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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 Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
IAEA	International Atomic Energy Agency
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
ICT	Information and Communication Technology
ICTSD	International Centre for Trade and Sustainable Development

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

UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
UNFF	United Nations Forum on Forests
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNIFEM	United Nations Development Fund for Women
UNU	United Nations University
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WSSD	World Summit on Sustainable Development
WTO	World Trade Organization
WWF	World Wildlife Fund
WWW	World Weather Watch (WMO)

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

Decision-Making: The main objective of the Belgian International cooperation is to achieve sustainable human development through fighting poverty. The concept of partnership and the integration of the economic, social and environmental dimensions are central to this approach. This overall objective is the overall criteria for all budget allocations (bilateral cooperation, multilateral cooperation and all forms of indirect cooperation). Decision-making on international cooperation is taken at different government levels, i.e. the Federal Government level, the Federated Government levels (Communities and Regions), the Provincial Councils and the local authorities. However, the majority of the decisions are still taken at the Federal Government level. The Ministry of Foreign Affairs, External Trade and International Cooperation, in particular by the General Directorate for International Cooperation (DGIC) has a lead function regarding international cooperation. The Ministry of Finance finances the major part of the debt alleviation programs (Club de Paris), the obligatory contributions to international organizations and State-to-State loans. The contributions of other Federal Departments, such as the Ministry of Defense, the Ministry of Health and the National Export Insurance Service (Ducroire), are rather marginal. Each year, Parliament discusses and votes the total budget and the budget allocations for the different types of activities.

The overall political coordination at the Federal government level takes place at the Council of Ministers. The coordination at implementation level is organized through formal (Interdepartmental Working Group for International Cooperation/GICD, Commission for Financial support to promote export/FINEXPO) and informal consultative structures (Interdepartmental Coordination Committee for Africa/Black and White). Since Belgium became a Federal State in 1993, the federated levels of government are mandated to negotiate independently programmes and projects of international cooperation. The coordination between the Federal Government level and the other levels of Government is still to be developed. Each level of government decides in an autonomous way its own budget allocation. The Flemish Government e.g. has a budget for sustainable development, which offers possibilities for capacity building initiatives next to its budget for implementing existing cooperation agreements with countries such as South Africa and Chile.

Programmes and Projects: Approx. 20 % of the total budget is used for the financing of bilateral negotiated programmes and projects in 25 partner countries (Benin, Burkina Faso, Ivory Coast, Mali, Niger, Senegal, Burundi, Congo RDC, Rwanda, Ethiopia, Uganda, Tanzania, Mozambique, South Africa, Algeria, Morocco, Palestine, Bangladesh, Cambodia, Laos, Vietnam, Bolivia, Ecuador, Peru and one regional organization: SADC).

In view of strengthening the institutional capacity and of enhancing the ownership of the bilateral programmes and projects, a Study and Consultancy Fund (1,24 mio. EUR/country/4 years, renewable) has been set up with each of the partner countries. For the strengthening of the regional cooperation and the mobilization of regional available expertise an additional Fund for Capacity Building (3,72 mio. EUR/4 years) has been added as a tool to enhance ownership within the SADC-region. In the framework of the Special Programmes for Africa (SPA), 5 countries (Mali, Niger, Uganda, Mozambique and Burkina Faso) are being given budgetary aid for a total amount of 22,86 mio. EUR to support following sectors: education (Mali, Niger), health (Uganda), agriculture (Burkina Faso), telecommunication and water transport (Uganda).

Support to agricultural projects and basic health structures in rural areas are a component in all programmes with the partner countries. The majority of the projects in the agricultural sector aim to increase the profitability and the sustainability of the traditional agricultural production systems although in a few countries the introduction of new agricultural activities such as milk production (Senegal), cheese production (Ecuador), horticulture (Senegal) and aquaculture (Ivory Coast, Ecuador) are being financed.

Support of the informal sector (Guatemala, Bolivia, Ecuador, Senegal) through the strengthening of credit schemes and training is another focal point of the bilateral cooperation.

Special attention is being given to the countries in the Great Lake Region. The bilateral efforts are essentially oriented to rehabilitate and/or maintain the existing basis health structures and services, the rehabilitation of the Justice Department (Rwanda, Burundi) and the support of local initiatives of the civil society. The multilateral aid covers approximately one third of the global development cooperation budget, Large parts are destined to (obligatory) contributions to the European Development Fund (European Union), the International Development Association (World Bank group), the Global Environment Facility (GEF), the International Fund for Agricultural development (IFAD) and different contributions to the Environmental Conventions such as the protocol of Montreal and the secretariat of the convention to combat Desertification. The remaining part of the multilateral budget is allocated to voluntary contributions to 22 international organizations, most of them programmes and specialized institutions of the United Nations, such as the United Nations Development Programme (UNDP), the Food and Agriculture Organization (FAO), the High Commissioner for Refugees (UNHCR), the Children's Fund (UNICEF), the World Health Organization (WHO): these contributions amount on average to 70 mio EUR/year.

