional and international institutions;
- 32- make sure there is openness in the decision-making process and ensure that all the citizens, local communities, NGOs, etc. likely to be affected by such processes are involved;
- 33- promote cooperation and exchange of information and expertise with the other programmes relating to regional seas, notably that of the Black Sea;

develop suitable cooperation among intergovernmental organizations, and especially IMO, to optimize the adoption of regulations covering specially protected areas (MARPOL) and above all very vulnerable areas (IMO);

ş 4

#### CHAPTER XVIII

1

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

- 1. Freshwater resources are an essential component of the Mediterranean basin's development. Water has for a long time not been considered as a simple element of the environment. Water demands have been increasing exponentially for the last century, making it a scarce resource (current consumption amounts to 125 billion m3/year out of a total flow potential of 515 billion.)
- 2. Its treatment, which is becoming even more expensive because of the deteriorating quality, will soon make it a product.
- 3. The use of non-conventional resources (underground fossil waters, reuse of waste waters, desalination of sea water) by certain countries are premonitory signs of a structural scarcity which threatens, in particular, sustainable development in the countries of the southern rim of the Mediterranean, which receive much less rainfall, and is a potential generator of conflicts.
- 4. If demographic growth rates remain unchanged, with the exception of Egypt and Syria, no country of the southern rim will dispose, by the year 2025, of more than 400 m3 per capita per year, which corresponds to the vital needs of the population.
- **5.** Sustainable management of water resources is based on the perception of water as an integral part of the ecosystem and an economic and social good whose quality and quantity determine the nature of its utilisation.
- **6.** The availability of water is a central factor on which should be based any programme of sustainable development taking into consideration the management of health, the creation of economic activities and the protection of the environment.
- 7. In certain cases, conservation of biodiversity requires that a minimum of watercourses and aquatic species as well as all types of wetlands existing in the country retain their wild state.

Each of the States of the Mediterranean basin should:

- 8- elaborate a national policy of water resource inventory, mobilisation and management, that is sustainable development;
- 9- plan for environmentally safe and socio-economically effective utilisation of water resources, taking into consideration the special case of shared water resources.
- 10- combat drought and floods by an integrated management of surface and underground water aiming at improving and regulating interannual flows;
- 11- attenuate the uneven geographical distribution of water with an adequate policy of transfer or return of water, which shall be environmentally safe and take into full

- consideration the present and future ecological and development needs of donating areas and their populations;
- 12- favour decentralised supply and management water resource systems to secure the needs of the populations concerned;
- 13 promote all conciliation means and arbitration structures, at local, national and regional level, in order to settle conflicts with respect to water resource allocation;
- 14- determine a fair price of water based on supply, while bearing in mind the need to give the poor the means to satisfy their minimum needs;
- 15- elaborate a water code governing the right of utilisation, protecting surface and underground water against pollution and ensuring their conservation and renewal;
- 16- provide water managers with the necessary technical means and human resources and enhance their capacity for forecasting and planning;
- 17- restore, support and modernise all local traditional practices likely to satisfy in the long-term the needs of people living in sparsely populated areas;
- 18- support all safe means for the extracting of water, promoting solar, wind or gravity energy;
- **19-** maintain an effective network of quantitative and qualitative monitoring of water resources and a database; and
- 20- generalise water recycling for its utilisation at a secondary level of quality.

On the scale of the Mediterranean basin, the following should be done:

- 21- a network of water management or research institutions should develop for the strengthening of north-south cooperation;
- an information and consciousness-raising network, involving NGOs, shall work for a better public awareness of the negative impact of certain consumption and development patterns on this vital resource and the necessity to protect it on the basis of the precautionary principle;
- 23- in-depth prospective studies shall anticipate medium and long term developments in countries already facing sharp water shortages and recommend solutions likely to reduce their effects:
- **24-** support the development of appropriate technologies relating to water in developing countries;
- 25- promote the necessary assistance to developing countries for rehabilitating and renewing their water supply infrastructure in order to reduce infiltration and loss of water;

26- internalize the cost of pollution control and prevention measures in the price of goods produced and marketed through the application of the "polluter pays" principle, whose objective is to make the resource user bear the cost;

1

- 27- envisage a heritage-type management of the quality of water, that is as a "common good". This implies that the different actors should adapt their behaviour to a spatia-temporal perspective that of the hydrographic basin and of human generations;
- 28- develop new technologies, minimising losses, which reach 30% in the distribution network, and which could be greatly reduced;
- 29- develop themes of north-south cooperation on databanks, setting up institutional mechanisms, training, information...

#### CHAPTER XIX

# Environmentally Sound Management of Toxic Chemicals Including Prevention of Illegal International Traffic in Toxic and Dangerous Products

- 1. Contamination by toxic chemicals occurs, in most cases, during the production and use of the products. The problem is more acute with respect to pollution in the vicinity of great industrial sites.
- 2. The task is to control long distance effects of pollution and transboundary movements.
- 3. In the Mediterranean basin, a large number of industrial sites with several production units are concentrated on the coast. Production growth, especially in southern and eastern countries will be achieved more by restructuring and if necessary extending existing facilities than by creating new sites.
- 4. In the Mediterranean region, a considerable proportion of these substances chemicals is used for the manufacture of mineral fertilisers (nitrogenes and superphosphates) and the production of chlorine and ammonia.

At national level, the Mediterranean should:

- 5- promote farming practices not using chemical inputs, and sharply reduce dependence on imported pesticides;
- 6- develop information for farmers to rationalize and optimize consumption of pesticides. Provide technical support for training farmers in the integrated fight against diseases where non-chemical methods of attack are strongly recommended;
- 7- ban the export and import of all forbidden substances, those of limited use, or those not registered;
- 8- adopt clear policies on the production, consumption, transport, storage and discharge of toxic substances and, among other things, ask industries to develop programmes for safe substitutes and bear the cost of collection, handling and storage of toxic products according to the most stringent OECD standards;
- **9-** support the FAO programmes concerning the management of chemical inputs in agriculture;
- **10-** improve the development of sites in order to optimise joint *in situ* treatment of toxic products;
- 11- raise people's awareness through public information campaigns on the effects of toxic chemicals on human health and the environment;
- 12- limit, and even ban subsidies for the use of agricultural pesticides when alternative solutions exist (traditional farming practices). Subsidies should in this case promote agriculture that has the least effect and does not use chemical inputs:

- **13-** direct efforts towards decreasing the quantities of pesticides in order to reduce land pollution;
- 14- encourage the use of the least pollutant fertilizers in order to limit soil degradation and water pollution;
- 15- strengthen the capabilities of anti-poison centres.
- 16- prioritize strategies to replace and ban the use of chlorine and chlorinated compounds, to protect the environment and because of the effect they have on health and the fact that other safe substitutes are available.

At the level of the Mediterranean region, it would be advisable to:

- 17- strengthen technological cooperation and transfer of clean technologies;
- 18- strengthen identification procedures of hazardous products loaded at Mediterranean ports or in transit;
- 19- enhance the warning and prevention network for maritime transport of such substances through REMPEC;
- 20- prepare and disseminate widely a list of toxic chemicals and publish manuals on management, storage, treatment, reduction, elimination and substitution in order to facilitate handling of accidents;
- enhance international agreements and, where required, Mediterranean agreements on a code of conduct with respect to transboundary movements of toxic products and ask that states ensure the follow-up of sea, air, land or rail transport and report all cases of breach of conduct according to international agreements;
- 22- enhance cooperation with the IMO;
- establish scientific and emergency assistance procedures in case of ecological disasters (DPRC Convention, WHO Convention, etc.);
- 24- enforce the protocols related to the Barcelona Convention with respect to the banning of waste discharges into the Mediterranean Sea;
- 25- comply with international commitments, especially the provisions of the 1985 Genoa Declaration and the Nicosia Charter of 1989;
- 26- develop a regional plan of action to put into effect the decisions made by the contracting parties to the Barcelona Convention in the Protocol on sources of land pollution.

#### CHAPTER XX

# Environmentally Sound Management of Hazardous Waste Including Prevention of Illegal International Traffic in Hazardous Waste

- 1. Hazardous waste has been increasingly produced in industrial sites, and sometimes in certain marine sites, around the Mediterranean. This waste has a noxious effect on public health and the quality of the environment must be managed more rigorously.
- 2. The quantity of waste increasing with the increase of income, countries with low and middle incomes especially should prepare themselves, technologically and institutionally, to face this problem, especially since uncontrolled discharge is currently the most common practice.

