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COUNTRY PROFILE



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INTRODUCTION - 2002 COUNTRY PROFILES SERIES

Agenda 21, adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992, underscored the important role that States play in the implementation of the Agenda at the national level. It recommended that States consider preparing national reports and communicating the information therein to the Commission on Sustainable Development (CSD) including, activities they undertake to implement Agenda 21, the obstacles and challenges they confront, and other environment and development issues they find relevant.

As a result, in 1993 governments began preparing national reports for submission to the CSD. After two years of following this practice, the CSD decided that a summarized version of national reports submitted thus far would be useful. Subsequently, the CSD Secretariat published the first Country Profiles series in 1997 on the occasion of the five-year review of the Earth Summit (Rio + 5). The series summarized, on a country-by-country basis, all the national reports submitted between 1994 and 1996. Each Profile covered the status of all Agenda 21 chapters.

The purpose of Country Profiles is to:

- Help countries monitor their own progress;
- Share experiences and information with others; and,
- Serve as institutional memory to track and record national actions undertaken to implement Agenda 21.

A second series of Country Profiles is being published on the occasion of the World Summit on Sustainable Development being held in Johannesburg from August 26 to September 4, 2002. Each profile covers all 40 chapters of Agenda 21, as well as those issues that have been separately addressed by the CSD since 1997, including trade, energy, transport, sustainable tourism and industry.

The 2002 Country Profiles series provides the most comprehensive overview to date of the status of implementation of Agenda 21 at the national level. Each Country Profile is based on information updated from that contained in the national reports submitted annually by governments.

Preparing national reports is often a challenging exercise. It can also be a productive and rewarding one in terms of taking stock of what has been achieved and by increasing communication, coordination and cooperation among a range of national agencies, institutions and groups. Hopefully, the information contained in this series of Country Profiles will serve as a useful tool for learning from the experience and knowledge gained by each country in its pursuit of sustainable development.

NOTE TO READERS

The 2002 Country Profiles Series provides information on the implementation of Agenda 21 on a country-by-country and chapter-by-chapter basis (with the exception of chapters 1 and 23, which are preambles). Since Rio 1992, the Commission on Sustainable Development has specifically addressed other topics not included as separate chapters in Agenda 21. These issues of trade, industry, energy, transport and sustainable tourism are, therefore, treated as distinct sections in the Country Profiles. In instances where several Agenda 21 chapters are closely related, for example, chapters 20 to 22 which cover environmentally sound management of hazardous, solid and radioactive wastes, and chapters 24 to 32 which refer to strengthening of major groups, the information appears under a single heading in the Country Profile Series. Lastly, chapters 16 and 34, which deal with environmentally sound management of biotechnology, and transfer of environmentally sound technology, cooperation, capacity-building respectively, are presented together under one heading in those Country Profiles where information is relatively scarce.

TABLE OF CONTENTS

CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES	1
CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES – TRADE.....	5
CHAPTER 3: COMBATING POVERTY.....	6
CHAPTER 4: CHANGING COMSUMPTION PATTERNS.....	7
CHAPTER 4: CHANGING CONSUMPTION PATTERNS - ENERGY.....	10
CHAPTER 4: CHANGING CONSUMPTION PATTERNS - TRANSPORT.....	11
CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY.....	13
CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH.....	14
CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT.....	17
CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING.....	19
CHAPTER 9: PROTECTION OF THE ATMOSPHERE.....	21
CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES.....	24
CHAPTER 11: COMBATING DEFORESTATION.....	26
CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT.....	28
CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT.....	30
CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT.....	32
CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY.....	35
CHAPTER 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING.....	37
CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES.....	39
CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES.....	42
CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS.....	45

CHAPTER 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES.....	47
CHAPTER 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS.....	49
CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS.....	50
CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT.....	52
CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING.....	53
CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES.....	55
CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS.....	56
CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS.....	57
CHAPTER 40: INFORMATION FOR DECISION-MAKING.....	58
CHAPTER: INDUSTRY.....	60
CHAPTER: SUSTAINABLE TOURISM.....	61

LIST OF COMMONLY USED ACRONYMS

ACS	Association of Caribbean States
AMCEN	Africa Ministerial Conference on the Environment
AMU	Arab Maghreb Union
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CARICOM	The Caribbean Community and Common Market
CBD	Convention on Biological Diversity
CIS	Commonwealth of Independent States
CGIAR	Consultative Group on International Agricultural Research
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
COMESA	Common Market for Eastern and Southern Africa
CSD	Commission on Sustainable Development of the United Nations
DESA	Department for Economic and Social Affairs
ECA	Economic Commission for Africa
ECCAS	Economic Community for Central African States
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ECOWAS	Economic Community of West African States
EEZ	Exclusive Economic Zone
EIA	Environmental Impact Assessment
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
FIDA	Foundation for International Development Assistance
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Environmental Protection
GHG	Greenhouse Gas
GIS	Geographical Information Systems
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IAEA	International Atomic Energy Agency
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development
IEEA	Integrated Environmental and Economic Accounting
IFAD	International Fund for Agricultural Development
IFCS	Intergovernmental Forum on Chemical Safety

IGADD	Intergovernmental Authority on Drought and Development
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	Integrated Pest Management
IRPTC	International Register of Potentially Toxic Chemicals
ISDR	International Strategy for Disaster Reduction
ISO	International Organization for Standardization
ITTO	International Tropical Timber Organization
IUCN	International Union for Conservation of Nature and Natural Resources
LA21	Local Agenda 21
LDCs	Least Developed Countries
MARPOL	International Convention for the Prevention of Pollution from Ships
MEAs	Multilateral Environmental Agreements
NEAP	National Environmental Action Plan
NEPAD	New Partnership for Africa's Development
NGOs	Non-Governmental Organizations
NSDS	National Sustainable Development Strategies
OAS	Organization of American States
OAU	Organization for African Unity
ODA	Official Development Assistance/Overseas Development Assistance
OECD	Organisation for Economic Co-operation and Development
PPP	Public-Private Partnership
PRSP	Poverty Reduction Strategy Papers
SACEP	South Asian Cooperative Environment Programme
SADC	Southern African Development Community
SARD	Sustainable Agriculture and Rural Development
SIDS	Small Island Developing States
SPREP	South Pacific Regional Environment Programme
UN	United Nations
UNAIDS	United Nations Programme on HIV/AIDS
UNCED	United Nations Conference on Environment and Development
UNCCD	United Nations Convention to Combat Desertification
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNCLOS	United Nations Convention on the Law of the Sea
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees

UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNIFEM	United Nations Development Fund for Women
UNU	United Nations University
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wildlife Fund
WWW	World Weather Watch (WMO)

CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES

Decision-Making: The main ministries in charge for decision - making and coordination of the other ministries on international cooperation and assistance for sustainable development are the Ministry of Foreign Affairs and the Ministry of National Economy.

On the 23rd October 2001, the Prime Minister, Mr. Simitis, announced the new composition of the Greek government, including alterations to the structure of certain ministries. The most important alteration as far as Greece's official development cooperation is concerned, is the creation of the position of Deputy Minister for International Development Cooperation and Foreign Economic Relations, within the Ministry of Foreign Affairs. Responsible for the strategy of the Greek Official Development Aid (ODA), the geographic concentration of funds, and the avoidance of problems of coordination between overall economic policy and ODA and between the 13 Ministries and public bodies handling Greek ODA, is the "Inter-ministerial Committee for the Organization and Coordination of International Economic Relations (EOSDOS), which is chaired by the Ministry of Foreign Affairs, under the chairmanship of the Minister for Foreign Affairs, and includes representatives of all the main ministries.

Since 1996, the Greek Government has taken various initiatives. Law 2297/95, which regulated the development assistance programme of the Ministry of National Economy, formed the basis for the preparation of Law 2731/99 on the Greek Development Assistance Programme, which is a comprehensive legal text, establishing a uniform procedure covering the development assistance programmes of all ministries and organizations that participate in the five-year Development Assistance Programme of Greece (1997-2001) to partner countries.

The Foreign Ministry's Hellenic International Development Cooperation Department (YDAS - HELLENIC AID) was established by virtue of Law No 2731/99, Issue No 193/A/199 of the Official Gazette of the Hellenic Republic. In September 2000, Presidential Decree No 224 "on the organization, staffing and operation of the Hellenic Foreign Ministry's International Development Cooperation Department" was placed into effect. Hellenic Aid is a separate organic department of the Ministry of Foreign Affairs, equivalent in rank to the other General Directorates and answerable directly to the Minister of Foreign Affairs. Hellenic Aid administers firstly, all the development cooperation resources included for that purpose in the Ministry's budget and, secondly, resources or donations transferred by other ministries, organizations and Greek or foreign, public or private institutions.

Hellenic Aid is also responsible for the support of the existing and newly- established NGOs and sees to the systematic information, consolidation and growth of volunteerism among the young and the Hellenic civil society, with the objective of the establishment of new NGOs or similar organizations and development networks. Hellenic Aid supervises and supports development training programmes intended to raise public awareness in humanitarian and development cooperation issues. Based also on law 2731/99, the "National Committee for NGOs" was established to function as a liaison committee between YDAS and NGOs. The purpose of the body is the exchange of opinions in all issues related to Greece's official development policy, NGO practices and the policies of YDAS. The outcome of these discussions, which take place twice annually, are submitted to the Parliamentary "Committee on Foreign Affairs and Defense", in order to be integrated into Greece's National Development Strategy. However, the evaluation of the projects remains strictly within the domain of YDAS: the nine-member "Accreditation and Evaluation Committee" is independent of other Ministries and functions within the Ministry of Foreign Affairs, deciding on which projects should be financed from a pool of projects submitted by registered NGOs.

Programmes and Projects: Greece has been developing several programs and projects inside the system of the UN. In general, all the projects point to: the protection of the natural resources; the eradication of poverty; the construction of capacities and planning; governance; and policy formulation.

The programmes undertaken by YDAS- Hellenic Aid aim primarily at: improving primary education (construction of schools, supply of basic educational materials, etc.); the provision of primary health services; the support of vulnerable population groups during crisis; and civil society institution building. The geographical focus of the programmes, in order of importance, is the Balkan region, the Middle East, the Black Sea region, Turkey and Sub-Saharan Africa. This allocation is indicative of YDAS priority to contribute to peace and stability within the

broader region of which Greece is part. Actual allocations depend in part on the emergence of specific needs of socio-political conjunction (e.g. earthquakes in Turkey, refugee crisis in Pakistan, etc.). All of the programmes are performed with a special emphasis on supporting the local partners in the development process.

Status: At the regional level, Greece plays an increasingly important role. Since 1981, Athens is the seat of the Co-ordinating Unit of the Mediterranean Action Plan of the United Nations Environment Programme. Greece has also been active in the Balkan and the Black Sea regions.

In 1999, the total official development assistance (bilateral and multilateral – ODA/OA) reached USD 205.13 million or 0.17% of Gross-National Product (GNP). Multilateral aid (ODA/OA) reached USD 118.00 million or 0.10% of GNP, while bilateral (ODA/OA) reached USD 87.13 million or 0.07% of GNP.

In the same year, total official development assistance (bilateral and multilateral ODA) reached USD194.14 million or 0.16% of GNP. Bilateral grants and loans reached USD 79.02 million or 0.06% of GNP, while aid provided through Multilateral Organisations reached USD115.12 million or 0.10% of GNP.

In 1998, multilateral development assistance (ODA/OA) had reached USD118.47 million or 0.10% of GNP, while bilateral had reached USD76.32 million or 0.06% of GNP. This means that multilateral aid remained stable as a percentage of GNP (0.10%) as foreseen for each and every year of the Five Year Programme 1997 – 2001.

Main recipients of the granted multilateral development assistance of Greece in the year 1999 were: the EU with USD 90.68 million (76.85% of total multilateral aid), the World Bank with its subsidiary Organisations with USD 3.36 million (2.85%), the UN and its subsidiary Organisations with USD 10.37 million (8.79%), while the rest was distributed to other Organizations and Regional Development Banks.

Capacity-Building, Education, Training and Awareness-Raising: *Capacity-Building:* The Ministry of Foreign Affairs (MFA), within its specialised General Directorate YDAS-Hellenic Aid, has a total staff of 22, consisting of development experts, career diplomats and administrative staff. In addition, other Directorates of the MFA, such as the regional political directorates and the General Directorate for the Greek Diaspora and the Directorates for Human Rights, Education, International Organizations, etc. and their pool of staff (c.150) have an input in the overall working of YDAS. Furthermore, the Economic and Trade Attaches and the diplomatic staff of Greek embassies in recipient countries also deal in part with issues directly within the responsibility of YDAS.

As for the implementation phase of the programme, the Greek NGO is responsible for the entirety of the project. Once ownership has been passed on the local partner, is ensured the continuation and sustainability of the project, as well as the expansion of the capacity of the local NGOs, of the grassroots organizations and of the development networks. As a result, YDAS loses its capacity as a monitoring body, once its involvement and funding ceases. However, it is envisaged the active involvement of the embassy staff in the follow-up monitoring of the projects in the future.

Education: YDAS funds educational support in two distinct manners: on the one hand, it supports NGO projects for the construction of schools, their supply with materials and school feeding programmes, aimed in part to gender equalisation via improved access to primary education; and on the other hand, one quarter of YDAS's budget is absorbed by a system of university scholarships, managed by the E1 Directorate of Ministry of Foreign Affairs, and based heavily on choices and selections made by embassies in developing countries. Support is also provided to professors, researchers and students from countries in transition to qualify in various fields in Greece.

Awareness-Raising: YDAS- Hellenic Aid has funded a limited number of Development Education Programmes aimed primarily at younger generations, with the purpose of increasing the public's awareness in development issues. In February 2001, YDAS published a "Special guide for NGOs and other Civil Society Institutions".

Information: The Ministry of National Economy draws up the Annual Report of the Greek Bilateral and Multilateral Official Development Co-operation and Assistance. This Report, covering the past fiscal year, is submitted to the Inter-Ministerial Committee for the Co-ordination of International Economic Relations (EDOS) each October, and to the Greek Parliament (External Relations and Defense Committee) each November. As of 2002, reports shall also be submitted directly from YDAS, concerning its own activities in the field. At the international level, the said Annual Report is submitted to the Development Assistance Committee (DAC) of the OECD.

A source of information for vulnerable groups and potential beneficiaries is via the network of Greek NGOs and their local partners in the recipient countries. In addition, demands for assistance from local bodies are channeled

via our embassies, while, in the case of emergency situations, YDAS experts conduct project identification missions (e.g. assessment of the dimensions and nature of the crisis, of the potential response/intervention), in order to provide information for the future country policy.

A Web site on the Internet gives details about the identity of certain International Organizations such as UN, OECD, GEF, UNDP, and World Bank. (The web site is: <http://www.dos.gr>). The Directorate for Development Co-operation, Special Finances and Programmes of the Ministry of National Economy, provides information on the granting of Greek development co-operation to third countries. Staff from this Directorate participates in workshops organized by various national bodies, like the National Center for Public Administration, as well as Universities, aiming to provide information on development assistance issues.

Research and Technologies: The Ministry of Foreign Affairs cooperates closely with the other ministries responsible in the sectors of research and technologies and especially the Ministry of Development (for issues of new technologies) and the Ministry of Agriculture (for issues of agriculture).

Financing: In August 1996, the Ministerial Council agreed to a substantial build-up of Greece's development co-operation Programme over the 1997-2001 period. The total amount allocated during this period was USD 400.6 million. The first three years have been successfully implemented, and expenditure targets met, despite the budget stringency required by Greece's efforts to meet the Maastricht Treaty targets. The programme regarding Greece's total aid (bilateral and multilateral) achieved its goal, which was the 0.2% of GNP, at the end of 2000.

The activities undertaken by YDAS are financed by the national budget, which allocates funds to the Ministry of Foreign Affairs (channeled through the Ministry of National Economy) for the development aid. In the case of emergency appeals by international organizations, YDAS can and does, if necessary, propose a contribution of additional funds. Responsible for the emergency crisis is YDAS 1 Directorate, which has a guideline fund allocation from the YDAS annual budget (c. 20%).

Cooperation: Greece, in the recent years, has given emphasis on the role related to the aid development sector and investments in the Balkan countries. Greece also affords voluntary contributions to the various International Funds, Organizations, Forums and Programs.

All efforts of YDAS are being made for the integration of goals chosen in various international development fora into Greece's national development strategy. Also, as full member of EU, Greece contributes to the formulation of the Community development policy -via the Council of Development Ministers, as well as on all levels of the administrative structure of EU. The Ministry of National Economy (Secretariat-General for International Relations) participates in the regular meetings of various EC Committees, i.e. FED (European Development Fund-ACP countries), PDV - ALA (Developing countries of Asia and Latin America) and MED (Mediterranean countries), approving projects to aid the developing countries to achieve sustainable development and in this capacity such programs and projects are supported. One of our tasks is to inform accordingly various Greek public or private sector agencies on international bids, research programs etc., to be undertaken in the developing countries. At the last joint meeting of the FED, PVD-ALA and MED Committees (Brussels, 15 June 2000), the European Commission presented drafts of European Parliament and Council Regulations for interventions to be financed under the Tropical Forest Budget Line (B7-6201), as well as for interventions to be financed under the Environment in Developing Countries Budget Line (B7-6200). The said drafts set the priority themes for the years 2000-2001, i.e. assisting developing countries in the implementation of their international obligations vis-à-vis the multilateral environmental agreements (Convention to Combat Desertification, Convention on Biological Diversity, Framework Convention on Climate Change and the Kyoto Protocol).

As far as the cooperation with the NGOs is concerned, in 2000, approximately 40-50% of the budget of YDAS was channeled towards NGO projects. In order for an NGO and its projects to be eligible for co-financing by YDAS, it must meet a series of conditions (see "Special guide of YDAS for NGOs and other Institutions of the Civil Society"). However, NGO funding can take place by other Ministries or bodies as well, after they have received written approval from YDAS.

Concerning international cooperation of Greece in the Energy Sector, we refer to the major European and International Programs related to Energy:

- EU Framework Program for Energy (programs SAVE, ALTENER, SYNERGY, etc);
- EU Framework Program for the Environment (LIFE);
- EU Aid Programs for candidate EU Member States (MEDA, PHARE, TACIS);
- EU Community Initiatives and Actions within Structural Funds (ERDF, ESF, etc., and the Cohesion Fund) included in national operational programs (EQUAL, URBAN, LEADER, INTERREG);
- Programs financed by UNDP (GEF); and
- IEA Implementing Agreements, in which Greece participates actively due to the fact that the Center for Renewable Energy Sources (CRES), as an international energy expert organization, deploys its activities to crucial geopolitical areas (Balkans, Mediterranean, Middle East, Central and Eastern Europe, Armenia, Georgia, East and South East Asia) acting either as a representative of government authorities or as a competitive organization for the supply of services, know-how and experience to third governments or international organizations (United Nations/ECE, OECD/IEA implementing agreements and working parties, etc).

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CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES – TRADE

Decision-Making: Greece, as a member of the European Union and the WTO, applies an open multilateral trade system. In the framework of the Fourth Session of the WTO Ministerial Conference, Greece supports the position that trade liberalization should be accompanied by measures that ensure the protection of the environment.

Programmes and Projects: The large transport –infrastructure projects are currently under way in the country.

Status: The above projects, apart from their beneficial impact on the Greek economy, are likely to make Greece a transit focal point of the regional trading activities and a link between the Eastern Mediterranean countries and the geographic center of the enlarged EU, so that it can contribute to a better and more balanced distribution of trade loads throughout Europe, and to reduction of pressure on the environment.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: Information related to trade, investment and economy, is made available through the publications of the National Statistical Service, the Bank of Greece and the annual Budget Report of the Ministry of National Economy.

Relevant Websites are: www.statistics.gr; www.ypetho.gr; and www.elke.gr.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: On the international level, it is worth mentioning that Greece is a member of the World Trade Organization (WTO), therefore it participates, as a European Union member state, to all regular meetings of the WTO.

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CHAPTER 3: COMBATING POVERTY

Decision-Making: Decision-making is undertaken by the following ministries: Environment, Physical Planning and Public Works (Directorate of Shelter Policy and Housing); Foreign Affairs (National Foundation of Emigrants); Health and Welfare, and the Workers' Housing Organization. Together they have implemented the following activities concerning the housing problem of impoverished groups: housing programmes for the homeless and poor, for gypsies, minorities and emigrants; and remodeling of low quality habitation areas. In Greece, legislative decree 57/1973 addresses measures for the social protection of economically needy people. Legislation on minimum pensions and mixed social pensions has also been issued.