An important share of the budget (25 %) is spent on the indirect bilateral cooperation. The major part of the subsidies is being used for cofinancing NGO-programmes and Belgian research institutions. Since 1995 the financing of individual projects has gradually been left and has been replaced by the financing of five-year programmes. At the same time a transfer of responsibility to the organizations accompanied this process. The volume of humanitarian Aid and Relief Aid increased during the last 5 years due to the evolving situation of conflicts and instability in the world. Three quarters of the Belgian interventions were aimed at assisting refugees in conflict areas (Kosovo, Congo RDC, Burundi and Rwanda, Afghanistan). The other part of the disbursements were allocated to assist the victims of natural disasters (hurricane Mich, floods in Mozambique, earthquake in India) and to combat the outbreak of dangerous epidemics (Ebola and cholera). Debt alleviation is financed on top of the (above described) development budget but requests always more funds. Bolivia, Tanzania and Ivory Coast have been the primary beneficiaries (+/- 70 % of the total amount for the period 1995 – 1999).

Status: In 1997, a Parliamentary Review Committee examined extensively the functioning and the impact of the Belgian Cooperation and found that there was a need to better define the objectives of the Belgian International Cooperation, to simplify procedures, to separate programming and identification tasks from project implementation and to set up an independent evaluation department. The reform process was then launched through the adoption of the following laws:

- The Act of 21 December 1998 creating "the Belgian Technical Cooperation" public corporation (BTC), separated programming and identification from implementation, integrated the Development Administration into the Ministry of Foreign Affairs and created an independent evaluation department under monitoring of the Parliament. The relationship between the administration and BTC is laid down in a management contract;
- The Act of 25 May 1999 on international cooperation defined the objectives of the Belgian Development Cooperation; limited the number of "partner countries" to 25 and of international organizations financed with Belgian ODA to 20 and defined the modalities of the partnerships with the NGO's, the Communities, Regions Provinces, Municipalities, the private sector and other groups;
- The Act of 9 February 1999 created the Belgian Survival Fund, which targets countries with chronic food shortages;
- The Act of 3 November 2001 creating the "Belgian Investment Public Corporation" (BIO) for investments in developing countries (BIO); and
- The establishment of a Guarantee Fund, promoting Fair Trade is in progress and is expected to be finalized during 2002.

The main objective of the Belgian International cooperation is to achieve sustainable human development through fighting poverty. The concept of partnership is central to this approach. This overall objective is the overall criteria for all budget allocations (bilateral cooperation, multilateral cooperation and all forms of indirect cooperation).

The Act of 25 May 1999 stipulates also that the direct Belgian bilateral aid has to be focused on five sectors: basic health care; education and training; agriculture and food security; basic infrastructure; and the development of the

society. Gender, environment and social economy are the three crosscutting themes. The development pertinence will be measured using the following DAC-criteria:

- Strengthening of the institutional and management capacity;
- Economic and social impact;
- Technical and financial viability;
- Efficiency of the planned implementation procedures;
- Attention for the equality between men and women; and
- Respect for the protection and the safeguarding of the environment

By mid 2002 country strategy papers, sector strategy papers and thematic strategy papers will be presented to the Parliament.

Capacity-Building, Education, Training and Awareness-Raising: Capacity building is an important aspect of the five sectors. E.g. Belgian development policy will focus on the building of local capacity in order to promote basic health care within National public health policies and stress the importance of reproductive health care, including care of mothers and children in the context of family planning. Particular emphasis will be placed on the development of capacities to set up a system of sickness funds adapted to local circumstances and managed by the local community, so that everybody can have access to health care services. The same concept can be applied in other sectors.

Regarding education and training, the emphasis of the Belgian bilateral cooperation lies on basic education and literacy; vocational training; and the training, retraining, and supervision of teachers. Basic education—includes primary education (both formal and informal) and basic training for young people and adults. National authorities are responsible for these programmes, while Belgian international cooperation has a supportive role to improve quality. A second area of interest is assistance for vocational and technical training in connection with the formal and informal economy. In addition to those direct bilateral initiatives, DGIC finances higher education cooperation implemented by the Belgian universities, as well as multilateral cooperation through Development Banks and international institutions (the European Union, the UN system). It is crucially important to train and re-train teachers and to strengthen the institutional capacity of the education sector. The effectiveness and efficiency of measures to combat poverty can only be guaranteed in a stable society that ensures local participation in decision-making processes. Respect for human-rights, democratic processes, and the building of a civil society are the necessary preconditions for sustainable development. Belgian development cooperation makes a particular effort to support grass-roots movements that mobilize people, communicate their needs during decision making processes, and strengthen the functional capacity of authorities. For all these reasons, Belgian development cooperation stresses the need for the development of local capacities for: a) the promotion of good governance and the development of the rule of law (the institutional capacity of developing countries has to be strengthened, particularly through support to strategic areas such as justice, police, etc.); b) the enhancement of responsible and well-run public policies, especially in terms of planning, monitoring, and evaluation; c) the support for reconciliation activities to create trust in conflict regions (field diplomacy); and d) de-mining operations.