At national level, Mediterranean basin countries should:

- 3- apply the "polluter pays" principle to industry;
- 4- develop accessible centres for the management of hazardous waste and make sure that they are well run. It would be advisable to create a clean-up fund to finance treatment of industrial waste:
- 5- intensify and disseminate information to industry and the public on hazardous waste and the risk of noxious effects that are inherent. Disseminate information on all non-toxic alternatives by consumer campaigns and through local industries;
- ensure reconditioning of contaminated sites and take the necessary measures to avoid future contamination, since, as a rule, minimising generation of hazardous waste costs less than rehabilitating discharge sites;
- 7- strengthen the management systems for hazardous waste by supervising the various stages from generation to elimination of waste and improve, in particular, monitoring of all industries which generate hazardous waste;
- 8- establish clean production units;
- 9- limit recourse to technologies that generate hazardous waste and enhance the use of clean technologies especially in countries in the process of industrialisation, within the framework of new investment that allows the recycling of residues or that generate a lower quantity of waste;
- endorse and implement strict regulations with respect to the dumping of hazardous wastes, keep a detailed and regular record and prevent noxious infiltration from dumps into aquifers;
- 11- develop and strengthen cooperation among central and local authorities and enhance the municipalities' means of control;
- 12- organise simulation of disasters in order to improve the effectiveness of contingency

- plans and prevention and intervention systems;
- 13- draft national plans for the reduction and elimination of production of hazardous waste, and offer incentives for local industries to implement clean production procedures;
- 14- request obligatory waste audits for all industrial facilities.

#### At Mediterranean level, it would be advisable to:

- 15- develop dissemination of research on the use of the cleanest technologies;
- **16-** elaborate common information on alternative products and clean production techniques and on the elimination of inevitable hazardous wastes;
- 17- elaborate a reference regulation with respect to the dumping and monitoring of hazardous waste and manuals on waste management in order to reduce as far as possible noxious impacts on public health and the environment;
- **18-** make an inventory of industrial sites generating hazardous wastes around the Mediterranean:
- **19-** encourage the transfer of clean technologies to the countries in the process of industrialisation;
- 20- implement the recommendations contained in the protocols related to the Barcelona Convention:
- 21- cooperate in combating all forms of illegal traffic in hazardous waste, especially through the establishment of a warning system;
- 22- prevent transboundary movements of hazardous waste;
- 23- integrally enforce the Basel and Bamako Conventions as well as the sub-regional commitments with respect to the transfer of hazardous waste;
- 24- intensify the Mediterranean countries' attempts to ban transboundary movement of hazardous waste and its discharge into the Mediterranean.
- 25- cooperate on training and giving specialist courses to southern experts in the treatment of hazardous waste.

#### CHAPTER XXI

## Environmentally Sound Management of Solid Waste and Sewage-Related Issues

- 1. Environmentally sound management of ever increasing solid waste raises the question of production and consumption patterns because it is based on the elimination and recovery of produced wastes.
- 2. Lifestyles differ notably on either shore of the Mediterranean, reflecting the difference in economic development among these countries.
- 3. Because of their high content in various packaging waste, final incineration has generally been favoured in the northern countries.

When the content of organic material is relatively high, underground disposal would become more advantageous.

- **4.** Environmentally sound management of ever increasing sewage aims mainly at eliminating the serious threat of this waste to human health and the environment.
- 5. While the countries of the northern shore aim at reducing pollution to a level that is compatible with their environment's self-cleaning ability, treated sewage, in the countries of the southern shore, constitutes an additional resource to be mobilised.
- **6.** To respect the environmental protection standards, the cost of treatment of domestic waste and sewage will inevitably be higher.

Each of the countries of the Mediterranean basin should:

- elaborate, within the framework of its general policy on environmental protection, national programmes for the reduction, management and reuse of solid waste and sewage;
- 8- establish ad hoc decentralised institutional structures and provide them with the necessary financial and human resources enabling them to implement such programmes successfully;
- 9- develop controlled discharge sites and facilitate recovery and recycling as a minimum level of solid waste management;
- 10- avoid where possible incineration of waste;
- 11- promote national policies to reduce and give alternatives for packaging material, giving priority to PVC packaging;
- **12-** provide underprivileged and outlying districts with the minimum sanitation infrastructure;
- 13- promote public awareness of the health risks induced by sewage;

- 14- minimise the impact of urban and industrial effluents on underground aquifers and coastal waters;
- 15- encourage people not linked to public sanitation networks to develop appropriate individual sanitation systems through financial incentives, if necessary;
- 16- improve the profitability of recovery and recycling procedures through waste elimination taxes that are compatible with the cost of treatment according to environment-friendly methods;
- 17- promote, through the full involvement of NGOs, the active participation of the population in the selection of wastes at source;
- 18- promote recycling of treated sewage especially for agriculture and reforestation; and
- 19- promote the creation of selection-and-transfer centres and voluntary participation centres and the establishment of selective collection points.

On the scale of the entire Mediterranean basin, there should be:

- 20- encouragement of packaging manufacturers to hold consultation meetings on cardboard recycling;
- 21- promotion of investments in the field of environmental protection by offering suitable incentives: and
- 22- enhancement of management and research institutional capacities in developing countries in the fields of solid waste and sewage treatment and reuse.

£ .

#### CHAPTER XXII

#### Ecologically Safe Management of Radioactive Waste

- 1. Radioactive waste results, mainly, from the utilisation of nuclear fuels and materials in power stations, military applications and other fields such as medicine, research and industry.
- 2. In the Mediterranean region, electricity generated by nuclear power stations is concentrated in France and Spain. Nuclear programmes are at present little developed in the majority of the Mediterranean countries.
- 3. Transfer and storage of low-level and medium-level and short-life radioactivity present certain questions that call for suitable answers. Transport and treatment of highly radioactive long-life waste continues to be a matter of concern. It is difficult to find underground storage sites, mainly because of public opposition. Research must be done before choices are made on the future development of these products.
- 4. Moreover, based on a life expectancy of 40 years, the world will progressively enter, right from the beginning of the 21st century, on an era when many nuclear power stations will first be downgraded, then dismantled, producing a large amount of very low activity waste.

The states of the Mediterranean concerned by nuclear energy should:

- 5- be very careful with respect to the choice of sites for storage, particularly taking account of nearby marine and aquatic environments;
- 6- strictly regulate the transport, especially transboundary transport, of radioactive waste;
- 7- implement a system of strict responsibility concerning production, management, transport and discharge of radioactive waste;
- 8- manage, within their territory, their own radioactive waste. When the waste to be managed comes from another country or has to be stored in a third country, the populations concerned should be fully informed and the hazards carefully weighed;
- 9- ban the building of new radioactive waste storage sites in the countries of the region that do not belong to the OECD.

At Mediterranean level, the states should:

- 10- disseminate information on hazards relating to radioactive waste (unauthorised transport, accidents) and strengthen the precautions to be taken in case of risks;
- 11- implement the decisions on the subject made by the Barcelona Convention and by the London Convention;
- 12- elaborate a code of conduct based on a legally adapted agreement;

- make the developing countries aware of their responsibilities and strengthen their capacities with respect to the safe management of waste resulting from the development of nuclear programmes for non-military use, approved and supervised by the IAEA and the NEA; and
- 14- draw up and test an emergency action plan to prevent and limit the effects of possible future nuclear accidents.

ş <del>/</del>

## THIRD SECTION

Strengthening the Role of the Main Sectors of Society

\$ .

#### CHAPTER XXIII

#### Preamble to the Chapters Related to Strengthening Partnership

- 1. Governments committed themselves, in Rio, to striving to bring their respective countries onto the path to sustainable development by the dawn of the 21st century.
- 2. Agenda 21, which they have endorsed, defines the objectives to be attained.
- 3. Achieving sustainable development objectives in the Mediterranean region requires a large mobilisation of public opinion and an effective participation of all the components of society: individuals, groups, organisations etc.
- **4.** In order to ensure success in their efforts, the governments of Mediterranean countries should remove all political, institutional, socio-economic, cultural and other barriers, which hinder the participation and involvement of the public in the elaboration of policies relating to sustainable development and environmental protection.
- **5.** Women, children, young people, minorities, NGOs, local authorities, workers, industry and trade, scientists, technicians and farmers all have a capital role to play in this connection.
- **6.** The adequate framework for their participation in the debate on sustainable development might be the National Commission on Sustainable Development at the level of individual Mediterranean countries, and the Mediterranean Commission on Sustainable Development at the level of the whole region; these commissions, of course, should integrate all the components of the environment and of development.