Programmes and Projects: No information available.

Status: Greece has adopted the definition of relative poverty accepted by European Union (EU) countries. Associated with matters related to poverty are problems of social exclusion. The latter is defined as alienation from one or more of the following mechanisms: the labour market; social or other informal support networks; state unemployment benefits; retraining programmes; and etc. Social exclusion is considered a limited phenomenon in Greece, both because the processes of economic restructuring and modernization are occurring at a slow pace and because the informal support networks, mainly family networks, are functioning satisfactorily.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

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CHAPTER 4: CHANGING CONSUMPTION PATTERNS

Decision-Making: The responsible Government bodies dealing with aspects of sustainable consumption and production patterns are the ministries of Development and Environment, Physical Planning and Public Works; the Center for Renewable Energy Sources, an organization under the auspices of the Ministry of Development that plays an important role in implementing Government programmes in energy efficiency and renewable energy sources, as well as in collecting and processing data relating to energy efficiency; and Local Authorities (Regional and local energy agencies). The main goal of these agencies is to implement and co-ordinate energy programmes, particularly renewable, and energy conservation programmes, and both to provide and collect energy related information.

The Ministry of Development has adopted the integration of environmental concerns and dimensions into the main stream of the National Energy Policy and promotes both of them within the framework of its political priorities. In the Gas Law, the Ministry of Development regulates matters relating to the safety of installations, and also the professional status and licensing of the technicians in charge of installation, maintenance and supervision of the relevant equipment, by adopting and enforcing regulations and standards in co-operation with the Hellenic Standardization Organization (ELOT) and EU.

Legislation covers the promotion of urban changes; change of attitudes; planning (especially of building design) that introduces the concept of sustainability; use of materials; conservation of natural resources (energy and water); use of environmentally-friendly construction materials; and etc. Energy 2001 (the National Action Plan for Energy Conservation in the Built Environment) adopted by the Ministry for the Environment, aimed both at changing existing production and consumption patterns through the promotion of building construction techniques and services aimed at energy conservation and at the integration of renewable energy technologies. The progressive implementation of the Energy 2001 is expected to contribute to the reduction of energy and water demands up to 50% and to promote the use of Renewable Energy Sources. A new Energy Efficiency Code for all new buildings, encompassing energy consumption limits, energy identification, certification and energy labeling of buildings is under way.

Several major groups, industry organizations, unions, NGOs and consumer groups participate in the Supreme Board for Awarding Ecological Labels (ASAOS), established by a Ministerial Resolution for Awarding Ecological Labels (within the Ministry for the Environment, Physical Planning and Public Works). The Board provides information to the business community and consumers, and organizes international meetings.

Programmes and Projects: The Ministry for the Environment, Physical Planning and Public Works has under way pilot sustainable projects in urban and building levels to promote energy efficiency, RES, sustainable materials (ecological planning and design), in partnership with local authorities and NGOs; pilot environmental education programmes, such as the implementation of P/V systems in 50 school buildings to raise awareness on the environmental impact of the use of Solar Technologies, in partnership with the Ministry of Education and Greenpeace.

The Operational Programme for Energy and the Operational Programme for Natural Gas (1994-1999) promoted sustainable energy, energy efficiency, and rational use of energy, use of renewable energy sources, use of environmentally friendly energy sources, and the use of natural gas through the promotion of financial support for RES and energy efficiency projects.

Status: An increasing penetration of solar energy appears, both in terms of absolute figures and in terms of growth rate. There are several national targets aiming at the enhancement of energy and material efficiency, waste reduction, recycling, public transport and quality of life. These projects are improving efficiency of the energy system; energy efficiency in industry, private and public sectors; energy efficiency of buildings (bio-climatic buildings, incorporate energy efficiency and renewable energy source technologies in Olympic Games 2004, etc); energy intervention in the transport sector; and promotion of the use of cogeneration technologies with the implementation of the Operational Programme of Energy.

Capacity-Building, Education, Training and Awareness-Raising: The consumer awareness-raising campaign on energy labeling of domestic appliances, and especially of refrigerators and freezers, aims to make the Greek consumer aware of the use of the energy labeling for domestic appliances by explaining the meaning and significance of the energy labeling symbols and figures for refrigerators and freezers. It collects available data related to the energy efficiency of domestic appliances and especially refrigerators and freezers and estimates the energy savings and economic profits achieved by the use of energy labeling and inform the public about the results. The manufacturing and retailing industries often participate either as sponsors or as speakers in conferences and seminars dealing with environmental issues. In most cases, this is done with the co-operation of the Ministry of Development as well as that of the consumer organizations. Small and medium-sized enterprises also participate with increasing interest.

Other activities include the training of energy managers in matters of sustainable use and conservation of energy, education of engineers and environmental education. Training objectives are met through the voluntary employment of young people on projects using traditional construction materials and techniques in different regions of Greece. In 1996, the Ministry of Education organized seminars directed to elementary and secondary level teachers in order to turn the consumer's attitude towards sustainable consumption patterns. These seminars covered issues such as nourishment, health, hygiene and the environment. In the years 1995-1997, the European Young Consumer Competition aimed to increase consumers' awareness as well as to make consumers more concerned about environmental issues.

Information: No information available.

Research and Technologies: Clean and environmentally sound technologies are promoted and applied in production through incentive packages provided by Development Law 2601/1998, the Operational Programme for Energy and other legislation in the fields of the use of natural gas for electricity generation, both in converted oil-fired stations and new combined-cycle gas turbine power plants; the use of natural gas for industrial heating processes; district heating from Public Power Corporation power plants or independent thermal stations to satisfy heating and cooling loads of local municipalities; energy saving measures in the industrial and building sectors; wind power plants; small hydropower plants; utilization of solar technology (mainly for hot water, heating and cooling); and bio-mass use for electricity and heat generation and use of natural gas domestic equipment.

Financing: Activities are financed through the development of law incentives as the grant and interest subsidy and/or leasing subsidy and the tax allowance and interest subsidy. Also, the subsidies through the Operational Energy Programme and the settling down of modern financial tools and entities (e.g. Third Party Financing, (TPF), Energy Saving Companies- ESCO) is close to end: the TPF scheme will be introduced with the creation of local ESCOs, which will be invited to participate in Greek projects, thus transferring know-how and experience to their local counterparts. The creation of joint ventures and collaborations needs to be encouraged so that both parties will benefit: the foreign company by the exploitation of the investment opportunity and the local market knowledge of the local company, and the local company by the TPF experience of the foreign one.

The Operational Program for Competitiveness (O.P.C) has the following main objectives:

- Upgrading of existing laboratories infrastructure for testing and certification services, and the set up of new laboratories;
- Promotion of business Distinction in the field of energy R & TD for the support of the infrastructure and technology of know-how transfer in R & D units;
- Support of research units for the standardization and commercial exploitation of research results;
- Detection and exploitation of research results with the creation of new-targeted companies (spin-offs involving researchers and research organizations);
- Development of research cribs and R & D parks for the support of technological innovation and technology know-how transfer, with the participation of regional and local economic entities;
- Development of research centers with the active involvement of end-users and support of labs operating with companies and R & D users; and

- Support of international scientific and technological cooperation and know how transfer, which promote the development and dissemination of environmentally sound technologies enhancing consumption patterns compatible with sustainable development.

The 5th and 6th EU Framework Programs for R & D include an energy sub-program having a total budget of 1040 million Euro including the following key actions relevant to RES/RUE:

- Clean energy systems including RES (large scale low CO₂ electricity production from fossil fuels and biomass, research and demonstration of RES technologies, integration of RES in energy systems, economically efficient technologies for the reduction of environmental impacts from electricity generation);
- Economically efficient energy technologies and support of industrial competitiveness (rational and efficient use of energy in buildings, transport, hybrid systems etc. energy transmission, distribution and storage technologies); and
- Scenarios development for energy supply and demand side management.

These trends and policies are expected to have major effects on consumer's behavior towards sustainability.

Within the 6th FP the creation of a unified European Research area is foreseen where EU will actively be involved in national R & D programs and will finance only programs also supported by national budgets. On the basis of this situation, the formation of a strong national program for R & D in the field of energy, which will answer to the relevant national priorities and targets, is under preparation.

Cooperation: No information available.

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CHAPTER 4: CHANGING CONSUMPTION PATTERNS - ENERGY

See under previous **Chapter 4**.

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CHAPTER 4: CHANGING CONSUMPTION PATTERNS – TRANSPORT

Decision-Making: The Ministry of Transport and Communications is primarily responsible for decision-making regarding the transport system and the Ministry for the Environment, Physical Planning and Public Works is responsible for the improvement of infrastructure and the monitoring of air pollution from transport. Coordination is taking place through inter-ministerial committees and inter-ministerial ad-hoc meetings. The co-responsible bodies provide comments on draft legislation, prepared by the competent Ministry. The 1997 administrative reform has increased the participation of local and regional governments.

The main policies to reduce energy use in transport sector are:

- The renewal of the fleet of private cars, buses, coaches, trucks, used in public transport or on own account;
- The use of alternative fuels in vehicles;
- The technical inspection of vehicles; and
- The improvement of infrastructure for public transport means (buses, railways, trolley buses, metro etc).

The application of the above mentioned policies is expected to cause significant decline in energy use, due to modern engines of reduced fuel consumption, efficiency control of engines, and use of public transport means by a greater number of passengers. The withdrawal of old cars, as well as the substantial decrease of the cost for the purchase of private cars resulted in the decline of their average age, and the significant improvement of the ratio of modern technology cars in relation to conventional cars (above 50% of the fleet). The periodical technical inspection of vehicles in the 58 Technical Inspection Centers (KTEO) improved substantially the efficiency of car engines. On the other hand, an annual control of the exhaust gas emissions of the vehicles was applied by introducing the exhaust emissions inspection card (KEK). 4,000 authorized centres have issued over 7 million certificates. A new law has been adopted by the Greek Parliament, which foresees the establishment of private technical inspection centres. This measure is expected to improve substantially the overall system of technical inspection of vehicles.

The most important Joint Ministerial Decisions (JMD) for the reduction of vehicle emissions are: “The form and content of exhaust emissions Inspection Card”, which introduced the exhaust gas emissions inspection programme for road vehicles; “Determination of measuring method and permitted values (limits) of carbon monoxide (CO) and hydrocarbons (HC) in exhaust gases of gasoline and LPG powered vehicles” and “Determination of measuring method and permitted values (limits) of the opacity of exhaust gases from diesel powered vehicles”. Since 1990, exhaust emission regulations required new gasoline-fueled cars to have three-way catalytic converters and to use unleaded gasoline. Since the mid-1980 an alternate license plate system in Athens has restricted the use of passenger cars in the city centre between 7 a.m. and 8 p.m. on Monday through Thursday, and from 7 a.m. to 4 p.m. on Friday. Cars with odd-numbered plates may be used only on odd-numbered days, cars with even-numbered plates only on even-numbered days.

Programmes and Projects: Action Programme 2.3 of the Operational Environmental Programme of Greece aims at improving the air quality in the urban area of Athens. The programme consists of major interventions for the reduction of emissions from motor vehicles, as well as from domestic heating devices and industrial units. Specific actions under this Programme include: interventions to improve traffic in urban centers; development of a coordinated mass transit system; measures for noise reduction in major roadways; abatement of noise in tourist areas; and expansion of dedicated bus lanes in the urban centre of Athens. During the last decades, the following measures have been applied for the improvement of public transport means (new measures or follow-up of existing activities):

- Creation of two new metro lines in Athens (lines 2 and 3) with 18 stations. 80 million passengers were transported in the first year of operation of the new lines, which resulted in gaining of significant quantities of fuels, due to less use of private cars.
- 750 new anti-pollutant buses have been put into circulation in Athens (of a total cost of more than 1.76 M Euro), 224 hybrid trolley buses (of a total cost of more than 88M Euro), 295 CNG (Compressed Natural

Gas) buses (of a total cost of more than 73 M Euro) and 6 new coaches in the existing old metro line (ISAP). A corresponding number of new public transport means were put into circulation in Thessaloniki and other Greek cities.

- In the railways, double line has been constructed in the greatest part of the line Athens - Thessaloniki, with electrification in some sections, modern signaling systems, telecommanding and purchase of new rolling stock. The total investment in the period 1995 -1999 was more than 1.32 B Euro (2nd Community Support Framework Cohesion Fund and National Funds).

Status: All automobiles require, among other measures, a periodical check at the already established Regional Vehicles' Technical Inspection Centers (one in each Prefecture). Besides, Greece has already harmonised European Union (EU) directives concerning the upper permitted limits for CO₂ and oxygen surplus emissions. In 34 Greek prefectures, including the prefecture of Attika, the exhaust emissions Inspection Card system has been established. Under this system, private use automobiles are obliged, once annually, to be checked and supplied with the appropriate card. Furthermore, mobile checking stations of the Ministry for the Environment and the Ministry of Transportation perform random emission checks on cars. The scientific community has undertaken studies on health effects resulting from air pollution and depletion of the ozone layer.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: A lot of funds have been invested for the improvement of transport infrastructure. In the period 2000-2006, the following projects are foreseen financed by the 3rd Community Support Framework:

- Completion of all sections of the double railway line Athens - Thessaloniki, with electrification, signaling and telecommanding of the entire line, of a total cost of more than 1.8 B Euros;
- Development of Athens Suburban Railways up to Korinthos, Chalkis and Athens International Airport at Spata, with double line, electrified, modern signaling and telecommanding systems, of a total cost of more than 190 M Euros;
- Development of 2 tramway lines in Athens of a total cost of more than 300 M Euros;
- Further renewal of Athens urban buses fleet, trolley buses, old metro coaches, of a total cost of more than 350 M Euros; and
- Development of Thessaloniki metro line.

A revised set of sales taxes on vehicles, which passed into law in 1999, sets increasing sales taxes in proportion to engine capacity, as well as higher rates for vehicles lacking pollution control equipment. Rates for passenger cars range from 0 for hybrid vehicles to 385 per cent of the wholesale price for large vehicles without catalytic converters. The ranges within classes of cars incorporating pollution control technology are much smaller, from 7% to 88% of the wholesale price. Motorcycles, which are a rapidly increasing portion of the Greek vehicle fleet, are also included under this measure, from 2% to 32% of the wholesale price. Tax incentives to replace old vehicles with new ones were introduced in November 1990, but suspended shortly thereafter for budgetary reasons. Consideration is being given to restarting this scheme. About 380,000 old cars were removed during the two years of operation of this scheme, at an average cost per vehicle of 1 million DRA (3,000 EURO).

As to motor fuels, natural gas for vehicles does not receive a preferential tax treatment but is taxed at the LPG rate, in accordance with EC directives. The only motor vehicles supplied with natural gas today in Greece are 300 buses used in local public transport, and in this case, natural gas is exempted from the excise duty, as Greece has a derogation (procedure of article 8.4 of the 92/81/ EC Directive) for vehicles used in local public transport.

Cooperation: No information available.

CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

Decision-Making: In Greece, the Ministry of National Economy, especially the Department of Population and Employment and the Department of Social Policy, is responsible for demographic issues. The National Statistical Service and the ministries of Health, Welfare and Social Security are also involved. The Law for Equality promotes women's participation in decision-making.

Programmes and Projects: Between December 1996 and February 1997, the Ministry of the Interior, Public Administration and Decentralisation carried out a complete project concerning the Program for the merging of the local authorities in Greece, which reflects the general political framework for the regeneration of the primary level of local government. This program bears the symbolic title «IOANNIS KAPODISTRIAS». A number of other modifications are in progress, in order to achieve the aimed task of reforming Public Administration (organizing the Regions, new responsibilities for the primary level Local Government, enforcing the Prefectural Self-government etc.). The aims of the program are:

- the provision of services of equal sufficiency and quality to the citizens of the cities and the villages;
- the promotion of the role of the Local Authorities and of their elected representatives, therefore the modernisation of the local political system in the country;
- the establishment of basic requirements for the administrative and financial independence of local authorities;
- the coordination of local public investment for the public works of technical infrastructure and social equipment;
- the strengthening of the internal resources of the Greek region which is a necessary precondition for continuous sustainable regional and local development;
- the transparency in management of financial resources and the control by the citizens of local authority and power, leading to guarantees of legitimacy and the protection of their interests; and
- scale economies in the operating cost and the development of human resources.

Status: Greece has a population of nearly 11 million and the population density is rather low compared with other European countries (80 inhabitants per square kilometer). The average annual population growth has been around 0.5% during the last 15 years and is diminishing. The 2000 birth rate is down almost 40% from 1971 and the already low fertility rate (1.2 children per woman) is expected to decrease further. As a consequence, the population is ageing, with one fifth of the population now over 65 and the ageing index (number of persons over 65 per 100 persons aged 0-14) is at a disappointing 95. This trend, combined with a life expectancy approaching 80 years, creates tremendous burdens on the pension and health care systems. About 20% of the work force is employed in industry and another 20% in agriculture with the remaining 60% employed in the steadily growing service sector.

Capacity-Building, Education, Training and Awareness-Raising: A National debate has been held on linkages between population and environment. Women's organizations and the media have been included.

Information: Information on Greek demographics was provided to the Conference on Population and Development in Cairo.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: Greece has participated in international demographic conferences held by the European Union, the European Council, and the Organization for Economic Co-operation and Development (OECD).

CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

Decision-Making: The Ministry of Health and Welfare is the principle authority in developing and financing health policies. The Ministry is responsible for the provision and financing of National Health System (NHS) as well as health and social policies for the needy, the elderly and persons with special needs. The Central Health Council (KESY) and Committees for AIDS, Drugs and Cancer play an advisory role to the Minister.

The public health system consists of a centralized service within the Ministry of Health and public health departments in each of Greece's 13 regions and 52 districts (prefectures). This service is responsible for monitoring the health of the population, especially as regards environmental factors, immunisation, prevention of communicable diseases, hygiene, collaboration with health services, and overall supervision. A Regional Department and a District Department of Health and Welfare are operating in every Region and every Prefecture respectively. Each of the regions has at least one Regional Hospital, which in most cases is a University Teaching Hospital. In Each Prefecture at least one hospital is designated as the Prefecture District Hospital. In parallel, the Ministry runs a number of Public Health Centers and institutions, which operate as autonomous organizations:

- Central Public Health Laboratory;
- Centre for the Control of AIDS and Sexually Transmitted Diseases;
- National Centre for Surveillance and Intervention (NCSI);
- National Centre of Research and Treatment of Diabetics and its complications (while 13 Diabetological Centers and 60 consultative units operate within the NHS hospitals);
- National Drug Organization (E.O.F.);
- National School of Public Health (education, research and public health laboratories);
- Institute for Child Health; and
- Institute Pasteur (independent and partially subsidized by the Ministry).

Programmes and Projects: The planned health care reforms and the setting up of regional public health structures, will develop further and improve public health policies and actions with regard to:

- determining and interpreting factors regarding the health status of the population;
- identifying the requirements for health and the epidemiological profile of the population;
- developing information services;
- identifying and controlling possible outbreaks of communicable diseases;
- promoting health by health education, public counseling, vaccination, immunisation, screening, etc.;
- monitoring the health effects of the environment and initiating actions; and
- providing appropriate education and research facilities.

It is recognized that there is a gap in the management structure and performance in hospitals and a plan is being forwarded to introduce organizational and administrative changes, including the position of an executive manager, in order to add flexibility to the system and to limit as much as possible malfunctions and weaknesses.

As regards specific programmes and projects, the Ministry of Health and Welfare implements a de-aluminumization programme to reduce the exposure of people to aluminum and reduce renal diseases. In order to develop control of contagious diseases, the following activities have been proposed: the promotion of hepatitis-B vaccination; the implementation of an anti-malaria programme; a measles vaccination programme; a tuberculosis vaccination programme; and raising awareness on HIV/AIDS and increasing funds for the rehabilitation of patients.