Capacity building in the field of trade and trade negotiations is a new area of attention for capacity building since developing countries are more involved in globalization and liberalization of trade.

DGIC finances postgraduate university programmes aiming at training students in a broad range of specializations. Environmental issues cover one third of the subjects of these training programmes. These topics cover different aspects of the ecological discussion and range from sectoral approaches (soil science), to problem solving courses (human settlements) and applied sciences (environmental sanitation, water resources engineering), to more integrated and interdisciplinary projects (human ecology, eco-development). In addition, DGIC is funding training programmes that stem from the initiative of private organizations in the fields of transport, infrastructure, management, industry, agriculture, fish farming, and the social sector. The support of these international training programmes is complemented by a system of about 750 scholarships to assist with short intensive training courses. Here, environmental subjects are also prominent. Subjects range from water and lake management, to water treatment in the textile industry. Capacity building potential is a relevant criteria in the selection of participants, who as a group perform better than other students selected purely on academic results. Capacity building relevance

of the programmes is also based on an iterated evaluation process, which adjusts the content of the programmes according to needs. A third element of importance for the capacity building discussion is the occupational orientation of the participants. Although a systematic follow-up of the students is impossible, the available results indicate that many find their way into an environmentally important position, even several years after completion of the courses.

Information: DGIC is in the midst of a process to develop the instruments needed to systematically and regularly evaluate and control the implementation of these framework agreements and annual programmes.

Research and Technologies: Cfr. Chapter 35

Financing: During the reform process (1997 – 1999), expenditure stagnated. However a slight betterment accurered since 2000 and it is hoped that the total ODA expenditure will amount to 0,40 % of GDP by the end of this legislation (2003).

Cooperation: DGIC contributes to the budgets of a limited number (20) of international organizations and funds, such as the EDF, the Food and Agriculture Organization (FAO), the Global Environment Facility (GEF), the International Fund for Agricultural Development (IFAD), the UNDP, the United Nations Children's Fund (UNICEF), the World Food Programme (WFP), the World Health Organization (WHO), among others. DGIC has momentarily still projects operational in 47 countries, but this number of countries will eventually be reduced to the 25 partner countries as mentioned under Programmes and Projects. It co-finances programmes and projects in 25 countries. Concerning its external affairs, the Flemish Government has a budget for sustainable development which offers possibilities for capacity building initiatives next to its budget for implementing existing cooperation agreements with countries such as South Africa and Chile. About 15% of development cooperation assistance goes to the European Development Fund (EDF), that is, approximately Bfr 3 billion (US\$ 91 million).

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

Decision-Making: Trade and environmental problems are dealt with in the Coordination Group on Trade and Environment under the aegis of the Coordination Committee for International Environmental Policy. The Interdepartmental Commission for Sustainable Development also gives attention to the interface between environmental problems and our trade policy. In Belgium, the "Committee for Co-ordination of International Environmental Policy" (CCIEP) established a working group on Trade and Environment in 1995 under the chairmanship of a representative of the Minister of Foreign Trade. The Committee's mandate is the follow-up of the decisions and activities of the European Union (EU), and the activities related to trade and environment at the Commission on Sustainable Development (CSD), the United Nations Conference on Trade and Development (UNCTAD), the United Nations Environment Programme (UNEP) and the Organization for Economic Cooperation and Development (OECD). No changes in legislation or regulation were specifically made in relation to trade. Changes rather occurred in relation to the effects of production. There are no specific derogation regimes in the field of environmental legislation or administrative practices to attract foreign investors. However, the promotion of Fair Trade is a new issue for the Belgian international Cooperation. The Directorate General for International Cooperation (DGIC) is financing awareness campaigns, especially in secondary schools, and the establishment of a Guarantee Fund, promoting fair Trade is in progress and is expected to be finalized during 2002.

Programmes and Projects: No information available.