ş ;

#### CHAPTER XXIV

## Global Action For Women Towards Sustainable and Equitable Development

- 1. In the Mediterranean, women's conditions differ widely from country to country. Whereas in countries like France or Italy women's activity rates and levels of education have evolved markedly, this is less obvious in other countries, like Morocco or Egypt, despite the great efforts made to promote the position of women, particularly in the fields of education and employment. The proportion of women in the working population varies between 10 and 40% according to country. The figure is 10% in Algeria, Egypt and Libya, 25% in Spain, Tunisia, Greece and Morocco, 35% in Turkey, Israel and Italy and 40% in France.
- 2. Despite such gaps, it can be generally stated that Mediterranean women have a fund of precious knowledge, experience, know-how and value systems as regards the management and conservation of resources and of the natural environment and as regards consumption patterns, education or perception and improving living standards and conditions.
- 3. With the aim of making optimal use of Mediterranean women's knowledge and capacities, and having them participate fully in public life and help press on with the sustainable development process, it is vital that all forms of anti-women discrimination be wiped out and that all political, administrative, legal, cultural and socio-economic barriers which stand in their path be removed.

Each state of the Mediterranean region should:

- 4- further strengthen the fight against illiteracy among women, ensuring that young girls have access to primary and secondary education, increasing their chances of access to higher education especially in the fields of science and technology;
- 5- make known and implement the measures recommended by the relevant UN Conventions and Declarations on the elimination of all forms of discrimination against women, on human rights and on children's rights;
- 6- strengthen the factors encouraging women's full participation in the structures of government and in the process of decision-making at all levels,
- 7- enhance social protection of women at home, recognise their unpaid contribution to the economy of the country and ensure that they receive compensation and assistance in consequence;
- 8- reduce the heavy workload of women at home, particularly in rural areas, through the provision of drinking water, sanitation facilities and modern technologies adapted to their needs;
- 9- provide in the poorest communities, both urban and rural, all forms of training likely to promote employment for women at or near their homes as a source of stable income:
- 10- encourage female business managers and ensure for them better access to

- property, all forms of credit and production means;
- 11- support organisations working for women's emancipation; and
- 12- facilitate access of women to the workplace if they so desire (the present proportion of working women among the employable population in the Mediterranean region varies from 10 to 40 %).

On the Mediterranean scale, it is necessary to:

ا ت :

- 13- increase the number of networks of women's associations in the Mediterranean region, aiming at strengthening the role of women in educating children and making them aware of environmental protection and sustainable development;
- 14- increase the number of regional and sub-regional information and research centres on Mediterranean women:
- encourage all regional and sub-regional initiatives aiming at making Mediterranean women aware of the need to reduce or eliminate consumption patterns which are incompatible with sustainable development, especially in the industrialised countries, and promote lifestyles which are more compatible with sustainable development and recycling; and
- 16- strengthen all forms of cooperation between the Mediterranean countries in the various fields of women's development, and encourage women of the region to exchange their experiences, particularly in the field of environment protection.

#### CHAPTER XXV

#### Children and Young People in Sustainable Development

1. The proportion of young people under 15 in the population of Mediterranean countries has been decreasing everywhere for the last 20 years. In the north as a whole, this proportion fell from 25% to about 17-18%.

There, young people are at present the first victims of unemployment and there is still much to be done in order to integrate them into social life.

In the south and east, the same proportion fell from 45% to 35-38%. The proportion of young people is very important as they make up more than one third of the total population and because that third is very dynamic, both socially and culturally. They constitute an important proportion of applicants for new jobs.

2. At national level, it is obvious that the success of a sustainable development policy depends on attention being paid to both future generations and to young people living at present by ensuring that they have adequate legal protection and that they are involved in environmental protection and the progress of sustainable development.

#### National policies should focus:

- 3- firstly on education: considerable progress has been achieved during the last 30 years. Schooling rates have doubled but there is still much to be done especially in rural areas. Education should put more emphasis on environmental issues and life sciences and focus on new forms of behaviour required for the achievement of sustainable development. This could be done either in school or in the field. Young people should have access to centres for initiation into nature, teaching farms, nature clubs and centres of recycling and pollution measuring.

  Young people should fully participate in all campaigns promoting sustainable development and environment protection (water saving, day of the tree, etc.). Large-or medium-sized urban districts should, within ten years, have such a network of clubs and associations. Priority should be given to the development of such youth clubs and centres; and
- 4- secondly on training, apprenticeship and job creation: in the countries of the southern shore, more than 120 million jobs will have to be created within the next 40 years, in order to satisfy the needs of the young people. They should be the generation of sustainable development. Associations and organisations integrating young people into working life should be supported.

At the level of the entire Mediterranean region, there can be greater cooperation among states and officials responsible for issues pertaining to young people.

#### One should envisage:

5- meetings of Mediterranean education officials in order to define orientations relating to school curricula on the topics of the environment and sustainable development, while taking into account the agreements reached between environment ministers and education ministers

- **6.** These meetings should allow teaching manuals to be published to develop methods of initiating the young into sustainable development;
- 7- exchanges of experience on educating young people, both in and outside the school, on sustainable development and social integration activity (create a central unit of educators trainers);
- 8- creating lending libraries of video-tapes on the environment and sustainable development; and
- 9- initiating study missions on experiments done in this field.

#### CHAPTER XXVI

### Recognizing and Strengthening The Role of Indigenous Peoples and Their Communities

- 1. Certain old minority communities have developed an empirical knowledge of their environment and an aptitude to practise on their land a form of sustainable development based on judicious use of renewable resources and respect for ecosystems.
- 2. Such viable forms of use on general marginalised land would gain from being protected against external economic or social factors which are incompatible with the vulnerable nature of the environment and are likely to endanger the subsistence and well-being of these communities.

The governments of each state should:

- 3- recognise the value of such practices as part of the cultural heritage, and preserve them;
- 4- encourage the management of such lands as a cultural heritage by closely involving these communities in the choice of development concerning them and by effectively delegating local responsibilities to them; and
- 5- protect certain areas of traditional use from excessive technocratic intrusion that is unsuitable and does not take into consideration all aspects of the problem, especially the socio-cultural ones.

On the scale of the entire Mediterranean region, there is a need to:

- 6- draw on traditional know-how and vast accumulated experience in farming, particularly soil and water conservation;
- 7- identify those traditional methods of development and management that it would be useful to bear in mind for a global strategy of sustainable development; and
- 8- promote research on the technological achievements linked to these traditional practices (habitat, rural development, health).

#### CHAPTER XXVII

## Strengthening the Role of Non-Governmental Organisations: Partners in Sustainable Development

- 1. Non-governmental organisations are widely represented within the Mediterranean countries. In general, they are numerous in the European countries, but in the countries of the south and east Mediterranean; the tradition of joining associations is a recent phenomenon. However, throughout the Mediterranean, they are inadequately involved in the formulation of sustainable development policies, when such policies exist.
- 2. In each country, according to its specific context, NGOs could be more present in the bodies that draw up policies; in the Commissions on Sustainable Development, or at a different level in the bodies set up by local authorities (e.g. districts, communes, etc..).

In each of the Mediterranean states:

the public authorities should seek to involve NGOs in specific tasks for which they will take responsibility:

for example, in the field of information on the accession of large scale compaigns.

for example, in the field of information on the occasion of large-scale campaigns relating to resource-friendly consumption patterns or education, or with respect to the management of nature reserves or vulnerable ecosystems or even ensuring an active presence in city districts to solve the social and environmental problems facing the community. Women and women's movements should be encouraged to participate in local environmentally related activities.

At the level of the Mediterranean as a whole:

- 4- NGOs should be involved in the work of the Mediterranean Commission on Sustainable Development;
- it would be useful for NGOs working in the same field (training, environment protection, pollution etc.) to meet periodically at appropriate moments to share their experiences, successes and difficulties and initiate a closer cooperation between them for the achievement of sustainable development;
- 6- the authorities could, where required, facilitate the participation of NGO members in the study of field actions concerning environmental protection and sustainable development;
- 7- MAP should better define the representation of NGOs at meetings of the Contracting Parties or more specialised meetings held within the MAP framework or with its support;
- 8- MAP could prepare a directory of international, regional and national (even local) NGOs active in the Mediterranean area, highlighting their contribution to sustainable development, their achievements and innovations etc.;
- 9- MAP should encourage national committees to define "actions of Mediterranean interest" in each country and give them a "label" which would enhance their

- reputation and the capacity to attract funding;
- 10- MAP should review the status of Mediterranean NGOs within Mediterranean organisations and propose measures likely to strengthen it; and
- 11- NGOs from the countries of the northern shore of the Mediterranean should support NGOs from the countries of the southern shore engaged in concrete actions aimed at eliminating pockets of poverty in rural areas.