The Ministry for the Environment recognizes the close link between health and environment. Programmes aim at protecting the human, anthropogenic, and natural environment from industrial accidents. The aim of the Programme is also to make the residents in nearby areas aware of the operational plans for the management of environmental hazards once these occur. Specific actions include: mobile stations for the monitoring of dangerous substances; public awareness campaigns; programmes for the implementation of SEVESO Directive Action Plans in the event of an accident and technical support to local and regional authorities; promotion of the «eco-audit» scheme; land use planning in the vicinity of industrial areas; specialized equipment for Fire Services; and creation of a training

unit for major industrial accidents. The Ministry for the Environment, Physical Planning and Public Works has initiated controls on the use of building materials, in order to mitigate the syndrome of «unhealthy buildings». Levels of pollutant emissions are being set and environmentally friendly construction materials are being promoted. The noise abatement programme in major Greek cities attempts to reduce noise through such as: actions as periodic inspections for motor vehicles/motorcycles and major industrial installations; the construction of noise protective barriers along major highways; the promotion of noise insulation materials in buildings; and the promotion of the so-called «quiet products». Pilot projects have been implemented and research projects on the psychosocial issues of noise are being carried out.

Status: The Greek health care system is a system of compulsory public health insurance with strong elements of a national health system and involvement of the private sector. Greek citizens are compulsorily insured in one of the approximately forty social insurance funds providing coverage against sickness (out of a total of about 300 different social insurance organizations). The choice of fund depends on the occupation of the insured and not on his/her income level. Private insurance covers only a small segment of the population (no more than 10%), mainly for hospital services. However, private insurance has been growing considerably in recent years and private insurance premiums have increased by more than 40 per cent in the past ten years. The uninsured and the needy are entitled to access to public hospitals, outpatient departments of public hospitals and health centers in rural areas.

Insured patients have free access to all public hospitals and a large number of private hospitals contracted by each fund. The number of private contracted hospitals differs among the funds depending mainly on the number of insured members and their distribution across the country. Some funds, like IKA, provide some hospital care in their own hospitals but the majority of the population relies on the services of the public hospital system. The uninsured population has access to public hospitals. It should be also pointed out that Greece is “hosting” nowadays more than 500,000 immigrants (legal as well as illegal) who have free access to public health services and hospitals.

There exist three main categories of hospitals: NHS public hospitals, public hospitals under the operational responsibility of the Ministry of Defense, IKA network hospitals, Ministry of Education and Ministry of Justice hospitals (i. e. military hospitals and hospitals for prisoners respectively), hospitals of non-profit character supervised by the Ministry of Health, and private hospitals, the overwhelming majority of which are private for-profit institutions. The NHS owns almost 32% of the total number of hospitals, which account for almost 63.5% of total number of beds. In terms of total number of beds, Greece has a relative low bed to population ratio among EU countries.

The regional distribution of secondary level hospital beds tends to be uneven, with the urban areas of Athens and Thessaloniki being better served. The construction of new hospitals and the renovation of public hospitals in areas distant from the major urban areas, in more recent years, represent an effort to address this problem.

In the case of tertiary care, 7 of the 13 regions are covered by at least one large NHS highly specialized hospital, while the remaining regions are covered by the hospital(s) of the neighboring regions of Athens and Thessaloniki. The regional university teaching hospitals have become the center of reference providing highly specialized care in each region.

Emergency Pre- Hospital Care is provided by a NHS agency, the National Center of Emergency Care (EKAB). Apart from the Athens Central Service, self -reliant regional branches were established and each one of them is responsible to provide emergency pre-hospital care services to a region defined by the EKAB organization. The Central Service is responsible for the Athens area and co -ordinates all the other services of Emergency Pre-Hospital care in the country.

Provision of primary health care services: There exist a variety of settings, both public and private, for primary health care (PHC). These are described bellow:

- PHC provided through NHS: This includes health centers and the satellite surgeries in rural areas as well as public hospital outpatient departments. These services are financed mainly through the state budget, and to a smaller extent by insurance funds.
- PHC provided through social insurance funds: This includes polyclinics owned and operated by specific insurance funds (mainly IKA in urban areas) or contracted physicians for the provision of primary health care to their members who are reimbursed by the insurance funds on a fee-for-service basis.

- **PHC offered through local authority services:** This category includes few clinics and welfare services. These services are financed by the state budget through the Ministry of Interior, Public Administration and Decentralisation.
- **PHC provided by the private sector:** This includes physicians in private practice who are contracted by one or more insurance funds (funded by the respective insurance fund), physicians in private practice who are not contracted by any insurance fund (funded by out-of-pocket patient payments or voluntary health insurance), and private hospital out-patient departments (funded mainly by out-of-pocket payments or voluntary health insurance).

Capacity-Building, Education, Training and Awareness-Raising: A public awareness campaign has been carried out concerning the recommendations of the European Code against Cancer, which aimed at reducing deaths from cancer by 15% by the year 2000. The programmes “Europe against Cancer” and “Greece against Cancer” have contributed to inform the public about cancer, to create awareness, and to improve health personnel training. Health training is provided inter alia to young parents, teachers, and students at all grades.

Information: Information is provided by the Ministry of Health and Welfare and by Public Health Centers and Institutions. Relevant sites are: www.ypyp.gr and www.nci.gr.

Research and Technologies: The hospitals’ Biomedical Technology infrastructure is very advanced, especially this of the latest generation. The number of MRI and CT units in the NHS hospitals per one million inhabitants approaches the corresponding mean value of the European Union countries. In addition, Telemedicine systems are used to provide advisory services and specialized instructions to the medical staff of the health centers in rural areas and particularly islands. Emphasis is given to the operation of the National Blood Donation Center and the modernisation of blood donation services, and research on cancer is being promoted and encouraged.

Additional issues include improvement of the referral system in order to regulate the cross-regional patient flows, computerisation of hospital procedures, development of staff managerial roles, and the establishment of quality assurance systems. A new hospital-oriented financial accounting system will improve cash-flow management, and provide economic efficiency indicators for monitoring financial performance and assessing the efficiency of resource allocation management.

Financing: The health care system of Greece is financed by a mix of tax-based and insurance-based statutory financing and private funding.

The sources of public health funding include income from general taxation, which is distributed via the state budget, and income from social insurance contributions, which is then distributed by the social insurance funds.

State budget expenditures include:

- expenditure for subsidies to public hospitals and other health care services (i.e. rural health centers);
- expenditure for subsidies to OGA fund for health services to its members;
- expenditure for services to the Public Servants Scheme;
- expenditure for capital investments in public health services; and
- expenditure for public health and part of medical education.

The state budget allocation for health is divided between expenditures incurred by the Ministry of Health and those incurred through the country’s 52 districts including welfare and other benefits. The income from social insurance funds covers about 40 per cent of total public expenditure and it is approved by the fees which are paid by funds to hospital services and fees to contracted primary health care doctors. These fees are well below the real costs of services provided. Private funding refers exclusively to out-of-pocket payments and a small part for co-payments for health services covered by the statutory public and health insurance system.

Cooperation: No information available.

CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

Decision-Making: The Ministry for the Environment, Physical Planning and Public Works is mainly responsible for the implementation of sustainable human settlements development in Greece. Urban planning is mainly based on legislation from the early 1980s. The Law on Urban Development (1983) introduced “urban controlled zones” to direct urban development, safeguard sensitive areas, and stop unplanned construction. Provision is made for relevant reform of town-planning legislation according to sustainable development principles for the development of newly built up areas, and the improvement of the institutional framework and procedures.

The regulatory framework on energy-efficient design of buildings is being updated under the General Building Regulation. Bioclimatic-energy design of buildings and settlements is being promoted, as well as the use of renewable energy sources.

Legislative instruments encourage technology and methods for energy and water conservation. Legislative and administrative measures have been adopted for the protection of people living in disaster-prone industrial areas.

The Regional Plans of Counties (1984) provide for land-use organization, infrastructure planning, and environmental protection. Master Plans have been developed for metropolitan areas. Special Regional Studies have been carried out in areas with environmental problems to address gaps in the legislative framework. Greece has signed the Aalborg Charter for the implementation of Local Agenda 21. The National Action Plan for Cities and Housing (1996-2000) aims fundamentally at the fullest possible positive response of Greece to two main objectives: the creation of cities which provide safe, healthy, equal, and sustainable living conditions and the guarantee of adequate housing for all. Policies and measures under this plan are promoting the reorganisation of the system of housing subsidies; social and economic integration and housing for refugees and economic immigrants; projects for community development and upgrading according to the model introduced by the EU pilot programmes to combat poverty; and provision of housing for special disadvantaged categories of people.

The Government supports the involvement of local groups and organizations in the sector of social and cultural services, and welfare at the level of the local community. This includes: encouragement of local government initiatives for the improvement of social infrastructure and transport systems; support of relevant local initiatives by non-governmental bodies for the implementation of the National Action Plan; special programmes for loans to employees of the State, local government, and public organizations; special programmes of the Workers’ Housing Organisation for the provision of subsidized housing for low and middle-income workers; special housing programmes for immigrants of Greek origin from the former Soviet Union; and special assistance for housing of families with more than three children.

Programmes and Projects: The Operational Environmental Programme of Greece (1994-1999) aimed at: the improvement of existing urban plans in light of modifications in the urban structure and the operations of the city; the development of urban plans for estates located in ecologically sensitive areas, coastal zones, and islands; and the improvement of urban conditions in selected Greek cities, traditional settlements, and tourist sites in order to improve the quality of life, and living and working conditions. In addition, this programme was part of a wider National Programme for the restoration of the urban environment in selected Greek cities.

Special Programmes under the Operational Environmental Programme included the programme ATTICA-SOS, which had as a theme «Athens, a sustainable city», aiming at improving environmental conditions in the Attica region where Athens resides. The programme included interventions at local and regional scales in the thematic areas of air, water, waste, traffic, noise, land planning, urban development, environmental awareness, and legislation. The programme THESSALONIKI - SOS was designed and implemented for Thessaloniki, the second largest city of Greece.

The new Operational Programme of Greece (2000-2006) – Programme 7.1- includes interventions in regional and town planning and aims at the organization of urban and regional areas based on new technologies; the development of plans in national and regional level; implementation of pilot and specific local interventions; the development of metropolitan areas plans (Attica and Thessaloniki).

Status: The regional- and urban- planning policies started being systematically implemented in the early '60s in order to counteract anarchic urbanization, city sprawling and landscape degradation. In the period 1950-1980, almost the totality of the areas that were being incorporated in city plans were areas of illegal development and anarchic city sprawl. The relevant percentage in the period 1980-1993 was 81.6%.

Since the beginning of the '90s, however, some new trends became apparent. Major elements of these changes were the significant increase in public environmental investment and the creation of a whole new legal framework for planning.

Among the recent positive developments is the inclusion of the improvement of the urban environment among the priorities of the Ministry for the Environment and Physical Planning, in line with the EU priorities in this domain. The completion of the National Cadastre is expected to be instrumental for the efficiency of the implementation of land-use plans and the effective enforcement of the law in the case of illegal land development.

Capacity-Building, Education, Training and Awareness-Raising: Capacity-building and technology issues are supported by open dialogue between agencies and the public, and information dissemination through professional journals, the press, and informative leaflets for the preparation of the National Report submitted to Habitat II. In addition, a nationwide competition "for models of policy and programme implementation for improving the quality of the local urban environment and housing through specific projects" was used as a method of publicizing the activity of the National Committee and prepare the country for participation in the Habitat II Conference. Training of local government officials and mobilizing the interest of the local population in promoting the National Action Plan are also completed.

Information: No information available.

Research and Technologies: No information available.

Financing: The fiscal priorities for housing policy are to reform the system of subsidies and to support innovative efforts to reduce the cost of new housing; reform the system of financing (public investment, subsidies, local taxes) for infrastructure works and securing public spaces in newly built-up areas; and providing financial incentives to promote new technologies and systems of application of soft forms of energy.

Cooperation: In terms of regional and international cooperation, Greece participates in the structures and programmes of the EU, in the Organization for Economic Co-operation and Development (OECD) working groups, and in committees and working groups of the UN, for example the Center for Human Settlements and the Committee for Housing, Building and Planning of the Economic Commission for Europe. In cooperation with the UN Committee of Human Settlements, a Colloquium on Urban Management was held in 1995. In the same year, a seminar was held on Sustainable Development of Human Settlements. A Greek National Committee, set up by the Ministry for the Environment, Physical Planning and Public Works prepared the National Report submitted to the Habitat II Conference (June 1996).

Greece participated in the European Ministerial Conference "Sustainable Building - Sustainable Cities" (Copenhagen); the European Architectural Competition Programme (EUROPAN), which has as a theme the current problems of urban areas and the promotion of sustainable solutions; and the proceedings of the International Council for Local Environmental Initiatives (ICLEI) and the two European Conferences for Sustainable Cities and Towns. The Organization for Planning and Environmental Protection of Athens is an associate member of "Metropolis", the World Association of the Major Metropolises. The same organization is a member of the European Metropolitan Regions Network (METREX's Interim Management Committee).

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CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

Decision-Making: The Ministry for the Environment, Physical Planning and Public Works is in charge of sustainable development coordination between all competent Ministries. According to article 24 of the Greek Constitution, the protection of the physical and the cultural environment is a responsibility of the State.

The first legislation aiming explicitly at the protection of the environment in Greece was adopted in 1976 in conjecture with physical planning. The Principles of Sustainable Development have been established by the case law of the 5th Section of the Supreme Administrative Court (Council of State), having jurisdiction on environmental matters, among them the principles of sustainability, carrying capacity of man-made systems and ecosystems, sustainable land development, management of fragile ecosystems, biodiversity, and others.

In 1980, a Ministry of Environment, Housing and Physical Planning was created in an attempt to unite in a single administrative body all competence concerning environment related issues. Five years later, the new Ministry was merged with the Ministry of Public Works to form a single Ministry for the Environment, Physical Planning and Public Works. The rationale behind this controversial concentration of power was to integrate the environmental dimension in the critical domain of public works. The reduction of unnecessary friction and delays in inter-ministerial co-operation, which was understood to inhibit both rapid economic development and the protection of the environment, has been an additional concern.

In 1986, Law 1650 for the Environment was passed, establishing a framework of sanctions and liabilities for the protection of the environment. In 1990, a joint ministerial resolution introduced environmental impact assessments for certain production facilities and activities. After the accession to the European Community, the bulk of environmental legislation in Greece results directly from the transfer of Community directives in national law.

In addition to the imperative for the integration of the environmental dimension in all governmental policies, there results an important co-ordination task amongst all Ministries bearing responsibilities on specific environmental issues. A characteristic example is the different aspects of water management and supply, which accrue to the responsibilities of ten different ministries and of a number of independent public corporations.

The recent creation of the National Center for Sustainable Development (NCSD) is an important step for both improving reporting on environmental issues and strategic sustainability planning. The forthcoming establishment of a National Environmental Inspectorate, together with the outstanding completion of Greece's National Cadastre Plan should improve the effective enforcement of environmental legislation and increase the overall credibility of environmental policy.

Programmes and Projects: In order to attain sustainable development, Greece is focusing on the following targets: integration of Environment and Economy; incorporation of the principles, values, sensitivities and priorities of ecology in sustainable development; and balanced socioeconomic development, with reduction of differences between the so-called "developed" and "problematic" regions or between center and periphery areas. In addition, this policy is aiming at enhancement of the social cohesion, and the environmental and cultural identity of urban centers and minor settlements; rational integrated management, control and protection of water resources; and improvement of the urban environment and living conditions. Also, promotion of international cooperation and implementation of international conventions; and education, training, and awareness-raising for sustainable living patterns.

The Environmental Programme of Greece for the period 1994-2000 addressed the major environmental problems of Greece, as well as creating infrastructures for the efficient management of the Greek environment in the twenty-first century. In addition, the Programme reflected the commitment, as well as the efforts of the Greek Government, to link development to environment in a manner, which supported the uninterrupted implementation of the development policy of Greece, while at the same time safeguarding the environment and physical resources. The Operational Environmental Programme -OEP (1994-1999) was based upon the sustainability principle, the polluter pays principle, the precautionary principle, and the principle of joint responsibility and contained seven sub-programmes: six of the sub-programmes reflected respective environmental action areas, while the remaining programme aimed at the provision of technical assistance in selected thematic areas. Part of OEP aimed at developing the National Environmental Informatics Network, the Greek contribution to the European Environment

Information and Observation Network (EIONET) of the European Environment Agency (EEA). The Operational Environmental Programme of Greece promoted the implementation of environmental standards related to the construction and operation of private and public works.

Status: Since the Rio Conference, Greece has started to adopt its strategic policy framework towards sustainable development. The environmental protection requirements are integrated into the implementation of the key development sectors. This is achieved either through the implementation of the European Union (EU) policy (for example, the Fifth Environmental Action Programme) or through National measures. Reforms in the local government and new mechanisms for participation and social awareness in the process of planning have played an important role in activating major groups and the public.

Capacity-Building, Education, Training and Awareness-Raising: A major challenge faced by the Ministry for the Environment, Physical Planning and Public Works is to achieve a consensus with elected local authorities for the implementation of the environmental policy and legislation. Public consultation fora have been established and major efforts have been made to create reliable information and awareness-raising mechanisms. NGOs, labor unions and industrial associations are already playing a catalytic role in raising public awareness on issues related to the environment and sustainable development. Greece has included programs of environmental education and of sustainable development in the school curricula.

Information: The access to Internet, the World Wide Web and other WEB sites about sustainable development and state of the environment helps the Greek citizens to have knowledge on politics, programs and legislation as combating poverty, changing consumption and production patterns, atmosphere, land use planning, forest and deforestation, sustainable agriculture, biological diversity, oceans and coastal areas, freshwater management, toxic chemicals, hazardous wastes, solid wastes and energy.

One important project of OEP is the development of the “National Environmental Information Network”. This project aims to create a network for exchange of environmental information in country level, as well as to establish a national repository and link for the European network EIONET of the European Environment Agency. The National Network will also contribute to the “access to environmental information”, providing reliable information to the public and will upgrade some administrative procedures concerning the approval of environmental impact assessment surveys.

Research and Technologies: No information available.

Financing: The OEP is supported by both National and community funding. National funding stems from the country’s budget and is complemented by a special levy, which is applied on gas. Income from the levy is invested in projects with potential to rectify the environment or to allow the study of environmental problems for which no immediate answers can be provided. Community funding comes from the Structural Funds as well as from the Cohesion Funds.

Cooperation: Greek policy is seeking to fully exploit the opportunities for cooperation created by the policies and instruments of the European Union (EU). Greece also tries to promote collaboration and exchange of experiences among countries of the European South, and examine the potential needs and prospects of collaboration with neighboring countries.

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CHAPTER 9: PROTECTION OF THE ATMOSPHERE

Decision-Making: The Ministry for the Environment, Physical Planning and Public Works is mainly responsible for making decisions for the protection of the atmosphere. Co-responsible bodies include Ministries of Development (Energy, Industry), Transport and Health. A draft piece of legislation is prepared by a group of experts brought together by the Ministry for the Environment. After the publication of the draft, the co-responsible governmental bodies comment on this. The comments are evaluated and incorporated in the final draft, which is submitted for adoption to the competent ministries. Coordination is also taking place through inter-ministerial committees (e.g. climate change) and inter-ministerial ad-hoc meetings. Some competence for environmental policies is delegated to the regional and local governments. The local authorities (Prefectures - municipalities) may take decisions regarding their territories, in accordance with existing legislation. After the 1997 administrative reform, the participation of the regional and local governments in policy formulation has grown.

Under the authorization of the Framework Law 1650/86 “ For the protection of the Environment”, legislation has been put in place for the reduction of air pollution from vehicles, heating systems of buildings, industries and other polluting activities. Law 2244/94 on auto-production, co-generation and creation of Public Power Corporation’s Affiliate Companies applies to atmospheric protection.

Greece has also incorporated in the National Law many directives of the EU concerning the protection of the atmosphere (EU Directive 88/609/EC, EU Directive 92/72/EC, EU Directive 96/62/EC, EU Daughter Directive 99/30/EC and EU Frame Directive 96/61/EC). In addition to National Law and EC directives incorporated in it, many EU Regulations are directly applicable and binding (e.g. the EC Regulation on substances that deplete the ozone layer).