Status: Between 1980 and 1996 economic development was below the OECD-wide average and the growth rates of industrial production and energy supply are lower than that of the GDP. As indicated in the OECD-environment performance review (1998), pollutant emissions have been decoupled from economic growth. Pesticide use (in agriculture) and road traffic remain problematic. The increase in traffic in Belgium is among the highest in any OECD country (three times the OECD-average). With exports representing more than two-thirds of GDP, Belgium's prosperity and economic performance depends more than average on international trade. The contribution of real export growth to GDP growth has been important in recent years. Export growth leads to more employment, thus higher available income, which stimulates private consumption and the households' investment. These improved demand possibilities fuel corporate investment. The government's budgetary position improves mostly due to rising revenues. However, all this (domestic demand and investment) requires always considerably more imports, so that the contribution of net exports stays relatively limited. In the 1970s the average growth contribution of net exports was even negative due to a lack of competitiveness and a strong domestic demand. Since 1994, the Belgian government is limiting wage increases to restore the competitiveness of the Belgian export sectors and to stimulate a more job intensive growth. As in many other countries we can observe a growth in direct foreign investments (from as well as into Belgium). We also observe a growth in delocalisation of production in more traditional industrial sectors (clothing, textile,). A study made by the Federal Planning Bureau ('97) indicates that more than 50% of foreign investment and delocalisation by Belgian firms is motivated by direct access to new markets and expansion plans. Differences in labour costs are the third reason and only 1% of the firms indicate that differences in environmental legislation influenced their decision. Services are also becoming more important as well on the production as on the consumption side. As indicated earlier, road traffic is becoming a major problem, given its negative environmental impact. The weaknesses of the system are related to selection procedures, regional diversification, and limited means to measure effectiveness in terms of environmental benefit.

Capacity-Building, Education, Training and Awareness-Raising: Capacity building on environmental issues (through the organization of international courses and short training programmes) is an area with a high demand and unmet needs, with tangible outputs, but also with long term results which are difficult to evaluate.

Information: Belgium reports on a regular basis - usually once a year - relevant statistical material, including reviews of the impact of industrial processes, to the secretariats of the International Commodity Organizations of which it is a member, such as International Coffee Organization, International Lead and Zinc Study Group, etc.

Several topics related to trade and investment is analyzed in reports to the OECD. The Royal Federation for non-Ferrous Metals produces reports on environment-friendly production methods elaborated by Belgian industry. Information is available as well in printed form (monthly, quarterly, annual reports) as on the web sites of some public institutes and ministries.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: Belgium is committed to a high level of environmental protection, and to an open, equitable, and non-discriminatory multilateral system. At OECD, UNEP, UNCTAD and the World Trade Organization (WTO), Belgium has positioned itself definitely in favor of the adoption of core labour and social standards within trade agreements in order to accelerate sustainable social development in developing countries. The country has, therefore, played an active role in economic matters and in trade such as OECD and WTO, and in international and environment-oriented fora such as CSD and UNEP. Belgium believes that the multilateral trading system, and the WTO framework rules, should be supportive of multilateral agreements (MEAs) when they include restricted trade measures that may be necessary for environmental goals. Belgium also gives prominence to further market access for the least developed countries (LCD's) in order to support development prospects and improve export performance of LCD's. Concerning non-binding analytical work in international fora, Belgium participates in the OECD joint session on trade and environment. Belgium is particularly concerned about quantitative analysis exploring the linkages between market access improvements for developing countries and tariff escalation, international trade in waste, domestically prohibited goods (DPG's) and competitiveness. Belgium approved the International Agreement on Tropical Wood in 1994.

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CHAPTER 3: COMBATING POVERTY

Decision-Making: Policies for minimum allowances are a Federal competence, while the Regions are responsible for many policy issues related to poverty such as education, housing, culture and welfare, all of them important parts of employment policy. In order to allow for a coordinated poverty policy, the ministers responsible for poverty at the Federal and Regional levels, meet several times a year to decide on policy proposals concerning poverty. Last year a variety of measures was taken and implemented. A law was passed allowing for debts to be centralized with one particular judge who can impose a plan for debt relief and who can cancel debts. The three pillars of the Belgian Co-operation Agreement between all Belgian governments on the subject of social economy are the following:

1. Support the initiatives and firms in the social economy who respect following principles: priority of labour above capital, autonomy of management, service to the members and society, democratic decisionmaking and sustainable development with respect for the environment;
2. Support corporate social responsibility which respects social cohesion and ecological equilibrium; and
3. Support neighborhood services, with special attention to the improvement of the living conditions of civilians or the meeting of collective needs, the creation of sustainable employment, the prevention of exclusion and dualisation on the field of the demand and supply of the (labour) market.

In several Regions, laws were passed to guarantee a minimum provision of electricity, gas, and water in case of payment difficulties. In addition, negotiations are being conducted on several proposals to improve the access of the poorest to public health and the administration of law. Poverty policy in Belgium is developed in close cooperation with the poor themselves, and relies on a combination of improvement of the income position and abolishment of social discrimination in different sectors.

Programmes and Projects: Link with federal plan for sustainable development.

Status: In Belgium 6% of the population is poor. This figure is low from a European perspective. It is mainly due to the system of Social Security that exists in Belgium. There is a system of social assistance for those who cannot work or cannot work long enough that guarantees a minimum income fixed by law and, in case of dispute, is settled in labour court.

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

Information: No information available.