#### CHAPTER XXVIII

## Local Authorities' Initiatives in Support of Agenda 21

- 1. Throughout the Mediterranean region, we have been witnessing the emergence of decentralisation and conferring of responsibilities upon local authorities. However, the methods and rate of progression differ from one country to another. Thus it would not be appropriate to propose common and uniform strategies for the approximately 3,000 municipalities on the Mediterranean littoral.
- 2. However, in each country one could encourage the representatives of local authorities and local public institutions to play a more active part in the integrated management of the coastal areas and policies of sustainable development and environmental protection. They would gain by not only using more effective means and appropriate technologies, but also getting the general public to take part by improving, in particular, consultation procedures.
- 3. Each state should involve the regions in the elaboration of national economic and social development plans. Such participation can be based on real local-level Agenda 21s.

#### Each country could develop

- 4- sustainable development strategies at the appropriate levels, namely intercommunal, focusing at least as much on management as on equipment;
- 5- greater attention to sustainable development and environment policies linked to the social aspects of life: the position of children, the role of women, poverty-stricken areas, young job-seekers; and
- 6- "Mediterranean Houses" to host bodies and associations of Mediterranean interest, and serve as meeting places and exhibition centres open to the public in this region.

#### At the level of the Mediterranean region:

- 7- it could be announced that, upon conclusion of the preparatory phase of the work carried out by "Medcities", with the support of the World Bank, 100 cities of the region could be proclaimed "Sustainable Cities" and serve as examples for other municipalities MAP could register such requests;

  Mediterranean countries could be called upon to increase the number of specific networks among local authorities around the Mediterranean;
- 8- it would be advisable to make meetings between city officials and planners more effective. A network of experts in the field of permanent environment monitoring and sustainable development in the large cities of the Mediterranean could be set up, comprising data bases on, in particular:
  - Air pollution in cities
  - Health and epidemiology
  - Social conditions and poverty

- Waste and recycling
- Energy
- Use of the national territory:
- 9- it would also be advisable to publicise, at Mediterranean level, the successful examples and the innovating initiatives of various towns;
- 10- series of data from remote sensing should be supplied to states and cities:
- 11- exchanges of teachers and trainers in the fields of environmental education for the young in urban areas should be encouraged, as should training in environmental awareness for professionals involved in urban management; and
- 12- city officials could, every two years, share with representatives of international or Mediterranean organisations their experiences in the fields of social management in low-income areas, poverty etc., implementing regulations, land property control, use of technologies etc.

#### CHAPTER XXIX

#### Strengthening the Role of Workers and Trade Unions

- 1. Evolution towards sustainable development in the Mediterranean will cause industrial changes affecting the working environment.
- 2. Trade unions and workers have every interest in helping to create a balanced working environment ensuring full employment on a sustainable basis.
- 3. The wide experience of Mediterranean trade unions in the sectors of agriculture, industry and trade should be used to facilitate the active participation of workers in the implementation of a strategy integrating environment and development.

The various aspects of such a strategy, of interest to both workers and employers, as well as to governments, should be discussed at national and local level within the framework of the National Commissions on Sustainable Development recommended by the UNCED.

Each of the states of the Mediterranean should:

- 4- strengthen the right of workers to organise themselves freely within representative associations and the training of trade unionists;
- 5- establish an adequate framework for consultation among social partners with respect to programmes relating to environment and development, industrial strategy, employment policy and to technological choices;
- 6- include "social repercussions" aspect in all environment-impact assessment studies in connection with projected activities;
- 7- promote a policy of job creation resulting from a strategy of sustainable development and the environment and back it with the necessary forms of training;
- 8- strengthen social protection for workers who lose their jobs because of environmental reasons;
- 9- ensure right of access of workers to all relevant information on environmental issues: and
- **10-** promote in trade union circles effective environment education to ensure sustainable health and safety conditions.

At the level of the Mediterranean region as a whole, it is necessary to:

- 11- encourage the participation of trade unions in the work of the Mediterranean Commission on Sustainable Development:
- 12- facilitate consideration of sustainable development and the environment at international meetings in which there is participation of the trade unions of the area; and

•	
. <sup>(</sup> .	

#### CHAPTER XXX

## Strengthening the Role of Business and Industry

- 1. In each of the Mediterranean countries, business and industry corporations, can themselves start useful initiatives for sustainable development and thus strengthen their participation in the work of the UNCED.
- 2. In each Mediterranean country, enterprises can be invited at branch meetings with the authorities to sign the commitment prepared by the International Chamber of Commerce, which has already been signed by more than 100 enterprises internationally and 130 enterprises to date from the Mediterranean region. On the basis of this commitment each enterprise that signs shall:
- define the enterprise's policy and the strategy on sustainable development, ensure its endorsement by its board of directors in order to confer legitimacy on action programme to be prepared for implementation, disseminate it within the enterprise and solicit staff support, and circulate it outside the enterprise;
- 4- prepare an action programme which defines in particular: the priorities established by the enterprise, the internal organisation desired, the various responsibilities and the necessary resources to be allocated to the programme;
- 5- develop and use management tools likely to ensure the implementation of the action programme and the follow-up of its implementation, for example:
  - regular inspections of existing facilities for the control of effluent discharges, waste disposal, water consumption, energy and other raw materials, to diagnose the possibilities for prevention and economy,
  - · safety checks,
  - · detailed impact studies when setting up new facilities,
- "environmental balance sheets" to enable the preliminary assessment of the environmental impact of new processes, new products and new means of protection;
- 6- develop a personnel training programme at all corporate levels and introduce "environment related performance" as a criteria for evaluation of general performance;
- 7- develop a research-and-development programme on "environment-friendly products and technologies";
- 8- ensure that suppliers and sub-contractors working for the enterprise develop an environment policy with the same performance objectives;
- 9- provide clients with all necessary information on the potential environmental impact of the marketed technologies and products, and on their proper use;
  - **10-** develop a policy of communication and dialogue with the various partners (public, government, environment organisations, unions);

- 11- promote dialogue between industrial circles and the authorities for improved dovetailing between their decisions and activities;
- 12- set up a follow-up procedure for the implementation of both the policy and the action programme and publish, on a regular basis, the relevant "Reports on the Environment"; and
- 13- keep informed on changes of environment policy at national and international level.
- 14. The authorities should also play a role in encouraging enterprises to support sustainable development through, for instance, appropriate incentives and fiscal measures, or through a closer link between research and its technological application, or through training which focuses on the environment and sustainable development.
- 15. The authorities can stimulate competition by annually publishing what has been achieved by the enterprises which have done most during the year for the environment and sustainable development.
- Polluting industries should be requested to conclude with environment-protection agencies contractual agreements containing programmes for the treatment of their effluents and waste in order to comply with the established regulatory standards.
- 17. Industry should give priority to investment likely to improve the manufacturing process by working towards reduced waste of raw materials and to recycling of waste.
- 18. Enterprises in the fields of industry, trade and transport must organise land, rail and sea transport of raw materials, fuels and products to give greater safety and suitable protection of the environment.

### At the level of the entire region:

- signatories to the above-mentioned commitment could meet to enhance, at regional level, mutual assistance of enterprises in the same field, especially with respect to technical cooperation and training. Enterprises with good performance records in the field of sustainable development should organise staff training courses, with public support if necessary. The target should be at least 500 trainees per year. Periodic reports could be communicated to the World Centre of Enterprises for the Environment.
- 20. On a Mediterranean scale, a "Green production" label could be offered to distinguish, at the national level, those enterprises which have complied with environment- protection standards.
- 21. MAP could encourage cooperation and exchange agreements between similar or complementary enterprises from different countries and thus promote Mediterranean partnership, in conjunction with the Department of Industry of UNEP.
- 22. MAP could start, with the support of the Mediterranean Association of Chambers of Commerce (ASCAME), a network for the exchange of information on sustainable

development and appropriate technologies and, thus facilitate technology transfer.

