

# JOHANNESBURG SUMMIT 2002

POLAND



COUNTRY PROFILE



UNITED NATIONS

## **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.

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## 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 Organization 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	Organization 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:** There are no integrated decision-making structures for development assistance within the Polish governmental structure. At present the organization of Polish development assistance is at an initial stage. Consultations are being held within government structures in order to set necessary guidelines for the creation of an integrated system, which will allow the classification and monitoring of development assistance. The Ministry of Foreign Affairs is conducting the preparatory work, together with scientific and research institutes, the OECD Secretariat in the Ministry of Foreign Economic Relations, the Committee of Scientific Research (KBN), and the Main Statistical Office. It is necessary to launch more effective cooperation with non-governmental organizations in matters of development assistance.

**Programmes and Projects:** Polish experts and volunteers take active part in different development assistance programmes throughout the world. Apart from typical humanitarian aid, Polish experts and volunteers participate in projects and programmes related to environmental issues, domestic economic policies, building of local government structures, food processing, etc. Poland also actively participates in the programmes as follows: Stability Pact for Southern-Eastern Europe, development project in the Balkan region including Polish Programme in Support of Local Democracy in Macedonia, programme of reconstruction of the infrastructure in the Balkans, and also educational programmes as Development of Local Communities in Kosovo. Polish Ministry of Foreign Affairs has been co-financing and supporting several programmes in the Balkans prepared by Polish non-governmental organizations. The project implemented in co-operation with NGOs concerned the following areas: human capacity building, local governance support, and promotion of civil society, health protection, education, feasibility studies and macroeconomic training. Steps are being taken to create a special roster of Polish experts working with UNIDO development assistance projects. The Warsaw UNIDO Office and the Ministry of Foreign Economic Relations are preparing this project. In some cases, especially for humanitarian aid, decisions are taken on an ad hoc basis to meet the requirements of existing situations in some regions of the world. Such actions include measures undertaken by the world community in order to minimize the results of natural cataclysms, famine, and war. Polish participation in programmes and operations is in proportion to available funding for such purposes.

**Status:** Together with accession to the OECD, Poland is changing its status from a beneficiary of international assistance to a potential donor of aid and support. At present, the basic tasks concerning the creation of a development assistance system for developing countries in Poland include: creation of an integrated system of developing assistance monitoring and coordination; identification of areas in which Poland could offer development, assistance; identification of Polish assistance capacity and potential; identification of developing countries real needs; full utilization of existing assistance capacity; and enhancement of development assistance cooperation with non-governmental organizations and scientific institutions. Potentially, Poland would be ready to assist developing countries in the areas of environmental protection, health, agriculture, food processing, industry (chemical, steel, machinery, coal mining), local and economic management, education, and strengthening of democratic structures. Polish experts and volunteers participate in different development assistance programmes and activities in all parts of the world about industrial training programmes, women entrepreneurs, food technologies, environmental programming, industrial pollution abatement, industrial economics, household energy etc. Changing of status from a beneficiary to a potential donor of aid and international assistance make it necessary to create an organized system of development assistance in Poland aimed at developing countries and the least developed countries. Currently, such a system does not exist, making it impossible to calculate the financial value of aid and assistance offered by Polish experts and volunteers. It has also been recognized, that knowledge of ongoing activities on the part of Polish experts and volunteers in different United Nations programmes and projects is insufficient and does not allow a fair calculation of Poland's engagement in international development assistance to developing countries. Due to the lack of Polish coordination mechanisms (such as rosters and lists), for example, it is not possible at the moment to give the number of Polish experts registered in UNIDO and actively participating in the organization's development assistance programmes.

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

**Information:** No information available.

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

**Financing:** Poland has been providing official development assistance and official aid to the extent, which corresponds to its current financial ability. During the last three years Poland's foreign assistance has been systematically growing. Public expenditure on foreign assistance programmes and projects in the year 2000 amounted to almost 40 million US\$, of which 28,6 million US\$ was spent on official development assistance (ODA) to developing countries. Bosnia and Herzegovina, Vietnam, Ukraine, Macedonia, Kazakhstan, Belarus and Yemen have been among the major individual recipients of development assistance. Polish multilateral assistance, granted through the channels of international organizations and assistance funds, has been systematically on the increase. In the years 1998 and 1999 the share of bilateral official development assistance (ODA) amounted to 72% of the total aid granted. These proportions changed in the year 2000. The bilateral assistance made up 48% ODA. It stemmed from the fact of an important increase of voluntary contributions and deposits made in favor of international financial institutions to support their initiative in respect of debt reduction of the developing countries.

**Cooperation:** No information available.

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

**Decision-Making:** The Polish Ministry of Economy is responsible for trade-related decision-making structure and continuously introduces new legislation in order to assure sustainable trade development. The decisions concern particularly: taxes, spatial economy, and consumers' rights protection. Polish trade policy is defined by the following: the Economic Activity Law Act of 19.11.1999; Civil Code of 23.04.1964; and Commercial Code of 15.09.2000. The Concept of Middle-Term Country Economic Development until 2002 adopted by the Ministers' Council in 1999, describes the vision of Polish economic development in all economic sectors. The document determines the directions of country economic development in respect to sustainable development principles. The main tasks needed for execution of above goals include: creation of effective mechanisms in order to respect environmental protection; rationalization of natural resources use and consumption balance; and, creation of mechanisms aiming at building producer responsibility for impact of product on environment during its whole live cycle. Poland is striving for political and economic integration with Western European countries and with other Organization for Economic Co-operation and Development (OECD) member-states. In 1991, the Association Agreement with the European Community set a framework for the gradual development of free trade in goods and services and in the flow of capital. Poland, as a member of the World Trade Organization (WTO), supports the measures suggested by the Uruguay Round of the General Agreement on Tariffs and Trade (GATT) aimed at liberalizing trade in all fields, including environmentally sound technologies. Such a trend in the world market is favorable for the enhancement of sustainable development in developing countries. At the WTO forum, Poland stands in favor of domestic economic policies, which aim at a complete integration of developing countries with the world market. This includes, among other matters, export oriented policies, tariff and other trade barrier reductions, and open policies towards investment. Full implementation of WTO rules ensures sustainable development in all fields in a modern world economy. At the same time, Poland recognizes that developing countries, and especially the least-developed countries, may face severe problems in the implementation of the Uruguay Round Agreement. In addition, their economies will require some time to create the ability to completely encompass the opportunities offered by a liberalized and global world economy.

**Programmes and Projects:** No information available.

**Status:** No information available.

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

**Information:** The Polish Ministry of Economy issues annual Report on Domestic Trade State. The Report provides statistical information, analysis and opinions concerning: the place of the domestic trade in the economy, changes in the trade structure, the state and changing trends of the material and technical resources, consolidation process of the trade in Poland vis-à-vis European Union countries. The Report is addressed to the ministers, central offices, Polish National Bank, Parliament, Senate, President's Office, regional authorities, trade organizations, university libraries, Polish business establishments. The Report is made available for the public in the library of the Ministry of Economy and in the Institute of Domestic Trade and Consumption. It is also available to everyone at a charge. Information related to trade is also made available to potential users via various publications: Statistical Yearbook, monthly bulletins and annual bulletins entitled "Domestic Trade" issued by the Central Statistical Office. The national World Web Site is being created and information related to the above mentioned issues will be provided in the nearest future via the address: <http://www.mg.gov.pl>. The information provided via Internet will contain data concerning: domestic market: inflation, unemployment rate, GNP, industry sold production, enterprises profitability rate, investment outlays in macro scale, and macroeconomic prognosis for the nearest periods; and, international trade: data concerning turnover according to continents, groups of countries and main countries within these groups, turnover according to geographical and trade structure of export and import, data concerning the ranking of countries according to export and import, and the list of 30 commodities of the highest turnover as regards export and import value. Information related to foreign investment is made available via Internet site of the National

Agency of Foreign Investment (PAIZ): <http://www.paiz.gov.pl>. The provided data contains: scale of investment, trade and geographical structure, and information about main investors according to the country of origin. The Polish Ministry of Economy issues four reports concerning trade, and investment and economic growth: Economy State Report; Industry State Report; International Trade State Report; Domestic Trade State Report. These Reports are addressed to central administrative bodies on the national, regional and local level. The reports are made available in the National Library and in the university libraries. Since January 2000, the short English versions of the Economy State Report and Industry State Report, and full English versions of the International Trade State Report and Domestic Trade State Report are made available via national WWW site in the Internet: <http://www.mg.gov.pl>. Information on above mentioned issues, related to little and middle enterprises, can be accessed via Polish Fund for Promotion of Little and Middle Enterprises Development at the following WWW site: <http://www.msp.org.pl>.

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

**Financing:** No information available.

**Cooperation:** Being an active participant in the work of the economic organizations of the United Nations System [such as the United Nations Conference on Trade and Development (UNCTAD), the United Nations Industrial Development Organization (UNIDO), and the United Nations Development Programme (UNDP)], Poland always stresses the need of supporting sustainable development in developing countries. Polish aid is especially noticeable in the activities of the Food and Agriculture Organization (FAO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO), supporting development in the areas of agriculture management, culture, and education.

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## CHAPTER 3: COMBATING POVERTY

**Decision-Making:** At the central level in Poland, the body responsible for activities to combat poverty is the Ministry of Labour and Social Policy. At the local level, community offices are in charge. The strategy to counteract poverty lies in supporting the economic growth and vocational activity of people, creating workplaces, and providing opportunities to gain new qualifications; and in the creation of the system of social protection for people especially endangered by poverty. Such a system should especially cover farmers and pensioners. The Government undertakes activities under the framework of the so-called action of social protection, which includes increases to the lowest salaries and pensions in relation to an average salary (increases respectively to 40% and 30% of the average salary). Currently the Polish welfare system is in the phase of comprehensive reform. Concerning communities affected by high structural unemployment, the special system of preferences and financial-economic relief has been in place since 1991. The basic activity aimed at the poor is the creation of a social network, consisting of basic elements that complement each other. A minimum wage is being guaranteed. Actions have been taken in order to reduce unemployment rates and to ensure a minimum living standard. The unemployed are entitled to an unemployment benefit for a 12-month period. This period is extended in those regions most severely affected by unemployment, and the amount of unemployment benefit depends on the person's age, marital status, and the reason for dismissal. The level of pensions is protected through the introduction of the minimal welfare benefit. In 1999 Poland launched work on the National Development Plan for 2003-2006, the document which prepares the implementation of structural funds in Poland after its accession to the EU. The Operational Programme: Human Resources Development will be elaborated and implemented on the basis of the European Social Fund. One of its priorities will be counteracting the social exclusion and job creating in the environment sector.

**Programmes and Projects:** In order to increase the economic activities of the population, the following programmes are being implemented: Promotion of Productive Employment and Decreasing Unemployment, and Promotion of the Professional/Vocational Activity of Youth.

**Status:** During the transformation of the Polish economy in 1990-1996, the level of poverty was growing in the majority of the groups of Polish society. It became acute in the retired group and farmers, where, according to assessments, about 35-40% of the population lives at or below the poverty line. Poverty is defined through a minimum level of family income. According to World Bank estimates, and considering the level of the lowest pensions, poverty affected 15% of the population in Poland during the transformation phase. Certain groups of the population are particularly affected by poverty: families with many children, single old persons, parents bringing up children alone, pathological families, and, especially in the regions afflicted with structural unemployment, unemployed people. The phenomenon of unemployment is new and appeared only since the period of economical and social transformation after the year 1990. Unemployment, including structural unemployment, is considered the main cause of poverty in Poland. At the turn of 1993/94, unemployment reached a maximum level of 18%. It still constitutes a very serious problem for the transition period. Since that time, a downward trend of the unemployment rate has been noted, reaching 14.3% in 1996. A characteristic feature of Polish unemployment is its considerable regional differentiation from 5% to 27%. The system of social aid covers all persons who do not achieve a minimum level of income (minimum pension, minimum wage). Apart from financial payments, there are a lot of non-monetary forms of assistance, such as social work, pedagogical, psychological, and legal counseling, and also training and re-qualification programmes. In Poland more than 1,200 non-governmental organizations support people affected by poverty, including pensioners federations, foundations providing aid to the poor, and church organizations.

**Capacity-Building, Education, Training and Awareness-Raising:** Training courses are offered taking into account the needs of the local society. Special forms of training are offered for the rural unemployed and for the employed in danger of losing their work. In 1995, welfare expenditures amounted to 9.3% of the State budget.

**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 AND PRODUCTION PATTERNS

**Decision-Making:** The decision-making structure in Poland for this issue includes: the Committee for Regional Policy and Sustainable Development of the Ministers' Council- national level and the Provincial Administrative Bodies – provincial level. The legal policy related to sustainable consumption and production patterns is incorporated into several separate acts: the Act on Natural Protection of 16 October 1991, and executive acts (the new Natural Protection Act is in the final legislative process); the Waste Law Act of 27 Jun 1997 and executive acts - according to the Waste Law, regional level administration (e.g. Silesia) and individual companies are responsible for preparation of waste management programme; the Water Law Act of 1974, and executive acts (the new Water Law is in the final legislative process). Economical obligatory instrument introduced in order to discourage unsustainable practices consists of decisions, levies and charge systems. The new and modern regulations on waste management: the Act on product's fee and the Act on packaging and waste were produced in 2001. Other instruments focusing on promotion of sustainable consumption and production patterns include: introduction of environmental management systems ISO 14000, which is implemented on a voluntary bases; introduction of Cleaner Production Programme; introduction of tax relief for ecological activities; systems of loans and subsidies from National Fund for Natural Protection and Water Management. Poland has not formulated a National Strategy for Sustainable Consumption and Production Patterns but the relevant issues are incorporated in the following documents: Poland's National Environmental Policy; Industrial Policy; Small and Middle Enterprises Policy; Concept of Middle-term National Economic Development; Assumption of Socio-Economic Policy. In the future, strategies and policies concerning sustainable consumption and production patterns in Poland will consider the following issues: low-waste production technology; low-use of natural resources; production technologies and maximal-use of recyclable materials technologies; increasing the implementation of new solutions in the production process; introduction and dissemination of new technologies; introduction of environmental taxes encompasses whole product life cycle; increasing competition of Polish products on foreign markets; reducing wasteful production and wasteful consumption; and, directing demand towards consumption goods produced according to sustainable production technologies.

**Programmes and Projects:** Several programmes and activities have been initiated, focusing on the promotion of sustainable consumption and production patterns, e.g.: Environmental Protection Programme in the Country Areas, selection of domestic waste in several Polish cities, promotion of multiple-use packages, introduction of ecological substitute products. The major governmental programmes carried out with cooperation with industry sector are the following: (i) Programme for Hard Coal Mining for the years 1996 (2000), one of the major tasks of the programme is to reduce elements burdensome to the environment through: reducing methane emission to the atmosphere, reducing salt dumping to the rivers, increasing utilization of mining waste, improving coal quality; (ii) Programme for Oil Sector Restructuring, one of the tasks of the programme is petrol quality improvement with regards to customers and environment through: reducing lead and sulphur content in petrol, reducing sulphur content in diesel oil, increasing production of unleaded petrol; (iii) Programme for Steel Industry Restructuring, implementation of the programme will result in: increase at economic efficiency of steelworks, gaining competitiveness on international markets, modernization of technologies and adjustment of production and employment capacities to the possible level of acquisition, environmental protection against harmful influence of steel production; (iv) Programme for Cleaner Production (1991), the main element of the programme is implementing of the cleaner production into technological process, and prove better economical and ecological effects due to applied cleaner production; (v) Programme for Quality Promotion (1992), which is aiming at dissemination of quality and environment systems management compatible with ISO 9000 and ISO 14000 standards, and getting certification for these systems; (vi) Programme for Support of Regional Institutions Development Acting for Technology Transfer (1997), which is aiming at modernizing small and middle enterprises through new and ecological technology transfer; (vii) Programme for Polish Economy Innovation till 2006, under preparation, the programme is aiming at creation conditions for development of Polish economy competitiveness and its priority is: cleaner production programmes support, preparation of national environment protection technologies data base, development of effective energy use certificates, development of local initiatives concerning renewable energy sources.

**Status:** The main obstacles in the process of sustainable consumption and production patterns promotion are related to: limited financing resources; insufficient political elite's awareness on sustainable development issue and its influence on country development; limited industry managers' awareness of sustainable production and its influence on product and service competitiveness on the open market.

**Capacity-Building, Education, Training and Awareness-Raising:** Several training, seminars and conferences directed towards awareness-raising for sustainable consumption and production have been launched by Polish NGOs, including on: the concept of Cleaner Production Programme; cooperation between local authority and municipalities aiming at preparation and execution of environmental protection programmes (Polish Centre for Cleaner Production, functioning within Federation of Scientific-Technical Associations and National Centre for Cleaner Production Implementation, functioning within Main Institute of Mining in Katowice); training concerning quality management system ISO 9000 and the environmental management ISO 14001, organized within the Quality Promotion Programme of the Institute of Industry Organization and Management and the Institute of Research and Certificate in Katowice, Regional Centre of the Quality Promotion Programme, in cooperation with the Ministry of Economy, Polish Forum ISO 14000, Polish Forum ISO 9000.

**Information:** Different types of information assisting decision-makers and industry managers to plan and implement policies and programmes related to sustainable production and consumption patterns have been developed and provided. The National Information Supporting Sustainable Development includes three databases provided by the Agency of Technique and Technology, the Waste Management Institute, and the Scientific Research Committee. There has been also organized the Information Bank of New Technology, as a part of the Cleaner Production Programme, by the National Centre of Cleaner Production Implementation, functioning within the Main Institute of Mining. The monitoring system of the Inspection of Environmental Protection includes supervision and survey of the implementation of environmental laws and regulations, audits compatible with ISO 14000 and ISO 9000 certificates. Information on sustainable production and consumption are available through: National publications; Bulletin published by Cleaner Production Club; Site of Main Institute of Mining with information provided by National Centre of Cleaner Production Implementation, [www.gig.katowice.pl](http://www.gig.katowice.pl).

**Research and Technologies:** The Office of Competitiveness and Consumer Protection analyzes changes in production and consumption patterns related to trade changes. According to the analysis Polish consumers' behavior does not differ from international standards and is related to the transformation process of the country economy. The Institute of Domestic Market and Consumption conducts research on behavioral changes and customs changes of Polish consumers. The research is conducted in individual market segments and according to group age. There are also analyzed changes among consumers in relation to the globalization of trade and introduction of foreign trade firms into the Polish market. In Poland, several changes in production and consumption patterns have been noticed recently, including: modernization of production, introduction of new technologies (at not sufficient scale yet), introduction of new products, especially consumer goods, changes of the work relations. Environmentally sound technologies are promoted and applied in the production process through development of standards and promotion programmes, enhancing the efficiency of activities of the Technique and Technology Agencies.

**Financing:** The Agriculture Restructuring and Modernization Agency Budgetary provides main resources required for carrying out sustainable development activities. The National Fund provides other financial resources including credits and funds for Environmental Protection and Water Management and the Environmental Protection Bank.

**Cooperation:** The Polish Government is involved in several international cooperation related to 1992 HELCOM Convention, UNFCCC, Montreal Protocol, and Sulphur Protocol I and II to the Geneva Convention. Poland is also involved in several bilateral agreements concerning environmental protection and eco-transfer.