Research and Technologies: The pluri-annual research programme “Social Cohesion” of the Federal Office for Scientific, Technical and Cultural Affairs (OSTC) includes several current and future research programmes addressing the theme of poverty (see also chapter 35).

Financing: Within each Region, considerable budgets were freed in order to cope with social discrimination in cities.

Cooperation: No information available.

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CHAPTER 4: CHANGING CONSUMPTION PATTERNS

Decision-Making: At the federal level, the Office for the Product Standards of the Federal Ministry of the Environment operates as the contact point for the environmental and health issues of the consumption and production patterns. Regarding the attempts to reform production and consumption patterns, four primary Federal legislative initiatives are directed at encouraging the purchase of eco-friendly consumer goods: Regulating eco-taxes, The Law on Ecolabel, the Law on commercial practices and consumer protection, and the Bill on product standards. There is no strategy or policy addressing sustainable consumption or production patterns for Belgium as a whole. The first four-year Federal Plan on Sustainable Development as foreseen by the Law on coordination of sustainable development (1997) will contain actions to implement between 2000 and 2004, aiming at modifying the unsustainable consumption and production patterns. There are several related decrees by the various regions. Other environmental policies relating to consumption and production patterns include, waste management policies, energy efficiency policies and policies on promoting the use of new and renewable sources of energy. Several consultative or advisory bodies are in place with a fairly broad composition. In the forthcoming Federal Bill on Product Standards, it is specified that public participation and access must be provided in voluntary agreements. Regional authorities promote direct participation of economic, social and environmental partners in consultative bodies. Universities and Institutes are also involved. Two Belgian Eco-teams have been established, participating in an international NGO-network

Programmes and Projects: In 1996 the Ministry of Social Affairs, Public Health and the Environment began a pilot project on an integral environmental management system aimed at sustainability. Both the Flemish Region and the Brussels-Capital Region set up projects aimed at introducing an Environmental Management System within the OVAM (Flemish waste administration) and the IIBGE - BIM (Brussels Environment Institute). The Walloon Region has launched specific actions within the administration (use of recycled paper, selective collect of paper, hazardous products, energy use, vegetal oils for the engines used in the exploitation of the forests) aimed at improving the environmental performance of the Walloon Public Authority. In the Brussels Region, the IBGE – BIM has a programme in partnership with consumer association (CRIOC/OIVO-1998-2000) to promote sustainable consumption including studies, publications and communication campaigns. Within the framework of the Environmental Technology Research and Development Programme grants or repayable advances aim to encourage the submission of environmental research and development proposals concerning the development of marketable technologies or solutions to particular environmental problems specific to the applicant. The projects must cover one more of the following themes: prevention of industrial pollution, recycling of effluent and waste, treatment of effluent waste, control of emissions, waste and industrial pollution, and methods of treating specific cases of industrial pollution

Status: The Federation of Belgian Companies has coordinated in 1998 study concerning the evolution of the energy efficiency in a number of industrial activities. Sectors that contributed to the study account for 71 % of the industrial consumption of energy. They include the following activities: cement, chemicals, food, iron and steel, metalworking, pulp paper and board, non-ferrous metals and brick. The study shows that the specific consumption of energy, and hence the specific CO₂-emissions linked to energy use have decreased by 4.2 % between 1990-1996. Between 1973-1996, the energy efficiency has improved by 21.1 % (for the same sample of sectors, except paper and food). Even if a national programme does exist since 1994 aimed at reducing the emissions of CO₂ emissions, no nominal targets for the enhancement of energy efficiency or for the promotion of public transport exist, excepted for the Belgian National Railway Company (SNCB-NMBS).

Capacity-Building, Education, Training and Awareness-Raising: Research institutes such as VITO or Institute Wallon, universities and industrial federations rather frequently organize workshops and seminars on energy efficiency and renewable energy technologies. Some federations, such as the federation of boiler installers, organize training sessions for the correct installation of domestic boilers and up-to-date information on boiler characteristics. The CRIOC/OIVO (Consumers Organizations' Research and Information Centre) publishes a bimonthly periodic and organized a Forum on Responsible Consumption. The public authorities have launched at the federal level a cycle of training on "greening" for the civil servants. Specific awareness campaign programmes to promote

sustainable consumption patterns include news flashes on television on energy efficient light bulbs and refrigerators, distribution of energy distributors containing information on how to reduce energy consumption and on premiums to be obtained. A larger and more detailed campaign on the 'month of energy efficiency' is going on Flemish television. October 1998 was the 'Month of energy efficiency' in Flanders. Daily meetings, conferences and workshops were organized. Firms making use of energy efficient technologies were open to the general public. Contests for energy efficient lighting fixtures were also organized. The whole programme was accompanied by large information and promotion campaigns on Flemish television and in the press. For more than ten years, the Federation of Belgian Companies has organized "Better Environmental Awards for Industry" which aim at identifying and rewarding Belgian companies that make special efforts in the field of sustainable production and consumption patterns.