- 23. Industrial and trade enterprises in the Mediterranean basin could usefully set up a solidarity fund to ensure technical and financial assistance to business heads facing serious environmental problems.
- 24. Business circles in Mediterranean countries could develop, for example within the Business Council for Sustainable Development (BCSD), a regional programme of sustainable development to especially benefit the countries of the southern shore, by identifying the partnership opportunities offered by private investors and development agencies willing to cooperate to promote ecologically-efficient projects:
- by identifying factors likely to accelerate sustainable development in the Mediterranean;
- by removing barriers to the transfer of ecologically efficient-technologies; and
- by giving more importance to the setting up of partnership between the public and private sectors, when effective.

#### CHAPTER XXXI

## Scientific and Technical Community

- 1. Scientists and technicians have a special responsibility in the search for knowledge and the protection of the biosphere, socio-sphere and techno-sphere.
- 2. The Mediterranean scientific and technical community is particularly suited to play a constructive part in creating an intra-Mediterranean climate of cooperation and regional solidarity.
- 3. This community is in a position to analyse the problems faced today by the region and suggest alternatives to work towards sustainable development.

Each of the states in the Mediterranean region should:

- 4.- recognise and support the position the scientific and technological community should hold in society for the Mediterranean to recover its creative dynamism;
- 5- ensure a propitious climate for the essential dialogue between decision-makers and the public on all issues relating to the environment and development;
- 6- set up institutional structures to enhance consultation with scientific and technical academics on the national strategies to adopt in the various economic sectors affecting the environment;
- 7- call on the scientific and technical community to work on environment-friendly technologies and in particular assess the state of the environment;
- 8- promote communication channels (audio-visual in particular) allowing the public to be informed and enlightened on the best way to manage modern production means and improve living conditions;
- facilitate the organisation of networks of associations working to spread science and technical knowledge among young people in particular;
- 10- invest in setting up centres to spread scientific knowledge, such as science parks, allowing the scientific and technical community to contribute to extracurricular scientific activities; and
- 11- encourage and help emerge engineering capabilities at national and local level.

At the level of the all the states of the region, it is necessary to:

- 12- develop a Mediterranean awareness of the interdependence between the countries of the region with respect to the environment and create a political and cultural climate of multilateral cooperation;
- 13- promote and support structures of networks for the training, cooperation and exchange of human resources such as UNIMED, and help set up decentralised

- offices on both shores of the Mediterranean, where researchers will do pioneering work in scientific fields of common interest, in a Mediterranean perspective:
- increase the number of Mediterranean summer schools where permanent contacts among research laboratories in the region are likely to be made;
- 15- establish a multi-disciplinary science museum offering scientific and cultural excursions in the area, exhibitions, interactive programmes etc.;
- 16- increase the number of organisations of Mediterranean experts and academics, especially those concerned with the environment and sustainable development:
- 17- involve the Mediterranean scientific community in all European scientific programmes of Mediterranean interest as well as the major international programmes initiated by the International Council of Scientific Associations, UNESCO, FAO etc; and
- 18- make the scientific and technical communities feel responsible for respecting certain priorities, and ensure that coordination between them is strengthened, particularly through MAP.

#### CHAPTER XXXII

## Strengthening the Role of Farmers

- 1. The ever-increasing chopping-up of agricultural land, the progressive over-exploitation of certain areas, the relative decline in commodity prices dictated by the countries endowed with a more developed technology of production or vast areas to use, have worsened the already age-old poverty of the Mediterranean farmer and often pushed him into rural exodus or exile.
- 2. In addition to the typical Mediterranean traditional crops, farmers on the southern shore of the Mediterranean were led to cultivate certain irrigated tropical crops: cotton, sugar cane, banana.
- 3. The Mediterranean basin is not self-sufficient in certain strategic crops such as cereals (other than wheat, barley and corn), sugar, vegetable oils, animal products and stock feeding products. Nevertheless, specialised production of vegetables and fresh and dried fruit is remarkable.
- 4. Animal breeding, mainly ovine and caprine, on land not suited to agriculture, is based on a modernised transhumance in the north, and a seasonal nomadism in the south. In the southern countries, the deficit in fodder crops and the competition between agricultural areas and grazing areas result in pastures being overloaded, which in turn harms the ecological balance.
- 5. The huge deficit in food products, which spares only four countries in the region, was estimated at US \$13 billion in 1980 for the whole of the Mediterranean; this shows the importance of the role to be played by the farmer in the future.
- **6.** The proportion of farmers in the employable population has been declining everywhere for the last 20 years.
- In the north, the percentage fell from 20-25% in 1970 to 5-10%. In the south and east, it fell from 40-60%, even 70% in 1970, to 25-40% (48% in Turkey).
- 7. The role of farmers is, however, essential for the production of food, the preservation of soils and the countryside, and the structuring of rural areas.

Each of the countries of the Mediterranean basin should:

- 8- recognise the fundamental role of the farmer in feeding the population, the sustainable management of natural resources and rural areas, and delegate to the farmer more responsibility at local level;
- 9- facilitate the organisation of farmers within decentralised national professional structures and put their work to good use;
- 10- promote their technical training via an efficient network of popularizing agricultural knowledge that is responsible for adapting research achievements and technological innovations received by the support centres, to the local context;

- 11- regionalise agronomical research centres, harmonise their programmes with the specific agricultural calling of each region, and make an assessment of the research done on the region's progress in terms of sustainable development;
- 12- help farmers get access to land, credit and ecologically-sound production means;
- 13- improve the legal position of women in agricultural work and train them more particularly in environment-friendly farming techniques;
- 14- decentralize the decision-making process in favour of local farmers' organisations, particularly with respect to the marketing of products;
- 15- make farmers aware of the negative impact of chemical products and instill in them a sense of responsibility regarding their use;
- 16- combat the marginalisation of the traditional farmer less productive but more strategically important in terms of social impact, especially in the southern countries by limiting migration and the dismantling of local farming structures;
- 17- make breeders aware of the need to adapt the numbers of their livestock to the availability of fodder crops which may vary widely on the southern side of the Mediterranean; and
- 18- make the rural community aware of and feel responsible for the positive impact annual transhumance between mountain pastures and coastal lower plains has on forest fires.

At the level of all the states of the Mediterranean, it is necessary to:

- 19- explore together the long-term viability of current agricultural systems;
- 20- cooperate in developing an environment-friendly mechanisation more suited to Mediterranean conditions, respecting the optimized place that animals have in draught work;
- 21- consider the impact of the European Common Agricultural Policy and the relevant GATT suggestions on the role and structure of rural populations and draw the conclusions necessary for sustainable management of the Mediterranean rural areas.

## FOURTH SECTION

Implementation

#### CHAPTER XXXIII

## Financial Resources and Mechanisms

- 1. Certainly, the growth of GNP is one of the key factors for the financial resources of a country.
- In the last few years in the northern Mediterranean countries, GNP has ranged on an average from 2 to 3%, and in the eastern and southern countries, from 2 to 4.5% (5.5% in one country).
- 2. But this growth has been absorbed by the population increase and indebtedness of certain Mediterranean countries.
- **3.** The burden of external debt is heavy in the south and east: generally speaking, has a percentage of a country's goods and services exports, it represents 25 to 35%, while it can reach 50 or 70%.
- The policy of sustainable development requires financial incentives and mobilization of new and additional resources. Nevertheless, it is advisable to dispel the idea that costs operate in one direction only. A policy governed by environmental and sustainable development considerations is in the long run profitable for the public and also, frequently for business as well. In the short term, an evaluation, though contrastive, shows that such a policy may entail immediate costs that neither the state budget nor private resources in developing countries can bear, particularly since they often do not possess the appropriate technologies. In the Mediterranean, there is a great disparity between high-income countries and others, whose income is ten to fifteen times lower.
- Financial incentives are a sustainable development lever still underutilised in Mediterranean countries (review of subsidies/state assistance, tax etc).
- 5. Each country should strive to raise new additional resources and sometimes direct savings and/or consumption to encourage sustainable development. In this respect, it would in the Mediterranean countries' interests to let National Commissions on Sustainable Development, where they exist, analyse economic and financial policies, especially policies lated to taxation and subsidies, which are far from neutral. Therein lies a great potential of resources and incentives which should be brought to the surface and, in part, mobilized.
- 6. More caution should be exercised in promoting the environmentally-oriented fiscal system which consists in imposing levies in sectors that we want to decelerate or penalize and assigning them to expenditures, e.g. to public institutions or agencies entrusted for instance with the protection of water or air. In certain countries, this is acceptable when conditions are right and when the agency is capable of managing the funds efficiently.
- 7. Particular attention should be devoted to the architecture of expenditure systems of decentralized authorities and to their resources, because at times automatic expenditure behaviour exists which is not always consistent with environment protection, saving of resources or sustainable development
- 8. It is proposed that the "rotating" analysis to be carried out on a country by country basis, on the suggestion of the Mediterranean Commission on Sustainable Development, address these issues and be used also to assess what a heritage-type approach can do. But the

initiative has to come from each state, more specifically each National Commission on Sustainable Development.