## CHAPTER 4: CHANGING CONSUMPTION AND PRODUCTION PATTERNS - ENERGY

**Decision-Making:** The governmental body responsible for the issues concerning energy in general is the Minister of the Economy. The Energy Regulatory Authority plays the role of the regulator and as well is responsible for promotion of competition in the sector. In competition issues the energy sector is also a subject to supervision of the Office for Competition and Consumers Protection. The Ministry of the Environment and other bodies are also in charge of some specific energy issues. The currently binding basic energy legislation in Poland is as follow: The Energy Law (1997); the Act on the State Reserves and Obligatory Stock of fuels (1996); the Geological and Mining Act (1994); the Nuclear Act (1986) (there is a new Nuclear Act approved by the Parliament on 29 Nov. 2000, which will replace the current one. It will enter into force on 1 Jan. 2002, with exemptions of some provisions – mainly concerning the President of State Atomic Agency – which are already in force); the Act on Restructuring of Hard Coal Mining Sector (1998); the Act on Thermomodernization (1998); the Act on Protection and Forming of Natural Environment (1980). In 2000 Government adopted the Assumptions of Polish Energy Policy until 2020, which describe the elements of country's sustainable energy strategy. The main elements are: integrated management of energy and environment; decentralization of the energy systems; liberalization of the energy markets; improvement of the energy efficiency. In 2001 the Polish Parliament adopted Strategy for Renewable Energy Development, based on the document "Poland 2025: Long-term Strategy for Sustainable Development". The participation in the decision making process is guaranteed by law, but currently the private sector involvement in energy production and distribution is rather limited. However, there are plans for wide privatization and larger introduction of private sector into this field of economy.

**Programmes and Projects:** In Poland there are several programmes setting out long term goals concerning energy related issues, which are: privatization of energy sector; restructuring of the coal mining sector; expanding the energy markets; improvement of the access to the electricity and gas grids; use of alternative sources of energy; implementation of the EU energy and environmental legislation into the national law; change of the structure of primary energy and finale energy use; development of the energy networks for transport and import purposes; modernization and development of the local energy supply infrastructure; etc. There is a programme enhancing accessibility of energy to urban and rural households, which aims at the development of competitiveness of the energy markets and its main goal is to decrease the price of energy. There are also programmes implemented at the national level to introduce instruments encouraging the development of renewable energy, and the use of natural gas, heat and power plans in the process of electricity generation. There are many international programmes with the EBRD, GEF, the European Union, which cover important energy efficiency related issues in Poland (transfer of energy efficiency policy, experience, know-how and technology).

**Status:** The environmental degradation essentially has decreased during last decade in Poland. The achievements are the result of the programmes implemented in the energy and mining sector, which included actions such as rationalization of energy, fuels and resources consumption; new technology, etc. as well as the change in energy production and energy consumption patterns in general. The visible effect of these changes was inter alia a significant reduction in pollution emissions by the energy sector. The share of renewables in primary energy production and consumption has increased during the last decade; however, it is still quite low (about 5,5% in primary energy production and about 5% in primary energy consumption). To support the development of this kind of energy the obligation was imposed on energy enterprises dealing with electric energy trade to purchase certain amounts of electric energy produced from renewables. The main barrier against further development and usage of renewable energy sources is the economic effectiveness, legal and financial questions; lack of information; limited access to the equipment and new technologies; etc.

**Capacity-Building, Education, Training and Awareness-Raising:** Measures and activities undertaken to promote public awareness include: international conferences on the subject of energy efficiency; workshops; information brochures; press-conferences; articles and publishing of magazine Energy; promotional billboards; promotion of the activities aiming at rising the public awareness concerning energy related issues. There are no education programmes in primary and secondary schools for promoting early awareness-environmental-related issues in consideration of energy. The energy consultancy training schemes are also relevant and promote a great

understanding of energy-related problems and interest of professionals in seeking job and the knowledge of upgrade opportunities, energy auditing, consulting and management. Furthermore, there are also many programmes developed in the universities and organizations involved (rational energy use, energy conservation etc.).

**Information:** Information on energy and energy-related issues is well covered within the public statistics of Poland, which have as a legal base the Act on Public Statistics and the Annual Programmes of Statistical Surveys. Energy data are collected and processed by the Central Statistical Office and the specialized institution the Energy Market Agency. Various governmental institutions, research institutions, energy sector companies, international organizations (Eurostat and the IEA) are the main recipients of Polish energy information. Energy information is also available to the public, taking into account the principle of statistical confidentiality of individual data of the companies, in the form of statistical yearbooks and other periodicals.

**Research and Technologies:** In Poland, there are systems, which are related to hydro energy, wind energy, geothermal heat and biomass.

**Financing:** Within a framework of the Act on Thermomodernization (1998), the Fund for Thermal Modernization was established to support for thermomodernization investments. The Bank of National Economy provides the resources but some conditions have to be fulfilled by applicants to receive the support. Besides national resources, sources from outside the country include: European Bank for Reconstruction and Development; World Bank; Global Environment Facility (GEF); European Investment Bank, bilateral agreements. There is also the National Fund for Environmental Protection and Water Management, funded from charges paid by companies emitting noxious substances to the environment and other environmental charges, which supports major pro environmental projects. Preferential donations for pro-ecological purposes may be also obtained from ECOFUND. The enterprises modernization receives financial support as a warrant or credit guaranties from the State Treasury by Bank of National Economy.

**Cooperation:** The main direction of Polish international and bilateral cooperation concerning energy is the harmonization of Polish law with the EU law. So, Poland will participate in the following programmes: THERMIE, EUREKA, JOULE (non-nuclear programmes); SYNERGY (cooperation within the energy sector); SAVE (improvement of the energy efficiency); ALTENER (promotion of the renewable energy sources).

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## CHAPTER 4: CHANGING CONSUMPTION AND PRODUCTION PATTERNS - TRANSPORT

**Decision-Making:** The Ministry of Transport and Marine economy is responsible for making decision in the management and overseeing the national transport strategy, also coordination of the process of policy formulation concerning the national transport system. The responsibilities of territorial authorities are defined in the relevant acts related to the administrative reform (1999). There are national legislation regulating a number of questions as: environmental standards for road vehicles and fuels; emissions and safety standards concerning aviation and maritime; differentiated excise tax and fees for usage of the environment. The Assumption of National Transport Policy of Implementation of Sustainable Development during 2000-2015 was adopted recently and its main elements are: rationalization of the transport system, introduction of environmentally friendly types of transport, application of the Best Available Technology. The long-term strategy: National Transport Policy for Sustainable Development of the Country during 2001-2015 was produced in 2001. Polish Government has recently launched restructuring plan of the State Railway Company, in which the private sector will be involved. The participation of groups and individuals in the decision-making process is regulated by the Act on Access to Information on the Environment and Its Protection and on Environmental Impact Assessment (2000). Apart from it, the preparation process on transport strategy includes wide range of consultations with experts and public.

**Programmes and Projects:** There is a comprehensive programme covering important issues concerning national transport system – Programme of Joint Actions with UNECE. In connection to the cooperation with the EU was introduced a programme PHARE Multi Country Approach – Transport and Environment. A research programme, called Internalization of External Costs of Transport and Infrastructure, which aims at defining methods and instruments for estimation of external impacts of the road transport in Poland was also adopted.

**Status:** In Poland, the mode of transport requiring the most immediate attention in reducing damages to the ecosystems is the truck transport. Also this type of road transport needs improvements in order to decrease the solid particles emissions and smoke. The improvements focusing on transport efficiency are particularly needed in railway transport system. The major obstacles preventing the country from adopting more efficient transport system are insufficient funding and not yet completed restructuring and privatization process of this economy sector. The most vulnerable sectors in terms of the harmful consequences or ill-managed transport and traffic system are social health, forestry and agriculture.

**Capacity-Building, Education, Training and Awareness-Raising:** The Polish government organizes advertising campaigns aimed at promotion of the environmental approach to the transport policy (professional presentations, establishing websites, TV information spots and public consultations). These campaigns aim also at rising people awareness of the impact of transport on the environment, encouraging people to use their car less. The educational programme on traffic safety includes professional presentations, lectures at schools and competition for pupils. There also organizes educational TV programmes. The environmental issues are included in the secondary schools education curricula in a form of independent subject. Initiatives to introduce environment concerns are also identified in various public and private universities.

**Information:** The information system related to the transport system and to the traffic the Research Institute of Roads and Bridges have currently developed system. The data base includes information concerning all kinds of means of transport. There are no periodicals publications concerning level of emissions or traffic conditions. The only information provided to the public is the current traffic situation on the cities streets, which is broadcasted by the local radio stations.

**Research and Technologies:** The new technologies being devised to promote the use of alternative energy sources for transport are LPG natural gas, and mixture of conventional petrol and biopetrol. The new scheme, which is being introduced in order to develop more efficient traffic system includes as follow: introduction of the traffic management systems in the cities; building of bypasses; increase of the number of road crosses with traffic lights; introduction of equipment in the buses and trains, etc.

**Financing:** The main sources of funding for the following aspects of transport are: (i) new infrastructure: national budget and the EU funds; (ii) supply of fuels: private sector investment; (iii) research and development of alternative fuels and transport efficiency: national budget and private sector; (iv) enforcement of regulations and standards: private sector. The development of the system of highways needs active involvement of national and private investment.

**Cooperation:** Poland is participating in the TINA Programme. In the future, after needed adjustments, the Polish transport system will be included in the programme TEN. Poland is a member of several international organizations: UNECE, OECD, EKMT, HELCOM, Baltic Agenda 21, IMO, ICAO, and is obligated to fulfill several international commitments of Kyoto Protocol, and Montreal Protocol.

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## CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

**Decision-Making:** The basis for decision making by the government and for parliamentary acts affecting Poland's demographic policy are prepared by: the Governmental Population Commission, the Central Planning Office, and the Council of Minister's Social Committee. The demographic priority for Poland is to stop the tendency of serious decrease of the natural growth and ageing of the population. The Government considers population growth satisfactory but the fertility level too low. There is a need to develop and implement a new National Social Policy adequate to the market economic system in Polish, providing a proper place for the family and the necessary means to meet the basic and developmental needs of families. Under the new conditions, the State will safeguard to a much lesser degree the population's economic well-being than was the case in the past. This means that a family in Poland will have to take care of its security by its own decisions, through labor and economic activity. Demography and family well-being issues are fundamental in the document "Poland 2025 - long-term strategy for sustainable development" adopted by the Council of Ministers in 2000. Overall aim of the strategy is securing family welfare, and its self-sufficiency and safety.

**Programmes and Projects:** No information available.

**Status:** On December 31, 1995, the population of Poland reached 38.62 million. Since the mid-eighties a downward trend in population growth has been noted. The real growth of population is even lower due to a negative balance of foreign migration. In recent years, Demographic development of Poland has been characterized by a slackening of population dynamics and by a decrease of spatial mobility, resulting in reduced migration from rural areas to towns. During the period 1995-2010, the effects of changes in the age structure of the population will be as follows: a considerable increase of youth of elementary and higher school age; a large growth of population in the post-productive age until the year 2010 and a decrease after that date; and the productive age population getting older. The irreversible process of ageing of the Polish population, especially intense after the year 2010, and the high percentage of single people requires a comprehensive reconstruction of systems of social care. Specific actions must be undertaken to improve the economic status of families and implement the wage-cum-revenue policy to a higher extent considering family status, and to eliminate unemployment and develop social assistance with a view to creating appropriate family income especially in families with young children. A system should be developed for crediting housing. Deficits in housing jeopardize Poland's further demographic development.

**Capacity-Building, Education, Training and Awareness-Raising:** In 1997, the educational programme "Agenda 21" begins, aimed at disseminating the basic Agenda-21 assumptions. This is being accomplished in cooperation with the Baltic University in Uppsala.

**Information:** No information available.

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

**Financing:** No information available.

**Cooperation:** No information available.

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## CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

**Decision-Making:** In Poland, the Ministry of Health and Social Welfare is in charge of implementation of the goals and recommendations of Agenda 21 regarding protection of human health. The National Health Programme and the Strategy for Health are strategic documents that respond to the recommendations of Agenda 21. The legislation and regulations in effect to promote health protection include: the Act on State Sanitary Inspectorate (1983), the Regulation of the Ministry of Health and Social Welfare on requirements for drinking water and water for communal use (1977, with subsequent changes), the Act on Water Law (1972, amended in 1990), the Regulation of the Ministry of Health and Social Welfare on permissible concentrations and volume factors harmful for human health emitted from building materials, equipment and furniture in rooms designed for human residence (1996), the Act on Extermination of Infectious Disease (1963, currently amended), and the Act on Health Resorts and Health Resort Care (1966). The Draft Act on Common Health Insurance was submitted to the Polish Parliament in 1996 and the final version will be the framework of the new health care system, based on concentration of health services and covering all social groups, including the poorest, the unemployed, and those benefiting from social care. Some legislation, including that on chemical safety and requirements for drinking water, is under preparation. Major groups involved in health promotion and protection include: the health department, state administration bodies, parliamentary commissions, research institutes, medical academies, youth and school children, Council of Farmers, ecological foundations, non-governmental organizations, local government, and local communities.

**Programmes and Projects:** The National Health Programme (1996), is coordinated by an inter-departmental team headed by the Minister of Health and Social Welfare and its main directions cover: shaping benefits for health behavior and life styles, elimination of health threats caused by the environment, optimization of health care, elimination of diseases possible to prevent, reduction of mother-, infant- and child-mortality rates, limitation of the scale of diseases which are the main reason of death (cardio-vascular, neoplasm), and prevention of accidents and poisoning. The concept of the National Health Programme is based on the European strategy "Health for all till 2000", developed and recommended by the WHO. On the basis of several studies, the strategic Governmental Programme Environment and Health is being prepared within the National Health Programme. For several years, work has been conducted on the modification of the financing system of health service units. The Strategic Programme of Safety and Human Health Protection in the Work Environment (1995-1999) and the Programme on Conversion of Basic Health Care (decentralization) have been implemented. An institutional system for AIDS prevention has been established and a system for contagious disease monitoring, regulated by administrative provisions, was created. A very high rate of vaccination has been provided for the population. An overall reduction of mortality from polio, pertusis, and measles has been achieved. The Ministry of Health and Social Care and subordinate institutions, following WHO recommendations, support the programmes: Healthy Cities, Healthy Hospital, and Healthy Apartment. The Sanitary and Epidemiological Service, under the framework of its statute activity, controls environmental factors which have an influence on the spread of contagious disease (the control of drinking water quality, carriers of contagious disease, and waste disposal). The Institute of Food and Nutrition as well as the Food Research Divisions of the Sanitary and Epidemiological Service promote proper nutrition patterns. The programmes for early diagnosis are being reinforced. Other programmes include: Heart Protection, Cancer Diseases Fighting, Emergency Services Reform, Self-sufficiency in the field of Hemotherapy and Blood Donating, Increasing of Efficiency of Mother and Child Health Care, Improvement and Development of Transplantation and Dialysis Therapy, Activity Directions of Dental Care, Medulla Transplantations, Pneumonia and Diabetes Fighting, and Priority Activities in Surgery and Orthopaedy.

**Status:** Basic health care in the country includes all the problems of prenatal care. Several modern, children and youth oriented preventive programmes are being implemented (including those for high risk groups): preventing and solving alcohol problems, drug use prevention, healthy life style promotion, and rehabilitation and post-rehabilitation actions. The State Sanitary Inspectorate and the Inspectorate for Environmental Protection realize the basic aims of Agenda 21 in the area of decreasing health risks caused by contamination of the environment. It is necessary to introduce the Monitoring of Environmental Health Risks and Its Effects project, which has already been elaborated in the Ministry. In the framework of State monitoring of the environment, measurements of air pollution are conducted in the basic and general supervision nets. WSSE and the science and research institutes

conduct the measurement of air pollution in apartments. Constant monitoring of drinking water quality is conducted. Bathing places are supervised with a view to compatibility with sanitation standards. The Programme of Ecological Actions for Health in Europe is being realized (elaborated by the European WHO Office on the basis of assumptions of the European Card "Environment and Health"). The Commission for Sustainable Development has worked out "Priority actions in environmental protection with a view to health protection in Poland". Clinics of environmental medicine are being created. Several steps have been undertaken aimed at monitoring and decreasing health risks in the most polluted regions. Difficulties are connected with the economic crisis in recent years and the economic transformation of the State. There are not enough well trained personnel in the field of public health and environment. Existing legal solutions regarding the healthy state of the environment are not satisfactory. Modern technologies and new organizational structures are necessary, especially in the field of sanitation and epidemiology.

**Capacity-Building, Education, Training and Awareness-Raising:** The Ministry of Health and Social Welfare provides training courses for managers of the reformatting system of health protection (currently at Schools of Public Health in Cracow and Lodz). Highly qualified environmental doctors are being trained in Sosnowiec to solve problems connected with the unfavorable influence of various environmental factors on human health. Postgraduate training is provided for the requirements of the State Sanitary Inspectorate. The WHO Programme "Health Promoting Schools" covered 14 schools in Poland and a few hundred associated schools. The issues of health and environmental protection have been included in school curricula. Training is being provided for farmers and village councilors on the principles of safety-at-work. The Polish television TVP S.A. is broadcasting a number of serial programmes regarding protection and promotion of human health.

**Information:** No information available.

**Research and Technologies:** Institutes subordinate to the Ministry of Health have been studying the environmental impact on health since 1992. A set of health indicators is being prepared for monitoring the health goals of the National Health Service (Health Service Indicators Programme, conducted in cooperation with the WHO Regional Office in Copenhagen). See also under **Status**.

**Financing:** Expenditures from the state budget designed for health protection and social welfare amounted to 3.3% of GDP in 1993 and 3.5% in 1994. It has been estimated that over a seven-year period, annual financing of the programme area "Reduction of risks to health which result from contamination of the environment" is US\$ 3.2 million from National sources and US\$ 920,000 from international assistance. The achievement of objectives related to communicable diseases is estimated to cost US\$17.9 million a year, primarily from National resources. Several health programmes have been established in Poland with the support of WHO and the International Programme on Chemical Safety (IPCS).

**Cooperation:** No information available.

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## CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

**Decision-Making:** The most important advance in Poland is the introduction of new legal solutions as the main operating tools for activity in human settlements, which include: the Self-government (territorial) Law of 1990; the State Ecological Policy; the Physical Development (planning) Act of 1994; the Building Law; procedures for the application of environmental impact evaluation on investment; and procedures for the evaluation of environmental impact of physical development plans. Major groups involved in sustainable human settlements include: self-government (territorial) authorities; the general public; non-governmental organizations; professional organizations, and state administrations (in particular, the area of environmental monitoring and education). The Long-term Strategy for Regional Development till 2025 was produced in 2001.

**Programmes and Projects:** For a number of housing projects, local sustainable development programmes are being prepared following Agenda 21 directions. These are comprehensive environmental protection and developmental programmes taking into consideration the tasks of permanent and sustainable development including: public participation, power industry and waste management problems, water and sewerage management, and limitations of nature's living resources. The UNDP Office in Warsaw also supports the sustainable development housing projects in cooperation with local governments and Housing and Cities Development Office (UMiRM). The cooperation between UNDP and UMiRM has resulted in the preparation of the pilot programme on monitoring of sustainable development of human settlements.