Programmes and Projects: In Greece, the National Action Plan (NAP) for the Abatement of Carbon Dioxide and other Greenhouse Gas Emissions has been developed under the responsibility and supervision of the Ministry for the Environment, Physical Planning and Public Works. The Action Plan is based on a drastic energy conservation policy in all sectors of final consumption (industry, transport, domestic/tertiary). It aims to rationalize energy consumption without affecting the population’s standard of living and uses a vigorous investment policy to promote new energy generation means (natural gas, renewable energy sources) to replace conventional fuels. The Public Power Corporation (PPC) is applying specific policies for environmental protection that aim to control pollution from natural gas and other generating units and to develop further the country’s hydro potential. Also, the exploitation of renewable energy sources (wind, geothermal, solar), energy conservation and improvement of the efficiency of existing installations, and promotion of new combustion technologies during the design of new projects, such as the use of fluidized beds and the Integrated Gasification Combined Cycle (IGCC). The revised NAP to meet the Kyoto targets is under elaboration.

Concerning measures of Voluntary Agreements used in order to reduce air pollution, an agreement among the government, the local population and PPC (Public Power Corporation) has taken place, concerning the exploitation of a thermal station in Athens. The exploitation is restricted in time and the fuel consumed is natural gas.

Action Programme 1.2 of the Operational Environmental Programme (1994-1999) of Greece aimed at the development of the infrastructure for the continuous monitoring of the atmospheric environment (including air emissions) of Greece, with emphasis on large urban centres and areas with significant energy production units. Action Programme 2.3 of the Operational Environmental Programme of Greece aimed at improving the air quality in the urban area of Athens, consisting of major interventions for the reduction of emissions from motor vehicles, domestic heating devices, and industrial units. The Energy Saving Sub-programme is primarily oriented towards the industrial and tertiary sectors. Investments for co- generation and the use of the new natural gas sources in the industrial and tertiary sectors are considered to be of special importance. The Action Programme 4.1 of the new Operational Programme (2000-2006) include the improvement of air quality through specific interventions; the reduction of air pollution especially in Athens and Thessaloniki and actions to improve the monitoring and management of information.

In addition, the National Action Plan for Energy Conservation in the Built Environment intends to increase the use of energy conservation systems and energy efficiency.

Status: The United Nations Framework Convention on Climate Change (UNFCCC) was ratified in 1994, with the latest report to the UNFCCC Secretariat submitted in 1997. Yearly emissions inventories are also submitted to the UNFCCC Secretariat. Greece has started the process for the ratification of the Kyoto Protocol, and is drawing up the third National Communication to be submitted to the U.N. in 2002. The Montreal Protocol was ratified in 1988, the London Amendment in 1992, and the Copenhagen Amendment in 1994. Greece is prepared to go ahead with the ratification of the Montreal and Beijing amendments, and is applying the relative EU Regulation (EC) 2037/2000.

In addition, Greece has acceded to regional conventions regarding air pollution (Co-operative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe, [EMEP], Economic Commission for Europe [ECE] Conventions). It has ratified Geneva Convention (1979) for Long-Distance Transboundary air pollution, as well as the Protocols of: Sofia (1988) for nitrogen oxides emissions; and Oslo (1994) for sulfur emissions, (corresponding national Laws: Law 1374/83 (OJ 91A), Law 2543/97 (OJ 252A) and Law 2542/97 (OJ 251A). Greece has also signed the following Protocols: Geneva Protocol (1991) for VOC's; the Aarhus Protocols for heavy metals and for resistant organic pollutants (POPs); as well as the Göteborg Protocol (1999) against acidification, eutrophism and tropospheric ozone.

The restriction on the use of cars by allowing cars with odd and even registration numbers to circulate on odd and even days alternately, the renewal of the bus and taxi fleet, the economic incentives for the replacement of old cars with new catalytic ones and, last but not least, the operation of the Athens metro, have curbed traffic-related emissions. Reductions in fuel sulfur content, programs on domestic heating regulation and maintenance and refurbishment of industrial plants with filters have reduced sulfur dioxide concentration in ambient air.

Greece will respond effectively to its obligations regarding national SO₂ emissions, resulting from Göteborg and Oslo Protocols. On the contrary, effort will be required in particular for meeting the commitments concerning annual national NO_x and VOC's emissions, on the basis of Göteborg Protocol and the Directive concerning thresholds for national air pollutants emissions (under preparation).

The country is expected to cover the obligations resulting from the Directive, concerning ozone. By particularly controlling transport sector, it is assumed that increasing trends in NO_x and VOC's emissions, as precursors of ozone, are going to follow an inverse perspective. By meeting its obligations on the basis of Göteborg Protocol, Greece is not going to face acidification and eutrophism problems. Percentages for non-protected ecosystems in the country are foreseen to be 0% for acidification and 5% for eutrophism for 2010.

The fact that Greece is a country still under a process of economic development, high CO₂ emissions per GDP unit can be justified. The increased use of natural gas in combination to the increased trend of GDP, will improve the whole country efficiency. In any case, one should not ignore the fact of zero nuclear energy use, and the corresponding prevention of nuclear waste production and environmental degradation.

Capacity-Building, Education, Training and Awareness-Raising: Public awareness has been raised in Greece, especially after the Kyoto Conference and the extended references in the press following the Hague meeting. The Centre for Renewable Energy Sources raises public awareness for renewable and energy efficiency through information packages for high schools and the general public. The Public Power Corporation has launched media campaigns for energy saving, mainly through television, PPC customer service officers and advertising leaflets. In 1996, 24 schools participated in the GLOBE/ALEXANDROS Programme, which involved study of the atmosphere, biology, hydrology, geology, and communication of results to other schools internationally, through the World Wide Web.

Information: The Ministry for the Environment, the National Meteorological Office, the National Observatory of Athens and the Ministry of Agriculture support different observation networks for climate parameters. A new institution the "National Centre for Environment and Sustainable Development", just created, will support the Ministry for the Environment in environmental information issues. A national Environmental Information Network is being developed, for integrated, reliable and comparable information, linked with the European network EIONET. (See in <http://www.minenv.gr/>). There is close cooperation with finance support to Local Authorities, Educational Institutions and NGOs from the Ministry for the Environment, for the dissemination of the data and the development of new capabilities to inform the public. In the international level, the information is shared through

the participation to different organizations (i.e. World Meteorological Organisation, European Environment Agency, etc.).

Research and Technologies: The Public Power Corporation's policy is the construction of new production units with the best available technologies. Especially for lignite (the only indigenous fuel), new lignite burning technologies are being examined to improve energy efficiency and further emission decrease. PPC implements pilot measures for the improvement of lignite station efficiency throughout technological upgrade of boilers, turbines, lignite crusher, cooling systems and other equipment. In addition, the scientific community has undertaken studies on health effects resulting from air pollution and depletion of the ozone layer.

Financing: The Government does not in general consider the use of taxes on fuels and energy as a viable tool to control Greenhouse Gases (GHG) emissions in Greece, due to concerns about loss of competitiveness and inflation increase in national economy.

Cooperation: In 1995, the Laboratory of Atmospheric Physics of the Physics Department of Aristotle University of Thessaloniki and the World Meteorological Organisation (WMO), through World Ozone Mapping Centre, installed four observation stations and National Observatory of Athens has installed a combined climatic and the GHG emission background station on top of high mountains in various locations.

Bilateral cooperation is focused mainly on the neighboring Balkan countries and on the least developed countries, and is mainly implemented through the Development Assistance Programme of Greece. A number of capacity building projects are in place in six Balkan countries since January 2001 on matters that facilitate implementation of the Kyoto Protocol.

A Memorandum of Understanding, concerning environmental protection, was signed between Greece and Turkey on January 20th, 2000. The duration of the Memorandum is of three years, which can be automatically renewed for a period of three successive years. Analogous texts concerning Greece and other Balkan countries are being elaborated.

Multilateral cooperation is mainly streamed through the participation of Greece to GEF.

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CHAPTER 10: INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

Decision-Making: Within the Ministry for the Environment, Physical Planning and Public Works, the Directorates of Regional Planning and Environmental Planning are responsible for the planning and management of land resources. The administrative machinery for controlling the spatial location of activities that produce pollution and disruption is strengthened and expanded through environmental impact assessments. In addition, the regulatory framework regarding the determination of the ability of the environment to withstand the burden of specific human activities is strengthened.

A new planning framework at the national and regional level was established in Greece through the new Law for “Spatial planning and sustainable development” approved in 1999. The “General Spatial Plan” of national importance set specific goals, concerning conflicting issues in land use management. These goals are aimed at the sustainable use of land, and the minimization of the negative environmental impacts. Such conflicts refer mainly to the urbanization trends of the coastal zones, which are the focus of several productive activities and residential areas for second homes as well. The transformation of forestland into other land uses is prohibited by the Constitution. There are some exceptions concerning the social infrastructure and the transportation system networks.

An integrated research and study programme of national, regional and sectoral character, enabled the coordination of sectoral policies in such areas as the allocation of the productive activities, the public infrastructure of national and regional importance and the transportation system. The land use management of coastal zones, as well as the protection of natural resources, landscapes and sites, the preservation of cultural heritage and the renewing of the urban network, were the main targets for planning strategies. (2nd Programme for Regional Development 1994-1999). The spatial planning and development of mountain areas and of other less developed areas in Greece is of primary importance, in the framework of the General Physical Planning and Sustainable Development Programme. The General and the Regional Spatial Plans also provide the main guidelines for the development of the Western part of the country, which is characterized by depopulation trends and other regional problems related to the remoteness of those areas.

The Regional councils are bodies consisted of indirectly elected members from local authorities of the first and second tier, labor unions and scientific organizations. The General Secretary of the region is appointed by the central government. Public participation is required within the approval procedures of the spatial and urban plans according to the planning level. Specifically, the new law for Spatial Planning has established a Council for the approval of the National Spatial Plan, which consists of representatives from major organizations of the public and private sector. The expression of the opinion of this Council is required before the approval of the Plan. The facilitation of active involvement and participation of all those concerned, is a critical point in Greece for the acceptance and implementation of the local plans and the proceedings for imposing land uses in the areas outside the official plan.

Programmes and Projects: A substantial pillar of the Operational Environmental Programme of Greece is Action Programme 7.1 Physical and Town Planning. It aims at supporting the sustainable development of Greece, defining activities by site or region, and reducing pressures on the natural or human environment. In Action Programme 8, significant amounts are being invested for the protection of natural sites. The Programme is expected to support protection measures for Greek biotopes that are included in the NATURA 2000 list. The 3rd Socio-economic Programme for Regional Development 2000-2006 increases the distribution of public economic resources in favor of the less developed regions, aiming at improving the regional welfare level towards an economic and social cohesion and the creation of new incomes.

Status: Greece has a land territory of 130.1 km² with 20% of it divided among its 3,000 islands. It possesses an extremely fragmented, rugged landscape hosting most major types of ecosystems and a high biodiversity. Almost 70% of its terrain is hilly or mountainous with steep slopes and many peaks reaching more than 2,500 meters. It has an extensive coastline of over 13,000 kilometers with 5% of it belonging to ecologically sensitive wetlands of

international importance. Most of its important urban centers are coastal region and almost the entire tourist infrastructure is divided among islands and the coastal mainland. Over 40% of the country lies above 500 m altitude. Over one third of the land is cultivated (with a 40% of it irrigated), two fifths are forested range land and one fifth covered by closed forests.

Except the public infrastructure of large scale that is in progress in order to improve the accessibility of the remote regions, the viability of rural areas is of first priority for the sustainable agriculture, the protection of productive lands and the promotion of new activities as eco-tourism. The protection and enhancement of natural landscapes might generate new opportunities for employment, together with other development programmes of small and sustainable scale, concerning activities for recreation, culture and entertainment. Due to the huge number of villages and small towns in Greece, the control of urban expansion and unauthorized settlements outside the legislated plans, is of great priority. Urban planning policies promote organized building by creating new summer residential areas, as well as the sustainable land use management by imposing land use restrictions to areas without official plans, but with the strongest urbanization trends. The protection of farmland, natural landscapes, forestland, etc., is the basic target of the General Spatial Plan.

Capacity-Building, Education, Training and Awareness-Raising: Data collection and the organization of information systems, education and training in an integrated approach, and strengthening institutions and technological capacity have been initiated. Pilot projects are planned.

Information: Through the new law for Spatial Planning, an information network system is established concerning spatial planning, for measuring spatial transformations and changes in the framework of the national goals for regional development. The establishment of a “Spatial Planning Observatory” is in process as well. Suitable regional indicators are being established, aiming at evaluating the implementation results of regional planning and development towards sustainability and the reduction of the environmental impact from the trends of urbanization within coastal zones and urban system.

Research and Technologies: No information available.

Cooperation: Under the European Union (EU) Environmental and Regional Development Programme (ENVIREG), study groups have been established and geographic information system (GIS) mapping introduced. Under the EU LIFE program, environmentally friendly technologies and materials are being introduced. Cooperation is in progress with UN and EU bodies. Greece participates in the Mediterranean Blue Plan of the United Nations Environment Programme (UNEP) and in the LIFE and ENVIREG programmes of the EU. International cooperation could be improved through better coordination, better legislation, promotion of information systems, and public participation.

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CHAPTER 11: COMBATING DEFORESTATION

Decision-Making: The General Secretariat of Forests and Natural Environment, an integral part of the Ministry of Agriculture, is responsible for all forestry issues. The Central Forest Service is responsible for planning, coordination, and assurance of appropriate financial resources. The regional services are in charge of forest management, protection, improvement, engineering works, and production.

The conservation of forests is a high national priority and forests and forest areas are protected by the Greek Constitution. It is indicative that 10 National Parks, 19 Aesthetic Forests, one Monument of Nature, and a great number of Game Reserves have been established in forest areas. The enforcement of forest policy is facilitated by the fact that most of the Greek forests are owned by the state. Greece has regulated the sustainable management of forests through legislation, and since 1937, forest management is being conducted through management studies and plans. These efforts are being complemented with the creation of two Laboratories (through the implementation of the 3rd Community Structural Fund) for the certification of the sustainable origin of forest products and their quality. Regulation 2080/92 (the policy of which will be continued with the new regulation 1257/99) provides for the reforestation of agricultural areas by their owners and farmers through sanctions and economic incentives provided by the European Agricultural Orientation and Security Fund up to 75% of the total cost of expenditure. The regulation also provides for the enhancement of forestry resources, the contribution to a better regional organisation in line with environmental concerns and the promotion of the contribution of forest resources to the abatement of the greenhouse effect and to the CO₂ sequestration. A strategy plan for forestry was established in 1986 and a development programme in 1989. Greece favors the implementation of the forest principles adopted by the United Nations Conference on Environment and Development (UNCED) as well as the provisions of Agenda 21. A forest inventory, terminated in 1992, covers forest distribution and characteristics, volume and quality of the growing stock, and the increment and natural mortality of the forest.

Major groups are ad hoc participants in decision-making on forestry matters at all levels. The concept of sustainable forestry is well developed in forest management since the beginning of scientific development of forestry.

Programmes and Projects: Various activities in the fields of seed technology, tree breeding, torrent control, erosion restraint, and desertification are helping the fight against deforestation, while others like National park improvement, grazing population, and eco-tourism are demonstrating the social values of the forest.

Status: Forest ecosystems cover almost half of the Greek territory. They include a large variety of forest types, ranging from tropical palm stands in the south of Crete to extensive forests of spruce, fir and birch in the north of the country. Moreover, extensive areas, in the drier regions and on islands, are covered by Mediterranean sclerophyllous evergreen shrubs and phrygana (sub-shrubs).

Forest fires are the most serious cause of deforestation, destroying on average 300 km² of forest annually, even though intensive efforts manage to substantially reduce their effects. Encroaching urbanization is a rather moderate cause of deforestation, while the effects from logging and the need for fuel-wood have had a light impact. Land ownership patterns, grazing rights on public lands, and land speculation are the main obstacles to effective reforestation. Until recently, around 20,000 Ha in Greece has been reforested. The regional forest services have been reforesting non-vegetated forest areas that, during the last decade, have risen up to 35,000 Ha. Moreover, there are 47 local forest nurseries, with a total surface area of 350 Ha, where 20,000,000 trees of various species are annually being produced. From these, the 50% is provided for covering the needs of reforestation activities and programmes of the Service, the 30% covers the needs of programmes carried out by other parties (schools, military services, local authorities, other organizations etc) and the rest 20% stays in the nurseries.

Capacity-Building, Education, Training and Awareness-Raising: Pan-European Forest Certification Council (PEFCC) focuses on the reinforcement of the positive image of forestry and timber as a renewable raw material. Moreover, it contributes to the promotion of the economically viable, environmentally sound and socially beneficial management of forests according to the six criteria recognized under the Helsinki Council. It also ensures customers and the interested general public that forests managed according to this criteria are aiming at appropriate increase of forest resources and of their contribution to the global carbon cycle; the health and vitality of the forest eco-system; encouragement of the productive functions of forests (timber and other products); the protection and

appropriate increase of the biodiversity of the forest eco-system; increase of the protective functions within forest management (especially in soil and water) and the other socio-economic functions and conditions. These aforementioned criteria are being supplemented by 24 qualitative and quantitative goals.

Information: A large amount of national information already exists on forests and national progress towards sustainable forest management within the United Nations system and other intergovernmental organizations. Reference is made, in particular, to the following sources: FAO's Survey on the status and progress in the implementation of national forest programmes, 1998; FAO/ State of the World's Forests, 1999; and FAO/Forest Resources Assessment for the year 2000 (FRA 2000).

Research and Technologies: the National Agricultural Research Foundation through its two forestry related institutes in Athens and Thessaloniki undertakes Research in the field.

Financing: No information available.

Cooperation: Greece has applied in order to become a permanent member of the PEFCC (Pan-European Forest Certification Council), in which Greece has been participating until today as an observer, aiming at institutionalisation of an internationally reliable structure for the certification of forest studies and initiatives taken by European countries, that would facilitate the mutual recognition of the forestry studies between countries and definition of basic requirements for the forest certification, as well as for the standard agreements on the Pan-European, national and regional levels. The CITES Convention regarding the international trade of endangered species and specimens of endemic flora and fauna was signed in 1992 and ratified by Law 2055/92. The Parties of the Convention have agreed on the compliance and implementation of common rules, regulations and specific processes for the transfer and trade of the aforementioned species, in order to protect, on the global level, the endemic endangered species of flora and fauna. The EU Regulation 2080/1992 is regulated the implementation of the increase of forest areas and the promotion of reforestation actions on non-vegetated forest areas.

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CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

Decision-Making: Greece has ratified the 1994 UNCCD, has established its National Committee and has prepared its National Action Plan for Combating Desertification and has started its implementation. The ministries involved are: the Ministry of Agriculture -Forest Service, the Land Reclamation Service, Department of Environment; the Ministry for the Environment, Physical Planning and Public Works - Directorate General for Environment (land use); and the Ministry of Development - Directorate of Water resources. The General Secretariat of Forests and Natural Environment is in charge of desertification issues.

The following legislation is related to desertification and drought: the Protection of Forests Law (998/79); Grazing Lands Law (1734/87); and Organization of Agricultural Research Law (1845/89).

Major groups (NGOs, women groups, and youth organizations) are ad hoc participants at all planning levels.

Programmes and Projects: Projects related to combating desertification are: reforestation of burned forests; irrigation works; soil erosion control; recharging ground water aquifers; and construction of dams and small water storage basins, cadastral plan.

Status: Rootable space is perhaps the most critical soil attribute related to the desertification of land in Greece and in the Northern Mediterranean. Its reduction beyond a “loss tolerance level” drives gradually the land to this stage of extreme degradation. Landforms, which are particularly sensible to physical processes of desertification in Greece, are those on sloping terrain with Mesozoic limestone and Tertiary marl. The first formation is characterized by shallow soils with low water supplying capacity, low erosion tolerance and susceptibility to moisture depletion. Desertification on this type of landforms is usually not reversible.

Areas in danger of desertification can be found in the southern and central mainland, on the Aegean Islands, and in Crete. The main sources of income in the desertification threatened areas are agriculture, tourism, services and small and medium sized businesses. In Attica, one of the areas threatened, the bulk of the industrial, trade, services, small size businesses and manufacturing of the country is concentrated.

Anthropogenic process and forest fires have the most serious impacts on desertification. Overgrazing, improper farming, irrational irrigation, exhaustion of ground water resources and improper land use schemes are the main causes contributing to the desertification of the land. Fuel wood collection has only a small impact on desertification. The main obstacles to combating desertification and drought are land ownership, grazing rights on public land, and land speculation.