Information: The Belgian Ecolabel Committee is studying how to promote information on the European Ecolabel throughout industry, retailers and consumers. The Federal Office for Environmental Affairs is establishing a website that will contain information on sustainable consumption and production patterns (for instance ecolabels and laws on product standards. The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) provides information on the various actions and research programmes (see also chapter 35 and 40). The OSTC is developing an information tool on sustainable development for Belgium, the Information System for Sustainable Development, which contains a meta-information system and data accessible on line. There has also been the development of auditing and monitoring systems and indicators related to consumption and production patterns. The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) finances several research projects on indicators and installed several platforms for concentration (biodiversity¹, viable cities, indicators for sustainable development). The Environment and Nature Report contains indicators, which are organized following the pressure-state-response approach.

Research and Technologies: Flanders promotes energy efficiency through VIREG and through VITO, the Flemish Institute for Technological Research. VITO has developed the EMIS system, which gives all those interested more information on the energy savings potential of technologies and contains a database on best available technologies (BAT). In Flanders the BBT-kenniscentrum (BAT-knowledge centre) was set up within the Flemish Institute for Technological Research (VITO). Its objective is to make inventories of the information regarding BAT, to evaluate BAT for every sector and to make this information available to industry and the Flemish Government. Another initiative in the Flemish region is the Presti Programme for industrial federations that aims to stimulate the SMEs in implementing prevention measures and environmental care systems through the subsidizing of projects. Technology-related issues that promote energy efficiency include combined heat and power, solar boilers and PV-panels, energy audits in industry, covenants or voluntary agreements on energy efficiency in the industrial sector, third party financing, and development of a system of energy consultants for the industrial sector. The Walloon region foresees to integrate sustainable development in the technology choices by making industrial permits dependent on the use of clean technologies. Financial support to companies imposes the respect of the entirety of the environment legislation. The main tools that have been adopted and are being more and more used are environmental management systems, based on the EMAS regulation or the ISO 14001 standard. The Federation of Belgian Companies is currently coordinating a study aiming at the widespread dissemination of information about ISO 14001 by EMAS. The Federal Office for Scientific, Technical and Cultural Affairs (OSTC), provides scientific support for a policy of sustainable development through the first and the second Scientific Support Plan for a Sustainable Development Policy (SPSD I and SPSP II). These research programmes promote the contribution of science to strategic concerns. The problematic of sustainable consumption and production patterns is being covered in several parts of the SPSP I (subprogrammes "Levers for a sustainable development policy", "Sustainable mobility" "Pre-normative Research in the Food Sector" and "Global Change and Sustainable Development – part 2. Support to policy making"). The problematic of sustainable consumption and production patterns constitutes one of the two main parts of the SPSP II. Part I 'Sustainable Consumption and Production

¹ Belgian Biodiversity Platform: <http://www.biodiversity.be/>

Platform Viable Cities: <http://www.belspo.be/issd/urban> (under construction)

Platform "Indicators for a Sustainable Development": <http://www.belspo.be/platformisd> (under construction)

patterns' of the SPDS II deals with four main topics: general issues, energy, transport and agro-food. For more information see chapter 35 "Science for Sustainable Development".

Major research, demonstration or pilot projects in the field of energy efficiency and RES include the following: Several new small-scale wind farms are planned. The largest Belgian wind farm in Zeebrugge has been extended with a new and far more powerful wind turbine. A first project of energy storage in the aquifer has been applied to the new headquarters of the CERA bank in Leuven. Due to the success and energy saving potential of this pilot project, the installation of a similar technology is currently under way in a hospital and several other projects are expected. Combined heat and power (CHP or co-generation) is applied more and more frequently throughout the country. The Equipment Plan for the electricity sector 1995-2005 calls for the installation of 1000 MW of decentralized power production, mainly CHP.

Financing: the Federal and regional budgets finance the activities related to changing consumption and production patterns. The regional authorities as far as public funding is concerned, mostly finance Belgian activities in the field of energy efficiency. Co-funding by the federal government is possible but not obligatory. A large budget for energy saving activities (premiums for energy efficient light bulbs, refrigerators and for solar boilers) is available in the so-called RUE-fund. Since April 1996 1 cent of each kWh electricity sold is put into this fund. The budgets of 1996 and 1997 range from 310 million to 460 million BEF.

Cooperation: Belgium supports the programmes of the multilateral organizations such as the European Union, OECD, UN-CSD and UN-ECE, World Bank and GEF. The Federal Ministry of the Environment played will continue to be actively interested in international cooperation concerning the promotion of sustainable production and consumption, in particular the chemicals (e.g. OECD, UNEP, PIC and POP). The Flemish Region has an active co-operation programme with the countries of Central and Eastern Europe. Projects concerning environment were financed amounting to 220 million BEF in the period 1992-97. The Flemish region is active in the International Network of Green Planners (INGP), which promotes actively sustainable development planning.