**Status:** General objectives for Poland in the area of human settlements are: improvement of social, economic, and ecological quality of human dwellings; improvement of all inhabitants' living and working conditions; making authorities of all levels aware of their responsibility for sustainable development; and vesting the urban and country dwellers with authority in this domain. In the 1990s, a number of actions have been undertaken aimed at improving the environment in urban areas. This is facilitated by the economic and socioeconomic reform being led by territorial self-government. Activities to reduce water consumption from waterworks resulted in the reduction of the unit index by 10% over the last 6 years. Training of the municipal building managerial cadre has also begun. Since 1990, no growth of the urban population has been noted, and the negative balance of the natural population growth is filled by the migration from villages to towns. An important impact on the living conditions in Polish towns, as in other countries, is the technical infrastructure and the state of the environment. In 1995, 95% of the urban population obtained water supply through water supply systems, and growth of the population using waterworks during the 1990-95 period was 0.2% annually. The quality of water supplied by waterworks improved (less than 8% of water is of uncertain quality). Sewerage systems have been developed slower than water supply systems. In 1995, municipal sewerage networks served 81.8% of the population. Pollution and degradation of the environment resulting from the adopted directions of the country's development in connection with the wasteful exploitation of natural resources became one of the elements of the socioeconomic crisis in the 1980s. This, as a consequence, contributed to enforcing political change in Poland. The pressure on the natural environment keeps growing, with new housing and infrastructure systems taking over more and more space. The so-called green areas in towns are being reduced. Physical natural structures are being built but, unfortunately, there are no estimates to illustrate the phenomenon's scale. Noise as a threat, especially in towns, keeps growing. The greatest nuisance is created by street noise.

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

**Information:** The information concerning sustainable elopement housing in Poland is available via Internet on official web site of Housing and Cities Development Office: [www.umirm.gov.pl](http://www.umirm.gov.pl)

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

**Financing:** US\$ 25,000 from domestic and US\$ 59,000 from foreign sources have been raised to implement the projects on sustainable human dwellings directly stemming from Agenda 21. However the main funds for the



programme originate from local budgets, which finance all types of development plans, as well as those for physical development.

**Cooperation:** Several international organizations, including the Institut de Formation a la Maîtrise d'Ouvrage (IFMO), the International Society for City and Regional Planners (ISOCARP), the Cooperative Housing Foundation (CFH/USA), the International Cooperative Societies Members Association (ICA), the International Urban Planners Union (IUP), the International Real Estate Federation (FIABCI), and the UN Economic Commission for Europe (ECE), have been involved in detailed projects. Also, the exchange of experience on physical development of border areas takes place. Poland actively participated in the UN Conference HABITAT II.

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## CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

**Decision-Making:** The national decision-making structure is characterized by: national sustainable development coordination body; national sustainable development policy, national agenda 21 / other strategy for sustainable development; environmental impact assessment law, and major groups involved in sustainable development decision-making. The forum for policy coordination is provided by: both parliamentary chambers and environmental protection commissions; the Council of Ministers; the Council of Ministers' Economic Committee; the Council of Ministers' Socioeconomic Committee; the Commission for Sustainable Development; bilateral agreements with the Minister of the Environment; and an interdepartmental circular. The Committee for Sustainable and Regional Development of the Board of Ministers is the new permanent Committee of the Government, replacing, and upgrading the political level of the former Commission on Sustainable Development, which existed since 1994. There are no para-statal bodies and institutions or non-governmental organizations involved in this Committee. Given the law, the permanent Board of Ministers' committee membership is restricted to the Members of this Board except of invited experts, depending on agenda. There is a plan to establish a permanent advisory body for sustainable development consisting of academic society, outstanding scientists, business representatives, Parliament Members, local authorities, leaders of trade unions, leaders of non-governmental organizations. The detailed mandate of this Committee is still to be outlined however it is expected to undertake the main functions of the previous Commission and more. That Commission's main task was venturing opinion on government documents, and sectoral policies and strategies from the point of view of long-term strategies and programmes of sustainable development. The main governmental agency in charge of environmental protection and management is the Ministry of the Environment. Its duties include formulation and implementation of the State environment policy, developing regulations on environmental protection, which include environmental quality standards and control of pollutant emissions into the environment, and supervision over subordinate services. It also controls the Inspectorate for Environmental Protection, which is in charge of ecological law enforcement, and research on the environmental status at the National level (environmental monitoring) and the regional level (voivodships-provinces). From their control, the Inspection's organs may impose a duty to undertake action targeted at removing the causes of harmful impacts on the environment, pay fines, or stop the activity resulting in the infringement of environmental protection regulations. At the regional level, the Environmental Protection Sections (State administration agencies) are competent to issue permits for the use of the environment and to authorize emissions through licensing, collect charges for the use of the environment, and exercise supervision over the forest economy and the activities for environmental protection. As regards legislation and regulations, the priority in Poland is the harmonization of ecological law and the decision-making process, regulated by the legal provisions of the European Union's law. The Law on Spatial Management, 1994, identifies sustainable development as the basis for spatial management, and executive acts ensure the application of this principle in practice. The Sejm (Parliament's lower chamber) resolution on sustainable development policy of January 19, 1995 has introduced the duty to coordinate all sectoral policies with the National Environmental Policy. A multi-disciplinary approach integrating social, economic and environmental aspects to national development policies, strategies and plans require good personal ability and education of relevant personnel as well as establishment of multi-sectoral teams to resolve specific problems is required for integrating sustainable development principles into national development plans. In the new structure of central administration each office has to have a sectoral policy department (i.e. Department of Environmental Policy) for meeting this particular requirement. The basic documents have to be circulated for opinions to other sectors, and, when necessary, publicly discussed. The obligatory EIA schedule has been introduced for each sectoral development programme. The major groups involved in promoting integrated decision making include: Parliamentary deputies, territorial self-government council members, scientific workers, and non-governmental organizations. In late 1990's three new strategy documents for sustainable development of Poland and the environment till 2025 were produced, in line with international trends towards sustainable development and environmental protection, and in particular with the 6<sup>th</sup> EU Environmental Action Programme: State Environmental Policy II (adopted by the Polish parliament in 2001); Strategy for Renewable Energy (adopted by the Polish parliament in 2001); Poland 2025-Long-term Strategy for Sustainable Development (adopted by the Council of Ministers in 2000). Recently a number of new legal regulations, being in line with the EU environmental management requirements, have been implemented. The most important are: The Act on access to information on the environment and its protection and the environmental

impact assessments (2000); the updated Act on nature conservation (2000), The Environment Protection Law Act (2001), The Act on Waste Law (2001) and The Water Law act (2001).

**Programmes and Projects:** There are many national instruments and programmes introducing sustainable development concerns in education, production, consumption and public and private administration.

**Status:** No information available.

**Capacity-Building, Education, Training and Awareness-Raising:** All the final UNCED documents have been translated and disseminated to highlight the Conference's accomplishments and to facilitate action. At the expense of the Sustainable Development Council, which operated within the President of the Republic's office until 1995, materials were published recommending sustainable development policies at the communal level. This action assumed quite big proportions. At the end of 1994, the Senate (Polish Parliament's upper branch) organized a meeting with representatives of the scientific milieu and non-governmental organizations on the "Evaluation of the National Environmental Policy" in the context of the "Strategy for Poland". The meeting examined the extent to which sustainable development rules were reflected in the basic document dealing with the operations of the Government of the Republic until the year 2000. A great many conferences, seminars, training, and other meetings have been organized in various milieus, including high (secondary) schoolteachers, promoting the sustainable development philosophy. The primary capacity building/technology issue in Poland relates to the creation of prospective energy related technologies. In the context of the reform of Poland's central administration a new Office, the Central Bureau for Strategic Studies, was recently established replacing the former Central Planning Office with extended TOR and modernized infrastructure. Its mandate includes dealing with capacity-building issues. Capacity-building principles are applied in almost each sectoral and cross-sectoral programme so as to upgrade the effectiveness of implementation. This approach was initiated within the first stages of the EU PHARE Environmental Sector Programme using technical assistance provided by European Union. One of the four components of the Poland - Environmental Management Programme was capacity-building for the effective management of environmental resources at the national, regional and local levels, financed by a World Bank loan. The relevant experiences and capacity having been received within the first international technical assistance programmes allow the replication of this approach in national programmes. The major tools for implementation seem to be education, information for decision-making, public participation and science.

**Information:** The projects aiming at improvement of the current design of the national information network carried out by Polish government are: National Biodiversity Data Management; Clearing House Mechanism and EnImpas Data Base (Environmental Impact Assessment). Currently, the Ministry of the Environment is preparing the project called Environment 2000 aiming at better flow, management, and dissemination of environment information. The improvement of the quality of environmental data is essential in the process of improving the flow and management of information. The priorities of this process are: environment data gap filling, standardization of information collecting methods, improvement of the quality of the environment reports prepared at local, regional and national levels. The report "Issues of the environment in Poland", including environmental indicators, as well as other reports on the state of the environment, are issued on a regular basis. Information on sustainable development is published on the Ministerial Internet site, which provide a lot of links to the other institutions: [www.mos.gov.pl](http://www.mos.gov.pl).

**Research and Technologies:** Scientific research related to sustainable development indicators, and the Government has financed activities to integration of data collection system with statistical information system.

**Financing:** No information available.

**Cooperation:** Poland has signed 35 international conventions most of which have been ratified. In the last few years, Poland has concluded mutually advantageous bilateral agreements with our direct and indirect neighbors in the field of environmental protection. This has made regional cooperation particularly constructive and fruitful. Poland, together with the bordering countries of the Federal Republic of Germany, the Czech Republic, Slovakia, Ukraine, Belarus, Lithuania, and Russia, has been implementing a number of joint projects. The country participates in regional projects such as the Baltic Sea protection, the protection of Europe's Green Lungs, the

Eastern Carpathians, the Lower Order, the Black Triangle, and the Silesian-Orava region. The Ministry of the Environment cooperates actively in the implementation of Agenda 21, other United Nations sustainable development programmes, the Council of Europe's work, the Central European Initiative, the European Union, the Organization for Economic Co-operation and Development (OECD), and international financial institutions.

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## CHAPTER 9: PROTECTION OF THE ATMOSPHERE

**Decision-Making:** In 2000 the Council of Ministers adopted the National Environmental Policy II till 2025, containing i.e. the programme for implementation of the recommendations under the Framework UN Convention on Climate Change and the Kyoto Protocol. The Vienna Convention on the Protection of the Ozone Layer entered into force in Poland in 1990. Poland takes measurements of and pursues research on the ozone layer at two stations and transmits the results to the international centres with which Poland cooperates. The Montreal Protocol (1987) has been binding on Poland since 1990. Since 31 Dec.1996 Poland is the Party to the London's and Copenhagen's amendments, and since 5 March 2000 the Montreal's amendments to the Protocol. Poland is submitting annual data on production and use of the ozone depleting substances. The legal decision making structure on atmosphere in Poland was determined by the Environmental Protection and Management Act (1980); the Act on the State Inspection for Environmental Protection (1991); the Order of the Minister of Environmental Protection, Natural Resources and Forestry on protection of air against pollution (1990); the National Environmental Policy, adopted by Parliament (1991); the National Environmental Policy Implementation Programme to the year 2000, passed by Parliament (1995); the Parliamentary Resolution on Sustainable Development Policy (1995); the Order of the Council of Ministers on fees for economic use of the environment and introducing changes to the environment (1993); the Order of the Council of Ministers on the level, principles, and procedure for imposing monetary fines for non-compliance with environmental requirements (1995); the Order of the Minister of Transportation and Maritime Economy on technical conditions and testing of vehicles (1993); and the Order of the Minister of Environmental Protection, Natural Resources and Forestry on determination of the type of investment hazardous for the environment and human health and environmental impact assessment (EIA) (1995). A new framework Act, Environmental Protection Law was adopted on 27 April 2001. This Act regulates also issue related to access to information and public participation in decision-making process with regard to the environment.

The strategy for environmental protection, including air protection with sustainable development issues is contained in the document POLAND 2025 – Long term strategy of sustainable development, prepared by the Governmental Center for Strategic Studies in cooperation with the Ministry of the Environment. The implementation of the New Ecological Policy will follow the framework established in the above strategy. The key priorities have been splinted to short-term (up to 2002), medium-term (up to 2010) and long-term (up to 2025). The next document dealing with air protection is the National Strategy for Environmental Protection. The key issues contained in this document and related to air protection are: GHG emission reduction, ozone depleting substances emission reduction, improved energy efficiency and the use of natural resources.

**Programmes and Projects:** The Implementation Plan of the New National Environmental Policy is being presently prepared and its approval is scheduled on 2002. Since 1997 Poland takes part in the international Programme for measurements of air pollutant concentrations in Europe under EMEP, and four measuring stations in Jarczew, Łeba, Diabla Góra and Cieřka have been working for the Programme. A movement for cleaner production based on the declaration and the letter of intent concerning cooperation signed by the Minister of Environmental Protection, Natural Resources and Forestry and the Minister of Industry and Trade is being developed in Poland. Preparatory work continues on establishing the Polish Forum ISO-14000 Club, with the task to promote environmental management systems as proposed in the International Standards Organization ISO-14000 standard. Initial steps have already been undertaken towards implementation of these systems in selected enterprises. The Responsible Care Programme was launched in 1994 and became operational in 1995 in the chemical industry.

**Status:** In the years 1990-1999 total dust emission dropped down by 58%, SO<sub>2</sub> by 46% and NO<sub>2</sub> by 26% and thus Poland met its international commitments in this scope. In the 90's of the 20<sup>th</sup> century the emission of other gaseous substances had been also going down systematically. This refer to gaseous pollutants being under control of the Montreal Protocol on ozone depleting substances, UN Framework Convention on Climate Change and also the Kyoto Protocol, not yet ratified.

**Capacity-Building, Education, Training and Awareness-Raising:** The setting up of the Executive Office for the Climate Convention in 1999 is an example of capacity building for the implementation of the UNFCCC. The Office draws up i.e. draft reports, analysis and proposals, which are essential for the implementation of national strategy for GHG emission reduction in the economy and its sectors. In 2000 the National Center for Emission Inventory was set up in the Institute of Environmental Protection, with the purpose of the unification of reporting and inventory of air pollutants for the needs of: environmental management and country statistics, the Convention on Long-range Transboundary Air Pollution, UN Framework convention on Climate Change, commitments towards OECD, EUROSTAT, EEA. Capacity building of the society is being conducted also within different structure, regarding all issues on air pollutants, through training courses and workshops and the issuing of thematic brochures.

**Information:** Information on the issues of air protection and its pollution are being submitted in line with Polish regulations and international requirements. Up to date Poland has submitted to the UNFCCC Secretariat two governmental reports on the implementation of the obligations of the Convention, and the third report is being produced. Poland also submits on a regular basis the reports under the Convention on Long-range Transboundary Air Pollution and the Montreal Protocol on ozone depleting substances.

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

**Financing:** The system for financing environmental undertakings, currently operating in Poland, is based mainly on the investors' funds. Environmental investments are also financed from the funds of the National Fund for Environmental Protection and Water Management, provincial funds for environmental protection and water management, the EcoFund (which administers the funds from the Polish debt for the environment swap) and in some cases from the State budget. Credits and grants are coming also from foreign funds, i.e. the World Bank, GEF and from the bilateral cooperation. An example of the GEF project implemented in Poland is a multiyear project on coal to gas conversion, and the elimination of ozone depleting substances. Poland has also received the financial support under the bilateral and multilateral cooperation with i.a. the USA, the Netherlands, Norway and Germany.

**Cooperation:** The Geneva Convention on Long Range Transboundary Air Pollution (1979) was ratified by Poland in 1985. The Geneva Protocol of 1984 was ratified in 1988. The protocol on reduction of nitrogen oxide emissions was signed by Poland in 1988. Poland was not a signatory to the protocol on sulphur emission reduction or the reduction of their transboundary flow by at least 30%, signed in Helsinki in 1985, but it conforms to its provisions. The Second Sulphur Protocol was signed by Poland in 1994. It has not come into force yet, but Poland committed itself to implement its provisions on the basis of a special declaration of ministers adopted before the signing. The UNFCCC was signed by Poland in 1994. Poland cooperates bilaterally with Germany, Finland, Norway, France, Switzerland, Denmark, Czech Republic, Sweden, Lithuania, and Belarus. The country also takes part in the UN ECE activities on energy. Poland fulfills commitments concerning limits of emissions of the Kyoto Protocol and does not foresee any problems in further fulfillment in the future. The decision of the ratification of Kyoto Protocol has not been made but in connection with declaration of the Parties to the United Nations Framework convention on Climate Change to ratify and put into force in 2002 the Kyoto Protocol, Poland undertakes the preparatory actions to be ready for ratification of the Protocol. Poland also fulfills commitments of the Vienna Convention and the Montreal Protocol.

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

**Decision-Making:** In Poland, State administration is responsible for decision-making on protected areas, state forests, and protection of mineral resources; while territorial administrations are responsible for protection of resources at the local scale. The basic role of local governments in the decision-making system hampers the extension of protected areas. Poland's priorities for land resources are: protection of environmentally valuable areas; expansion of forest cover; reclamation of degraded land; rational use of non-recyclable resources; and counteracting environmental crises. From the legal point of view, protection of the earth's surface resources and their rational use can be provided through the application of the National law and physical planning which constitutes the basis for enacting local law within communities. Modern legislation, in particular the Act on Physical Planning (1994), and the Acts on Nature Conservation and on Forests (1991), has contributed to capacity building. In accordance with the National Environmental Policy, the areas where environmental pollution indices have been exceeded (the 27 so-called environmental hazard regions) monitoring of the state of the environment has been conducted continuously. In these areas, the most serious environmental problems occur as a result of atmospheric pollution, excessive exploitation of raw materials, and the concentration of post-mining and post-industrial waste. Because these regions cover about 10% of the country's territory, Poland believes they require careful examination to identify the areas, which require reclamation. Major groups involved in integrated land resource planning and management include interested local communities, non-governmental groups, experts, nature conservation administrations, etc. Comprehensive planning and management of the earth's resources in Poland includes: legal protection of areas of particular natural values; sustainable management in forested areas including regular expansion of forest cover in the country; rational use of mineral resources; and reclamation of degraded areas and contaminated soil.

**Programmes and Projects:** Protection areas of particular natural value constitute one of the largest programmes in spatial and substantive meaning. A programme called the Environmental System of Protected Areas or the Large Scale System of Protected Areas has been implemented in Poland since the mid-1970s. Its principal idea was the creation of a coherent, interconnected system of protected areas.

**Status:** Diversified protection regimes for individual elements of the system, and the existence of key areas and their interlinkages through environmental corridors have been reorganized. Currently the system includes national parks, countryside parks and natural reserves. All together over 23% of the national territory is protected on the basis of the Nature Conservation Act. It should be emphasized that in the majority of cases such protection is of a comprehensive character, which means that both the values of living and non-living nature, including surface features and geological resources are protected. Under the Act, the protection of objects of local importance is also possible. This includes the so-called environmentally valuable sites, geological sites, etc. Protection, in each case, means at least a ban on changing the form of use. In the case of areas of higher protection standard (national parks, reserves), efforts aiming at naturalization are also important. About 48% of the area of state forests is subject to protection. Such areas are located mostly around large cities, in health resort areas, along rivers and the sea coast, in dune areas, and others types. Management in protected forests is governed by the special functions performed by these forests (water protection, soil protection, etc.). In the field of forestry, activities are aimed at increasing the forest coverage of Poland from the current 28% to over 30%. This will be achieved through afforestation of farmland, which is not presently used for agriculture.

Polish agricultural hot-spots were reviewed using available statistical and measured data. A computer model, using GIS (Geographic Information System) software was developed to evaluate Polish Agriculture Area. Using this tool it will be possible to create protection plans for reduction of biogens migration to surface waters and later to Baltic. The preliminary result shows very large differences in agriculture intensity in different regions, and the possibility of its secure intensification. In other locations on so-called sensitive areas special means of protection should be applied or fertilization limitations implemented.