Since the United Nations Conference on Environment and Development (UNCED), the issues of early warning information to decision makers, and drought preparedness and relief schemes have been addressed in part. Meteorological and hydrological monitoring is moderate. Land degradation is addressed adequately. The Ministry of Agriculture has issued codes for good farming practices

Capacity-Building, Education, Training and Awareness-Raising: Training on the sustainable use of soil and water resources is provided by the related university departments. The National Committee is conducting a large-scale awareness programme.

Information: No information available.

Research and Technologies: Extensive research has been conducted in the last six years on the causes and processes of desertification. International meetings and workshops have been organised.

Financing: Financial resources allocated to combat desertification in Greece (in Euro) in the last five years: Water Management 200,000,000; Forest Management and Protection 250,000,000; Soil Research 100,000; and DAC (1999-2000) 9,670,000.

Cooperation: Related bilateral and multilateral agreements have been signed. Greece is presiding over the Annex IV Countries of the UNCCD.

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CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

Decision-Making: The Ministry of National Economy has included in its policy the sustainable management of mountain areas. Also, both the ministries of the Environment and the Agriculture, are involved in the sustainable management of mountain areas.

Law 1892/90, which was amended by Law 2234/94, aims to encourage the economy and development of mountain areas. The law covers and supports the productive process. Each mountain region is examined separately in accordance to its physical, historical, and man-made characteristics. The specific protection and management proposals are legislated by means of Presidential Decrees.

Programmes and Projects: The programme for mountain development focuses on improvements in the transport infrastructure and on the extension of water and electricity supply. In all mountain areas, measures have been taken for the conservation, regeneration, and expansion of forests. Measures have also been taken to induce the local population, especially the young, to remain in mountain areas, by promoting alternative livelihood opportunities through the development of eco-tourism, mountain tourism, and agro-tourism, and the promotion of the use of local resources, for example mineral resources.

Status: Large parts of the country, especially mountainous and island communities remain almost uninhabited during winter months, due to a massive postwar rural exodus that has led to the abandonment of 40% of rural communities. The mountain regions of Attica constitute one of the area's most important environmental resources. Their significance is owed not only to their ecosystem, aesthetic, and recreational value, but also most importantly to the indispensable role they play in the area's climatic conditions, air pollution abatement, storm flooding alleviation, etc. The Organization for Planning and Environmental Protection of Athens has undertaken the development of a comprehensive programme which: a) creates various levels of protection zones and delineates the physical boundaries of each zone; b) establishes land use allocations and building restrictions in accordance to the desired degree of protection for each zone; and c) provides the framework for restoration and management of the mountain region.

Capacity-Building, Education, Training and Awareness-Raising: Traditional local employment schemes are being strengthened and rural production is being improved through the development of the agricultural water supply network and the promotion of ecological products (without chemicals and pesticides). Eco-labels are provided for these products.

The MEDMONT framework (see under **Research and Technologies**) will provide the target groups with investment evaluation and monitoring tools, which will have the following features: i) be amenable to a multidisciplinary approach to project analysis, that is take into account environmental, socio-economic and institutional objectives; ii) be consistent with sustainable mountain development; iii) be applicable to a wide variety of project investment categories for the greater mountain Mediterranean Region; iv) be related to consistently identified and mapped spatial mountain sustainable development entities; v) be uniformly applied throughout to all sub sectors at a low cost with the minimal data demands possible; vi) be reasonably understandable to project analysts, policy makers and the Public Administration Services; vii) incorporate local actors in the mountain sustainable development project evaluation through measurement of social preferences, and finally; viii) provide rankings of individual investment projects. The MEDMONT methodological framework and tools addresses the following user groups:

- Policy makers at EU, national, regional and local level;
- Public Agencies (Public Administrators);
- Project analysts and resource managers;
- Private investors;
- Non-Governmental Organizations (NGOs) and special interest groups; and
- Scientific community.

Information: Information on the MEDMONT progress can be obtained from the following electronic address: www.maich.gr/medmont.

Research and Technologies: The Mediterranean Agronomic Institute of Chania (MAI.Ch) in collaboration with INRA at Rennes (France), University of Padova (Italy), CSIC at Madrid (Spain) and University of Ljubljana (Slovenia) is currently implementing a research project for sustainable mountain development under the acronym MEDMONT. MEDMONT is financed through the Vth Framework – Quality of Life and Management of Living Resources of the EU DG-Research.

At the current state of art, in Europe, no integrated framework for evaluating and monitoring investment ex ante and ex post for sustainable development in the mountain Mediterranean areas is available. MEDMONT will cover this need. The specific objectives of MEDMONT are the following: 1.) development of an integrated methodological framework in order to support investment evaluation decisions and monitoring of sustainable development projects and plans in the mountain Mediterranean region at local and regional level; and 2.) production of ex ante and ex post investment evaluation and monitoring decision support tools for integrated sustainable development projects and plans in the mountain Mediterranean region.

The methodological framework for investment evaluation decision support and monitoring in the mountain Mediterranean areas involves:

- a natural resource base and capability evaluation for forestry, agriculture, grazing, wildlife, tourism (recreation) and water/soil (capability analysis programs- CAPs);
- a socio-economic evaluation;
- an institutional evaluation;
- a welfare accounting evaluation;
- a social preference evaluation; and
- an integrated evaluation, based on Multiple Criteria Analysis and Cost Benefit Analysis, where the monetization of non-marketed goods is relevant.

MEDMONT uses current technologies, such as Geographic Information Systems, Remote Sensing, Landscape Ecology, Fuzzy Multiple Criteria Analysis and Information Technology.

Financing: The MEDMONT budget is 1,346,617 euros and its duration is 36 months with commencement date January 1, 2001.

Cooperation: The International Conference on the Protection of the Mountain Areas of Greece –from Pindos to Olympus– was convened by the Ministry for the Environment and the Mountain Wilderness organization (Greek Branch).

The MEDMONT partners are establishing collaboration with Local and Regional interested parties in all countries involved in the research project.

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CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

Decision-Making: The decisions for sustainable agriculture and rural development are taken from the competent services of the Ministry of Agriculture within the framework of the implemented rural policy, componential element of which is the dimension of environmental protection.

Sustainability criteria are incorporated, according to the policies of European Union, in agriculture and are expressed in the different programs of the Ministry, which are drawn up and implemented from the General Directorates of Plant Production, Animal Production, Land Reclamation Works and Agricultural Structures, Agricultural Applications and Research, Forestry and Fisheries.

Rural Development and rural reconstruction is included in a unified total which includes EU directions for competitiveness of regions, preservation and reinforcement of employment, promotion of equal opportunities among men and women in a framework of development interventions which assures the protection of environment and sustainable utilization of the natural resources, taking into account the specific characteristics of the rural areas as well as, the intense structural and socioeconomic problems, which are facing.

The strategic goals of agricultural policy in Greece have been mainly focusing on the promotion and support of the economic viability of the agricultural activities, through the support of the economic viability of the agricultural activities through the modernization of the production processes: the cultivation's restructuring and improvement of the manufacturing units and of the trading of the primary agro husbandry products.

Basic characteristic of the strategy followed for the achievement of the above goals is the conjugation of sectoral and regional priorities. The integrated developmental approach for the agricultural development and the modernization of the rural areas presuppose the close collaboration in the implementation level of actions, among central services of the Ministry of Agriculture with the Regions and the Prefecture services, as well as the bodies which are going to be involved and will undertake active role in the implementation and administration level of significant part of the resources, which are going to be disposed in the Community Support Framework (CSF).

In the process of decision making, active will be the role of the Council of Agricultural Policy. Key major groups are being represented indirectly at the Council of Agricultural Policy, through their corporations and associations as well as, through the Organization of local Authorities of the 2nd (Prefectures) and 1st (municipalities) grade. At the Council of Agricultural Policy, environmental NGO's, professional research foundation, like NAGREF, participate directly, among others. At the local level, cooperation and ongoing non- mandatory consultation have successfully been taken place on an ad hoc basis, between local bodies or authorities and local groups. The local Agricultural Unions and Farmers Associations, helped by research institutes and experts, can decide, with specific resolutions, on the local needs and problems. (For more information see under LEADER initiative and the Greek Union of Agro-touristy, Handicraft and Home Economics Cooperatives).

The responsible authority for planning and monitoring the implementation of "Plant genetic resources Action Plan" is the Directorate of Physical Planning and Environmental Protection of the Ministry of Agriculture, and its basic agricultural body is the Greek Gene Bank. Also, for planning and monitoring the implementation of "Animal genetic resources Action Plan" the responsible authority is the Directorate of Inputs of Animal Production and the 5 centres of Animal Genetic Improvement in collaboration with the National Focal Point (Laboratory of Farm Animal Genetics and Breeding, Aristotle University of Thessaloniki).

Also the general Directorate of Water Reclamations, with the help of EU legislation and the cooperation of NAGREF (National Agricultural Research Foundation), among others, provides the necessary studies and programs and defines the reliability of operational "balance models of inputs quantities for specific land conservation processes" in time intervals.

The Directorate of Planning and Estimation of soil - water Resources is responsible for the sustainability, with the integrated management of soil and water systems analysis in agriculture, and the incorporation of environmental status and the reliability of agriculture and rural development with water reclamation and soil conservation programs.

The Directorate of Physical Planning and Environmental Protection has established and published "Codes of Good Agricultural Practices" for the management of agricultural areas, of grazing lands, of water resources and of biodiversity. The implementation of these codes is obligatory for all producers who implement programs of Reg.

1257/99 and other support regimes of the E.E. within the context of Reg. 1259/99. Also, the Ministry of Agriculture has developed and institutionalized “Codes of best Agricultural Practice” aiming at the reduction of the pesticide use in the agricultural activities.

The carrying out of EIA studies before the constructions of public and private works and projects is also another obligatory instrument, according to the national and EU legislation.

Law 1337/1983 and several other Presidential Decrees address the need for the protection of the high productivity arable land and restrict its transfer to other uses (human settlements, transport infrastructure, industrial activity etc.).

Programmes and Projects: The Operational Programme “Rural Development - Restore of Countryside (2000-2006)” is aiming at the improvement of the competitiveness of the Greek agricultural sector, in the context of a constantly more competitive international environment; the sustainable and integrated development of the countryside to restore the disturbed social and environmental balance, and the conservation of the environment and the social “cohesion” for the entire population engaged in the agricultural sector. With regard to the conservation and protection of the agricultural biodiversity, the Ministry of Agriculture, through the “Plan of Agricultural Development” (Reg. 1257/99), is participating, with several Action Programmes, in the implementation of the EU Regulation 1257/99 for the conservation of rare species of breaded animals and indigenous varieties of endangered cultivated plants. The national programme for the protection of plant genetic resources (PGR) in Greece, aims at the “protection and conservation of the indigenous plant genetic resources of cultivated plant species and their wild progenitor or relative species”.

The National Action Programme for the “abatement of desertification” deals with such phenomena as the intense soil erosion and the degradation of water resources, which have conducted the change of land use from agriculture to tourism. In the context of the incorporation and implementation of the EU legislation in Greece (namely Directive 91/676), “vulnerable zones” towards nitrogen pollution from agricultural run -offs have been established, and special action programs have been planned (for these zones) focusing on the minimization of the adverse impacts on the environment of Greece. The implementation of these programmes is obligatory for all farmers of these vulnerable zones. The implementation of Integrated Pest Management programme (IPM) is aiming at “Application of Alternative methods of Integrated Pest Management and Disease Control” in different crops at country level. (For more information see under IPM Programme).

The Ministry of Agriculture has implemented an irrigated water quality programme for the last twenty years, monitoring the surface water of rivers, lakes, main drainage networks and ground water in whole Greece, concerning the physicochemical parameters, nutrients and some heavy metals. A water quality monitoring programme of rivers, lakes and groundwater (concluding the determination of all the heavy metals and pesticide residues) has been recently executed (and it’s going to be continued in cooperation with Aristotle University) in the Regions of Macedonia and Thrace (North Greece).

The Ministry of Agriculture is also participating in the planning of the national strategy regarding biodiversity, implementing the International Convention for the Conservation of Biological Diversity, through the Information Bank of “Genetic Data”. Regarding farm animal diversity, the Ministry of Agriculture is participating in FAO’s first report on the state of the world’s animal genetic resources.

Status: In Greece, the primary sector contributes to 8% of the GDP. Even though the total bulk of agricultural production remains stable, with some minor sectoral variations, the competitiveness of the sector has been low. Also, the private investments in the sector present a decreasing trend at a rate of 2.5-3%, whereas the public investments have been largely oriented towards irrigation works. The labor force of the agricultural areas, over this decade, was reduced by a factor of 12.3%, with an annual reduction rate of 1.4%. Moreover, the income of people engaged in the agricultural sector has been slightly decreasing (at stable prices) ever since 1995, taking into account that ever since 1990 the growth rate of the agricultural income is downward. Therefore, the “multiemployment” is very usual phenomenon in the primary sector.

The conservation of the agricultural land of high productivity level as well as the establishment of new, environment-friendly production processes are of primary importance. The latter should have a special emphasis on the measures for quality control, product standardisation and promotion and modernisation of the transport and trading systems. Greece is aiming at conserving its comparative advantage of being a Mediterranean country, with the ability of developing and applying biological methods in the agriculture and husbandry sectors. The challenges

to the development of land resources for integrated management and sustainability include programmes of liming for the acidic soils and $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ for saline-sodium soils under cultivation. (For more information see under UNDED, NAGREF, EU RESGEN, PRFA).

Capacity-Building, Education, Training and Awareness-Raising: The Ministry of Agriculture through its “Plant Protection Service”, has set up laboratories in the Regional Centers of Plant Protection and Quality Control, for the control of pesticides residues in agricultural products. The farmers training programme about soil and water management is targeted on the agrochemicals input decrease and the non- intensive ALS cultivation. (For more information see under Agricultural Land System ALS). These measures and activities illustrate policy for soil - water integrated management in Greece, through the analysis of each subsystem and the ways of interaction between its elements. The contrast training and awareness raising programmes for farmers, sponsored by the Ministry of Agriculture, lead to the better understanding of the principles of sustainable agriculture.

Information: The survey data of the project for the identification and characterisation of the autochthonous animal genetic resources will be used to update the international databases for animal genetic resources (FAO-Rome, EAAP - Hanover). The project (RESGEN 083) is aiming at collecting up-to-date information on the situation of animal genetic resources in the EU countries. Another major activity of the project has been the symposium on the situation of Animal Genetic Resources in the countries of South -Eastern Europe, which has been organised by the National Focal Point in collaboration with FAO and the Greek Ministry of Agriculture. In cooperation with Universities and Research Institutes, the programme for the irrigated water quality monitoring of surface and ground water, which is currently being implemented, provides with a database of quantitative and qualitative measurements of pesticide residue and physiochemical parameters in the regions of Macedonia and Thrace (North Greece).

Research and Technologies: One of the measures included in the “National Action Plan for the abatement of CO_2 and other greenhouse gases emissions” is the exploitation of Renewable Energy sources. In the case of biomass, prospects are particularly interesting, concerning mainly new techniques and systems, such as district- heating, new technologies for the production of industrial heat and/or bioelectricity, and production of biofuels. Sequestration of CO_2 into soils (humus) is achieved, through the management of crop residues, the integrated production and biological farming water conservation and management. The National Focal Point for animal genetic resources is participating in the EU project on the sustainable conservation of animal genetic resources in marginal rural areas.

Financing: In Greece, there is lack of sufficient data on the total money spent for land reclamation projects, as well as on the percentage of areas that have been rehabilitated per total area of eroded soils. This is mainly due to the fact that most investments and projects are private initiatives in the framework of the programme for the enhancement of arable lands. The programme of “equalizing compensation” which is being applied in Greece, aims at reinforcing the farmer’s income in the mountainous and disadvantageous areas, trading-off for the reverse physical conditions characterising them. Moreover, all the agricultural programmes applied in mountainous areas are also highly supported, including a financial support for investment in agricultural, husbandry, agro-tourism and agro-handicraft activities. This support aims at encouraging farmers not to abandon their areas of origin.

Cooperation: The Hellenic Ministry of Agriculture is participating in the ongoing negotiations, since 1994, in the context of the Committee of Genetic Resources of FAO, for the amendment of the International Undertaking for the Plant Genetic resources for food and agriculture. A first and important step is the participation of Greece in the Global Animal Genetic Resource Management Programme of FAO, which is operated in coordination with the Convention of Biological Diversity. Following the Global Programme, Greece has established the National Focal Point for Animal Genetic Resources, which is operated by the Aristotle University of Thessaloniki, Laboratory of Farm Animal Genetics and Breeding, in collaboration with the Ministry of Agriculture.

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CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

Decision-Making: Greece has ratified all relevant international Conventions, namely those of Paris, Ramsar, Barcelona, Bern, Bonn, Washington, Rio, and European Convention for Landscape. Under the process of ratification are the 1995 Revision of the Barcelona Convention and the European Convention for Landscape. The Agreements signed include the Eurasian Migratory Birds, Eurobat, ACCOBAMS and the new SPA/Mediterranean Biodiversity Protocol of the Barcelona Convention, which are under the process of ratification.

The implementation of European Union legislation in this field (mainly DIR 79/409/EEC, DIR 92/43/EEC and the Water Framework Directive) is binding for Greece, due to its full membership in the EU. The same applies to the European Community Strategy for Biodiversity Conservation and the relevant Action Plans. Environmental impact Assessment for many types of projects is legally binding, since 1990. Screening and scoping procedures of projects likely to affect sites of high biodiversity value are in place.

A National Strategy for Wetlands has been prepared (1999), and a National Master Plan for the Natural Environment has been elaborated in 1999 for the period 2000 - 2006. The National Biodiversity Strategy has been drafted (2001) and is subject to discussions. The National Strategy to combat desertification has been prepared in 2000. National and regional administrations, the scientific community, NGOS and the private sector (agriculture, tourism, fisheries, energy) represent the main stakeholders in biodiversity conservation.

Programmes and Projects: The Operational Programmes for the Environment, for Rural Development, for Tourism, for the period 2000-2006, are the major components of the biodiversity conservation planning and funding of projects. The Operational Programme for the Environment includes measures for the establishment and operation of a protected area system, the effective conservation of priority species at a national scale, and the conservation of landscapes, marine and coastal zones, urban forests. The Operational Programme for Rural Development includes measures for the conservation of biodiversity in agriculture, in forests, in fisheries. The Operational Programme for Tourism includes measures for the promotion of eco-tourism and sustainable tourism at a national scale.

Projects implemented by the Ministry for the Environment in collaboration with local authorities, NGOs, Research Institutes, during the previous period (1995 - 1999), with positive effects to biodiversity conservation include: habitat mapping of terrestrial, water and marine areas of high conservation value; several site-oriented projects for the conservation of protected species and habitats; facilities and technical means for the establishment and operation of 20 important conservation sites; operation of information centres and management of 15 major protected areas; and ecological assessment of landscapes of exceptional natural beauty.

Projects implemented by the Ministry of Agriculture include the sustainable management of forests and game species, as well as incentives for agro- environmental practices, such as Biological farming, restoration of traditional agricultural landscape formations, maintenance of wild races of domesticated animals, genetic seed banks for native plants.

Status: The country hosts an exceptionally rich biodiversity in relation to its size. Due to its unique geographical location, at least 5,500 species of plants and 900 species of animals have been identified. The habitats show a high diversity, as well due to the intensive relief and the high numbers of islands and islets, as well as the long standing presence of man in this part of the world. There comprise high mountains, plains, wetlands, forests and an extensive coastal zone.

Conservation efforts have a long history, starting in 1938 with the establishment of the first National Park on Mt. Olympus. Greece now possesses 10 National Parks, 11 wetlands of international importance, and a great number of protected landscapes, wild life reserves, aesthetic forests and various other designations.

Capacity-Building, Education, Training and Awareness-Raising: Awareness raising and information campaigns on the issue of sustainable management of natural resources for local authorities and NGO's have been conducted by the Biotope Wetland Center and the Ministry for the Environment, within the context of European Environmental Policy Promotion. Dissemination of information through the media, information campaigns, and

organisation of environmental education meetings, under the MedWet programme (Lake Kerkini), has also been organised. In Greece, priority is given to the training of people for the management of protected areas.