- 9. The Mediterranean Commission for Sustainable Development could, as a priority task, carry out a cost/benefit analysis of the actions to be undertaken by the Mediterranean countries, like the assessment, too rapidly made, by UNCED, before the Rio Conference. For a good assessment one to two years will be required and it should be launched immediately and at the head of the priorities redefined as MAP aims.
- 10. The countries of the southern shore should define clearly their needs and priority actions for sustainable development, by elaborating their national Agenda 21s. The countries of the northern shore should meet these priorities by mobilizing the necessary means and resources according to the commitments they made in Rio.
- 11. The states of the Mediterranean region should give concrete meaning to north-south solidarity by raising the additional resources required for global environment protection and by recycling the developing countries'debt into sustainable development projects.
- fith respect to cooperation among Mediterranean countries, conclusions should be drawn from Chapter 33 of Agenda 21 and from documents such as those issued after the Rio Conference by the Technological and Cultural Cooperation Agency, or after the meeting in Kuala Lumpur (2-4 February 1994).

The ways are numerous, but we can list here the main ones:

- 12- bilateral agreements should be reviewed in the light of sustainable development; these constitute today the most important aspect of north-south cooperation. In the past, they have not focused on the environment and sustainable development; in certain cases, they even had a negative effect. Impact surveys are indispensable, refocusing too. It would be advisable that the partners in each bilateral agreement together review the agreements concluded or in the process of being concluded and encourage such reviews in the future;
- it would be advisable that the northern countries set an example by allocating a share of their GNP to international public assistance (bilateral or multilateral). The average figure is, for the Mediterranean European countries, under 0.5%, while it should reach, as recommended by the Rio Summit, 1%;
- 14- with respect to the external debt, it sometimes limits certain southern countries' possibility to undertake sustainable development actions.

  The debt is in fact too heavy for a number of southern countries, even if they do not count among the least developed countries worldwide. Debt reduction should be discussed within the Paris Club and should be subject to a worldwide consensus.
- 15- conversion of a proportion of the debt into activities for the protection of nature or, even better, of the environment should be considered (one Mediterranean state has already moved in that direction);
- funding from banks and institutions of the United Nations family is necessary especially since there is no regional bank in the Mediterranean and the idea to create such a bank is still a matter to be discussed.

  Public banking institutions can play an active role: they have made some steps in

that direction, as is the case of the World Bank or the European Bank in the framework of METAP. The European Union also plays an important part.

it is necessary to raise multilateral funding to facilitate the launching of sustainable 17development and environment projects, which can be eligible for multilateral public funding (UNDP, FEM, etc.) and are better accepted by the private banking systems; / GEF

- the Casablanca Conference on METAP held in April 1993 emphasized the benefit 18of "cross-fertilization" of the credits allocated to bilateral assistance with those mobilized by multilateral institutions. This approach will certainly be useful if it is coordinated with the authorities of the receiving country and if the authorities in the donating countries are informed about the projets well in advance, which is not the case today:
- the Mediterranean countries could, within the MAP framework, consult one another 19in order to give, through multilateral, Mediterranean or sub-regional projects, concrete meaning to the 5 Chapters contained in the FEM providing for funding with > respect to the world environment: warming up of the planet, pollution of international waters, destruction of biological diversity, depletion of the ozone layer and desertification: and

/GEF

- 20finally, it would be important to strengthen MAP's role and capacities to better help sustainable development in the Mediterranean through additional financial and institutional means so that it could take on new responsibilities, such as setting up a Mediterranean littoral conservatory.
  - The MAP's financial resources should grow in proportion to these new responsibilities.

#### CHAPTER XXXIV

# Transfer of Environmentally Sound Technologies Cooperation and Capacity-Building

- 1. Sustainable development technologies and environmentally-sound technologies that eliminate or prevent industrial pollution by minimizing waste or discharge from the production process concern both know-how and management methods and material. Thus, they are asked to play an essential role in the progress of the Mediterranean basin towards sustainable development, particularly in the countries of the southern shore, which aspire to accelerated economic growth, but often lack the necessary technologies and financial resources to achieve that goal.
- 2. It is important that late development in certain countries and in certain fields be quickly corrected without harming the environment. This could be achieved through the transfer of appropriate technologies to promote sustainable development, which would be well suited to the situation in the different Mediterranean countries.

Each of the Mediterranean states should:

- 3- create the favourable material, human, scientific and technical conditions for the transfer and development of environmentally sound technologies, by:
  - increasing the number of scientific research institutes and specialized industrysupporting technological centres and strengthening their staff.
  - facilitating the creation of associations of scientific and technological character and the free circulation of technological documentation,
  - · encouraging inventions and technological innovation,
  - creating advisory national structures for mastering technology,
  - getting returning scientists and engineers who have worked in western industry or universities to give their help.
- developing means for assessing technology and its techno-economic consistency with local needs and the local economic environment;
- 5- creating an economic and legal environment that favours investment, since investment is the main vector of technology transfer; and
- 6- identifying the different specific technological needs of the various categories of producers in the main economic sectors concerned by sustainable development: agriculture and forestry, energy, urban development, industry, preservation of the national heritage.
- All the Mediterranean states should:
- 7- identify priority sectors for the transfer of technology;
  - 8- develop a network of national and subregional systems of information exchange on sustainable development and environment-friendly technologies which lie in the public domain or are not covered by patents.

- 9- encourage the private sector to promote by granting concessions transfer of the environment-friendly technologies of which it is the owner, and place the corresponding know-how at the disposal of the requesting countries:
- 10- refer to the initiatives taken by professional organizations, chambers of commerce, enterprises etc.;
- 11- work to an information bureau on technology transfer in collaboration with the concerned enterprises and structures (institutions giving promotion or technical support to businesses;
- 12- strengthen the institutional capacities of southern countries with respect to training, research-and-development, technology control and technology assimilation;
- 13- raise additional funds to help the countries of the southern shore to gain access to environmentally-sound technologies;
- 4- create a Mediterranean economic climate favourable to investment and enhance long-term partnership between suppliers and demanders of technologies;
- ask, whenever required, for the assistance of the United Nations specialist agencies as intermediaries;
- 16- assist southern countries during the different stages of technology appropriation; from identification of needs, choice of technology and acquisition right up to its use, control and, possibly, improvement;
- 17- simplify transfer mechanisms for acceleration and success; and
- **18-** limit the restrictive clauses on effective appropriation of technology by the southern countries.

### CHAPTER XXXV

## Science for Sustainable Development

- 1. If the decisions relating to sustainable development are to be fruitful in the long run, they have to be based on a sound analysis of the system, an exact knowledge of the facts, the implementation of scientifically-proved methods and the use of efficient modern tools.
- 2. Perspectives for the needs and resources of the Mediterranean region as a whole and the ecological impact of their future lack of balance require extensive scientific research on a more solid basis.

#### Each Mediterranean state should:

- **3-** elaborate a national strategy of scientific support for implementing sustainable development;
- 4- popularize the idea of a natural system and an ecological balance, as well as the principle of taking precautions against scientific uncertainties;
- 5- enhance the scientific base for sustainable development through a realistic assessment of its present research-and-development capacities and by making the most of local knowledge;
- 6- promote scientific understanding of the links existing between human activity and the ecological environment in all its different forms;
- 7- improve long-term scientific evaluation of knowledge that has been acquired in order to keep the prospection and decision-making tools used effective; and
- 8- strengthen and make the most of the nation's scientific training and research-and-development capacities and take all the necessary measures to halt or, at least, slow down, the brain drain.

## The Mediterranean countries should together:

- 9- increase the number of common research programmes that help strengthen the capacities of the southern countries and get a better grasp of the problems related to the need for sustainable development, particularly in the fields of agriculture and forestry, industry, urban development, environment protection and the preservation of their heritage, and
- 10- encourage more equal participation at international forums and negotiations aimed at improving scientific standards in the region for the purposes of sustainable development.