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

**Information:** No information available.

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

**Financing:** Protected areas are financed from the resources of the State budget or from voivodship (provincial) budgets. The tasks of reclamation activities rest to a considerable extent with the National Environmental Protection and Water Management Fund. Reclamation of damages, which occurred as a result of exploitation of rocky mineral resources, rests with the enterprises, which obtained licenses for their exploitation.

**Cooperation:** International cooperation with regard to protected areas is maintained, for example, within the United Nations Educational, Scientific and Cultural Organization's Man and the Biosphere Programme (UNESCO MAB) in the border areas. In the so-called Carpathian Euro-region, several countries envisage co-management in the Middle-Carpathians. Cooperation also takes place in determining and exploiting protected regions in the border areas, such as in the Lower Oder River at the Polish-German border, or the concept of protected areas of a tourist character at Poland's Eastern border. Joint German-Czech- Polish reclamation undertakings are carried out in the area of the so-called Black Triangle.

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## CHAPTER 11: COMBATING DEFORESTATION

**Decision-Making:** The Ministry of the Environment is responsible for forest policy. Poland is currently implementing many changes in the forestry sector. The range of issues that have been dealt with has been the widest since the UNCED Conference in Rio de Janeiro in 1992. It is a result of a new legislation, which has been passed between 1992 and 1999 (National Forestry Policy of 1997; Regulation No 30 on Promotional Forest Complexes of 1994; Regulation No 11 on Ecological Basis of Forest Economy of 1995; Instruction for Preparation of Nature Protection Programme in Forest District of 1996; Instruction of Forest Management of 1994). Due to the recent development in legislation, Poland has become one of the leading countries in the formulation of sustainable forest management in Europe. Polish forest legislation respects all documents defining global forestry policy which include: Forestry Principles adopted in Rio de Janeiro (1992), Agenda 21 (1992), the IPF/IFF process (1995-1999), the Strasbourg Resolution S1-6, Helsinki Resolution H 1-4 and adopted on the III Ministerial Conference in Lisbon (1998) Resolution L 1-2. In 1996, amendments of several technical-economic documents have been started: Principles of Forest Management; Principles of Forestry Growing; Instruction of Forest Organization, and Instruction of Forest Protection. Numerous groups of specialist from scientific institutions, not only from the forestry sector, have taken part in the process. The work resulted in the elaboration of Codes of Forest, which includes general principles and directions of forest development, and conditions of sustainable forest management. The main goal of the Polish forestry policy is the harmonization of sustainable forestry management with whole economic development, and adjustment to the new institutional and organizational changes in Poland. The Proposals for Action, agreed at the IV Session of IPF, present very important instrument for forest policy development in Poland. The issues confined in the IPF documents make foundation for further development of the policy. Several documents, based on the IPF agreements, have been already elaborated: Criteria and Indicators of Sustainable Forest Management; Forest Biodiversity Protection Strategy; Research Programme Concerning Basis of Forest Sustainable Management in the Promotional Forest Complexes; National Programme of Afforestation; introduction of new ecological elements (soil, biodiversity) into biological forest monitoring. Foreign investors have initiated the forest certification in Poland, but the Polish Government is in the process of suggesting a new forest certification on the base of Pan-European Forest Certification agreements. There is also a social legislative proposal to provide Polish forest certification system. The National Environmental Monitoring Network with financial support of the Inspectorate implements the new initiations concerning forest monitoring for Environmental Protection, Department of Forestry, Nature Conservation and Landscape in the Ministry of the Environment. Polish forest policy provides compensation for forest owners who provide non-market environmental benefits. These instruments consist of tax relief for 40 years old forests registered in historic register, subsidies for afforestation of new areas, budgetary support for the reduction of pests and diseases actions.

**Programmes and Projects:** Poland has not yet elaborated a National Forestry Programme (NFP). The present Polish forest policy corresponds to the goals set out in the Agenda 21 and Forest Principles, and is in line with the national sustainable forest management and development. However, in the nearest future Poland is planning to elaborate National Forestry Programme (NFP), which will aim at harmonization with forest economy sector and other economic sectors, in particular with agriculture, energy, transport, industry, the environmental protection, national spatial policy and programme for country areas development. The NFP will define the role of forest in the climate change process, and will define principles of forest resources use. Main Governmental programmes recently launched include the following: National Programme of Afforestation of 1995; National Programme for the Forest Gene Resources Protection and Selection Growing of Forest Trees 1991 – 2010 of 1993; National Programme for Nature and Culture Heritage Protection in Forest Areas of 1996; Polish Policy of Forest Resources Protection of 1994.

**Status:** In 1999, Polish Government excluded state forest areas managed by the State Forest Enterprise from the reprivatization process. The state forests will not be transferred to private owners in a form of compensation. There is also a social legislative proposal regarding forests as a national strategic natural resource. There is no direct relationship between forest economy and poverty in Poland. The social and economical differences in the society result from transformation process started in 1989, especially from industry and agriculture restructuring. The forest sector has positive impact on the country areas. Due to privatization of forestry service new jobs are created as well

as possibilities to establish private business. The National Programme of Afforestation has also increased local employment. Recycling of forest products is currently provided on the small scale. Action promoting forest products use is not sufficiently undertaken in Poland. At present, the national usage of forest resources amounts to 57 % of forest increase. The access to media in order to promote the use of forest products in place of products made of non-renewable materials has been made difficult after campaign concerning forest role in nature protection. Further implementation of the Kyoto Protocol documents is needed in order to change consumption and production patterns regarding forests resources. The Polish Senate Commission of Nature Protection has already initiated a discussion on the forest product management in relation to economic development of the country and wood processing. Poland has introduced a new concept of implementation of sustainable forest management in a form of Forest Promotional Complexes (FPC).

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

**Information:** The main achievement of the Pan-European Process is the adaptation of Criteria and Indicators for Sustainable Forest Management, and Implementation Principles on the operational level (resolution L2: Pan-European Operational Level Guides for Sustainable Forest Management) by the Ministers on the conference in Lisbon, in 1998. Poland, on the base of Pan-European documents, has elaborated National Criteria and Indicators for Sustainable Forest Management (KiW). The National Criteria and Indicators give wider control and advisory rights to forest inspection and have significant impact rather on forest policy development than on reporting and policy monitoring. In the opinion of Polish experts all Pan-European criteria and indicators are useful to assess progress towards sustainable forest management. However, the criteria and indicators need to be dealt with as separate issues and need to be applied accordingly to social, economic and natural conditions. Information on sustainable forest management is made available via Polish forest publications, expert's articles in scientific magazines and Information Bulletin of State Forests. Information can be also accessed via the Internet, at the following address: <http://www.lasypanstwowe.gov.pl>

**Research and Technologies:** The new actions concerning forestry research are taken at the Forest Research Institute and forest divisions at Polish universities.

**Financing:** No information available.

**Cooperation:** Poland has taken part in all IPF/IFF sessions and is currently actively participating in the discussion within United Nations Forum on Forests (UNFF) on the global forest policy problems, addressing the following issues: Investments in forest economy (presentation of National Programme of Afforestation); Problems of forest dying (conference on forests dying and reasons of forest deterioration in Central and Eastern Europe); Sources of information and quality information of forests and forests economy; Forest valorization methods; Criteria and indicators of sustainable forest management. In 1997, Poland took a stand on sustainable management of forest gene resources during the COFO in Rome. On the V Session of UNCSD and II Session of IFF, Poland in cooperation with Hungary presented Regional Framework Convention on Forests. Poland has also actively participated in the implementation of H3 Resolution of Pan-European Process and chaired a working forest economy group of the countries in transition. Poland is one of the leading countries of the Pan-European Process. Since 1990, Poland has been a member of a Coordinate Committee together with France, Finland and Portugal (Ministerial Conference in Strasbourg, 1990). In 1993 and 1998, the Committee consisted of Poland, Finland, Portugal and Austria (Ministerial Conferences in Helsinki, 1993 and Lisbon, 1998). Currently, Poland together with Austria, Portugal and Norway is responsible for organization of the next conference in Vienna in 2003. Poland has become a lead Party in this process since 2001. In 2002 the Liaison Unit, presently located in Vienna, will be moved to Warsaw.

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## CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

**Decision-Making:** In Poland, voivodships, communities, and basin water authorities are responsible for combating drought on a regional level. When drought threats occur only local decisions are taken. Voivodship offices act on a temporary basis and only when a drought already occurs. The National priority is the prevention of regional and seasonal disturbances of the water balance.

**Programmes and Projects:** No information available.

**Status:** One of the negative characteristics of the climate in Poland is the frequent occurrence of droughts. They tend to occur periodically in different seasons of the year and may sometimes cause serious economic losses. The direct result of drought is a disturbance of the natural water balance in a given area. This, in turn, leads to excessive soil over-drying, lowering of the underground water table, and a decrease of the water flow in rivers. In comparison with countries having similar climatic conditions, Poland, with relatively poor natural water resources in relation to its economical requirements, is faced with much more serious negative effects during the occurrence of post drought periods. Regions with the longest duration of drought are situated in the zone stretching from Podlasie Lowland in the northeast, through Central Poland, Great Poland down to the Silesian Lowland in the southwest. Such a spatial distribution of drought is unfavorable from the point of view of the Polish economy, particularly agriculture. The regions that are threatened with the possibility of drought are also where the major part of Polish farming potential is situated. On average, droughts occur in Poland once every three years. During the last 50 years, droughts with the largest territorial range were those, which occurred in 1959, 1969, 1982, and 1992. A lack of separate resources exists for preventive procedures against drought.

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

**Information:** No information available.

**Research and Technologies:** Investigations are being carried out to determine the effects of the occurrence of drought. Studies are also conducted to improve the methods of research.

**Financing:** No information available.

**Cooperation:** Poland is not a party to the International Convention to Combat Desertification in Countries Experiencing Drought and/or Desertification Particularly in Africa. There is no international or regional cooperation with respect to droughts in Poland.

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## CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

**Decision-Making:** The following groups are involved and responsible for sustainable mountain development: local communities; the forest administration; the National parks administration; tourism organizations; economic federations; non-governmental organizations. The Act on Local Government (1990) allows for the development of inter-community unions for the conduct of common spatial policy and common use of natural resources. This approach is often used to establish bodies responsible for the management and protection of water, waste management, and the conduct of common actions to increase public ecological awareness. In Poland, the policy of protection of mountains is part of the guidelines of the National Environmental Policy. Strategic decisions are taken in accordance with the Act on Nature Conservation of October 16, 1991. The National priority for mountain areas is: nature and landscape protection; water protection; sustainable forest management; and development of the recreational function. The plans of local spatial planning authorities constitute the basis for the implementation of the mountain areas protection policy. Local communities make the local law in order to stimulate local development and protective actions. They also appoint the persons responsible for the implementation of each task and define the level of financial resources for their implementation.

**Programme and Projects:** many protective programmes cover the mountains of Poland: protection against erosion, protection of head-streams of rivers, and protection of areas of therapeutic mineral water occurrence. Among the programme of mountains protection, the programme of nature and landscape protection should be distinguished. The policy of protection of mountain areas currently covers a significant part of the mountains. Within the mountains area, the changes in the forms of management manifest themselves in the decay of traditional agricultural and breeding works. The growth of tourist services is significant.

**Status:** Mountain forests are protected as soil and water protection forests and recreational forests. Currently, there is no danger of excessive deforestation of the mountain area. Mountains in Poland are defined as areas higher than 350 m above sea level. This area covers about 8% of the country, and includes the Sudety and Karkatny Mountains in the South, and the Saint Cross Mountains in central Poland. It is estimated that the mountain area in Poland are the source of about 30% of all water resources. Forests cover about 40% of the mountain area. Mountains, especially the Sudety and Saint Cross Mountains, constitute the area for mineral and rock exploitation. Half of the rural population of mountains works in agriculture. The type of small-commodity, low effective farming predominates. In many regions, clear agricultural decline and the growth of other forms of farming (for example, tourist services) have been observed. There are mountain areas in Poland, for example the east part of Karkatny and certain regions of Sudety, where a significant reduction of settlement networks has been observed during the last 45 years. The main hazards to mountain forests are acid rains and industrial dust, which have caused forest dieback and an increase of erosion and water flow in Sudety (the famous Black Triangle on the border area of the Czech Republic, Poland, and Germany), West Karkatny, and the region of Saint Cross Mountains; excessive development of settlements and recreational areas in the West region of Karkatny, especially visible in the region of Podhale, at the foot of the Tatry, the highest mountain in Poland; and mineral resource mines mainly in Sudety Mountains.

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

**Information:** No information available.

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

**Financing:** The activities of the National parks and other protected objects are financed from the State budget. The National Fund finances investment activities in the field of environmental protection for Environmental Protection and Water Management, provincial funds, the EcoFund, and by the funds of enterprises and local communities.

**Cooperation:** The regional and international cooperation in mountain areas is conducted under the framework of common protection of areas of outstanding natural values. This includes, for example, the framework of the United Nations Educational, Scientific and Cultural Organization's Man and the Biosphere Programme (Karkonosze, Babia

Gora, Tatry, Bieszczady). Cooperation in these regions is conducted on the basis of bilateral relations: Poland-Czech Republic, Poland-Slovak Republic, and tripartite relations (Poland, Slovak Republic, and Ukraine). A very interesting initiative is the Karpaty Euro region, covering areas of East Beskidy in Poland and Slovak Republic, the Karpaty region in Ukraine, and the northern regions of Romania and Hungary. Cooperation in this region is wide ranging. In 1992, the Polish-German-Czech Euro-region Nysa was established, covering the whole western Sudety mountains. The gene bank in the Sudety Mountains was established with co-financing from the Global Environment Facility (GEF), the World Bank, and the EcoFund.

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## CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

**Decision-Making:** With respect to legislation and regulations in Poland, the Act on Protection of Agriculture and Forest Land, of 3 February 1995 defines legal base for arable land protection. In order to ensure safe and appropriate use of pesticides, the Polish Government adopted in July 1995 the Act on Plants Protection, which regulates the methods of handling pesticides in order to assure safety during their turnover and use. As the result of new protection approach, Integrated Pest Management (IPM) is regarded as the principle method in the protection practice. Obligatory inspection of sprayers (once per two years) was introduced in 1998. Since 1996, Polish Government has elaborated several policy guidelines in order to integrate environmental concerns into agricultural development projects: Polish Code of Good Agriculture Practice, the base for creation of agro-environmental plans for farms; Guidelines for protection plans of protected areas: nature reserves, national parks, landscape parks; Guidelines for protection plans of animal genetic resources protection. The major policy instruments and activities to promote sustainable plant nutrition management introduced in Poland include: Act on Fertilizers and Nutrition, Monitoring of mineral nitrogen content in soil; Polish Code of Good Agriculture Practice; Financing of science and research works related to fertilizer absorption of vegetable production and streamlining of fertilizer use, integrated and organic vegetable production methods. In 1999, the Ministers' Council adopted a document Coherent Structural Policy of Rural Areas and Agriculture Development, which defines a legal base for sustainable development of rural areas, and guidelines for integration process with European Union. According to the Coherent Policy, the goal of rural areas and agriculture sustainable development is creation of work and life conditions for rural inhabitants, which will enable them to achieve their economical, educational, cultural and social goals. The national policies encompass: infrastructure development projects, creation of local support centers, credits guaranties for small and middle enterprises, credits and loans for actions aiming at new job creation, micro-loans for business initiation of very small enterprises, promotion of localization of the investment on rural areas, development of tourism and agro-tourism, improvement of education in rural areas, programmes of education and professional advisory, unemployment prevention among school graduates. In Poland, Non-Governmental Organizations are actively involved in the decision-making process particularly related to the promotion of ecological agriculture development. Farmers' trade unions and other farmers' organizations have contributed to the preparation by Ministry of Agriculture and Rural Development, documents concerning agriculture and rural areas, which obligate the Ministry to undertake actions related to: support of agriculture, entrepreneurship development, creation of new jobs, integrated social policy of rural areas, and support of social development of rural area. There are four documents in force in the area of agriculture: Mid-term Strategy for Agricultural and Rural Areas (adopted by the Council of Ministers in 1998), Coherent Structural Policy for Development of Agricultural and Rural Areas (1999), Pact for Agricultural and Rural Areas (2000) and SAPARD Operational Programme (adopted by the European Commission in 2000). There are also other documents referring to the safety of food and sustainable development of rural areas, i.e. The Strategy - Poland 2025. During the last years a number of new law regulations have been adopted, referring to environmental standards and supporting positive structural changes in rural areas: the Act on Organic Farming, the Act on seeds for forestry, the Act on Genetically Modified Organisms, the Act on afforestation.

**Programmes and Projects:** As the result of the World Food Summit in 1996, the Polish Ministers' Council adopted the National Health Programme 1996-2005. Several activities have been undertaken under this Programme, which include: Elaboration of project "the National Long-Term Programme for Health Improvement of the Population in Poland 2000-2004", defining activities on the rural areas and food economy; measures related to sanitary conditions and inspection, and nutrition and quality food controls. Currently, the Polish Government is implementing programme of iodination of table salt, and long-term programmes for children nutrition in schools, which cover particularly regions of high unemployment rate. The Polish Government has undertaken several activities aiming at increase equitable access to the production and support services by the rural poor. In 1996, the Ministry of Agriculture and Rural Development elaborated the Long-Term Programme For Water Melioration Development. Apart from this programme, several regional "small water retention" programmes have been implemented, focusing on water store for agriculture needs. Since 1993, the Polish Government has launched a programme aiming at widening the markets for use of non-food agricultural goods, like the ethanol use. Poland has a long tradition of genetic resources activities and established National Programme with defined co-ordination

responsibilities. In Poland, the National Centre for Plant Genetic Resources at the Plant Cultivation and Acclimatization Institute is the central long-term storage, documentation center and co-ordinator of the National Programme that involves 16 institutions.

**Status:** In Poland, agriculture is of great social and economic importance. Polish rural areas are characterized by a weakly developed technical and social infrastructure, which is caused by low profitability of agriculture and high unemployment rate on these areas. Many of the rural towns have insufficiently developed road system, water supply and sewage systems, also the access to banks, post offices, schools, health services and cultural institutions is difficult. The level of mechanization of agricultural production is very low in Poland. The usage of pesticides and mineral fertilizers was decreasing up to 1992 and now is slowly increasing which had positive impact on nature protection. However, improper farm management of animal excrement remains to be a significant source of nitrate water contamination. But due to low fertilizer input, long vegetation period, small plot size surface nutrient flow is relatively small. Due to traditional model of Polish agriculture, based on family farms; most of the agricultural areas are characterized by high biodiversity, which is important indicator of sustainability. Polish rural areas have good potential conditions for eco-production development. The Polish Government has undertaken several activities concerning financial support, promotion of specific agriculture production, access to markets, access to information, sustainable use of water, sustainable use of animal genetic resources etc.

**Capacity-Building, Education, Training and Awareness-Raising:** Activities of training and research are components of a number of programmes concerning several aspects of agriculture. Poland is Lead Country in Agriculture Sector of Baltic Agenda 21 and also active member of HELCOM Working Group of Agriculture.