Information: National Greek inventories significant to biodiversity include: The Red Data Book of Threatened Vertebrates of Greece (1992); the Inventory of Greek Wetlands as Natural Resources (1994); the Red Data Book of Rare and Threatened Plants of Greece (1995); and the National Preliminary Biodiversity Assessment (1997). The Greek Biotope Wetland Centre has completed the following activities under the EU LIFE programme: a) inventory, evaluation, and mapping of Greek biotopes, and flora and fauna species; b) management plans for sites candidates for inclusion in the NATURA 2000 network; c) pilot programme for the monitoring of such sites; d) information campaigns in four sites; e) compilation of Greek legislation on the conservation of the natural environment; f) preliminary evaluation of Greek ecosystems; and g) pilot projects in the Mediterranean area (Southeast Greece).

Research and Technologies: No information available.

Financing: Permanent funds for biodiversity mainly consist of more than 50% (US\$ 100,000,000) of the total annual budget of the Forestry Service. However, there are financial provisions of about US\$ 6,400,000 (European Community Support Framework) and US\$2,000,000 (Specific National Environment Fund) for the years 1995-1999 by the Ministry for the Environment.

Cooperation: Greece participates in meetings and working groups of the European Topic Center on Nature Conservation. Greece is represented on the European Topic Center of Nature Conservation by the Greek Biotope Wetland Centre, which has been designated National Focal Point of Nature Conservation for Greece and the Southeast Mediterranean. A high priority is given to issues of cooperation and capacity building at a Mediterranean scale through the Mediterranean Action Plan. Moreover agreements on the use of shared rivers, such as the Nestos River between Greece and Bulgaria, are expected to have a positive impact on biodiversity conservation.

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CHAPTERS 16 AND 34: ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY AND TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING

Decision-Making:

Technologies: See under the **Chapter 4.**

Biotechnology: In Greece, the General Directorate of the Environment in the Ministry for the Environment, Physical Planning and Public Works is the competent authority and the coordinating body for the implementation of European Community (EC) Directives in the area of biodiversity. It is supported by a group of experts and civil servants representing other ministries as members of a National Committee. National and regional administrations, the scientific community, NGOs, and the private sector are the major groups involved in biotechnology.

Programmes and Projects:

Technologies: See under the **Chapter 4.**

Biotechnology: No information available.

Status:

Technologies: Greece has shown a vivid interest from the beginning and has supported the promotion of the Eco-Management Audit Scheme (EMAS) at the European Community level. The Chamber of Commerce and Industry has already published a guide for industries on the implementation of EMAS (the guide is also available as software). The Hellenic Organisation of Small and Medium Sized Enterprises is financing the implementation of pilot projects in small and medium sized enterprises. The Hellenic Accreditation Council, operating within the Ministry of Development, will be responsible for the Accreditation of Environmental Verifiers and will organize seminars for their training. It is estimated that out of the approximately 200 enterprises currently applying the International Standards Organization ISO 9000, 100 will adopt ISO 14000. Lack of human capacity, information, and financial resources are considered the main obstacles towards the transfer of environmentally sound technologies.

Biotechnology: No information available.

Capacity-Building, Education, Training and Awareness-Raising:

Technologies: The THERMIE programme of the Commission of the European Communities is aiming at the promotion of innovative energy efficient technologies for environmental protection. Its fields of application are: renewable energy sources; rational use of energy; solid fuels; and hydrocarbons. The activities of the Division for Renewable Energy Sources and Rational Use of Energy of the Centre of Renewable Energy Sources are: European seminars; campaigns; market studies; and databases with addresses for dispatching information material. This Division is collaborating with the EU General Directorates I and XVI under the programmes PHARE (technical support to developing countries). Under the Operational Environmental Programme of Greece, a Communication Strategy is aiming at public awareness raising and EMAS promotion that in Greece has been developed. Also, LIFE is financing a communication strategy that includes a series of seminars and meetings for the concerned parties. The Hellenic Industrial Association, the Industrial Association of Northern Greece, as well as other sectoral associations and private bodies are also organizing presentations on EMAS.

Biotechnology: No information available.

Information:

Technologies: The Centre for Renewable Energy Sources (CRES), which is supervised by the Ministry of Development, operates a database with information on Greek projects, involving organisations and scientists active in the fields of renewable energy sources and the rational use of energy. It is connected with the Commission of the European Communities' databases SESAME and CORDIS via HELLASPAC and ARIADNET.

Biotechnology: No information available.

Research and Technologies:

Technologies: The Ministry of Industry, Energy and Technology plans to establish a Centre for New Energy Technologies aiming to promote innovative environmentally sound energy technologies, support the transfer of technology, improve the capacity for the development and management of technologies, and develop networks with other organizations at the national and international levels. In addition, the General Secretariat of Research and Technology has completed a study on «Environmentally Sound Technologies in Greece: Progress of Research and Technology, Economic and Social Impacts».

Biotechnology: No information available.

Financing:

Technologies: No information available.

Biotechnology: The General Secretariat for Energy and Technology of the Ministry of Development is providing the funds to the relevant research institutions. Training for authorities on the implementation of the relevant regulation on biotechnology is foreseen. An effort is also being made to create a database including all biotechnology notifications. State annual financial allowances for biotechnology come from the General Secretariat for Research to the Agricultural Research Institute; and from the General Directorate for Environment.

Cooperation:

Technologies: Greece participates actively in the efforts in the EU for the dissemination and promotion of renewable energy sources, as well as in energy efficiency projects. The Ministry of Development tries to incorporate and promote the corresponding EU policies and programmes, such as ALTENER, SAVE, JOULE-THERMIE, TACIS, PHARE, Research and Development Programmes, and new policies like MEDA, or the Energy Charter. The Energy Programme of the European Community Support Framework promotes policy to reinforce investments related to renewable energy sources, biofuels, energetic plantations, and promotion of bioclimatic buildings financing, as well as applications of environmentally sound technologies for the reduction of carbon dioxide (CO₂) and nitrous oxides (NO_x) emissions in industrial, professional, and commercial installations under the guidelines of sustainable development.

Biotechnology: In accordance with European Union (EU) legislation, national regulations should exist for placing genetically modified organisms (GMOs) on the market, research and development, and the use of genetically modified microorganisms. Specific subjects, such as placing plant protection biotechnology products on the market, are also implemented via EU legislation. Regulations on novel foods involving biotechnological products are in preparation. Research and development, as well as the use of GMOs, are regulated by EC Directives, but their implementation in Greece lies under the responsibility of the Greek State. Environmental impact assessments of such products are currently being undertaken by the Ministry for the Environment, in cooperation with the University of Crete and the University of Thessaloniki.

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CHAPTER 17: PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES.

Decision-Making: The Ministry for the Environment, Physical Planning & Public Works (Directorate of Physical Planning and Department of Nature Protection) is responsible for integrated coastal zone management. The Ministry of Mercantile Marine has full responsibility for marine pollution prevention and for combating marine pollution incidents. The Marine Environmental Protection Division (MEPD) is an administrative unit empowered with full coordination function in case of marine pollution incident. The Merchant Ships Inspectorate and the various local Port Authorities carry out the executive functions relating to the inspection and survey of Greek and foreign ships calling at major Greek ports, and the issuance of certificates for ships. (For more details, see under MEPD-Operational Structure). In addition, the Ministry of Development has some responsibilities in the marine environment protection through the Directorate of Water and Natural Resources.

The National Legislation on integrated coastal management is aiming at protecting water Resources (Law 1739/87). It also establishes the measures and limits for solid waste management, keeping in mind the National Plan for the management of solid wastes. (CMD 114218/97; 113994/97). In addition, the legislation for polluters has the following consequences: Any person found guilty of an oil pollution incident by the competent Criminal Court is punished with imprisonment from 10 days to 5 years. (Criminal) fines are imposed on polluters by the Port Authorities up to the amount of 6,000 Euro. The Ministry of Mercantile Marine has the authority to impose a fine up to 450,000 Euro, in the case of a very serious marine pollution incident. In case of marine pollution caused by land installations, a similar fine of up to 300,000 Euro can be imposed by the Minister for the Environment (Administrative). Greek seamen responsible for marine pollution are tried before the Disciplinary Tribunal of Merchant Marine and, if found guilty, punishment varies from temporary suspension to permanent disqualification and discharge (Disciplinary).

Coordination is undertaken through the National Contingency Plan (NPC, 1973) for the preparation and organization of all the necessary steps for the involvement and activation of public and private stakeholders in case of an incident. Therefore, preparation is an essential requirement with respect to immediate intervention, as well as for minimization of response time.

Environmental NGOs such as the Ecological Society of Recycling, the Network Mediterranean SOS, the Hellenic Society for the Protection of Marine Environment, and others, are engaged by the responsible Ministries in the rehabilitation works of coastal areas.

Programmes and Projects: The Ministry of Mercantile Marine had laid out the following target areas and related programmes in the National Contingency Plan for the inspection test of caution and protection of the coastal areas. This programme is aiming at pollution prevention, protection of characterized sea areas and protected species; the development of a new «anti-pollution» view of the people (especially youth) to fight instantly incidents, which will be achieved by the immediate actions described in the Local or National Contingency Plan; the use of all available means and equipment; and the use of methods scientifically approved and environmentally friendly for cleaning marine and coastal pollution.

Since 1988, a national campaign to monitor the quality of swimming water has been established (EU Directive 76/160/EEC) under the framework of a programme undertaken by the Ministry for the Environment, aiming at protecting the environment and safeguarding swimmers' health. The findings are published annually in a comprehensive report on the status of coastal and marine areas.

Another long-term monitoring programme is MED POL (Assessment and Control of Pollution in the Mediterranean Region), resulting from an agreement between the Greek Republic and UNEP. It involves sampling and analyses in several locations in enclosed bays, islands and open sea. The basic oceanographic and meteorological parameters are monitored along with microorganisms, heavy metals, petroleum products, plankton organisms etc.

Adoption of special measures for the protection and the sustainable management of RAMSAR designated areas and of coastal sensitive habitats where endangered marine mammals and rare species live, nest, reproduce or pass by.

Since 1986, local authorities and decentralized services of the Ministry of Agriculture, have been appointed as monitoring stations for the quality of waters where aquatic organisms live. Samples and measurements are taken from coastal waters suitable for cultivation and fishing of ostracea (Directives 78/659/EEC, 79/923/EEC) and the results are sent to the Ministry of Agriculture, which coordinates the monitoring of the water quality.

Attica's coastline protection and management programme aimed at preservation, protection and promotion of the landscape and the historical and archaeological sites; the reinforcement of the open-public character of the zone; the removal of incompatible activities and the de-congestion of the zone from intensive uses; coordinate land uses and the existing programme for the zone.

Status: Greece has a coastline of more than 15,000 km and about 3,000 islands. 60% of the population resides along the coastal areas, 70% of Greek industry is located along the coastline, which is also exposed to the 90% of the tourist flow. The coastal areas are currently used mainly for tourism, fishing and some urban development. (e.g. the main sources of marine pollution are anthropogenic untreated sewage, industrial effluents and agricultural activities). During recent years, the situation has been substantially improved due to the establishment and the operation of urban sewage treatment plants in almost all coastal cities and of industrial treatment plants. The primary sources of sea-based pollution of the marine environment are accidental oil spills and the operational illegal discharges from ships. The Marine Environmental Division has already established 11 Regional Stations, and the Ministry for the Environment, Physical Planning and Public Works, in cooperation with the Local Authorities of the country, has co-funded several projects with the 2nd Community Support Framework, aiming at the rehabilitation of coastal areas by removing waste, bulky objects, dead sea weeds, etc. Wastewater processing thresholds are being established in a large number of coastal towns. Environmental Impact Assessment studies apply to marine and coastal activities. The Ministry of Mercantile Marine controls waste dumping in the sea from ships and aircraft.

Capacity-Building, Education, Training and Awareness-Raising: The Ministry of Mercantile Marine organizes educational seminars, on a continuous basis, for Port Authority personnel, universities, local authorities, army authorities, and the public. During 1996, 1997 and 1998, the Ministry for the Environment ran awareness-raising campaigns during the summer months, in the framework of the Programme for the quality of swimming waters. The campaigns have been run through television spots, regional announcements for the cleaner coasts (based on the results of the monitoring), as well as through the «Blue Flag» award programme.

The Hellenic Marine Environment Protection Association, a non-governmental organization, has co-funded with the EU several projects concerning environmental protection (under LIFE and MEDSPA). Under the LIFE project, three educational videotapes were produced, that were distributed for free at schools all over Greece (these videotapes were produced in both Greek and English). Also, every summer, information material is distributed through the Ministry of Mercantile Marine and the Port Authorities in coastal areas and islands around Greece, in the framework of a continuing public awareness campaign that HELMEPA started in 1983.

Information: Statistics on pollution incidents and penal sanctions since 1980 are available, new software for collecting, evaluating and disseminating available data is under development. A computerized programme has been developed for the creation of environmental maps in a GIS environment, including data for the Hellenic coastline and the depth of the Greek seas. This system is expected to be completed at the same time as the Local Contingency Plans.

Research and Technologies: Universities and other institutions undertake research projects related to oceans and coastal areas. The National Center of Marine Research, in cooperation with the Institute of Marine Biology of Crete, is participating in the Topic Center of the European Environment Agency for the marine and coastal environment.

Financing: This sector is mainly financed from the national budget. Additional funds are provided from external assistance (European Union Funds). In 1994, a special account, called the Blue Fund, was established, aiming at offering financial support and the necessary resources for the enforcement of preventing and combating marine pollution in Greece. All money derived from fines imposed on polluters, consistent with the legislation for marine

environment and coastline protection, is collected and allocated to this fund. (For more information, see under the supports of the Blue Fund).

Cooperation: A proposal for a EU Council Directive on port reception facilities for ship-generated waste and cargo residues, is aiming at the establishment of EU common requirements to improve the availability and use of port reception facilities. Regional and international cooperation is conducted within the framework of international instruments that Greece takes part. (e.g. UN, OECD, UNESCO, ECE and The South-East for Economic Cooperative Initiative). In addition, international cooperative scientific programmes through the MEPD are developed with the International Maritime Organization, the Marine Pollution Emergency Response Center for the Mediterranean Sea. In addition, Greece takes part in the EU bodies, Bilateral Committees of Transboundary Waters and the Contracting Parties to the Convention for the Protection of the Mediterranean Sea against Pollution and its emergency protocol, as the competent REMPEC (Regional Marine Pollution Emergency Response Center for the Mediterranean Sea).

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CHAPTER 18: PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES

Decision-Making: In Greece, the ministries of: the Development; the Environment; the Health and Welfare; and the Agriculture are primarily responsible for the management of water resources. Local bodies are responsible for the water supply of cities. Law 1739/87 establishes the institutional framework for the management of water resources. Several resolutions have been enacted to supplement this law, in accordance with European Union (EU) directives.

Projects that might influence the quality of water are subject to environmental impact assessment. Competent Authorities for the monitoring of drinking water quality are the Ministry of Health and Welfare in cooperation with the Integrated Organ for Food products Control. The existing Legal Framework for drinking water quality includes the following provisions:

- Sanitary Regulatory Decision A5/288/86 (OJ 53B, 379B) about “Drinking Water Quality” in harmonization with EC Directive 80/778/EEC, which refers to the qualitative characteristics of drinking water, to the frequency of sampling and the obligations of the responsible persons. This Regulation is valid till December 25th 2003, when the new Inter-ministerial Decision Y2/2600/01 (OJ 892/01) in harmonization with EU Directive 98/83 will come into force.
- Ministerial Decision G3a/761/68, as modified (OJ 189/68 B, 988/74B) that contains supplementary provisions for persons responsible for water irrigation and supply as well as their obligations.
- Sanitary Regulatory Decision YM /5673/57 (OJ 5/581) referring to methods relative to water decontamination.
- Sanitary Regulatory Decision E1b/221/65 (OJ 138/B/24-2-65) that foresees safety distances of water intake from locations where waste is disposed.
- Articles 8 up to 17 of the Sanitary Regulation, referring to measures for protecting sources of water intake and irrigation systems.
- Ministerial Decision B1/5508/98, referring to the recognition of University Laboratories of Medical Schools of Ioannina, Patra, Crete and Athens, as Water Control Reference Centers etc.
- Sanitary Regulatory Decision A5/2280/85 (OJ 720/B/13-12-83), regulating the protection of sources of water intake in the wider Capital Area (Marathon, Iliki and Mornos lakes and water reservoirs) against excessive pollution, and various limitations and protection zones are legally defined.

According to article 11.2 of Sanitary Regulatory Decision A5/288/86(OJ 53B, 379B) and article 9 of Sanitary Regulatory Decision G3a/761/68 persons responsible for water supply are:

- municipalities, the Municipality Authorities (according to the provisions of article 23, para 1 of Law 1065/80), or the corresponding Local Organization or Enterprise, or Union of Municipalities (according to the provisions of Law 1416/84);
- industries, institutions etc., which have irrigation of their own, their legal representatives;
- industries, located within industrial areas with a central supply system, the Hellenic Industrial Development Bank (ETVA); and
- private water supplies, the owners or users of the installations.

Serious efforts are already being devoted to the implementation of the innovative holistic approach of the new Water Framework Directive, that recognizes explicitly the ecological function of water and puts emphasis on three directions: the need that the Member States set themselves the quality objectives and select the appropriate procedures to attain them; the management of water on the basis of river basins; and the pricing of water so that it reflects its full costs. Greece is at the moment elaborating a new institutional framework, which is expected to undergo a radical reorientation of its administrative capacities, as required by the above EU Directive.

Programmes and Projects: The Operational Environmental Programme of Greece included the development of the National Monitoring Network for the quality of surface waters, underground waters, waters in transboundary rivers, drinking water, and bathing waters, including a central laboratory for the calibration and coordination of regional laboratories involved in the monitoring networks.

The programme provides considerable weight to the treatment of liquid wastes at the national scale, with the construction of waste treatment facilities in settlements larger than 15,000 inhabitants. The specific actions related to: the development of a Master Plan for the management of the quality and quantity of inland waters; a programme for the management of water resources associated with drinking facilities; development of a National management scheme for urban and industrial liquid wastes; the development of Support Centers for the Operation of Waste Treatment Facilities; the development of pilot studies for the re-use of treated wastes; construction of waste treatment facilities (third phase) in sensitive regions; implementation of innovative and adjusted technologies for the treatment of urban liquid wastes in selected areas; construction of facilities for the treatment of industrial wastes; a programme for the integration of clean technologies in industrial practices; and a programme for the recycling of industrial waste.

Maximum levels for toxic substances have been defined to protect groundwater from pollution, for example for polychlorinated biphenyls (PCBs) and heavy metals. Standards are available for the disposal of industrial waste and wastewater. In Athens, water protection zones have been determined to protect the city's water supply. Studies have been conducted on the effects of fish breeding on the water ecosystem. Studies have been completed on the water management of the Louros-Arachthos Basin, the Epirus, and the lagoons of Kavala, Xanthi, Rodope, Arta and Preveza.

Persons responsible for water supply, in cooperation with Regional Services of the Ministry of Health and Welfare, do proceed in sample and laboratory tests in representative predefined points of the distribution network, from the source of water intake up to the point of final supply to the consumer. For that reason, they plan Monitoring Programmes, which refer, inter alia, to the definition of water sampling points. These Programmes are submitted to the Directorate for Health of the corresponding Prefecture for approval, together with a sufficient illustration in diagrams of the points of water intake, which are also notified to the competent Regional Authorities.

Status: Greece has relatively abundant surface and groundwater resources. 80-85% of the freshwater resources are in the form of surface water and the rest is ground water. About half of irrigation water is pumped from aquifers. Yet, due to the climatic conditions and the rugged geographic relief, water distribution is both temporarily and spatially uneven. Therefore, water is not always available where and when it is mostly demanded. Water redistribution, water saving and a sound demand side management are therefore indispensable. Agriculture is the largest user of water (87% of total consumption). Water abstraction for irrigation has nearly doubled since 1980, in pace with the increase of the irrigated area during the same period, reaching now a high 40% of the arable land. Municipal water use (10% of total abstractions) has increased by 45% since 1980, and the trend is continuing. The highest demand is in Attica (40% of the national population).

The supply of clean and sanitarily appropriate water, from underground and surface waters, to every citizen in our country, consists one of the main responsibilities of Public Administration. To comply with this target, in addition to the planning and implementation of the appropriate interventions, monitoring is essential to ensure that the control procedures, as foreseen in the national legislation, are respected by competent Authorities and Organizations. The establishment of Regional Laboratories for Public Health will improve current conditions.