#### CHAPTER XXXVI

## Promoting Education, Public Awareness and Training

- 1. Education, raising public awareness and training systems are essential prerequisites to sustainable development in the Mediterranean.
- 2. Basic education enhances understanding of the links between human activities, the environment and health. It also permits a better grasp of demographic problems and the necessity of birth control.
- 3. Consciousness-raising campaigns raise public understanding of environment- and development-related issues, and incite it to behaviour that respects that environment and a larger participation in the search of adequate solutions.
- 4. Flexible and adapted training systems are likely to create new job opportunities in activities related to the environment and development, and encourage the transition toward sustainable societies.

Each of the states of the Mediterranean region should:

- 5- promote a 9-year basic education and make it compulsory for the whole school-age population, especially girls;
- 6- reorient education towards sustainable development and incorporate environmentand development-related concepts into all educational programmes in order to raise young people's ecological awareness:
- 7- develop, among adults, the socio-economic dimension of the environment and its relationship with development by involving, at local level, community groups and NGOs:
- prepare popularization and consciousness-raising material on a sound scientific basis;
- 9- establish adequate multi-media information services and delegate responsibility for running them and resources to the most appropriate level, preferably local;
- 10- encourage NGOs to participate in the training of local populations with respect to sensitization and the spreading of the concept of sustainable development and to devise consciousness-raising materials compatible with the local ecological and socio-economic context:
- 11- increase the number of networks of ecology clubs within schools, youth clubs and cultural clubs and provide them with suitable teaching materials;
- 12- increase the opportunities for young people to participate in activities or work relating to the environment and sustainable development, particularly within the framework of national campaigns.

- organize, at local and national level, drawing, painting and essay competitions likely to stimulate creativity on and commitment to sustainable development;
- 14- promote the production of consciousness-raising materials, either in printed form (brochures, fact sheets, folders, teaching posters, stickers) or audio-visual (documentaries, spots, clips, etc.);
- 15- urge national professional bodies to enhance their obligations and commitments to the environment, particularly by paying attention to environment-related ideas in defining professional profiles;
- enhance the training of staff trainers working in implementing training plans for public and private sectors of industry, agriculture, plant, transport and tourism and develop national training-formulating skills;
- 17- promote teaching academic and inter-disciplinary professional training of environmental engineering for operating agents, technicians and engineers;
  - train a group of polyvalent environmental technicians, locally recruited and able to provide the underprivileged rural populations with necessary information and basic services, such as sanitation, for instance.
- 19- set up training strategies to develop human resources and adapt these to the needs required for the various aims proposed by this document to be achieved;
- 20- make operational Mediterranean networks for lending out audio-visual material and consciousness-raising documentation;
- 21- work for the emerging of a Mediterranean citizenship that integrates differentiated ideas on the environment and ecological challenges, while accepting diverse cultural and social concepts and the very different bio-climatic context.
- The scale of the entire Mediterranean, the countries need to think about the need for a flexible and attractive reorientation of the multiple actions and means already implemented on Mediterranean eco-region scale, by a number of very different concerned actors, and should undertake the following actions:
- 22- strive to develop, through education, a Mediterranean mutually supportive ecological consciousness, an awareness of the specificity of Mediterranean ecosystems and their vulnerability, and thus a sense of responsibility for present everyday life and for future generations;
- 23- develop Mediterranean cooperation and solidarity approaches by taking part in all democratic, scientific, technical, economic and cultural debates and the initiatives underway in these fields;
- 24- encourage the establishment and development of international networks within the framework of education and training with respect to sustainable development and its various facets, especially integrated coastal management;

- 25- encourage a network of training engineers working with common tools to emerge;
- 26- facilitate the collaboration between public and private operators in the eco-region to promote all forms of exchanges with respect to education, consciousness-raising and training;
- 27- facilitate throughout all countries bordering on the Mediterranean, discovery visits and educational trips for young people, especially those which focus on development's harmful effect on the environment, and emphasize successful initiatives;
- 28- identify, at Mediterranean level, successful educational experiences to publicize and facilitate access to them and encourage study, exchange and training missions; and
- 29- involve UN agencies such as UNESCO and UNICEF in educational and consciousness-raising actions on a Mediterranean scale, and cooperate with them.

#### CHAPTER XXXVII

## National Mechanisms and International Cooperation for Capacity Building in Developing Countries

- 1. Achievement, at national level, of the recommendations in Agenda 21 on sustainable growth requires an institutional capacity and aptitude to understand complex environment-related problems and make suitable development choices.
- 1 2. This capacity is not the same in the different countries of the Mediterranean.

  Strengthening the capacities of southern countries in particular is a prerequisite for sustainable development in that the long-term impact of development options must be assessed from when the projects are designed.

The national capacities that must be strengthened relate to the scientific, technological, organizational and institutional fields.

Each of the states of the Mediterranean region should:

- 3- define, as soon as possible, through wide consultation, the gaps to be filled;
- 4- elaborate a national human resource development strategy according to the needs and requirements of sustainable development;
- \* 5- mobilize existing skills in order to quickly train the necessary training staff to meet expertise needs in the different priority fields concerned;
  - 6- define the sectors where technical assistance is needed and Mediterranean cooperation required like training teams to handle the natural land and marine environments and landscapes that need protection;
  - 7- set up its National Committee on Sustainable Development, which should form the suitable framework of consultation for the drawing up of Agenda 21 on the national scale; and
  - ensure that the make-up of the National Committee on Sustainable Development is as representative as possible of all the components of civil society: central and local authorities, universities and research centres, trade and industry circles, professional organizations, national organizations, NGOs, etc.

Together, the Mediterranean countries should.

- 9- create long-term cooperation mechanisms in order to support action plans for sustainable development in the countries of the southern shore;
- 10- set up a Mediterranean network of National Committees on Sustainable Development and work to set up a Mediterranean Committee on Sustainable Development;
- 11- work together for the optimal use of existing Mediterranean action capacities: METAP, E.U. and Euro-Mediterranean structures, in particular; and

12- start setting up with the MAP a Mediterranean littoral conservatory responsible for helping put into effect in the countries bordering on the Mediterranean policies for protecting the environment and the coastal landscapes.

#### CHAPTER XXXVIII

## International Institutional Arrangements (Inter-Mediterranean)

- 1. On the UNCED's recommendation, a United Nations Commission on Sustainable Development was created with a view to supervising follow-up of Agenda 21 through UN specialized agencies, particularly UNEP and the UNDP.
- 4 2. Each country was urged to draw up its own Agenda 21 and set up a National Commission on Sustainable Development to ensure integration on a national scale of environment- and development-related issues.
  - **3.** This task would be made easier and gain in efficiency if it could lie within the framework and be on the scale of the Mediterranean eco-region.
  - The drawing up of an Agenda 21 for the Mediterranean region requires the setting up a Mediterranean Commission on Sustainable Development and the laying down of rules for it to function by.

This implies institutional arrangements modifying, in particular, the texts adopted in Barcelona in 1975 and later for MAP's operations.

- 5. Institutional arrangements introducing acceptance of the concept of sustainable development as defined under principles 3 and 4 of the Rio Declaration (1992), call for a review of the Barcelona Convention (title, preamble, geographic scope, objectives) and possibly of its protocols.
  - **6.** A major objective is to ensure and assess the implementation of Agenda 21 for the Mediterranean region.
  - 7. This implementation is the direct responsibility of the Meeting of the Contracting Parties to the Barcelona Convention, insofar as it represents the inter-governmental decision-making mechanism.
  - 8. The Coordination Unit, with its headquarters in Athens, should coordinate execution of the MAP projects, endorsed by the Contracting Parties, in accordance with UNEP and according to the United Nations rules and with due respect for the guidelines on the environment and development.
  - **9.** Its action would be backed by the reports issued by the Mediterranean Commission on Sustainable Development, responsible for:
    - monitoring the progress made towards sustainable development by the Regional Activities Centres through the projects they run within the MAP framework; and
    - follow-up of progress made on implementation of Mediterranean region Agenda 21 by the countries bordering on the Mediterranean through the implementation of their own Agenda 21.
  - 10. Consisting mainly of representatives from states bordering on the Mediterranean, the Commission should make sure it has the active participation of UN organs, Euro-Mediterranean and international financing institutions, NGOs, the scientific community.

industry and the business world. It could also be backed by an advisory committee of experts in environment- and development-related matters.