**Information:** Information on sustainable agriculture is made available via WWW sites: [www.minrol.gov.pl](http://www.minrol.gov.pl) (Ministry of Agriculture and Rural Development); [www.mos.gov.pl](http://www.mos.gov.pl) (Ministry of the Environment), [www.pios.gov.pl](http://www.pios.gov.pl) (Inspection of Environmental Protection); [www.free.ngo.pl/ekoland](http://www.free.ngo.pl/ekoland) (EKOLAND Association, provide information about organic agriculture in Poland); [www.warman.com.pl/~cebibrol](http://www.warman.com.pl/~cebibrol) (Central Agriculture Library, include research works on different aspects of agriculture); and [www.ihar.edu.pl/baltic21](http://www.ihar.edu.pl/baltic21) (report of Baltic Agenda 21 regarding agriculture). The Central Statistic Office (GUS) provides economic and social indicators, which might be used for monitoring and evaluating sustainable agriculture practices and rural development.

**Research and Technologies:** The main Governmental actions focusing on the implementation of integrated farm management technologies and practices include: elaboration of strategy documents; legislative initiation: preparation of acts regarding, fertilization, organic agriculture, support of farms implementing ecological methods; introduction of a Polish Code of Good Agriculture Practice; preparation of long-term pilot SAPARD programmes aiming at testing the agro-environmental programmes, the pilot programmes envisage introduction of payment system in order to encourage farmers to use ecological methods of production.

**Financing:** Polish agriculture is supported by budgetary means through the Agriculture Market Agency, Agriculture Restructuring and Modernization Agency, National Treasury of Agriculture Property Agency, and by SAPART fund. The support actions include: interventions on markets in relation to selected food products; extra payment to turnover credits for agriculture; extra payment to credits for farm investments; give the guarantee for farm investments credits; improvement of farm's structure, through extra payment to land purchase credits, introduction of structural pension system, programme of arable land consolidation; support of creation of producers groups; dissemination of biological progress; modernization of agro-food market. The actions undertaken under the Pact for Agriculture and Rural Areas and the Coherent Structural Policy of Rural Areas and Agriculture Development are financed by the Agriculture Restructuring and Modernization Agency, Labor Fund, and by European Union support funds.

**Cooperation:** Main part of the Polish trade, according to regional agreements (CEFTA – 1 March 1993, EFTA – 1 April 1993) is carried out with European Union, and CEFTA and EFTA countries. Poland has also signed preferential agreements with: Estonia, Israel, Latvia and Lithuania, Sheep Islands, and Turkey. Due to this agreements turnover of agriculture products trade is mainly based on mutual trade. Since 1967, Poland has been GATT signatory. As the result of this agreement, Poland has committed to several obligations related to agriculture

trade. According to the Agriculture Agreement, which entered into force in 1995, Poland is not allowed to apply compensatory fee and import limitations. In addition, barriers beyond tariffs have been eliminated, and a new mechanism concerning quota and Special Protection Means has been implemented in the Polish market. However, Poland does not take advantage of all available instruments of domestic support and export subsidies, due to limited budgetary means. As a result of the Agriculture Agreement, domestic support is applied to sugar product.

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## CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

**Decision-Making:** In Poland, the Ministry of Environment and the Ministry of Agriculture and Rural Development are responsible for decision making on biodiversity at the central level. The Ministry of the Environment carries out coordination work on the implementation of the Convention on Biological Diversity. The regional environmental protection authorities, local self-governments in communities, and planning services also have responsibilities towards biodiversity. Existing Polish law provides the rational foundation for the protection of a large part of biological diversity. The key legal acts of essential importance for biodiversity protection are: the Act on the Protection and Management of the Environment; the Act on Nature Protection, the Act on Forests; the Act on Protection of Agricultural and Forest Grounds; the Act on Freshwater Fisheries, the Act on Animals Protection, and the Hunting Law. In order to implement the principles of sustainable development in Poland and to meet the Convention on Biological Diversity obligations, a number of projects and studies have been undertaken, and documents have been prepared. The Second National Environmental Policy passed by Parliament in 2000 (a new version of The National Environmental Policy since 1991, which adopted the sustainable use of biological resources; promotes activity to stop the degradation process of the natural environment; and implements the Convention on Biological Diversity and other environmental conventions in Poland) and the “Poland 2025 Long-term Strategy for Sustainable Development. Works on the national biodiversity strategy and action plan are in their final phase. A Polish Study of Biological Diversity was completed in 1993 and a Strategy for the Protection of Living Natural Resources in Poland was developed in 1991. There are also the National system of protected areas, the concept of the National Environmental Network (ECONET); the Policy of Comprehensive Protection of Forest Resources.

**Programmes and Projects:** Within the national framework of the national programme preparing for the membership of the EU, Poland joined the programme for the NATURA 2000 Network in January 2000. The preparatory programme for introduction of NATURA 2000 is CORINE (Coordination of Information on the Environment). This programme is being implemented in relation to land use, the main sources of the emission and dispersion of air pollutants and the inventorying and description of sites whose protection is particularly important in the preservation of Europe’s natural heritage. A Technical Report on the Project for Protection of Biodiversity of Forest Areas, prepared as a the World Bank document within the context of the Global Environment Facility Programme; the National Programme for Expansion of Forest Cover; “nature conservation” annexes to forest management plans of forest inspectorates. Promotional Forest Complexes have been designated as the forest areas representing the various natural forest conditions of Poland with a view to running a model forest economy in accordance with the principles of sustainable development. Major groups involved in biodiversity decision making include: central, regional and local authorities; the technical and scientific community; business; local communities; and non-governmental organizations. Agricultural areas are important not only due to their share in the total area but also as a living space for many species. In the framework of Baltic Agenda 21 there is a project of establishment sustainable indicators for participating countries. Density of birds and predators is an important indicator of sustainability in agricultural areas.

**Status:** With regard to the climatic and geographical conditions, Poland is located in the zone of rich flora and fauna. Due to the relatively low level of transformation of the landscape, the rank of biological diversity of Poland as compared to Europe is high. There is also a large diversification of flora and fauna: from mountain areas, through non-mountain areas to coastal zones, as well as from Atlantic species to sub-continental species. Maintaining traditional forms of individual agriculture in large areas of the country has enabled the survival of many primitive species of crop plants and farm animals. Since 1990, the number of protected nature areas has increased almost twofold, and the surface area increased by 50%.

**Capacity-Building, Education, Training and Awareness-Raising:** Capacity building and technology issues on biodiversity conservation relate to: initiation of implementation of the sustainable development principles in Poland according to the Second National Environmental Policy of 2000; progressive implementation of the environmental approach in forestry and agriculture; National and countryside parks and Forest Promotional Complexes as testing grounds for the application of sustainable development principles; planned development of the system of

environmentally friendly economic solutions and incentives; the planned development of environmental education (the Strategy of Environmental Education was updated in 2000); as well as the continuation of the inventory of natural resources and extension of data bases.

**Information:** Information on conservation of biological diversity in Poland is disseminated by Polish Clearing House Mechanism (CHM) available on the web site: <http://www.ciuw.warman.net.pl/alf/biodiversity> and by the Ministry of the Environment on the web site: [www.mos.gov.pl](http://www.mos.gov.pl).

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

**Financing:** Poland's system of funding biodiversity and landscape conservation is being well developed. It is public funding that plays the primary role. The central budget finances the part of ongoing costs of the National Parks' operations as well as the nature conservation services, and in addition the costs of different types of expert opinion, research and documentation, publications, conferences, etc. The Environmental Protection and Water Management Fund also assign funds to nature conservation. These have been acting at the national, regional and local levels. The basic formula for their activity is co-financing of undertakings, first and foremost through grants and loans offered on preferential terms. An important source financing undertakings in biodiversity protection is the Ecofund Foundation (*Ekofundusz*), established to manage resources from the so-called debt-for-environment swaps, i.e. the conversion of part of Poland's foreign debt in return for the supporting of undertakings in environmental protection.

**Cooperation:** In terms of regional and international cooperation, Poland participates in the organization of National and international conferences on biological diversity; the development of international exchange of information; and cooperation with neighboring countries along the eastern and southern borders to plan and establish transboundary protected areas. Poland signed the Convention on Biological Diversity in 1992 and ratified it in 1996. It has also signed a number of other environmental conventions of significance for the protection of biodiversity, which include: the Bonn Convention on the Conservation of Migratory Species of Wild Animals; the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); and the Ramsar Convention on Wetlands of International Importance Especially as Wildlife Habitat.

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## CHAPTER 16 AND 34: TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, BIOTECHNOLOGY, COOPERATION AND CAPACITY BUILDING

### Decision-Making:

*Technology:* There is no separate legislation related to transfer of technologies. These aspects are regulated indirectly in regulations on industrial property (inventive laws). In Poland, national priorities for technology transfer are determined by the National Environmental Policy and primarily address reductions of energy use, water and material consumption in industrial production, modernization and reconstruction of existing energy sources, reduction of solid waste, and the development of material recovery and recycling. Transfer of environmentally friendly technologies and licenses for their introduction into the Polish economy have been implemented in order to reconstruct and modernize the economy and to upgrade its effectiveness; to reduce energy, water, and material consumption; and to reduce emissions of pollutants into the air and water, and reduce waste generation. ESTs are most urgently needed in sectors, which are causing most harm to the environment, namely: mining, energy generation, ferrous and steel metallurgy and chemical industry. In activities undertaken up to date, priority has been given to implementing environmentally sound technologies in all of these sectors. National industry policy, which among others matters, proposes environmentally friendly production technologies, is determined by the following documents: "Assumptions of industrial policy", adopted by the Council of Ministers in 1993; and "Programme of the industrial policy for the years 1995-1997", adopted by the Economic Committee of the Council of Ministers in December 1994. The national industrial policy focuses on assistance in providing information and training in the field of modern, environmentally friendly technologies; implementation of programmes for compliance with the legislation and standards of the European Union including quality systems; introducing cleaner production principles into programmes of production and development; introduction of voluntary eco-labeling; and, activities to implement the International Standards Organization ISO 14000 standard in Poland starting in 1996, including the establishment of the association of units promoting implementation of this standard and the EU regulation of 1993 on the Environmental Management and Audit Scheme (EMAS) in enterprises on a voluntary basis. The following are organizations/mechanisms that bring together stakeholders with a view to promoting and improving the transfer and applications of ESTs in Poland: The Agency of Techniques and Technologies (ATT); The Central Technical Association (NOT); The Central Mining Institute (GIG); The Institute of Ecology of Industrialized Areas (IETU).

*Biotechnology:* The issue of environmentally sound management of biotechnology is covered by the convention on Biological Diversity, which has been ratified by Poland. There is a lack of statutory regulations in this area, although this issue is covered by the Strategy for the Protection of Biological Diversity in Poland. The work on legislation regarding safety for the environment and health management of biotechnology was initiated in 1995.

### Programmes and Projects:

*Technology:* The programme of Cleaner Production, intended to impact on applied technologies, achieve lower consumption of raw materials and energy, eliminate use of toxic raw materials, and reduce emission of pollutants, has its implementation supervised by two Cleaner Production Centers affiliated with the Central Mining Institute and under the auspices of the Federation of Scientific and Technical Associations. A letter of intention has been signed by the Minister of Environmental Protection and the Minister of Industry and Trade in order to co-operate in the area of Cleaner Production. As of 1996 the organization of the national system of implementation of *best available technologies and techniques* (BAT), has been under development and implementation. The major targets in the development of the BAT system include: establish Polish website on IPPC and BAT – [www.ippc-ps.pl](http://www.ippc-ps.pl); identify specific needs regarding BAT in individual sectors; develop a proposal of organization and functioning of a national BAT center; draft cleaner production implementation programme for individual sectors; draft education programme.

*Biotechnology:* No information available.

### Status:

*Technology:* Activities as well as economic and educational instruments have been implemented to promote the reduction of water and energy use. Since 1994, the Polish National Agency for Energy Saving has promoted efficient use of energy, particularly in small enterprises. It also implements projects in this field. The Centre for Testing and Certification has undertaken work on introducing voluntary eco-labeling. The Bank of Environmental

Protection grants preferential credits for projects promoting energy efficiency both in industry and in housing. The Institute of Environmental Protection operates a database on environmentally friendly technologies and cleaning technologies (end of pipe). The introduction of the ISO 14000 into the Polish standard system has been initiated. The Centre for Testing and Certification has established an association of enterprises and institutions interested in the implementation of the ISO 14000 standard and the EMAS system. The first Polish enterprises to undertake activities to implement this system, the Ostrowiec and Czestochowa Steel Mills, and ABB Zamech, obtained a certificate according to British standards in 1997 thus confirming reduced environmental impact. Investments in the technical equipment of industry are being developed.

*Biotechnology:* In Poland, biotechnology is applied in agriculture, the food economy, industry, forestry, health and environmental protection, and other areas. The priorities for biotechnology are the completion of the work on Polish regulatory legislation and harmonization with European Union legislation regarding the management of biotechnology, and development of a system for implementation.

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

*Technology:* POL-EKO - annual international fairs focus on trade and education, including presentation of state of art technologies. Other sectoral fairs promoting environmentally sound technologies such as the Technology for the Environment in Kielce, and the Katowice Fairs. There are also seminars, training programmes for engineers and for future Cleaner Production experts.

*Biotechnology:* In 1993-1994, biotechnology, including safe biotechnology management, was introduced into the programme of education of a number of universities and technical academies.

### **Information:**

*Technology:* The Agency of Techniques and Technologies has just established the Internet Site: [www.att.gov.pl](http://www.att.gov.pl). The Central Mining Institute intends, in the first quarter of 1998, to establish a Web Site including a data base on all Cleaner Production projects.

*Biotechnology:* No information available.

### **Financing:**

*Technology:* the National Fund of Environmental Protection and Water Management financially support the implementation of environmentally friendly technologies. This Fund, together with the Bank of Environmental Protection, has established special credit lines supporting the implementation of energy saving production technologies, savings in housing development, etc. The EcoFund supports the transfer of technologies and techniques for the use of non-conventional renewable energy sources. The EcoFund is an example of the integration of environmental and financial policy of the State because it is administered and financed jointly by the Ministry of Finance and the Ministry of the Environment.

*Biotechnology:* No information available.

### **Cooperation:**

*Technology:* Foreign assistance has been largely used for the transfer of technology, including 14% for training in this field, 12% for purchase of available technical solutions for environmental protection ("end of pipe" technologies), 8% for development of promotional programmes and projects, and 3% for purchase of licenses. The United Nations Development Programme (UNDP) and the Economic Commission for Europe (ECE) have transmitted information and convened training on best available technologies for implementation of the obligations resulting from the Convention on Long Range Transboundary Air Pollution. Japan, Germany, and Sweden are particularly active in this field. Poland, in cooperation with international organizations, has undertaken work on the transfer of environmental technologies to the countries of Central Europe. Initiated by the Government of Norway, the Cleaner Production Programme is operational in over 200 enterprises in Poland.

*Biotechnology:* No information available.

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

**Decision-Making:** The Maritime Offices subordinate to the Ministry of Transport and Maritime Economy, which form the decision making structure regarding the protection of the seaside and navigation; while Provincial Offices and the Ministry of the Environment are responsible for prevention of water pollution and nature protection. The Conventions are implemented in the following fields: a) the proper management of the coastal zone, for which the obligatory proceedings are defined in the Act on the Marine Areas of Poland and Maritime Administration (March 21 1991); b) the first regional programme for Integrated Management of Coastal Zones was established on the west coast in 1996; c) prevention, reduction, and control of degradation of the marine environment caused by human activity at sea; d) the MARPOL Convention 73/78, the Helsinki Convention 1974, and the London Convention on dumping of waste were fully incorporated into the Act on Prevention of Marine Pollution from Ships of 1995 with the decisions of the Act rigorously executed by the Polish maritime administration; e) prevention of marine environment pollution from drilling platforms is regulated by the Geological and Mining Law of February 4 1994; and f) Poland, as a party of both Helsinki Conventions was one of the initiators and a co-author of the Baltic Sea Joint Comprehensive Action Programme to protect sea water from waste derived from the land which was adopted at the meeting of the Ministers of the Helsinki Convention (HELCOM) in April 1992. The executive acts of the Water Law of 1995 have established standards for emissions of biogenic pollution to inland waters, of which 97.7% by area flow to the Baltic Sea. In 1996, the Act on the Protection of Crop Plants was put into effect. It determines the use of plant protection chemicals in Poland and the assessment of their ecological harmfulness, inter alia, in water environments. The system of ecological safety certification of products has been in place in Poland since 1995. The certification covers waste water treatment plants, the elements of water supply, and sewage discharge systems. Major groups involved in ocean and coastal area protection include: communal authorities; Association of Engineers and Technicians; ecological non-governmental organizations; Regional and Seaside Town Unions; and the National Chamber of Tourism. In Poland, there is high activity with the participation of foreign partners to promote technological solutions and systems of protection, and in developing public awareness regarding water protection.

**Programmes and Projects:** In 1996 Poland launched “Sea Mammals Protection Project”, which is a local NGO – “Friends of Hel Peninsula” initiative educational project supported by GEF/SGP. Major current users of the coastal areas in Poland are fishing sector, tourism and shipyards. Methods in place to encourage sustainable use and conservation of marine environment are National Parks and Demonstration Projects.

**Status:** Poland fulfils the obligations and recommendations resulting from the above conventions and international agreements. The priority is the protection of the Baltic Sea, the Gulf of Gdansk, and Puck against eutrophication. The special obligations for Poland are included in the Helsinki Conventions on the Baltic Sea as this forms 528 km of the borderline (15% of the total length of the country's border). The Baltic coastline is 788 km, and 99.7% of the country is situated within the Baltic Sea drainage area. Protection of the environment of the Baltic Sea is conducted for the whole drainage area. In the period 1990-95, the volume of untreated sewage decreased by 50%. Activities have been initiated towards implementation of best available practices to reduce agricultural pollution. In 1994, the Minister of Industry and Trade issued the regulation on the limitation of phosphorus content in washing agents. The major sources of land-based pollution of the marine environment are agriculture, natural waves and municipalities. The primary source of coastal and off-shore sources pollution of the marine environment are ships and shipyards.

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

**Information:** The State Inspection is responsible for a surveillance system in Poland to monitor implementation of laws and regulations. In order to facilitate monitoring system Geographic Information Systems has been implemented in Poland.

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

**Financing:** In 1994, from the 1% GDP allocated to the protection of the environment, about 4% was spent on water protection.

**Cooperation:** Regional and international cooperation consists of: sub-regional cooperation under the framework of the Helsinki Convention, including the executive body to the Convention; cooperation within the framework of the MARPOL Convention; and bilateral cooperation with the Baltic Countries. In Poland, the UN Convention on the Law of the Sea was signed in 1982; the ratification is under preparation. Poland has also signed and ratified the first and the second Convention on the Protection of the Marine Environment of the Baltic Sea (Helsinki 1974, Helsinki 1992). Poland is engaged in the protection of seas and oceans on the global scale and is a party to many conventions in this field including: the International Convention on Intervention on the High Sea in Case of Oil Pollution Casualties (Brussels 1969) and Protocols to this Convention; Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter (London 1971, Mexico, Moscow, Washington 1979); MARPOL International Convention for the Prevention of Pollution from Ships (London 1973) and Protocols to this Convention; and Agreement on Conservation of Small Cetaceans of the Baltic and North Sea. Poland actively participated in negotiations of the “Agreement to Promote Compliance with International Conservation and Management Measures by Fishing Vessels on the High Sea” (Food and Agriculture Organization), the Code of Conduct of Responsible Fishing, and the “Agreement for the Implementation of the Provisions of the United Nations Convention on the Law of the Sea”. Poland is a member of international fishery organizations, controlling the rules of fishery resource exploitation, namely: the International Commission for the Maintenance of Antarctic Living Resources (CCAMLR); the International Commission for the North-west Atlantic Fishery (NAFO); and the International Commission for the Baltic Sea Fishery.