* * *

CHAPTER 4: CHANGING CONSUMPTION PATTERNS – ENERGY

Decision-Making: Some basic responsibilities remain with the federal government, essentially because of their technical and economic characteristics need to be dealt with at the national level and they include: the indicative programme for the electricity sector; the nuclear fuel cycle and related R&D programmes; the large infrastructures for storage, transport and production of energy; and tariffs. The Federal Administration for Energy, which is part of the federal Ministry of Economic Affairs, is in charge of implementing the federal energy policy. The following responsibilities were fully transferred to the regions in 1989: distribution and transport of electricity through networks with a maximum voltage of 70 kV; public distribution of gas; use of methane and blast furnace gas; district heating equipment and networks; valorization of waste products reclaimed from coal tips; new and renewable energy sources of energy, excluding nuclear energy; recovery of waste energy from industry or other uses; rational use of energy. With the co-operation agreement dated 18 November 1991, the federal government and the three regional governments created a formal body for discussion between the central government and the regions on all energy matters transferred to the regions, the Energy Concentration Group ENOVER/CONCERE. Relevant legislation includes:

- The Federal law concerning the Organization of the Electricity Market;
- The Federal Law on the liberalization of the Belgian Gas Market; and
- A royal decree for minimum energy efficiency standards for hot water devices.

Energy Taxation: From 1 August 1993, a special tax on domestic energy products, an "energy levy" (cotisation sur l'énergie) is being levied on gasoline, light heating oil, natural gas, LPG and electricity. Energy efficiency in the residential sector: various financial incentives and initiatives have been introduced and are under development by the three regions for the promotion of energy efficiency in the residential sector: information campaigns, energy kiosks which give information and advice on energy efficiency measures, thermal insulation standards, energy certification of buildings, etc. Energy efficiency promotion toward non-commercial bodies: In order to promote the rational use of energy, the three regions allocate subsidies to municipalities and other local bodies, hospitals and schools. Energy efficiency in the industrial sector: Since 1982, a system of fiscal abatement for investment by industrial, commercial and agricultural businesses has been operating; it currently offers an abatement at the general rate of 4.5 % on taxable profits. Fiscal incentives for renewable energy resources: On January 1995, the Electricity and Gas Control Committee approved the exploitation support for the supply of green renewable electricity to the grid and an additional "green frank" for wind and hydro installations. The main elements of the federal sustainable energy strategy/goals are (based on the "the new federal energy policy declaration" (September 1999): The commitment to phase out the nuclear energy, the acceleration of the liberalization of the energy market, active policy for sustainable development. The Belgian political system has a long tradition of consultation procedures and has institutionalized this procedure in the following bodies: The Electricity and Gas Control Committee (EGCC) and The Federal Council for Sustainable Development. A large number of groups envisaged in Agenda21 can give their opinion on policy matters within the group 'energy and climate'.

Relevant legislation includes:

- The federal laws concerning the organization of the electricity and gas market adopted on 29 April 1999, which aims at a progressive opening of both markets. The law on the liberalization of electricity markets requires that a minimum volume of electricity generated from renewable sources should be purchased at a reasonable price. A new schedule for speeding up the opening of the electricity market was introduced by the Royal Decree of 11 October 2000; and
- Sustainable Development Law (1997) obliges the government to prepare a Federal Plan for Sustainable Development every four years. The federal government on 20 July 2000 adopted the first plan.

Programmes and Projects: Includes the following:

Sustainable Development:

- The Sustainable Development Law obliges the government to prepare a Federal Plan for Sustainable Development every four years. The federal government on 20 July 2000 adopted the first plan. It defines

federal policies concerning the production and consumption, poverty, agriculture, the marine environment, bio-diversity, energy, transportation, ozone and climate change. The Plan includes many suggestions drawn from public consultation and has a chapter on sustainable energy; and

- The federal Planning Bureau prepares a federal Report on SD every two years that explains what the current environmental, social and economic issues in Belgium are and which SD policy measures have been taken. It describes which developments might be expected under a business-as usual scenario compared to one where SD policies are introduced or strengthened. The report serves as the basis for the federal plan.

National CO2 Programme and National Climate Plan

- To meet the target set in 1991, the Council of ministers and regional governments approved the national CO2 programme in 1994. It selected 14 categories of measures concerning essentially energy conservation and quantified expected emissions reductions. The implementation of the programme was not successful for several reasons. First, the target assumed the implementation of the European carbon and energy taxes, which never occurred. Second, the status of the programme was not well-defined and the division of responsibilities among the main actors was unclear. Third, progress was not monitored; and
- In 1996, it was already evident that the target set in 1991 would not be achieved. After the Kyoto commitment, a decision was taken to replace the CO2-programme with the national Climate Plan, which will be finalized at the beginning of 2002. Both national measures and Kyoto flexible mechanisms will be considered according their cost-effectiveness.