- 11. The Bureau of the Contracting Parties to the Barcelona Convention works in turn with the Meeting of Contracting Parties with respect to intermediate decisions and puts its decisions into effect.
- It reviews, on a periodic basis, the progress of the different activities and organizes the presidency of the Mediterranean Commission on Sustainable Development.
- 12. It is important to enhance MAP's role in achieving sustainable development at the level of the Mediterranean eco-region, and give it a new impetus by restructuring it through objectives that are understandable for the public and easy to control, aiming at an identified future horizon, from the financial year 1996 1997.
  - 13. Wider coordination between national policies and those carried out at the level of the Mediterranean eco-region as a whole should be ensured by various means, in particular:
    - a better ratio of national financing to multilateral financing;
  - making the national reports on the state of the environment and on the progress made in putting national Agenda 21 into effect accurate and clear;
    - establishing national indicators of sustainable development; and
    - making a diagnosis, on a rotational basis, of progress made and the difficulties met in each Mediterranean country, helping the parties draw up their national agendas.
- 14. These measures should help MAP to draw up Mediterranean reports on the state of the environment and on sustainable development in the Mediterranean eco-region, to be communicated to the concerned United Nations organs in Nairobi and New York.

#### CHAPTER XXXIX

## International Legal Instruments and Mechanisms

- 1. Mediterranean states are parties to international agreements, treaties, protocols or commitments at international, Mediterranean or sub-regional levels.
- 2. It is in their interest to implement, according to their capacity, those provisions which have a positive impact on the environment and set the region on the road to sustainable development.
- **3.** But the specific conditions in the Mediterranean region may necessitate additional protection measures to supplement or integrate international regulations. In that case, the Mediterranean countries should develop such measures by introducing regional and subregional legal instruments.
- A forum of legal experts could be held, from time to time, under the auspices of MAP, in der to assess the situation and inform the Contracting Parties, while striving for a greater harmonization of everything affecting the Mediterranean.
- 4. The countries of the southern shore should receive suitable support for their efforts to develop their legal, scientific and technological skills and knowledge required for promotion of the laws relating to sustainable development, and to be able to be fully involved in the international negotiations dealing with the protection of the environment.
- 5. Linkage between international law, Mediterranean instruments and national law would benefit from being pursued in each country and a report on this point could be issued every 2 years, for example, through the constitution of a casebook submitted to MAP.
  - 6. The Mediterranean region has seen an increasing importance of sub-regional law. The European Union has voted approximately 120 Directives on the environment, some of which obviously have a direct or indirect effect on the region. It would be most advisable that the European Union regularly call its partners or neighbours in the region to information etings on the interpretation of this Community law and the perspective of its short and medium term development anyway.
  - 7. The European Union should also fully support implementation of the regional measures adopted by the Mediterranean countries to protect the region.

#### CHAPTER XXXX

## Information for Decision-Making

- 1. Information on the state of the environment, its evolution, on the costs and benefits of a sustainable development policy, on choices, margin of manoeuvre and constraints, must be improved at the level of the countries and strengthened by Mediterranean cooperation. This region does not possess sufficient quantified data to prepare its decisions.
- In each Mediterranean country, it would be a good idea to:
  - 2- help improve information by integrating several environment and sustainable development indicators into their statistical systems, preferably regionalised indicators, to get views that are not only national, but geographical, and allow a better knowledge of the coastal regions, for instance;
  - complete measuring systems for water, soil, air, milieus which often are left out of statistical systems;

The Mediterranean countries should inform MAP of the progress achieved:

- 4- make cost-efficiency analyses of policies initiated by the National Commissions on Sustainable Development;
- 5- hold heritage-resource accountancy or "green records" and use these in the best possible way to implement tax incentive policies; and
- 6- make a comprehensive atlas of the historical and cultural natural heritage in order to help in decision-making compatible with sustainable development.

At the level of the region as a whole, it would be useful:

- to hold meetings of national statisticians on sustainable development and environment related matters and take this opportunity to review their training systems and organize retraining sessions on sustainable development;
- 8- to conduct a comprehensive study on a Mediterranean scale to assess the costs of environment and sustainable development actions;
- 9- to ensure wider dissemination of the available measuring tools (observation stations, remote sensing) and organize workshops to this end, in each country or for a group of countries in order to make such tools more accessible to individuals, NGOs, young people and educators;
- to put the Mediterranean Observatory for the Environment and Development in charge of working on the above points in cooperation with the METAP and the European Union. This Observatory will be working in close collaboration with the existing observatories or those to be set up in the future;
  - 11- to ask MAP to strengthen prospective studies on the environment and development

- in the Mediterranean, and circulate on a large scale, all useful documentation likely to help in decision-making at the various levels of responsibility;
- 12- to ask the Mediterranean countries to make an inventory of information sources useful for sustainable development, enhance capacities and mechanisms of access to processing and exchange of information in the context of Mediterranean objectives mobilizing the several holders of information; and
- 13- to set up data and information banks on the various national, regional and international legal texts concerning the Mediterranean.

### CHAPTER XXXXI

## Management Of A Tourism Compatible with Sustainable Development

- 1. Tourism is a strongly horizontal sector that affects numerous development factors, such as the economy, employment, transport, lodging and leisure institutions, and local society and culture.
- 2. The impact of tourism on the environment principally amplifies the impact of urbanization, especially on the littoral.

It is particularly felt in sensitive areas which require special management that bears in mind the population increase and demands during the tourist season.

- 3. Tourism is one of the major determinant factors for the environment and development the Mediterranean basin, since the countries bordering on it receive over 30% of iternational tourism (in terms of arrivals and income) and since it is spread in a most unequal fashion all around the Mediterranean:
  - the four European Union members bordering on the Mediterranean receive over 80% of this international tourism, with an annual growth rate of some 4%,
  - the other countries have an annual growth rate of some 10%, but situations differ widely according to country.

The Mediterranean countries still have a large and most interesting tourist potential, generally under-exploited in many of the countries of the South and East.

- 4. For the expansion of tourism to remain compatible with sustainable development, the countries should monitor this growth in the best possible way, giving greater importance to:
  - a tourism in harmony with and respectful of cultural specifities,
  - employment of local people.
  - national investment
  - protection of vulnerable areas and historic sites,
  - a balanced distribution of tourist areas.
- 5. They should also ensure that greater importance in accordance to:
  - promoting local tourism
  - better staggering of holiday periods
  - environment-friendly tourism
  - controlling the movement of tourists to natural, historical and other sites when excessive numbers would degrade their initial state, the quality of the tourism and relations with the local people
  - a necessary awareness of the long-term tourist value of local resources on the part of the population and tourist staff.
- 6. Given the importance of the littoral in developing countries and coastal regions, and its

especial sensitivity to various impacts as well as its attraction for tourists, expansion of tourism can only be viable in the context of integrated development and ecologically rational management of the coastal regions.

### 7. This harmonious development requires:

- impact studies for all tourist infrastructures to be widespread:
- tourist potential to be borne in mind when development plans and development outlines (waste water, transport ...) are made out;
- a littoral management methodology that takes socio-economic, administrative and environmental features into account, enabling allocation and/or protection of certain areas according to their potential.
- 8. At the level of all the states bordering on the Mediterranean basin together, the provisions of the Euro-Mediterranean Declaration on Tourism in Sustainable Development (Hyeres-les-Palmiers, France, September 93) should be implemented, particularly:
- reaffirming the fact that tourism constitutes a decisive factor for development, cooperation and peace between the peoples of the basin and their neighbours, and that it is globally beneficial for the host communities when respectful of their customs and traditions;
- 10- encouraging in the regional international cooperation framework activities that give importance to environment-friendly tourism that is integrated into sustainable development;
- 11- making an inventory of natural, cultural and human tourist resources and carrying out a periodic assessment of the effect of tourism on the Mediterranean ecosystems and environment:
- making a better assessment of international tourist demand for the Mediterranean basin and devising a long-term sustainable tourist development strategy for the region as a whole;
- 13- cooperating to strengthen educational and vocational training policies that are appropriate to sustainable development of tourism;
- 14- cooperating on making tourists more aware in order to develop their understanding of the host communities - the token of their mutual respect and enrichment - and avoiding all forms of behaviour that could have harmful social effects on the communities;
- 15- cooperating to develop new products which give greater importance to sustainable use of the resources of the hinterland that can extend the tourist season;
- 16- giving greater importance to the exchange of technological inventions that reduce the impact tourism has on the environment; and
- 17- working to draft the "Mediterranean Tourist Charter" announced by the Euro-Mediterranean Declaration and immediately starting up the Mediterranean Tourist Network.