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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:** Sustainable development is one of the principles contained in the Constitution of the Republic of Poland. In order to achieve the main strategic targets in the area of water resources, for present and future generations, while preserving the natural balance and durability of the principal natural process, it is necessary to reach a number of intermediate targets. Those targets are: top priority targets related to the protection of human life and health and protection of the environment; first priority targets related to the economic and civilization progress that can be attained only by the use of waters; second priority targets related to the economic and civilization progress that can be achieved either by the use of waters or the refrain from using them. The Ministry of the Environment, Department of Water Resources is the agency responsible for coordinating water resource management and development. Regional and local coordinating structures for the implementation of water resources management strategy and for the enforcement of water law and water quality have also been established. Poland is a signatory to the Convention on the Protection of the Marine Environment of the Baltic Sea (Helsinki 1974, Helsinki 1992); and the Convention on the Protection and Use of Transboundary Watercourses and International Lakes. In general, principles of sustainable water management and protection of water resources are dealt with in the National Environmental Policy adopted in 1991, which aims at improving quality and rationalize consumption of water resources; and the Executive Programme of this Policy until the year 2000, adopted in 1995. Poland's priorities for freshwater are: ensuring healthy and safe water for drinking and municipal use; limiting industrial water use and protection of underground waters against pollution; protection of waters susceptible to eutrophication; protection of lakes, inland water reservoirs, estuaries, and Baltic water bays; protection of the open waters of the Baltic Sea against pollution, including from the point of view of their recreational use; limiting the impact of salt water from mining on the purity of water; meeting the commitments resulting from the international conventions signed by Poland; and increasing reservoir retention of surface waters and use of water for energy production. In order to prevent pollution, establish quality and health standards, water treatment, a number of legal instruments were developed. A procedure of consultations and collecting opinions on governmental documents exists and includes circulating documents for opinions to interested institutions and non-governmental organizations. Mechanisms for the resolution of conflicts also exist at different levels. Institutional and legal conditions have been created allowing the participation of the public and non-governmental organizations in protection and management of regular waters. Poland is presently preparing a new executive decrees concerning water conservation that will harmonize with European Union (EU) regulations. Currently the implementation of the Water Framework Directive (2000/60/EC) in compliance with new Water Law Act is the main task of the State Water Board and regional water boards. All changes introduced during the law harmonization process will be in line with the basic principles of the water management: river basin principle, public participation principle, the administrative principle with the statutory control and supervision of State, the market principle, and the PPP (Polluter Pays Principle) – aimed at making the water management economized.

**Programmes and Projects:** Development of a detailed sectoral programme - e.g. Water Management Strategy, is currently being consulted with sectoral ministries. Due to the unevenness in the water supply (98% and 97% of the urban population are served with water and sewerage systems respectively as compared to 80,4% and 73,5 % respectively for the rural population), from the beginning of the 1990's, a programme of construction of rural water supply and waste water treatment systems has been implemented aggressively and its achievements have been considerable. This is part of an integrated governmental programme entitled "Development of rural areas" which also covers sanitation of villages and health protection in rural areas. A programme of construction of municipal wastewater treatment plants is being continued as one of the priorities of the State Ecological Policy. Industry is responsible for major water quality problems in Poland. The negative role of industry is, however, gradually being decreased thanks to a special programme directed at the "80 major country polluters". This programme includes specific monitoring and inspection sub-programmes as well as specific economic instruments to encourage industries to undertake necessary measures to reduce water consumption and to limit pollutant concentration and the volume of wastewater discharge.

**Status:** Up until 1990, water was a resource, which was freely accessible or available for a token fee. The implementation of more realistic operational tariffs and fees since the early nineties has resulted in considerable rationalization and decrease in water consumption especially for commercial purposes. An outline for a new system of fees has been drafted, incorporating the “polluter pays” principle to a higher degree, encouraging better environmental behavior from users and increasing the funds coming from environmental fees, which are allocated mainly to finance protection of water resources. Increase in capital outlays and better enforcement of legal requirements since 1990 has resulted in a considerable decrease in the load of pollutants discharged into surface waters and consequently in an improvement in their quality. The provision of water supply for inhabitants and economic sectors is one of the major tasks of local self-governments. The private sector in Poland is a recipient rather than a creator of water resources management policy. In terms of investment role of this sector, which generates over 60% of GDP is not significant. Industry is, however, the third major user of freshwater resources (after agriculture and municipalities). New Water Law Act, aimed at increasing social participation (including representatives of industries) in creating and implementing water management policies at the basin level are being prepared. There are also measures to recycle water and biological treatment. The major constraints faced in the area of water management in Poland are: a lack of adequate financial resources; restructuring and changes in ownership of economic enterprises as well as changes in ownership structure of waters and lands; and, low level of awareness and discipline of water users despite extended educational programmes and economic instruments.

**Capacity-Building, Education, Training and Awareness-Raising:** Among the educational programmes and campaigns geared toward promotion of sustainable usage of water resources the following are cited: the Programme “Clean Water in Pommerania Rivers”; the project “Save Water Campaign”, which is a nation-wide campaign aiming at promotion of economical and rational water consumption; “Blue Thumb”, a nation-wide educational programme of caring for water resources; Polish-American programme coordinated by the Regional Environmental Education Centre in Kraków; Action “Now Vistula Time” in benefit of conservation of the natural course of the river, arranged by the Gaia Club, carried out mainly by means of happenings. There also programmes and campaigns regarding economies in water consumption, minimization of waste generation and environmental education of the public at large and the professional milieu is at a very advanced stage.

**Information:** Information on water management is collected by: the Central Office of Statistics - information of a national range on environmental protection, including water protection and water management, published as statistical information and annual reports; the Inspectorate for Environmental Protection - co-ordinates and conducts the state environmental monitoring system, including water quality sub-system and publishes periodical reports and publications; the Institute of Meteorology and Water Management - conducts hydrological monitoring and water resources registers, publishing data in monthly and annual bulletins distributed throughout the country. The networking of documentation systems is promoted by the AQUADOC System, which is supported by French International Office for Water and implemented by the Institute of Meteorology and Water Management in Warsaw.

**Research and Technologies:** Water quality standards were set in 1991 by Regulations of the Ministry of Environmental Protection, Natural Resources and Forestry on classification of water quality and conditions which should be met by waste water discharge to waters and to the ground. Thus, water extracted for drinking purposes has to meet severe bacteriological, physical and chemical limits and controls. The State Sanitary Inspection carries out drinking water quality inspections regularly; in larger urban areas waterworks have their own laboratories. A majority of water intakes operated for commercial purposes have appropriate facilities for water conditioning. In municipal and industrial water supply facilities, practically 100% of water for drinking purposes is - for safety reasons - disinfected. Quality of surface and underground waters is tested on a regular basis under the State Monitoring Network of the Environment. It does not concern household installations and dug wells. The Water Management Strategy in Poland has been drafted with the involvement of science representatives. At the same time research programmes financed by the government are conducted in the area of protection against pollution, economic needs, health and nature protection, protection of aquatic environment etc.

**Financing:** The National Fund for Environmental Protection and Water Management finances or co-finances capital development and other projects in water management, at the regional and national level. The estimated cost



of investments in water supply and sewerage systems (urban and rural areas) till the year 2010 (1996 prices) will be 28,4 billion PLN. From 1991 - 1996, the value of external assistance allocated to water management and water protection was approximately USD 56 million. No data is available to specify structure of the assistance (distinguishing technical assistance, grants, loans, private flows). This amount represented about 2% of the total expenditures for water resources management and development. In reaction to the 1997 flood, the Government of Poland has adopted the National Programme of Reconstruction and Modernization. The Programme is funded by the loan received from the International Bank for Reconstruction and Development. The main target of the Programme is to create an effective flood management and information system ranging from legislation to implementation.

**Cooperation:** Poland has concluded agreements on water management of boundary waters with all neighboring countries. Poland cooperates with the United Nations Economic Commission for Europe, and also within the framework of international conventions signed by Poland. Many projects have been completed with the support of foreign aid. The main contributions have been made by: the European Union (the PHARE fund), Denmark, Japan, and Sweden. The projects served predominantly to implement water resource prospects. The Water Boards from Poland are the members of International Network of Basin Organizations (INBO), created in 1994 in France. Last General Assembly of INBO was held in Poland in 2000. INBO promotes integrated water resources management at the level of river basins as an essential tool for sustainable development.

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

**Decision-Making:** Responsibility for chemical management lies with several sectors, including: the Ministry of Health and Social Care which supervises the State Sanitary Inspection (trade in poisons, harmful substances, common use chemicals, industrial safety); the Ministry of Industry and Trade (trade in chemicals, chemical safety, control of Polish standards); the Ministry of Agriculture and Food Economy which supervises the State Inspection for Plant Protection (protection of plants, food, sanitary supervision); the Ministry of Transport and Maritime Economy (transport of hazardous materials); the Ministry of Labor and Social Policy (industrial safety, standards for pollution in the work environment); and the Ministry of Internal Affairs which supervises the State Fire Brigade Headquarters; (chemical rescue service, border guards, National rescue-fire extinguishing system). The Ministry of Environmental Protection, Natural Resources and Forestry coordinates activities of the State administration in the field of environmental protection and exercises control of compliance with the provisions of the Framework Act on Protection and Managing of the Environment. It supervises the Inspectorate for Environmental Protection, which coordinates State environmental monitoring, including accidental threats to the environment. Regulations in force include: plant protection chemicals, consumer goods and cosmetics, hazardous substances transportation, introduction of chemical substances for production and use (toxic substances), use of chemical substances in the work place, use of materials in buildings, chemical rescue and accidental threats, and testing and certification of chemical substances hazardous in the environment. Regulations on the transportation of hazardous materials in force in Poland are based on the requirements of international conventions on rail, road, maritime, and air transportation to which Poland is a signatory, as well as the Basle Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. These transportation conventions or their organizations are: Convention Concerning International Carriage by Rail (COTIF), SMGS, ADR, the International Maritime Dangerous Goods Convention (IDMG), and the International Civil Aviation Organization (ICAO). Foundations have been created to implement the Convention of the Transboundary Effects of Industrial Accidents and the Convention on Environmental Impact in a Transboundary Context. At present there is no legal procedure in Poland that would allow registration of all chemical substances appearing on the market. In the foreign trade area, there is no separate National system to register trade in chemical substances especially in exports. The imports are connected with licensing procedures. Currently Poland controls the export of certain chemical substances on the basis of the Act on the principles of special control of foreign trade in goods and technologies in connection with international agreements and obligations. The Institute of Organic Industry carries out risk assessments and keeps registers for certain chemicals. The draft Act on Chemical Substances is now in the final legislative process. It assumes the introduction of principles for control of the use of chemical substances, in accordance with the Organization for Economic Co-operation and Development (OECD) and with EU legal acts, mainly in the area of research, classification rules, risk assessment, package labeling, and registration. This Act will impose a duty to inform the importing country about an export of a substance, in accordance with the London Guidelines. The National Environmental Policy of 1991, the basic document determining the directions of environmental activities in Poland, points out the necessity to restructure agriculture and industry, including the chemical industry, to implement safe technologies, low- and non-waste technologies, setting up a chemical safety system, an early warning system and a system for counteracting chemical accidents, and to unify legislation and to harmonize it based in international standards. Major groups involved in toxic chemical decision making include: central and local authorities, parliamentary commissions, local communities, business groups and associations, environmental organizations and foundations, scientific-technical associations and scientific-research institutes.

**Programmes and Projects:** The National Environmental Policy Implementation Programme through the Year 2000 assumes, inter alia, the creation of the National chemical safety system, a hazardous materials control system, liquidation of outdated chemicals for plant protection, and the implementation of a “cleaner technologies programme”. Chemical industry plants, within the Responsible Care Programme coordinated by the Polish Chamber of Chemical Industry, now take preventive actions in case of an accident. The Cleaner Production Movement continues to be developed. The Programme Council for the “Data base on elementary requirements for safety, health protection, and the environment at the stage of production, transport, and use of chemical materials,

in accordance with EU and UN requirements” was established in 1994. It prepares hazardous substance characteristic charts, in line with the recommendations of the International Labour Organization (ILO) Convention.

**Status:** The refinery and petrochemical industry; the organic and inorganic industry; the plastics industry; the artificial fiber, paints, and lacquers industry; and the rubber and pharmaceutical industry are the dominating branches of the Polish chemical industry. Its activities constitute about 17% of the total imports and 12% of the total exports of Poland. A ban on the use, trade, and transport of certain chemical substances was introduced in 1996, and a list of units was published which are authorized to test materials and technologies from the point of view of their harmfulness. Restructuring of agriculture, currently ongoing, is targeted at, inter alia, elimination of highly toxic crop protection chemicals, and elimination of food production on the soil contaminated with toxic substances. A requirement to provide opinions on safety for health and the environment for plant protection products, before admitting them for trade and use has been introduced this year. The Plant Protection Institute, the State Hygienic Institution, and the Institute of Environmental Protection prepared this requirement.

**Capacity-Building, Education, Training and Awareness-Raising:** Capacity building issues include: the draft act on chemical substances and the draft act on preventing major chemical accidents serving as the basis for implementation of the National chemical safety system; the Responsible Care Programme in chemical industry plants; the Cleaner Production Programme; establishment of the Commission for Sustainable Development in 1994 (supervision of implementation of the sustainable development policy); establishment of the Environmental Management Centre in the Chemical Industry (promotion of “good management practices”, educational activity); educational information activity (training, conferences, seminars); research and development activities.

**Information:** Information background and databases concerning toxic chemicals have been created in Poland.

**Research and Technologies:** The Minister of Health and Social Care, in co-operation with other ministers, is obligated to implement a chemical safety system in Poland. Setting up an interdepartmental institution coordinating chemical substances management is being planned. The new regulation will create a legal basis for pursuing regular research on chemical substances (previously conducted informally) taking into account the principles of Good Laboratory Practice and will allow the elaboration and implementation of risk reduction programmes. The Agency for Restructuring and Modernization of Agriculture and the Agency for Engineering and Technology were established in 1996 to deal with information systems on technologies, scientific-research activities, technical and economic consulting, transfer of and trade in technologies.

**Financing:** A binding system of fees and fines (in accordance with the “polluter pays” principle) specific for certain installations is in effect depending of the degree of hazard they constitute. It is planned to introduce charges for products harmful to the environment; tax reductions for waste recycling and raw material recovery, and license fees for products introduced to the market containing hazardous substances. Detailed data on expenditures or estimated outlays on the National scale for the safe management of chemicals is lacking.

**Cooperation:** International cooperation in Poland takes place mainly in the implementation of the obligations stemming from conventions and international agreements in the area of chemical management and environmental protection. Poland participates actively in the work of UN agencies, including the Economic Commission for Europe (ECE) and the United Nations Environment Programme (UNEP); as well as with the Chemical Substances Group of OECD, the Council of Europe, the EU (the PHARE programme), the World Bank, and the work of monitoring networks. Examples of specific international activities include: the UN ECE seminar on “Low-waste technologies and environmentally safe products” (1993); the European Communities Conference “Co-operation and sustainable development in the chemical industry” (1993); the Third World UNEP Seminar on Cleaner Production (1994); the OECD Workshop on “Good Laboratory Practice” in the light of OECD Requirements (1995); and cooperation with Norway within the Cleaner Production Movement.

## CHAPTER 20 TO 22: ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS, SOLID AND RADIOACTIVE WASTES, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC

### Decision-Making:

*Hazardous Wastes:* The main control agency is the Inspectorate for Environmental Protection, which also runs the State environmental monitoring system. The Chief Environmental Protection Inspector is the “competent authority” for transboundary traffic in waste and hazardous waste management under the meaning of the Basel Convention. At the central level, the main agency responsible for implementing ecological policy in the area of waste management is the Ministry of the Environment, which exercises supervision over the activity of its subordinate units (Inspectorate for Environmental Protection, scientific research institutes). To a lesser extent, responsibility for waste management rests in other governmental bodies that deal with physical planning, restructuring of the industry, low-waste and non-waste technologies, restructuring of agriculture, protection of the Baltic Sea, transportation of hazardous materials, technical and chemical rescue services, industrial and transportation accidents. In conformity with the requirements of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, signed in 1990 and ratified in 1992, the export of hazardous waste is allowed with a permit from the importer's country. There are many national legal acts pertaining to hazardous waste in Poland which deal with environmental protection, compilation of the hazardous waste list, determination of the type of investment hazardous to the environment and human health, and on environmental impact evaluation, cultivable plants protection, monetary fines for non-compliance with environmental requirements and indexes differentiating the level of monetary fees. The Waste Law was adopted by the Parliament in 1997 and the Act on Maintenance of Cleanliness and Order in Communities was adopted by Parliament in 1996, and draft executive acts to it call for, inter alia, introduction of a new waste classification, model documents with regard to keeping inventories of waste, and model documents used for international traffic of waste. The basic document for pro-ecological activity in Poland is the National Environmental Policy adopted in 1991 which defines short, medium, and long term priorities, which include: reduction of the overall volume of industrial waste in need of storage by implementation of low-waste and non-waste technologies by at least 2005; increase of waste reuse for economic purposes; increase of waste recovery from the stored waste; rendering harmless or installing safe storage of all hazardous waste; reclaiming degraded land; production of machinery and equipment for, inter alia, incineration plants; and harmonization of Polish law with the European Community's. Major groups involved in waste management include: local and central authorities, parliamentary commissions, business groups, associations of entrepreneurs, environmental organizations and foundations, the Union of Polish Metropolitan Areas, technical and scientific associations, and scientific research institutes.

*Solid Wastes:* At the central level the main body responsible for environmental policy implementation, including protection of the environment against waste is the Ministry of the Environment. The Inspectorate for Environmental Protection is the main executive body subordinated to this Ministry. Other governmental bodies are also responsible for waste management, including waste, reconstruction of industry, “cleaner production”, sewage sludge and rural waste. The Act on Waste, in a comprehensive manner, determines the legal framework and obligations of users of the environment in the area of waste management, covering, among other concerns, issues of packaging management, usage, combustion, composting, and safe disposal of waste. There are executive regulations about model documents with regard to keeping inventories of waste, “green waste list”, and other concerns related to environmental protection, maintenance of cleanliness, and introduction of the polluter pays principle. The priorities in the field of waste management based on the strategy of sustainable development (National Environmental Policy adopted in 1991) are as follows: minimization of industrial waste production by implementation of non-waste or low-waste technologies; increase of waste usage in the economy; creation of pre-selection and recycling systems for municipal waste and their composting; and harmonization of Polish environmental law with European Union legislation. For major groups involved, see under *Hazardous Wastes*. The Environmental Law Act and Regulations of the Council of Ministers referring to this Act enter into force on 1 October 2001. The Act on Package and Waste Packages will enter into force on 1 January 2002. These regulations will start the implementation of the relevant EU regulations.

*Radioactive Wastes:* The general supervision of radioactive materials used and transported through Poland belongs to the Chief Inspector for Radiological Control at the Central Laboratory of Radiological Protection (CLOR). The

laboratory carries out records and controls of radioactive material, dosimetric measurements, calibration of instruments and equipment, radio-chemical analysis, and training necessary to obtain a license to work with radioactive materials. The State Atomic Agency elaborates the “screenplay” of activities in case of a radiological emergency. An organized nuclear waste dump is being operated. In Poland, the problem of radioactive waste is of minor importance due to the lack of nuclear power plants. The principles of handling radioactive materials (buying, transport, storage, disposal, neutralization) are determined by the Nuclear Law Act of 10 April 1986 and its executive regulations, which establish conditions under which buying and possessing of radioactive material is possible; as well as their storage, export, import, transport (including transit), conditions for location, construction and supervision of nuclear building structures, laboratories and institutions using radioactive material, classification and treatment of radioactive waste etc.