The most difficult issues of water management in Greece are water quantity rather than water quality. This can be testified by the good performance of the country in transferring and applying EU legislation on water pollution, monitoring and reporting. There is a good overall assessment of the quality of surface waters, which is very satisfactory as the vast majority of the surface water bodies comply with the standards for ammonia and the nitrates.

Capacity-Building, Education, Training and Awareness-Raising: An intensive information campaign, combined with price (dis) incentives succeeded to curb the wasteful use of water in the Athens area.

Information: The Programme HYDROSCOPE provides the required environmental information for the development of the Master Plan, and specific regional management plans, for the inland waters in Greece. The Programme is based on a major environmental network and data base consisting of hydrological and meteorological

information at the national scale. The Ministry of Health and Welfare collects relevant data and cooperates with the Ministry of Internal Affairs and Decentralisation, for its evaluation and the measures to be taken for the protection of Public Health. The Ministry for Health and Welfare sends required data to the Commission of the European Union, by drawing up a Report, every three years.

Research and Technologies: No information available.

Financing: The General Secretaries of the Regional Authorities finance, with priority, interventions aiming at improving and extending water supply networks.

Cooperation: A National network of regional laboratories has been organized to obtain more reliable data on water quality. The network aims to improve the monitoring of the quality of transboundary rivers, other surface waters, and drinking water. Control stations have been established at the entry positions of transboundary rivers from other countries. An annual report on the quality of surface waters used for drinking is being published and forwarded to the EU, which supports the network. The fact that all the major rivers (Evros, Nestos, Axios, Strimonas) originate in other countries, poses challenges for international cooperation aiming at a regional management of the common natural resources. The same applies to the lakes Doirani and the two Prespes.

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CHAPTER 19: ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS

Decision-Making: The General Chemical State Laboratory (Ministry of Finance) is the focal point for the EU Committee on International Harmonisation of Classification and Labeling of Chemicals. All the laboratories of the General Chemical State Laboratory (GCSL) are involved in the systematic monitoring of:

- drinking, surface and ground water regarding toxic and other dangerous undesirable substances;
- foodstuffs regarding contaminants;
- seawater oil spill identification; and
- dangerous and industrial wastes regarding their disposal at the environment.

Programmes and Projects: The Ministry of Finance through the General Chemical State Laboratory - Division of Environment, participates very actively in the European Inspection Programmes for the monitoring of traffic of toxic chemicals in the Greek territory. We give the name of some of these programmes (CLEEN= Chemical Legislation Enforcement Network, for the monitoring of the enforcement of the EU legislation on New & Existing Substances, EuroCAD for the monitoring of products, from the internal market or/and imported from third countries, made mainly of PVC in relation to their content of Cd, EurOzon for the monitoring of Ozone depleting substances).

Status: Greece has promoted the application of all relevant European Union (EU) legislation on toxic chemical management, through a special programme of collaboration with the EU. This includes: Directives 67/548 and 92/32 on the classification, packaging and labeling of new chemical substances; Directive 93/67 on the assessment of the hazards of new chemical substances; Regulation 793/93 on the assessment of hazards of existing chemical substances; Directive 88/379 on the classification and labeling of preparations; Directive 76/769 on restrictions of the marketing and use of certain hazardous substances and preparations; Regulation 2455/92 on the export and import of certain hazardous products; and Directives 87/18 and 88/320 on the application of Good Laboratory Practice. The programme to apply EU legislation at the country level amounted to 700,000 ECU. The EU Seveso II Directive on the prevention of major chemical accidents has been recently implemented in the national law, and the GCSL is the monitoring Authority for the proper classification and labeling of the chemical products involved. Greece has already signed the PIC Convention and has prepared the national law for the ratification of the Convention. POPs Convention was signed too. The Convention on the prohibition of the development, production, stockpiling and use of chemical weapons and on their destruction has been ratified, and the national law for the implementation of the Convention is to be voted by the Hellenic Parliament.

Capacity-Building, Education, Training and Awareness-Raising: Seminars have been held to inform administrative executives and representatives from industry on the consequences of adjusting national legislation to EU legislation. Training has been provided on issues of classification. The C & L (Classification and Labeling) of dangerous substances and preparations has been introduced as a new topic in the courses of our National Universities. The personnel of GCSL participated in a regular basis in training workshops organized nationally or internationally or by the OECD “on the monitoring of toxic substances in the environment”. From 1996 until today, the GCSL is organising, twice a year, campaigns to inform all the interested parties (industry, consumers, public in large) about “the sound management of chemicals” and the relevant national, EU and international legislative provisions. The campaigns are organized in cooperation with the Hellenic Chamber of Commerce, the Association of the Greek Chemists, the Hellenic Chemical Industries Association and the National Universities.

Information: A computerized National Register of Chemical Products is also established in the GCSL-Division of Environment, since 1998, with the aim to be regularly updated.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: Greece (GCSL -Division of Environment) also participated in the MJVs (Mutual Joint Visits) Programme of both the EU and the OECD for the promotion of the Mutual Recognition of Data. The ADR and RID International Agreements on the transportation of dangerous goods are implemented in Greek national law, and the GCSL is the monitoring Authority, dealing with the proper classification and labeling of dangerous goods and subsequently the proper labeling of the vehicles. Finally, there is a bilateral cooperation with Bulgaria and Cyprus for the capacity building on sound management of chemicals (Good Laboratory Practice, limitation of marketing and use of some dangerous products).

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CHAPTERS 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES

Decision-Making:

Hazardous wastes: No information available.

Solid wastes: In Greece, national legislation has been harmonized in recent years with European Union (EU) regulations on waste management. Responsibility for waste management has been delegated to local authorities.

Radioactive wastes: No information available.

Programmes and Projects:

Hazardous wastes: No information available.

Solid wastes: The Operational Environmental Programme of Greece aims at resolving one of the major environmental problems of Greece, namely the management (collection, treatment, disposal) of solid and toxic wastes. The Programme promotes the required actions for the implementation of the new directive for landfills, and gives considerable weight to the cleaning of coastal areas and swimming sites. Specific actions under the Programme include: development of an integrated National programme for waste management and restoration of abandoned landfill sites and construction of new landfills. Also it's aiming at development of an extended recycling programme; construction of composting plants; implementation of innovative techniques for the collection, treatment, and disposal of waste; a study on the implementation of the packaging directive; and coastal zone cleaning with emphasis on tourist sites. The National Programme for Waste Management (excluding the Attica region and Thessaloniki) aims at improving the existing waste management system at the national scale. The Programme is supported by both community (Structural Funds and Cohesion Funds) and national funding. The Programme includes local and regional waste management programmes, construction of new landfills, construction of a composting unit, construction of waste transfer stations, restoration of old landfills, recycling programmes, equipment, coastal zone cleaning programmes, and construction of sites for the disposal and treatment of agricultural products, hazardous wastes, and hospital wastes.

Radioactive wastes: No information available.

Status:

Hazardous wastes: In Greece, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was signed in 1989 and ratified in 1994. The Joint Ministerial Resolution 72751/3054/85 on toxic and dangerous waste, issued in compliance with European Union (EU) Directive 78/319, provides measures for the prevention of such waste, and its recycling and reuse. EU legislation has been adopted concerning the supervision and monitoring of transboundary movement of hazardous waste. Further directives on hazardous waste are being incorporated into national legislation. The EU Eco-Label Award Scheme has been implemented at the national level with a view to minimizing certain waste products. National legislation provides for the planning and management of toxic and dangerous waste, procedures for the transport of dangerous waste, special permits for the disposal and storage of dangerous waste, and measures for building facilities for toxic residues at ports. Activities producing dangerous waste and facilities for disposal of dangerous waste require an environmental impact assessment and special permit.

A relative success has been achieved in the domain of hazardous solid wastes and sludge generation. Their total volume of 290,000 tons in 1998 was about 33% lower than in 1988. Hazardous waste management options include storage in safe and well-controlled sites (76.14% of total), recycling (22.73%) and treatment with stabilisation (1.01%), while a mere 0.12% is transferred abroad for recycling or final disposal.

Solid wastes: A number of facilities have been constructed, including 23 Sanitary Landfills, 2 Material Recovery Facilities, one Mechanical Separation and Composting Facility and 9 Waste Transfer Stations, while several uncontrolled dumping sites have been reclaimed. Beaches are cleaned by special machinery acquired by municipalities in coastal areas.

At the national level, technical specifications for the safe handling of waste are being determined. A system of permits has been introduced for the collection and transport of solid waste. The EU Eco-Label Award Scheme has been introduced at the National level. Legislation has been issued aimed at reducing air pollution from waste incineration plants. Threshold values have been established for heavy metals in sewage sludge used in agriculture.

Programmes are being introduced for the reduction of weight and volume of packaging material. (More details see EU Directive 91/156).

Vehicle batteries can be recycled for lead recovery in big urban centres. An Action Plan for the management of used cells and batteries is under approval. For the PCBs, the only option is safe storage and export to countries with specialised treatment facilities. Used mineral oils (annual generation in Greece: 64-70 thousand tonnes) are being regenerated or re-used without previous regeneration e.g. as fuels. The collection problems are great, especially in remote and isolated parts of the country. Hospital waste, estimated at 40 tonnes daily, is typically incinerated and about half the hospitals in the country are equipped with incinerators.

Radioactive wastes: No information available.

Capacity-Building, Education, Training and Awareness-Raising:

Hazardous wastes: No information available.

Solid wastes: Schools in Greece are involved in recycling programs. Encouragement is given to initiatives by local government organizations of specific autonomous geographic units (for example islands) to collaborate in the collection, disposal, and recycling of waste. The EU supports Greece's efforts in the area of waste management.

Radioactive wastes: No information available.

Information:

Hazardous wastes: No information available.

Solid wastes: No information available.

Radioactive wastes: No information available.

Research and Technologies: *Hazardous wastes:* No information available.

Solid wastes: No information available.

Radioactive wastes: No information available.

Financing:

Hazardous wastes: No information available.

Solid wastes: No information available.

Radioactive wastes: No information available.

Cooperation:

Hazardous wastes: No information available.

Solid wastes: No information available.

Radioactive wastes: No information available.

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CHAPTERS 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS

Women: Decision-Making: In Greece, the Convention on the Elimination of All Forms of Discrimination Against Women was signed on 2 March 1982 and ratified on 7 June 1983.

Children and Youth: No information available.

Indigenous People: No information available.

Non-governmental organizations: Status: a national range of organisations forms The Pan- Hellenic Network of Ecological Organisations. The members' actions are coordinated from a Secretariat of Seven with a great geographical spreading. This Secretariat, without ranking system, combines effectiveness with democratic procedures and simultaneously a geographical representation. The participation of the Organisations or the Network itself in institutional bodies, institutional dialogue and positions is fruitful and supports reactions contributing to the attainment of sustainable development. So far, the Network has mainly acted in the fields of education and public awareness; fire safety and forest protection programmes. Appeals to the court in all levels, and successful proposals to institutions of state and society are within its actions. Financing: There are more than 200 «registered» non-governmental Environmental and Ecological Organisations in Greece. Different ministries and different budget lines provide support to various NGOs. The following data on total disbursement and type of disbursement concerns assistance from the Ministry for the Environment, Physical Planning and Public Works under its programme for the European Nature Conservation Year (1995): Greek non-governmental organizations US\$187,500; and Greek non-governmental organizations, youth, local authorities, scientific and technological communities US\$646,000.

Local authorities: Status: In Greece, the European Union and the Ministry for the Environment are supporting local authorities in implementing projects promoting the aims of Local Agendas 21.

Workers and trade unions: No information available.

Business and industry: No information available.

Scientific and technological community: Decision-Making: The Greek Biotope/ Wetland Centre (EKBY by its Greek initials) was founded by the Greek Government and by the European Commission in 1991. It is an autonomous non-government scientific institute. Nevertheless, it is indirectly steered by the Ministry for the Environment and by the Aristotle University of Thessaloniki. Its mission is to assist in the conservation and sustainable development of water, soil and genetic resources in Greece, as well as in the Mediterranean Basin and Southeastern Europe. Programmes and Projects: EKBY has already been involved in several programmes. For examples, it has provided documentation to base the preparation of the National Strategy on Wetlands and the National Strategy on Water, Soil and Genetic Resources for Agriculture. It has contributed to the conservation and sustainable management of genetic and water resources by undertaking projects dealing with inventorying of wetland and terrestrial ecosystems and species, with management planning of protected areas, with ecosystem restoration, with training etc. Status: EKBY's recent activities have to do with the National Plan for Agriculture Development and with the mapping of soil resources. The overall vision of EKBY for the new decade is the implementation of national strategies and of the European Committee directives, which are pertinent to the conservation and sustainable management of water, soil and genetic resources. EKBY looks forward with optimism to expand its dexterities in new ventures by strengthening its present lines of national and international cooperation. Capacity-Building, Education, Training and Awareness-Raising: EKBY has also produced public awareness material in printed and electronic form.

Farmers: No information available.

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CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS

Decision-Making: The Development Law 2601/98 supports investments concerning the protection of the environment, the limitation of pollution, as well as the development of renewable sources of energy. These investments, which specific incentives are provided for, can be realized by enterprises, being active in the industry - manufacturing sector, agriculture and tourism. In parallel, economic aid are granted, among others, to business which have recycling programmes, while recently incentives were decreed (Law 2601/98) concerning the re-establishment of enterprises, which cause problems to the environment by their wastes (tanneries), in other organised places.

The Environmental Protection Law includes the «polluter pays principle» (Article 29) and provides for the levying of waste and water user charges. The protection of the environment in Greece is being achieved through a number of other measures as well, which do not necessarily have the form of «taxation measures», per se, but can be considered in a broader frame of general economic instruments and measures. The Greek taxation system already includes measures focusing on the protection of the environment, which are added to any newly introduced ones.

Programmes and Projects: By the Development Law 2601/98 and the incentives policy, which is in force today (increased incentives, various forms of supported business activity), the realization of investments is pursued, even in less developed regions (mountain areas, small islands, areas situated near the borders), while a very important component is the decrease of unemployment, given that the amount of provided subsidy is directly connected to the creation of new jobs. For 2000, the Hellenic Centre ELKE has programmed the carrying out of integrated pilot projects, for the development of tourist infrastructure and of traditional products, according to the principles of Sustainable Development, which are sequentially going to be promoted to the international market for implementation.

Status: For the sake of better securing the completion and function of the supported investments, the necessary self-contribution of the entrepreneur in the financial investment cost was fixed, amounting to 40%, to all investment programmes, while the state granted allowance fluctuates from 30% to 45%, according to the nature and the area of investment realisation. A number of economic instruments are used in Greece, among them Municipal, Industrial and Irrigation water supply charges; Municipal and Industrial waste water treatment charge; fines for violating air emission limits; special tax on PPC (Public Power Corporation) and vehicle fuels; as well as VAT on motor vehicle fuels and energy products. Also, special consumer tax on imported cars, road vehicle circulation fee, income tax exemption for purchase of natural gas appliances, natural resources, tax on quarry products, performance bond for quarry operators, fines for causing marine pollution.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: National Reports of Greece submitted to different International Organizations include information on finance. In particular, information about the financial amounts, which are withdrawn yearly, within the framework of the Development Law function, is given to the EU for the existing necessities, so that the amount of money, granted by the State Subsidies is defined. Also, the Law 2601/98 has been mentioned in the National Report on Climate Change, submitted by the Hellenic Ministry for the Environment to the UNFCCC Secretariat; the report on «economic instruments for the protection of the environment and the management of natural resources» to the OECD; as well as the Environmental Performance Review of Greece report, prepared by the State of the Environment Department of the OECD in collaboration with the Greek authorities. All Laws are being published in the Official Government Journal; hence they are available to all interested parties. Moreover, all the competent public authorities and all the syndic bodies are responsible for the edition of informative material (i.e. pamphlets, reports, etc) for the diffusion of the information. The interested parties can also find relevant useful information in the website of the ELKE, via Internet (www.ELKE.gr), in the folder for «investment incentives».

Certain investment provisions forms of the Law 2601/98 (such as operational programmes of manufacturing activities) belong to the competency of the General Secretariat of Industry of the Ministry of Development.

Research and Technologies: No information available.

Cooperation: For a better estimation of the submitted investment programmes, besides the unbiased procedure, which imposes the above mentioned Development Law, the relevant contribution or the stated opinion of the other competent government services (such as: Secretariat General of Research and Development, Secretariat General of Energy of the Ministry of Development, Ministry for the Environment, Physical Planning and Public Works, Ministry of Agriculture, etc.) is requested.

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CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

Decision-Making: The Ministry of Education is responsible for the science sector in Greece. The Framework Law 1566/85 provides legislation for science.

Programmes and Projects: In the context of the International Geosphere-Biosphere Programme, a National Interdisciplinary Scientific Committee has initiated research on problems of global change, under the authority of the National Academy of Science of Greece.

Status: No information available.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

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CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

Decision-Making: In Greece, the Ministry of Education is responsible for promoting education. Framework Law 1566/85 provides legislation for this sector. Laws 1892/90 & 1946/91 also provide for environmental education in schools of primary and secondary education. These laws establish the control of those responsible for environmental education programmes all over the country, aiming at the development of environmental programmes and of a decentralized network of local environmental education promotion units. Furthermore, environmental education operates under the framework of Ministerial Decrees and circulars that are published by the education directorates of the Ministry of Education. These instruments cover cooperation with other bodies, the coordination of the work of those responsible for environmental education programmes, and the promotion of environmental education. The Ministry of Education also cooperates with other bodies such as the Ministry for the Environment, the Youth Secretary and many Universities and other scientific institutions.

Systematic cooperation has been established with major Non-governmental Organisations, such as the World Wildlife Fund (WWF), Goulandri Museum of Natural History, the Hellenic Society for the Protection of Nature, and Greenpeace, through special pedagogical environmental education pilot projects. The Ministry of Education also cooperates with local authorities for both the elaboration of environmental education programmes and the operation of Environmental Education Centers. The Ministry of Education places great importance on its cooperation with environmental NGOs, who in turn contribute with the presentation of several projects to the public, the production of related material, etc. Finally, the Ministry cooperates with Greenpeace under the framework of the Green Teams programme, and with the Greek Society for the Protection of Nature on the Ecological Schools programme.

Programmes and Projects: The “curriculum” of the school projects is diverse. However, the most common and most developed programmes and projects are related either to “management of natural resources” or to critical environmental issues, such as water management, forest-fire, energy consumption, air pollution, water pollution, waste management, transportation etc. A broad training program for 10,000 teachers of primary and secondary schools in collaboration with Universities, EE Centers and Regional T.T. Centers has also been developed. There was also a pilot programme targeted to incorporate environmental issues in the curriculum of the Gymnasium (High School).

Status: The Ministry of Education has established a network of 18 Centers for Environmental Education. The centres provide student courses, teachers training, they support thematic networks, they produce educational material and they promote local and international collaborations. The Centers for Environmental Education have modern and sufficient infrastructure, both in building facilities and equipment. A group of qualified teachers work, in the centres, on a full-time basis, at least for three years. The teachers are supported in their efforts by experts (specialized scientists), while they effectively collaborate with local authorities, Governmental and Non-Governmental organisations.

From 1993 and on, the Ministry for the Environment worked extensively on the acquisition of the necessary knowledge of environmental affairs. A team of experts was created in order to help citizens understand this difficult subject. Dozens of EMs executives traveled around Greece to spread information on how to protect the Environment and diminish pollution, centering most of their efforts on the youth and students. Funds were made available to school units, classrooms or groups of teachers and students, in order to set up and complete environmental programmes: recycling programmes, programmes that protect Greece’s natural wealth, programmes for energy saving or for understanding environmental planning, programmes for the creation of awareness among students and general public, programmes that transcend the school’s premises or even the country’s borders. This led to the founding of more than 200 “registered” non-governmental Environmental and Ecological Organisations in Greece, whose members are often either teachers or former students, who had the chance to participate in one of the Environmental Education programmes during their schooling years.

Information: Production of educational material (books, cd-roms, videotapes, kits etc) on several topics.

Research and Technologies: No information available.

Financing: The 2nd Support Framework Programme of European Union offered us a substantial financial support of 5 billion drachmas for the years 1996-2000. During the school year 1995-1996, the programmes of environmental education carried out in primary education schools were financed with 63,210,000 drachmas, while those for secondary education with 212,000,000 drachmas.