### **Programmes and Projects:**

*Hazardous Wastes:* In 1994, the National Environmental Policy Implementation Programme through the Year 2000 was prepared which determined the investment and non-investment tasks for achieving medium-term priorities. With regard to hazardous waste, the Policy called for the construction of regional plants for the treatment of industrial waste and for the organization of regional systems for the treatment of hospital waste (incinerating plants). The programme of regional hospital waste incinerating plants is being implemented. In 1995, a Burial Grounds Liquidation Programme was prepared for overdue storage sites of plant protection chemicals. The Programme of Waste Management of the Waste Hazardous to Poland is in preparation. The reclamation of degraded land of former military bases of the Russian Federation is in progress. The building of a “Regional system of industrial and hazardous waste management” for voivodships (provinces) in South-eastern Poland has commenced. The work on a comprehensive recycling system for, inter alia, waste oils, accumulators, and batteries is in progress. Pilot projects for enterprises have been implemented under the Cleaner Production Programme, involving “good management” practices and technological changes mainly on the use of waste as secondary raw materials and on modernization of technology to allow reduction of the hazardous waste volume.

*Solid Wastes:* The National Environmental Policy Implementation Programme calls for the following investment tasks with regard to municipal waste: construction of several incineration and composting plants, regional and local dumping sites, and implementation of selective waste collection. Installations are being anticipated at mines for the disposal of waste from mining and power plants, and for binding saline mine water with fly-ash from power plants.

*Radioactive Wastes:* No information available.

### **Status:**

*Hazardous Wastes:* There is no the hazardous waste management system in Poland and management has not been conducted in a suitable manner. General rules for handling such waste were laid down in the Environmental Protection and Management Act and, in part, in a few other acts. Only the conditions for import, export, and transit of hazardous waste have been determined. In 1993, a ban on the import of hazardous waste was introduced, and the duty to obtain a permit to import all other waste earmarked for recycling from the Chief Inspector for Environmental Protection. Permits for export and transit of waste were also introduced. In order to counteract illegal trade in waste, coordination among environmental protection, sanitary and customs bodies was established. Effectiveness of control of waste shipments transported across the territory of Poland deems to be very high. According to the “polluter pays” principle, enterprises are charged for storage of industrial waste depending on their type and volume, and they pay fines for non-compliance with the environmental protection conditions.

*Solid Wastes:* Poland is among the group of European countries leading in the amount of produced and accumulated industrial waste. Almost half of the overall amount is mining waste. Furthermore, there are floatation failings, fly-ash, slugs from heat and power stations, blast-furnace slugs, and phosphogypsum. Also, the situation of municipal waste management is not satisfactory. There is a growing problem with packaging materials that create waste. There are ongoing activities on comprehensive recovery systems for waste paper, rubber waste, plastics, glass, and aluminum cans; and, on the reclamation of degraded areas of former military bases of the Russian Federation. Efforts are being made to introduce selective waste collection and recycling. Restructuring of industry covers the introduction of low-waste technologies and higher use of waste as recyclable material.

*Radioactive Wastes:* There are several groups of radioactive waste according to their activity (medium and high) and their concentration, which are submitted to different treatments of neutralization. Radioactive wastes are deposited at the National Radioactive Waste Disposal Site in Róžan.

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

*Hazardous Wastes:* Capacity building and technology issues include: the Waste Law and the Act on Maintenance of Cleanliness and Order in Communities; development of the Cleaner Production Programme; establishment of the Chemical Industry Ecological Management Centre; creation of the Commission for Sustainable Development in 1994; educational and information activities (training, seminars).

*Solid Wastes:* see under **Hazardous Waste**.

*Radioactive Wastes:* No information available.

The Ministry of the Environment organizes workshops and training courses on waste management for representatives of regional authorities and regional Inspectorates for Environmental Protection.

### **Information:**

*Hazardous Wastes:* In 1993, an inventory of hazardous waste landfills was completed and a computerized data system on waste (SIGOP), run by the Waste Management Institute, was put in operation in all voivodships (provinces). A concept for the rating of hazardous waste landfills has been created. In 1996, a polychlorinated biphenyl (PCB) inventory programme commenced. The creation of information background is also relevant.

*Solid Wastes:* No information available.

*Radioactive Wastes:* No information available.

The executive acts to the Waste Law and the Act on Package and Waste Packages of 2001, introduce the control system of record of waste and packages production and management. Database with information concerning waste management in Poland will be set on the basis of these regulations.

### **Research and Technologies:**

*Hazardous Wastes:* National initiatives are the creation of the Agency for Engineering and Technology in 1996 (data banks on technologies, scientific research, technical and economic consulting, transfer and trade in technologies) and other research and development studies.

*Solid Wastes:* A "Study on possibilities for regionalizing the management of waste from health service entities" was prepared in 1995. It suggests the construction of about 20 combustion plants for these wastes. The State Inspection of Environmental Protection implements activities in the field of monitoring. The electronic data system on waste (SIGOP), managed by the Institute of Waste Management, has been implemented in all provinces and the creation of the Agency mentioned above is also relevant.

*Radioactive Wastes:* No information available.

### **Financing:**

*Hazardous Wastes:* Charges for hazardous waste storage and fines for infringement of environmental protection regulations are in effect. There are planned charges for products creating environmental nuisance, and tax exemptions for the secondary use of waste and raw material recovery. However, there is a lack of detailed data on the National scale for expenditures and expected outlays for safe management of hazardous waste.

*Solid Wastes:* See under **Hazardous waste**.

*Radioactive Wastes:* Neutralization and disposal of radioactive waste is financed from sources, which are covered by waste producers (health service, industry, science), and by the State budget in the form of donations. Environmental fees are set by the executive acts to the Act on Water Law of 2001 and the Act on duties of entrepreneurs of 2001 concerning some waste management and product fee and deposit fee.

### **Cooperation:**

*Hazardous Wastes:* International cooperation in Poland is shown mostly in the implementation of the country's commitments resulting from conventions and international agreements in the area of protection of the environment against waste, including hazardous waste. Poland actively participates in the work of the OECD in the framework of the Committee for Environmental Policy and the Group for Waste Management Policy; UN bodies and programmes, for example, the Economic Commission for Europe (ECE), the United Nations Environment Programme (UNEP); the Council of Europe; the European Union's PHARE programme; and World Bank programmes. The following are specific examples: the UN ECE Seminar "Low waste technologies and environmentally safe products" (1993); the Third World UNEP Seminar on Cleaner Production (1994); the OECD

Workshop on “Hazardous Waste Management in Light of OECD Requirements” (1995); and cooperation with Norway under the framework of the Cleaner Production Movement.

*Solid Wastes:* See under **Hazardous Wastes**.

*Radioactive Wastes:* No information available.

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## CHAPTER 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS

**Women:** Decision Making: Policies, guidelines, strategies, and plans for the achievement of equality in all aspects of society have been drawn up and completed. Mechanisms are being developed to assess the implementation and impact of development and environment policies and programmes on women. Programmes and Projects: In 1996, the National Action Programme for Women up to the year 2000 was developed in accordance with Polish conditions. The Action Programme also takes into account the final document of the UN Fourth World Conference on Women, the objectives given in the Polish Report to this Conference, and the recommendations for an action programme considered as the most important by the Council of Ministers. Status: From 1992 to 1996, the percentage of women in government increased, but there is no system of institutions to examine the situation of women in society, policy, and the economy. This is primarily due to the fact that there is no discrimination of women in work, access to science, or posts. In the future, research institutions will include the assessment of adopted strategy and its impact on the role of women. Capacity-Building, Education, Training and Awareness-Raising: Curricula and educational material have not been revised yet to promote dissemination of gender-relevant knowledge. For ten years, the Plenipotentiary of Government on Family and Women has formally applied to the Ministry of National Education with a proposal to correct the school handbooks according to the requirements of the Convention on the Elimination of All Forms of Discrimination Against Women. Non-Governmental organizations have reviewed information covered in handbooks for primary school classes. Training materials, which aim to increase awareness on women's matters and protect them, are being issued in a non-institutionalized way, sporadically and occasionally. Cooperation: In Poland, the Convention on the Elimination of All Forms of Discrimination Against Women was signed on 29th May 1980 and ratified on 30<sup>th</sup> July 1980.

**Children and Youth:** Decision Making: The four most important youth fora promoting dialogue between youth and government on sustainable development are: the Green Federation; the Inter-university Environmental Lobby; the Scout Movement for Environmental Protection of Saint Francis; and the League of Nature Conservation. These organizations participate on an ad-hoc basis in the National process. The goal to ensure that by year 2000 more than 50% of youth, gender balanced, have access to appropriate secondary education or vocational training has been reached. Programmes and Projects: The government undertakes measures to limit and eliminate causes of unemployment of youth. The programme promotion of youth professional activity concentrates on the approximation of youth education to the needs of the labour market; and assisting youth in making decisions on education and employment. The so-called prize for activity programme is addressed to young people finishing schools, giving financial support to activities, which increase their chances for employment. Under the Settlement Programme, addressed especially to agricultural school graduates, the establishment of large family farms on uncultivated lands is recognized. Capacity-Building, Education, Training and Awareness-Raising: The Polish Strategy for Environmental Education, which is now being evaluated, anticipates during the course of general education in primary and secondary schools the separation of three interdisciplinary paths: education for health, social education, and environmental education. One of the basic targets of the strategy is to create a National information system on the state of the environment available for the entire society, and to create methodology and information centres for non-governmental organizations. Youth, through non-governmental organizations, participate in preparing opinions on drafts of strategies or programmes. Environmental education of youth takes place mostly through informal education. For children and youth, various types of events are being organized (environmental knowledge contests, Earth Day activities, Cleaning of the World campaigns); and educational TV programmes, publications, and educational inserts in newspapers regarding the state and protection of the environment are being prepared. The 1992 ordinance of the Ministry of National Education allows the creation of environmental profiles in secondary schools. The 1993 ordinance introduced "protection and management of the environment" as an obligatory subject in professional schools.

**Indigenous People:** Decision Making: In Poland, the problem of ethnic groups is marginal, although there are minorities, which are treated in accordance with international law (own schooling, representation in Parliament, etc.). Indigenous people participate on an ad hoc basis in National policies. Policies and legal instruments are not in place to empower indigenous people and their communities. However, mechanisms for their involvement in resource management strategies and programmes at the National and local level are being discussed. A few dozen



years of the centralized management system resulted in the social disintegration of communities and aversion to undertaking common activities. A formal basis to overcome these barriers no longer exists, but the process of organizing local societies will be long lasting. In the improvement and sustainable development of human settlement, the necessity of introducing conditions for the enlargement of the role of local societies in creating and implementing development policies and programmes is being emphasized, and concrete solutions are being proposed.

**Non-governmental Organizations:** Decision Making: Mechanisms that allow non-Governmental organizations (NGOs) to play their partnership role in sustainable development responsibly and effectively already exist. NGOs participate in the process of assessment of draft strategies, programmes, and policies. The development of a system of constant cooperation between the government and the environmental movement (and to solve legal, organizational, and financial problems) is ongoing. An outline of such a system is being worked out by the group of authors in a report entitled "Co-operation between Ministry of Environmental Protection, Natural Resources and Forestry and Non-governmental Environmental Organizations". A mixed commission consisting of the Ministry of the Environment and NGOs representatives performs supervision of this initiative. The extent of the project has not yet been determined, but it is postulated to establish cooperation at all levels of the State administration. The Government cooperates with NGOs in the field of social services through the Regional Centres of Support for Non-Governmental Organizations.

**Local Authorities:** Status: The Government plans to support local agenda 21 initiatives. During recent years, some activities have been undertaken to propagate the idea of establishing local Agendas 21s. There are at least 11 local Agenda 21s currently operating in Poland. In 1993, local authorities received information on how to prepare sustainable development programmes for districts. In 1994, under the protectorate of President Lech Walesa, the Office of the President and provincial offices organized a contest for the best environmental community in Poland in order to stimulate social activity for sustainable development. In 1995, the Ministry of Environmental Protection, Natural Resources and Forestry prepared the "Methodological guidelines and directions for elaborating provincial programmes for environmental protection", with sustainable development as the guiding principle. The document includes guidelines for government administrations to prepare provincial programmes of environmental protection till the year 2001 at least. However, the actions to create sustainable development programmes for communities in Poland are initiated exclusively by local authorities, supported by Polish and foreign non-governmental organizations.

**Workers and trade unions:** Decision Making: Different forms of social dialogue of trilateral organizations, involving trade unions and employers in the process of social and economic decision making, are becoming more common. In the framework of these consultations, decisions regarding the work environment, workers training, social services, and environmental protection are being made. However, workers do not yet participate in National Agenda 21 discussions or implementation. Status: During recent years the number of accidents at work has decreased. The number of accidents causing heavy injuries has decreased significantly, while the number of light injuries has increased. It is increasingly common for workers to participate in various types of courses and training to upgrade their qualifications. Cooperation: Poland has ratified the following International Labour Organization (ILO) Conventions to involve trade unions and employers in the process of trilateral dialogue: Convention on freedom of unions and protection of union rights (Convention No 87); Convention on applying rules of the right to organized and collective negotiations (Convention No 98); and Convention on trilateral consultations in the scope of putting into force the international standards on work (Convention No 144).

**Business and Industry:** Decision Making: In Poland, there are governmental policies which encourage increasing the efficiency of resource use, including reuse, recycling, and reduction of waste per unit of economic output. There are also relevant initiatives: the establishment of the Polish Council of Sustainable Development composed of representatives of economic and financial groups which promotes the concept of sustainable development, as well as initiates and finances activities for environmental protection; introduction of global and European quality standards [International Standards Organization ISO 9000 and ISO 14000 standards on the management of industrial plants and the European Union's voluntary Eco-Management and Audit Scheme (EMAS)]; continuing the work on determining the quality requirements for sewage from particular industries; labeling of machines and

appliances to encourage energy saving; introduction of an excise tax for plastic packaging and a tax exemption for returnable packaging; and applying fees for economic use of the environment and for environmental pollution. Programmes and Projects: Actions taken to encourage the concept of stewardship in management and use of natural resources by entrepreneurs include: Cleaner Production Programme, implemented under the patronage of the Ministry of Industry and Trade, and promoting development and implementation of new technologies and environmental solutions, consistent with the principle of cleaner production for various branches of the economy; Establishment of the Centre of Environmental Management in the Chemical Industry, which in cooperation with the Polish Chemical Industry Chamber and the European Chemical Industry Council (CEFIC), leads a Responsibility and Care Programme, which encourages gradual plant modernization leading to energy savings; and reductions of waste, sewage, and emissions. Status: The number of enterprises accepting and implementing sustainable development policy has increased and a number of pilot projects may be identified. In 1996, during the Second National Assembly of the Cleaner Production Movement, 63 enterprises obtained “Certificates of cleaner production”.

**Scientific and Technical Community:** Capacity-Building, Education, Training and Awareness-Raising: In Poland, the scientific community is involved in the formal and informal education of society. The Federation of Scientific and Technical Associations and the Polish Centre of Cleaner Production conduct the Polish-Norwegian Programme of Cleaner Production. There is some effort to improve the exchange of knowledge and concerns between the science and technology community and the general public through the implementation of courses and training; participation in meetings, conferences, and symposia; and the edition of publications. Training for teachers from primary and other schools is being organized. Scientific personnel participate in meetings with representatives of youth and local authorities. The idea of sustainable development is being promoted through press articles and publications, for example “Rio: beginning of the environmental era - Earth Summit”, and “Earth Summit, Global Action Programme”.

**Farmers:** Decision Making: The Act on Agricultural Chambers creates the opportunity for the rank-and-file organizations of the agricultural community to find common solutions to economic and professional problems. The tasks of agricultural chambers at the provincial level include: apply with initiatives regarding legal regulations to government administrations and local authority bodies, advise within the sphere of agricultural activity, undertake actions in favor of the development of agricultural infrastructure and improvement of the agrarian structure, lead actions in favor of increasing the quality of equipment and chemicals, improvement of work and safety conditions in agriculture, cooperate with agricultural schools, initiate changes in educational programmes and co-organize training practices, promote awareness of agricultural producers, and act to promote the improvement of the quality of agricultural products. Certain measures, for example access to low rate credit, are being undertaken to promote environmental farms.

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## **CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS**

This issue has been covered under the heading **Financing** in the various chapters of this Profile.

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## CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

**Decision-Making:** In Poland, a resolution of Parliament on sustainable development policy (1995) and a parliamentary debate on this resolution identified the necessity to: establish an effective system to support science for sustainable development; introduce competitive elements to scientific studies; and, design activities for environmental protection. In the draft of a new Act on Protection and Management of the Environment, introduction of new economic instruments is assumed, which will impact production and consumption patterns. Implementation of new instruments and mechanisms is preceded with research analyzes ordered by the Minister of Environmental Protection, Natural Resources and Forestry and conducted by sectoral research institutes and universities. The National Environmental Policy (1991) includes scientific research as one of the tools of environmental policy, implemented through: (i) support for scientific studies facilitating the implementation of sustainable development principles. This research should identify the present and future environmental and human health threats, and propose solutions together with the methods of implementation. It is necessary for these studies to have an interdisciplinary character; (ii) general support should be given to studies on mechanisms of nature functioning and sensibility in the neighbourhood of degraded areas. This includes research on the restoration of disturbed environmental balance, reclamation, and conservation of nature, particularly with respect to forests; (iii) support for research on the spatial construction of nature; and (iv) the economic impact of the State on strengthening important technical-economic directions of research significant from an environmental point of view. Until 1997 in the working framework of the National Commission on Sustainable Development, was the mechanism that facilitated dialogue among the scientific community, the Government and the public at large. The body integrating the scientific community and the government is the Co-ordination Board on Research Programmes under the auspices of the Minister of Environmental Protection, Natural Resources and Forestry and the State Board for Environmental Protection. Representatives of the scientific community actively participate in various commissions, committees and councils, initiative and advisory bodies for the state administration e.g.: the Environmental Impact Assessment Commission; the State Board for Environmental Protection; the State Board for Nature Conservation; the Co-ordination Council on Research Programmes, i.e. bodies acting under the supervision or care of the Minister of Environmental Protection, Natural Resources and Forestry.

**Programmes and Projects:** No information available.

**Status:** In terms of enhancing scientific understanding, the following proposed trends have been taken into consideration: studies and forecast regarding social and economic processes, with regard to interaction of market mechanisms and policy of the state; scientific studies regarding information and monitoring systems for the needs of physical management, management of natural resources and fixed assets, environmental protection, public administration, statistics and science; and initiating and supporting research preceding current needs, preventing threats for society and the State resulting from international obligations. The following preferred trends are significant to the improvement of long-term predictions: studies on long-term concepts of the development of the country using simulation models, with consideration to external and internal circumstances; scientific studies important for the development of the country, especially in the long-term perspective, and development of activities in the field of forecasting economic development, energy needs, and requirements of environmental protection; and scientific studies regarding strategic planning and management in the context of global challenges and development conditions. In terms of building capacity and capability of science, the preferred trends are: scientific studies on the scientific, technical, and innovation policy of the State; concepts of modern education for Polish society from the point of view of evolution of its structure and awareness; and financing investments connected with priority studies, as well as with international cooperation.

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

**Information:** The Committee of Scientific Research identified the preferred directions of research and implements the principles of scientific policy determined in two documents that have been accepted by the Council of Ministers; namely Assumptions of Scientific and Technical Policy of the State (1993), and Preferable Trends for Scientific Studies and Development Activities to Increase the Innovation Potential of the Polish Economy (1996).

Environmental protection found its privileged place in both documents, and the trends formulated are compatible with the guidelines of Agenda 21, especially covering the tasks of science for sustainable development, enumerated in the four points of chapter 35. Proposed trends in the improvement of scientific interpretations include: development of information infrastructure and National databases and development of activities concerning electronic systems of collection, processing, transmission, and making information available with particular regard to network systems, using complex transmission of data.

**Research and Technologies:** Support is given to scientific studies related to the environment and aimed at the promotion of knowledge in this field. General support will also be granted to basic research on the most environmentally degraded areas, the restoration of the environmental balance in degraded areas, reclamation, the protection of nature particularly in forests, and regional studies. Research on environmental protection is conducted in six state scientific institutions and experimental units supervised by the Ministry of the Environment. These are: the Institute of Meteorology and Water Management, the Institute of Environmental Protection, the State Geological Institute, the Research Institute of Forestry, the Institute of Ecology of Industrial Areas, and the Experimental Centre of Geological Technology. Furthermore, there are entities of other sectors conducting large-scale research on environmental protection.

**Financing:** Financing of scientific research and studies on environmental protection primarily comes from the following sources: the Committee of Scientific Research (CSR) (statutory activity 25-35%, research projects 25-35%, general activity about 6%), ministerial sources (about 10%), the National Fund of Environmental Protection and Water Management (NFEPWM) (about 15%;), the State Forest Farm "State Forests" (about 2-4%), territorial organs of state and local administration, and numerous foundations, associations and enterprises. It is estimated that about 80% of the studies on environmental protection are financed by the State budget. The Committee of Scientific Research, established by law in 1992, administers budgetary funds, which included in 1996: for protection of the environment about 60 million PLN (financing or co-financing of statutory activity of scientific and experimental units and research conducted by universities); financing of research projects (grants) about 37 million PLN; research on seas and climate change (financing of polar station's research ships) about 5 million PLN; and Resources of the National Fund of Environmental Protection and Water Management allocated to scientific works and experiments 10 million PLN.

**Cooperation:** No information available.

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## CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

**Decision-Making:** The National Strategy for Environmental Education, which preparation began in 1995, is a cooperative effort between the Ministry of National Education and the Ministry of Environmental Protection, Natural Resources and Forestry (MEPNRF) and had its first version presented to entities dealing with environmental education for consultations. In the draft Strategy, submitted to Parliament in September 1997, the respective responsibilities of ministries, central institutions, education system, higher education system, media, non-governmental organizations and local authorities dealing with environmental protection are delineated. The Strategy indicates the necessity to appoint a coordinating and advisory institution, whose main objective will be to prepare a national environmental education curriculum, where functions and responsible bodies are included. Major tasks will also include the preparation of sectoral programmes and education strategies. The National Environmental Policy emphasizes the importance of environmental education aimed at changing society's attitude towards the environment and raising public awareness. Activities in this field cover: formal education, through creation of an ecological education system at all levels of teaching in different types of schools by including environmental issues in obligatory subjects and the successive creation of a net of optional education; and, informal education, through cooperation with institutions and organizations dealing with environmental education. Cooperation is being developed with the mass media for the dissemination of information on the environment, the shaping of the environment, and health friendly behavior of society.

**Programmes and Projects:** There are many innovative educational programmes for local communities, which make attempts to actively involve target social groups. One example is a project aimed at creating "Eco-Teams" and "Eco-Families", which involves local communities in active co-operation regarding the rational use of resources. Another example is the creation of a local Club of Ecological Journeys Friends in Kraków, which promotes among the local community, active contacts with nature through participation in various types of games, as well as in activities to benefit the environment, e.g. rubbish collection. Additional examples of innovative education, public awareness or training activities related to sustainable development are: implementation (since 1990) of a programme of self-learning and environmental education among engineers and technicians; a number of conferences, seminars and trainings have been organized in the entire country by the Department of Education at the Central Technical Association; International Action Passport to the Future organized in the 50th anniversary of UN establishment; the Action aimed at activating children and youth toward environmental activities; the programme "don't burn grass"; promotion of best solutions proposed by the economic sectors (programme of utilization of waste).

**Status:** A programmatic reform of the education system in Poland was completed in 1997. Basic curricula for primary schools were drafted, including ideas and principles of sustainable development, as well as on the conventions ratified by Poland. One of the outstanding education fields in Poland is environmental education, which deals with aspects of ecological interrelations in the nature and principles of sustainable human activities. Non-governmental organizations (NGOs) involved with environmental concerns have been participating in the process of upgrading environmental awareness in society, taking part in activities initiated and implemented by MEPNRF and in the development of programmes for environmental protection. In order to raise environmental awareness among the public, numerous educational actions and campaigns are organized at both the regional and national levels, involving available media: television, radio and press, through cyclical broadcasting and articles. Initiators and leaders of such campaigns are mostly non-governmental organizations, however the Ministry of the Environment as well as the Ministry of Education support and/or sponsor these campaigns. Examples of campaigns promoting sustainable consumption and production patterns are: recycling action "Care for Waste" and action "Clean-up the World". Numerous training courses and conferences are also organized for the community of engineers and technicians in the framework of the Cleaner Production Programme. International fairs such as the "Eko-Media Forum" are organized and focus on the presentation of the most important achievements in environmental education. In order to develop integrated and holistic sustainable development strategies and actions a new generation of planners, developers, and project managers in Poland must be educated and/or trained in multi-disciplinary and multi-stage approaches to programme and projects, incorporating at least good professional education, basic background in law, economic and financial instruments, informatic tools, ability to work in multi-

disciplinary teams and to communicate with others, particularly with public. Training for teachers and other professionals has been reinforced through organization of professional advanced training for public school teachers. Specialist training is conducted for public and local administrations, managerial staff, and personnel of enterprises, journalists, etc. And there are also various forms of training: courses, seminars, technical conferences, postgraduate, and extramural studies.

**Information:** A special WWW Site is under preparation. At present, information on objectives related to environmental education is included in the Site of the Ministry of the Environment: [www.mos.gov.pl](http://www.mos.gov.pl). Information on environmental education can be also found at the address of the Information Centre of the Warsaw University: <http://ciu.warman.net.pl/alf/biodiversity>, in chapter 5 - 'Environmental Education'. Concerning the work of NGOs, they have access to documents, materials, and information to enable them to conduct their activities, and participate in the elaboration of programmes on environmental protection and public awareness.

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

**Financing:** Education is free of charge and accessible at all levels (primary, secondary and university) for the entire population. In addition, the State provides financial assistance from the State Budget, in the form of social scholarships to the poor thus enabling the younger generation to achieve professions and improve their economic situation. In the framework of the strategy to combat poverty, which is presently being prepared, the government also supports economically handicapped groups, mainly the unemployed, through a system of training courses organized for those who want to improve or change their qualifications/skills. The Ministry of Education, the MEPNRF, the National Fund for Environmental Protection, as well as voivodship and local funds of environmental protection provides the financial resources for the above educational tasks. In 1995, the amounts granted for environmental education reached 0.04% of GDP.

**Cooperation:** No information available.

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

This issue has been covered either under Chapter 2 or under the heading **Cooperation** 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 issue has been covered under **Cooperation** in the various chapters of this profile. However, you will find below a list of International Legal Instruments.

Poland signed in Rio de Janeiro the Framework Convention on Climate Change and the Convention on Biological Diversity. Poland ratified both Conventions and became a member in 1994 and 1996 respectively. Delegations from Poland actively participated in the dialogue and negotiation process, together with other Organization for Economic Co-operation and Development (OECD) countries, the Group of 77, and China. Furthermore, thanks to the stimulating debates in the last sessions of the Commission on Sustainable Development (CSD), Poland became a party to all other international conventions, particularly regional ones, in the wide inter-sectoral field of sustainable development. A listing of other major agreements and conventions entered into by Poland and relevant to Agenda 21 includes: Convention on road traffic (Geneva 1949), ratified in 1958; Europe Agreement on International Carriage of Dangerous Goods by Road (ADR; Geneva, 1957), ratified in 1975; Convention on Road Traffic (Vienna, 1968); ratified in 1984, and Europe Agreement amending the Convention (Geneva, 1971), ratified in 1984; Convention on Intervention on the High Seas in Case of Oil Pollution Casualties (Brussels 1969), ratified in 1976; Protocol on Intervention on the High Seas in Case of Oil Pollution Casualties (London 1973), ratified in 1983; Convention on International Transport by Rail (COTIF; Bern, 1970), ratified in 1984; Convention on the International Fund for Compensation for Oil Pollution Damage (Brussels, 1971), ratified 1988; and London Protocol to Convention (London 1976), ratified in 1985; Convention on Wetlands on International Importance Especially as Waterfowl Habitats (Paris 1982, ratified in 1984; Convention on the Prevention of Marine Pollution by Dumping of Waste and Other Matter (London, Mexico, Moscow, Washington, 1972), ratified in 1979, supplementary protocol (London 1978) [Poland ratified the Convention with annexes I, II, III, IV, V and the Protocol with Annex I in 1986]; Convention on Prevention of Pollution from Ships (MARPOL; London, 1973); Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES; Washington, 1973), ratified in 1990; Convention on Conservation of Migratory Species of Wild Animals (Bonn, 1979); Agreement on Conservation of Bats in Europe; Agreement on Conservation of Small Whales in the North and Baltic Sea, ratified in 1996; Agreement on Conservation of the European Wildlife and Natural Habitats (Bern, 1979), ratified in 1995; Convention on Early Notification of a Nuclear Accident (Vienna, 1986), ratified in 1988; Convention on Assistance in the Case of a Nuclear Accident or Radiological Emergency (Vienna, 1986), ratified in 1988; Convention on Nuclear Safety (Vienna, 1994), ratified in 1995.

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## **CHAPTER 40: INFORMATION FOR DECISION-MAKING**

This issue has been covered either under Chapter 8 or under the heading **Decision-Making** in the various chapters of this Profile.

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## INDUSTRY

**Decision-Making:** The following institutions are responsible for implementation: the Ministry of Economy, the Ministry of National Treasury, the State Agency for Techniques and Technologies, the State Center for Information on Environmental Protection Techniques, and the Industrial Chambers of Commerce. Environmental considerations have been included in the Industrial Policy (1993).

**Programmes and Projects:** Specific action programmes are under investigation and drafting. In 1994, the National Environmental Policy Implementation Programme through the Year 2000 was prepared which determined the investment and non-investment tasks for achieving medium-term priorities. With regard to hazardous waste, the Policy called for the construction of regional plants for the treatment of industrial waste and for the organization of regional systems for the treatment of hospital waste (incinerating plants). The Cleaner Production Programme is being implemented: in over 200 plants pilot projects have been implemented. Elements of sustainability have also been introduced to the Programme for International Competitiveness of the Polish Industry, Programme for the Development of Small and Medium Size Enterprises, Programme of Support for the Development of Regional Institutions for Technology Transfer, Assumptions for Long-Term Industrial Policy (until 2010), Assumptions on the Restructuring of the Chemical Industry, and are included to the reprivatization processes. There is no specific Green Industry Programme in Poland. Some industries have started their own ISO 14000 and the EMAS standard programmes and two of them have received the adequate certificates. More than one thousand have been involved in the cleaner production programme.

**Status:** Investments in the technical equipment of industry are being developed. In 1995, expenditures on industrial plant equipment increased by 132.3%, as compared to 1992. The major threats to human health and the environment associated with industrial activity are caused by the energy sector and its emission (low and high) sulphur dioxide, carbon dioxide and dust as the effect of coal combustion. Coal still remains the major (more 80%) energetic fuel in Poland, however some measures have been recently undertaken to reduce its use i.e. fuel conversion from coal to gas and oil, development of renewable energy sources (mainly hydro-power and geothermal resources) and energy conservation programmes. The other threats are caused by the coal-mining sector, namely salination of surface water and solid waste production. Poland is among the group of European countries leading in the amount of produced and accumulated industrial waste. Almost half of the overall amount is mining wastes. Restructuring of industry covers the introduction of low-waste technologies and higher use of waste as recyclable material. Industry is being privatized and there is a gradual decrease in the importance of heavy industry in the economy.

**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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## SUSTAINABLE TOURISM

**Decision-Making:** The Polish governmental bodies responsible for tourism are: (i) Office of Physical Culture and Tourism – national level; (ii) Ministry of Agriculture and Rural Development, Department of Rural Development – national level; (iii) Departments of Physical Culture and Tourism in the Provincial Administration Offices – regional and municipal levels. The National Acts related to tourism are as follows: the Act on Natural Protection of 16 October 1991 and the Act on Spatial Management of 1 July 1994. Poland has not formulated a National Strategy on Sustainable Development. The Master Plan for Tourism in country and forest areas was elaborated within PHARE – TOURIN II Programme. The defining policy and strategy of tourism development are elaborated by Office of Physical Culture and Tourism in the following: (i) Basic Programme for Tourist Economy Development of 19 September 1994, describes guidelines for environment friendly tourism, adjustment at tourism use to nature and landscape assets and their protection; (ii) Tourism and Tourism Management Development in the State Spatial Management Policy, outlines the State Spatial Management related to environmentally friendly domestic tourism, domestic tourism product and tourist infrastructure, (iii) Development Strategy of Domestic Tourism Product, contains development of the following trade mark products: business tourism, active and oriented tourism, urban and culture tourism, agro-tourism, transit and border tourism. Main goals of tourism management development are the following: to raise the economy level of municipalities and regions in order to improve the economical status of the society; supporting activities aiming at sustainable state of economy development; promoting tourism development as the unemployment reduction; creating new job places and increasing motivation to start professional work; rural areas economic mobilization; supporting country and surroundings infrastructure changes. Organizations involved in decision-making for tourism include: Governmental Institute of Tourism Tourist Sector Tourist-hotel Professional Schools; Polish Federation of Agro-Tourist Hosting Farms; Regional Tourist Federations; Local Agro-Tourist Associations, e.g.: Agro-tourist Association “Chata” in Beskid Mountain Region.

**Programmes and Projects:** The State Programme for Domestic Tourism Product Development, particularly concerns the development of active tourism and tourism in rural and forest areas, executed by Tourist Development Fund in 1996 – 1997. The programme consisted of three separate subprojects: (i) Main Plan of Country Tourism Development – executed by TDI Ireland; (ii) Development of Public Accommodation Base Service in Country Areas – executed by DG Agropgress International GmbH Germany/ Advisory and Educational Centres for Agriculture, Department in Krakow; and, (iii) Active and Special Interests Tourism – executed by L&B Great Britain. The promotion programme covers the following: International Tourist Trade; Regional Tourist Trade; Publications, brochures, films; Internet [e.g.: <http://gemini.most.org.pl/ZB/ZB/50/Eat~1.htm> (in Polish language)]; Agro-tourist Associations (e.g.: Regional Tourist Federations, 30 Federations already existing are associated with Polish Federation of Agro-Tourist Hosting Farms); Eco-Agro-Tourism Programme (EAT), executed by ECEAT (European Centre for Eco- Agro- Tourism) in Poland, and sponsored by EEC and Dutch Government, covers Poland, Czech Republic and Hungary. Other programmes carried out by ECEAT – Poland including: Ecological Tourism at Ecological Farms (TEGE); Joint Ecological Agriculture Campaign (WKRE); Ecological Awareness Development – educational camps; Guided Eco-Tourism – walking, bicycle and horse routes in Karkonose and Beskid mountains; Promotion of Eco-Tourism on Farms at Bilateral Biosphere Reserve Karkonose (cooperation); and, the Protected Area Network – Bialowieza (cooperation). The infrastructure in the country areas is not sufficiently developed. The ISPA Programme is launched in order to facilitate the execution of joint projects between several municipalities, because 5 million Euro threshold value of the project exceeds financial abilities of Polish small municipalities to start the project.

**Status:** Poland is located on the 12th position of the WTO list of the most visited countries of the world, with 17,4 million visitors who spent at least one night in Poland in 2000. In 2000, arrival tourism foreign exchange income amounted to 6,1 billion USD and placed Poland on the 20th position in the world. It is estimated that in 1999 the number of foreign visitors will decrease. The main obstacles to pursuing sustainable development include: insufficient number of eco-tourist centres – intensive development of eco-tourism in some areas may cause their destruction; lack of cooperation between social groups; lack of interest in development of tourism economy from Polish banks part; lack of preference credits for nature-based tourism investments; low eco-tourism awareness among local authority and country inhabitants; and, unsanitary conditions in the country areas.

**Capacity-Building, Education, Training and Awareness-Raising:** The Office of Physical Culture and Tourism cooperates with the Ministry of the Environment and organizes the Programme of Ecological Education, which is reflected in: tourist-hotel professional schools programmes; courses for tourist guides; professional conferences for tourist sector, local administration and educational personnel organized by the Office of Physical Culture and Tourism. Since 1992, the Provincial Advisory Centres for Agriculture have been organizing training programme concerning agro-tourism, e.g.: the Provincial Advisory Centre for Agriculture – SIELINKO (Wielkopolskie Province), organized in 1998 training for country inhabitants planning to organize and already having organized agro-tourism farms; training programmes contained issues: agro-tourism and economy, marketing, promotion, advertising, law, financial resources, customer service, environmental protection, sanitation, nutrition, field trips; training was partly financed by governmental resources and by Agriculture Development and Food Economy Foundation (Fundacja Rozwoju Rolnictwa i Gospodarki Żywnościowej). In 1997, Strategy for Training of Country Public Accommodation Base Service was elaborated within PHARE – TOURIN II Programme. Agro-Tourism Associations, Major Agriculture Fund, FAPA and postgraduate academic centres also organize professional training for nature-based tourism.

**Information:** Central Statistical Office of Poland provides information concerning: Tourism in National Parks and Didactic Activity in National Parks. Information available to customers via Internet is available only by private WWW Site, e.g.: (i) <http://www.agrobochenscy.xxl.pl/deutsch/index.html> – description of one of the Polish agro-tourism farms (in Polish and German language); (ii) <http://195.205.14.133/eceat-poland/adresy.html> – description of 90 Polish eco-tourism farms (in Polish); (iii) <http://www.zetozg.pl/firmy/zir/MENU2.HTM> – description including prices of agro-tourism farms service, in Lublin region, in Poland; and, (iv) <http://www.most.org.pl/eceat-poland/home.html> – ECEAT Poland www site.

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

**Financing:** Nature-based tourism development and promotion is supported through: (i) Budgetary means: Agriculture Restructuring and Modernization Agency (ARIMR) – subsidizes investment of credit interests; Ministry of Agriculture and Rural Development; Regional Authorities, Agriculture Departments and Tourism Departments; Municipalities; (ii) Foreign means- credits: PHARE, TURIN; Polish Regional Development Agency; Polish-American Enterprise Fund; European Fund for Polish Country Development; LEONARDO and INTERREG, (iii) Credits for economic entity are also available from: Social-Economical Initiative Fund; "Country Enterprise" Foundation; National Fund for Environmental Protection and Water Management; Country Water Supply Aid Foundation; Association of Food Producers by Ecological Methods; Foundation for Polish Agriculture.

**Cooperation:** See under **Programmes and Projects**.

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