Cooperation: Greek Schools participate in many regional, national and international thematic networks such as: “The river”; “The sea”; “Sustainable cities and quality of life”; “Eco- schools”; “The forest”; “The forest fires”; “traditional communities”; “golden-green leaf”; “Globe-Alexandros”; “SEMEP”; and etc. The culmination of a quite satisfactory course for Greece in the challenging and attractive field of Environmental Education came with the organisation of the World Conference on “Environment and Society: Education and Public Awareness for Sustainability”, which took place in Thessaloniki in December 1997, under the auspices of EM. In addition to UNESCO, the 1,200 participants included experts and government representatives from more than 100 countries around the planet.

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CHAPTER 37: NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY- BUILDING IN DEVELOPING COUNTRIES

This issue has been covered under the heading Capacity-Building, Education, Training and Awareness-Raising in the various chapters of this Profile.

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CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

This issue deals mainly with activities undertaken by the UN System.

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CHAPTER 39: INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

This issues has been covered under **Cooperation** in the various chapters of this Profile. However, you will find below a list of International Legal Instruments.

The following Environmental Conventions have been ratified by Greece and, according to the article 28 of the Greek Constitution, their provisions override any other provision of the internal laws:

1. Vienna Convention (1985) on the protection of the ozone layer (Law 1818/1988, Official Gazette 253/15.11.1988)
2. Montreal Protocol (1987) on substances that deplete the ozone layer (Law 1818/1988, Official Gazette 253/15.11.1988)
3. Amendment (London 1990) to the Montreal Protocol on substances that deplete the ozone layer (Law 2110/1992, Official Gazette 206/29.12.1992)
4. Amendment (Copenhagen 1992) to the Montreal Protocol on substances that deplete the ozone layer (Law 2262/1994, Official Gazette 206/05.12.1994)
5. United Nations Framework Convention on Climate Change (New York 1992) (Law 2205/1994, Official Gazette 60/15.04.1994)
6. Rio Convention (1992) on Biological Diversity (Law 2204/1994), Official Gazette 59/15.04.1994)
7. Helsinki Convention (1992) on the protection and use of transboundary watercourses and international lakes (Law 2425/1996, Official Gazette 148/4.07.1996)
8. Basel Convention (1989) on the control of transboundary movements of hazardous wastes and their disposal (Law 2203/1994, Official Gazette 58/15.4.1994)
9. United Nations Convention (Paris 1994) to combat desertification in those countries experiencing serious drought and /or desertification; particularly in Africa (Law 2468/1997, Official Gazette 32/6.3.1997)
10. Espoo Convention on environmental impact assessment in a transboundary context (Law 2540/1997), Official Gazette 249/15.12.1997)
11. United Nations Convention (1979) on long -range transboundary air pollution (Law 1374/1983, Official Gazette 91/8.07.1983).
12. Sofia Protocol (1988) to the 1979 Convention on long-range transboundary air pollution, concerning the control of emissions of nitrogen oxides or their transboundary fluxes (Law 2543/1997, Official Gazette 252/15.12.1997)
13. Oslo Protocol (1994) to the Convention on long-range transboundary air pollution on further reduction of sulfur emissions (Law 2546/1997, Official Gazette 256/16.12.1997)
14. Barcelona Convention (1976) on the protection of the Mediterranean Sea against pollution (Law 855/1978, Official Gazette 235/23.12.1978)
15. Helsinki Convention (1992) on the transboundary effects of industrial accidents (Law 2542/1997, Official Gazette 251/16.12.1997)
16. Bern Convention (1979) on the conservation of European wildlife and natural habits (Law 1335/1983, Official Gazette 32/14.03.1983)
17. Paris Convention (1972) for the protection of the world cultural and natural heritage (Law 1126/1981, Official Gazette 32/10.02. 1981)
18. Ramsar Convention (1971) on wetlands of international importance especially as waterfowl habitat (Legislative decree 191 /1974), Official Gazette 350/20.11.74)

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CHAPTER 40: INFORMATION FOR DECISION-MAKING

Decision-Making: The Ministry for the Environment, Physical Planning and Public Works is the general coordinator of Environmental matters. The National Statistical Service is also responsible for collecting statistical information. Many other institutions include collection, analysis, management and dissemination of information and data, related to sustainable development, in their responsibilities. A new institution has been created called «National Centre for Environment and Sustainable Development», which will undertake to support the Ministry in environmental information issues and in the co-ordination of responsible bodies. Presidential Decree 325/2000 deals with the creation, responsibilities and organisation of the “National Centre for Environment and Sustainable Development”.

Coordination is taking place through inter-ministerial committees and inter-ministerial ad-hoc meetings, under the responsibility of the Ministry for the Environment. The 1997 administrative reform has increased the participation of local and regional governments. Greece is recently developing a national framework system for indicators, in co-operation with OECD and EU. Some progress has been made in formulating indicators in the housing sector and forest management. The Ministry is applying a policy under which there is a very close cooperation with and finance support to the NGOs, the Educational Institutions and the Local Authorities, so that existing knowledge is used and new capacities are being developed by those organisations.

Programmes and Projects: One important project of the Operational Programme for the Environment is the development of the “National Environmental Information Network”. This project aims to create a network for exchange of environmental information in country level, as well as to establish a national repository and link for the European network EIONET of the European Environment Agency. The National Network will also contribute to the “access to environmental information”, providing reliable information to the public, and will upgrade some administrative procedures concerning the approval of environmental impact assessment surveys.

Status: Specific actions in Greece related to information for decision making include: a) completion of the National Environmental Information Network to all prefectures and regions of Greece; b) connection of the National Environmental Information Network with the Greek Statistical Service, the European Environment Agency, and the European Commission; and c) a programme for the collection of auxiliary information, such as regional or local activities, natural characteristics, wetlands, etc. The Ministry for the Environment, Physical Planning and Public Works and the Aegean University are collecting information on waste management and on the expenses for environmental protection. The main sources of information are universities and decision-makers at the national level. Information is also received from EUROSTAT and the Organization for Economic Co-operation and Development (OECD). The Ministry of Agriculture plans a review of agricultural statistics. This would include the use of remote sensing data.

A national information system, as well as the use of some indicators, would imply better use of the institutional infrastructure of the country, better coordination of the information production and filling of the gaps, increase of the level of technical substructure and eventually save human and financial resources. More information and indicators are needed especially in the fields of climate change, ozone depletion, eutrophication, acid rain, quality of urban environment, land use and biodiversity, waste, water, forests, soils, and fishing. A computer network is available with access to international data banks.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Research and Technologies: Modern techniques are used for data storage, management and assessment concerning the priority environmental issues. Some tools like UNIX, ORACLE, ARC INFO, MICROSOFT OFFICE, WINDOWS NT, NETSCAPE, are widely used. Models are used to a limited degree in the public sector and largely at the universities. Geographic Information Systems are now in wide use. More wide application and use of tele-matic techniques should be achieved, mainly in the public services, as well as more use of Internet and electronic services.

The MEDMONT research project for sustainable mountain development (see under **Chapter 13, Research and Technologies**), integrates Capability Analysis Programs (CAPs) by addressing spatially the development process with social, economic, institutional and accounting indicators, in a multiple criteria framework. Such an integrated framework and tools will allow the interested target groups: a) to obtain objective trade-off information about the multiple impacts of sustainable development investment projects in the mountain areas and b) select the best combination of evaluation tools in terms of cost and accuracy of the attained goals within their budget limits, when they need to support evaluation and monitoring investment decisions

The MEDMONT research concentrates on developing evaluation tools to practical circumstances. For this reason, development of indicators is based on data collected from five different study sites across the mountain Mediterranean Region. It is expected that, the variety of mountain landscape types, natural resources, socio-economic and institutional aspects related to the case studies will make the MEDMONT framework valid for the entire mountain Mediterranean Region. Even more, with some modifications, it could be possibly applicable to other mountain areas in Europe or other places of the world. The MEDMONT framework (see under Research) will provide the target groups with investment evaluation and monitoring tools.

Financing: No information available.

Cooperation: Since 1993, Greece has been a member of the EEA, which was launched by the European Union (EU) in 1993, to provide information at the European level, to support policy makers and to better inform the public about the environment. The EIONET, built by the EEA, consists of several thematic and National layers. Among them are National Focal Points and National Reference Centers to undertake technical coordination in different countries, and specialized topic centers. The first seven topic centers cover island waters, marine and coastal environment, air quality, nature conservation, land cover, air emissions, and a catalogue of data sources. Greece has appointed the Ministry for the Environment, Physical Planning and Public Works as its National Focal Point and the National Environmental Information Network as the main instrument for the exchange of information. Greece contributes to the work of the topic centers as follows: a) the National Center of Marine Research and the Institute of Marine Biology of Crete are participating in the topic center for marine and coastal environment; b) the Greek Biotope-Wetland Center in Thessaloniki has been appointed responsible, inter alia, for the ecosystems of South-East Europe, and is participating in the topic center for nature conservation; c) the National Observatory of Athens is a member of the Steering Committee which conduct the work of the topic center for air quality; d) the National Research Center «Democritos» participates in the topic center for air emissions; e) the Aegean University participates in the nature conservation issue through the Dutch European Center for the Conservation of Nature.

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CHAPTER: INDUSTRY

Decision-Making: Main competent authority is the Ministry of Development, General Secretariat of Industry. The Ministry for the Environment, Physical Planning and Public Works deals with pollution originated from industrial activities, and with issues concerning the implantation approval and environmental impact assessment of industrial installations.

Programmes and Projects: In 1994, the Ministry of Industry, Energy and Technology (now Ministry of Development) launched three programmes in Greece, containing measures and actions to promote the dissemination and development of clean production technologies. These were five-year programmes (1994-1999) that provided primary policy goals in the areas of industry, energy, research and technology. The Industry Programme aimed to create a system for product quality through standardization and certification, and for the technological modernization of enterprises. The Research and Technology Programme provided measures to promote environmentally friendly technologies and forms of energy, improved materials, and new production and manufacturing methods. The programme also promoted cooperation between research and production institutes.

Status: Industrial activities in Greece are covered, from the environmental point of view, by EU Law and by National Law. Directive 88/609/EEC, (under modification), covers SO₂, NO_x and particles emissions from the Large Combustion Plants. Concerning NO_x, Greece has no specific problems: emissions are 20% lower than permissible limits. Concerning SO₂ emissions for the year 2000, the exceeding trend of previous years has been reduced to zero, and for the year 2001 emissions are expected to be significantly lower than permissible limits. Greece has introduced an Eco-Label Award Scheme through Joint Ministerial Resolution 86644/2482/1993 in harmony with European Community regulation 880/92. The Ministerial Resolution established a Supreme Board for Awarding Ecological Labels within the Ministry for the Environment, Physical Planning and Public Works. Several major groups, industry organisations, unions, NGOs and consumer groups, participate in the Supreme Board for Awarding Ecological Labels. The Board, named ASAOS, provides information to the business community and consumers, and organises international meetings. Up to now, ten ecological labels have been issued. The Ministry for the Environment, Physical Planning and Public Works is currently promoting the pilot implementation of EMAS in public enterprises in the industrial sector.

Capacity-Building, Education, Training and Awareness-Raising: No information available.

Information: During the year 2001, many Conferences have taken place in many cities of the country, aiming at informing the industry and the local population about the application of the Directive no 96/61/EU.

Research and Technologies: Concerning exchange of technologies, contacts and cooperation, permitting the abatement and reduction of pollutants emissions in the environment, the country (represented by experts of the Administration and of the Sectors concerned) participates in EU meetings on Best Available Technologies (BAT), concerning certain industrial Sectors (see Directive no 96/61/EU). Relative studies, centered on particularities of the Greek industry, have been elaborated in Greece during the period 1998-2001.

Financing: The installation of antipollution equipment is subsidised up to 40% of the cost of purchase.

Cooperation: No information available.

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CHAPTER: SUSTAINABLE TOURISM

Decision-Making: In Greece, the responsibilities for sustainable tourism at the national level are divided among the Ministry of Development - Greek National Tourism Organization (NGTO) and the Ministry for the Environment, Physical Planning and Public Works. The Greek National Tourism Organization (GNTTO) is a Public Entity (PE) supervised by the Ministry of Development, General Secretariat for Tourism. Since 1950, the GNTTO constitutes the ruling state agency for the tourism sector. The GNTTO consists of the Central Service, residing in Athens and the Services Abroad. The GNTTO's main goal (article 1 par. 3 of Act 2160/93) is the organisation, development and promotion of tourism in Greece, by means of exploiting all existing potential of the country.

Implementation of the relevant EU policies and actions has involved continued efforts to integrate the principle of sustainability into tourism development strategies and practices. GNTTO activity has focused on the consolidation of existing measures and on the launch of selective new legal and financial instruments related to sustainable tourism development. Strengthening the quality of the natural and man-made environment is of vital importance for the success of Greek tourist destinations and an essential pre-requisite to achieving sustainable tourism development. In particular, in order to achieve a sustainable tourist development, friendly to the environment, specific policies and measures along four major axes are established: spatial planning and regulations; management plans for specific areas; economic incentives' policies; promoting public awareness. A wide range of particular actions can provide appropriate instruments in order to achieve the goals of those policies.

Tourism industry in Greece has to comply with legal framework applying to any industry project in the fields of Environmental Impact Assessment, implantation approval procedures, sanitary and water supply regulations. These regulations are applied even before a unit starts operating. For the phase of operating, the environmental regulations to be applied deal mainly with protection from air and water pollution, and also from noise nuisance. Tourism industry activities in this respect are monitored and controlled by competent local and regional authorities.

Programmes and Projects: Greece, as member of the European Union, follows the basic guidelines of the V. Action Plan for the Environment 1992-2000 («Towards Sustainability»), including specific policies in the tourism sector. The target groups of these policies are: the general public and the local societies, the visiting tourists, the local authorities, the professionals in the tourism sector, officials and personnel of public agencies related to tourist development.

Sustainable tourist development is promoted through the measure 1.2 of the subprogram «Tourism» of the Community Support Framework. In particular, projects are carried out for establishing the infrastructure for the development of mountainous, therapeutic, cultural, ecological tourism based on the natural and human resources of each area.

A strategic plan for tourism development has been elaborated recently by GNTTO, in the framework of the «National Plan for Regional Development 2000-2006». This plan (Operational Program for Tourism) takes into account all relevant environmental concerns and it enhances specific actions towards a sustainable tourism development. The main objectives of this plan are:

- upgrading the quality of tourist services;
- elaborating environmental protection projects;
- encouraging the wise use of water and energy;
- modernizing equipment and installations of tourist establishments; and
- promoting cultural tourism as well as eco-tourism, mountain tourism and other forms of alternative tourism.

This plan is elaborated through cooperation with regional authorities, local stakeholders and the private sector.

The main fields of action, initiated by the Greek National Tourism Organization during the last years, are the following:

- enhancement of various projects of sustainable tourist development;
- participation in planning of better control of land use ;
- imposition of strict legal framework concerning building tourist accommodations after elaboration of environmental impact studies;

- elaboration of studies of environmental impact of GNT0 projects for the construction of tourist ports and other facilities;
- diversification of tourism: elaboration of a national plan for tourist development including activities friendly to the environment, elaboration of studies on perspectives of regional development of mountain tourism, a research on the development of ecological tourism; and
- enhancement of alternative forms of tourism (mountain, ecological, cultural, rural tourism) through public investment in cultural and ecological routes, trekking trails, preservation of wetlands, rehabilitation and accommodation in traditional settlements, promotion of cultural heritage and natural sites, etc.

Through the Minister decision 538866/spec. 135 NTO (797/B/87), a number of specific areas are declared as “Areas of Controlled Tourism Development”, and parts of them declared as “Saturated Tourist Areas”. The main objective is to control tourist development and to upgrade the developed tourist destinations.

On the question of a more responsible use of energy in tourism activities, a number of pilot actions, encouraging the use of renewable energy and energy consumption efficiency in tourism facilities and resorts, have been supported under the Community energy policy. (EU programmes THERMIE, SAVE and ALTENER).

Recent GNT0 projects and actions towards sustainable development:

1. A study plan, initiated by the Greek National Tourism Organization, on “Ecological Tourist Development of the Inland Area defined by the Mountain Pindos axe and included between Prespes Lakes and Nafaktos” is completed (1998-1999). The plan indicates conservation zones, development areas, policy measures and appropriate projects in order to preserve fragile mountainous settlements and natural resources, and to promote appropriate eco-tourism activities in specific areas.
2. A study, initiated by GNT0, leading to the establishment of integrated eco-tourism pilot actions and projects in two protected areas, concerning visitors’ management, promotional activities, awareness campaigns, and training of local guides.
3. Clean beaches and Blue Flags Programme. GNT0 participates each year in the European Blue Flag programme for clean beaches and coastal management.
4. Study for a National System of Yachting Harbours (marinas), initiated by GNT0 (1998-2000).

Status: Eco-tourism and nature-based tourism are an integral part of national and regional tourist policy. The main tools of such policy are public investment in infrastructures, incentive policy, promotional campaigns, participation of NGO’s and the voluntary sector in various specific projects at the national, regional and local level. A number of hotels participate actually in pilot projects on environmental management, like EMAS (Eco Management and Audit Scheme), particularly by the initiative of the Union of Chalkidiki Hoteliers. A certain number of hotel resorts have applied ISO 9001, ISO 9002, or ISO 14001 standards, on a voluntary basis. One of the first European projects in the sector “Tourism and Environment” was that carried out in 1993 by a Greek hotel chain in the island of Crete, involving the application of a pilot eco-audit scheme.

The SMART project is one of the eight demonstration projects, launched by EU in 1995, focusing on transport and visitor management. The project’s purpose was to explore ways to improve the management of tourism through the protection and wise use of the natural and cultural environment in order to promote sustainable local development. The pilot area of this project was Mount Pelion and actions involved development of a pilot itinerary, specific promotion and publications, local government involvement, training seminars and trips.

Capacity-Building, Education, Training and Awareness-Raising:

- information and education of the general public on protection of the environment (including publication of specific posters and leaflets, participation in expositions);
- specific training of personnel and officials of the tourism sector in environmental protection; as well as
- propagation of environmental issues such as publications for the protection of biodiversity, actions aiming at promoting public awareness in the protection of the environment, organization of workshops and seminars about sustainable tourism.

There is a part of marketing of tourism products geared towards attracting environmentally conscious tourists, on the national and regional level by GNT0 and the departmental authorities and in the local level by agencies of local authorities. The “European Prize for Tourism and the Environment” has focused on increasing the awareness of tourism operators to environmental issues, and on encouraging the dissemination of best practices combining tourism development and sustainability. This prize was awarded for the first time in 1995 following a competition among 269 tourist destinations in the EU and EEA Member States among which, the town of Corfu. Various training programmes, in initial training and in vocational training, in the tourism sector, financed by GNT0 or the regional authorities, include issues on environmental protection, management of protected areas, promotion of sustainable tourism, training of specific guides, etc. Most of these training programs are co-financed by the European Social Fund, through Operational Programmes and community initiatives.

Information: See under **Capacity-Building, Education, Training and Awareness-Raising.**

Research and technologies: No information available.

Financing: The Development Incentives Law 2601/98 enhances the modernisation of operating tourist units, the conversion of traditional listed buildings into hotels, as well as investments in environmental protection and the use of renewable energy sources. There is a set of incentives coming from state and/or EU initiatives in order to enhance a friendly-to-the-environment behavior of hotels, including grants, taxation relieves, etc. Those measures (joint minist. Decision 43965/1994, in application of the law 1892/1990) concern mainly: energy saving investments; environmental protection works; upgrading open-air sites and landscaping. There is an increasing interest of the hotel industry in applying for those grants. Through the Energy Operational Programme of the Ministry of Development, 75 hotels are actually receiving grants in order to substitute electricity or conventional fuel by natural gas or renewable energy sources, to develop solar energy systems, and to produce jointly electricity and heat. In this respect, there is a cooperation between the Centre for Renewable Energy Sources, the Confederation of Hotel Owners and individual hotel businesses, in order to promote new energy technologies.

Cooperation:

- Exchange of experience and know-how (organizing and participating in meetings, conferences, seminars, etc.). Participation in various European initiatives and pilot projects concerning mountain tourism and environmental protection in coastal areas by hotel enterprises and local authorities (“Blue Flags”);
- Participation in specific projects of “soft” tourism (cultural routes of the Council of Europe); and
- Coordination of actions with various NGO’s and associations in promoting ecological tourism.

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