Report on the future power generation options: The commission for the Analysis of Methods for the Generation of Electricity and the Re-evaluation of Energy vectors has formulated recommendations and proposals for future power generation options. This work was carried out in the context of the national Kyoto commitment and the progressive phase-out of nuclear power, and takes into account the need to increase demand-side management efforts and to develop renewable energy schemes. The findings were published at the end of 2002. The commission considers energy conservation to be crucial for meeting the national Kyoto target. It underlines the importance of consumer information, labeling and standards, energy audits, third-party financing and transparent full-cost pricing of electricity that reflects the environmental externalities of different forms of energy. On the supply side the report recommends combined-cycle gas turbines, renewable and co-generation and discourage the use of coal considering the current level of technology.

Indicative Programme for Electricity Generation and Transmission Development Plan: This programme, which is subject to the Minister of Economic Affairs, will be prepared for 10 years and revised every 3 years. It will define preferred methods based on technical, economic and environmental considerations for power plants with a minimum capacity of 25 MWe. The indicative programme will only be a policy statement, providing no obligations or incentives for market operators to follow it. Special consideration will be given to the use of renewables.

Status: No information available.

Capacity-Building, Education, Training and Awareness-Raising: In the Wallonia region, 13 kiosks provide practical information and audits on energy savings for heating, thermal insulation of buildings and lighting for individuals, and in small and medium-sized enterprises. The Walloon region organizes several training programmes; the targets of these activities are energy managers in public buildings, teachers in schools for carpenters and bricklayers to improve the quality of thermal insulation, and architects. In the Flemish region, VITO (Flemish institution for technological research) raises energy awareness in the industrial sector and among the public through the Information System on Energy and Environmental (EMIS). The Flemish Institute for RUE, VIREG (Flemish Institute for rational energy use) was created in 1997 with the goal of actively involving the different actors (energy production and distribution companies and the industrial and residential energy users). Brussels region : In 1996 ABEA, L'Agence bruxelloise de l'energie-Brussels Energie Agentschap, the Brussels energy agency was set up. This information kiosk is open to the general public and disseminates informative brochures, undertakes thermal assessments of dwellings and organizes thematic information workshops. The three regional governments have made available information and awareness packages in relation to energy conservation

measures to primary and secondary schools. With respect to information dissemination for renewables, the following regional actions are to be mentioned:

Flanders: have communication policies for renewables aimed at all social groups. The region gives financial support to the Organization for Renewable Energy in Flanders, which promotes sustainable energy schemes. This organization provides a discussion platform for several organizations and research centres activities in the development of renewables.

Wallonia: financially supports the Belgian Biomass Association (BELBIOM). It disseminates information and encourages exchanging experiences, participates in international efforts, co-ordinates initiatives of its members, initiate studies and proposes solutions for a greater use of biomass-based energy. Wallonia also supports the Association for the Promotion of Renewable Energies (Apere), which is a non-profit organization. The purpose of Apere is to promote renewable energies and the rational use of energy in the context of sustainable development, both in Europe and in developing countries.

Brussels-capital: the energy-administration has taken several initiatives such as information campaigns that have included various workshops and distributing brochures to energy consumers in the public and private sectors. In the near future, the administration plans to launch a promotional campaign for solar collectors.

Research and Technologies: The Ampere Commission (group of academia) is examining the future of electricity production. This committee as developed recommendations and proposals on the future choices relating to the electricity generation. The committee as published a report; one recommendation is the need to support and implement the measures improving the energy efficiency. In 1999, with respect to the potential offered by the CO2 sequestration and storage and given its expertise in the field of underground technology and mechanical engineering, Belgium entered into the IA "GHG R & D-programme". The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) has launched in 2001 within the second Scientific support plan for a sustainable development policy (SPSD II, 2000-2005), new research projects related to modes of consumption and production in which energy constitutes one of the priority themes. Budget of 4,7 millions of Euro over four years deals with the theme of Energy and in particular with the issue of climate change and international agreements, development of alternative and/or renewable sources of energy, rational utilization of energy, consumption of energy through the entire products' or services' lifecycle and economic instruments that could influence the energy market. Within the framework of SPSDII, Belgium continues to support the 'Energy Technology Systems Analysis Programme' (ETSAP) of the International Energy Agency (IEA) which was signed by the Government of Belgium in 1980. In order to promote CHP, the Walloon Region has started a "Programme Mobilization" (PM) for scientific and development in the field of CHP and for the financial support of pilot projects. Wallonia has opted for the conclusion of covenants on energy efficiency with different industrial sectors but prefers the first generation LTA's. First sectors : chemical industry and paper. Mid July 2000, the Walloon Minister competent for energy signed two letters of intent with the paper and the chemical sector. Within 12 months these letters of intent will lead to voluntary agreement to reduce energy consumption by 2010.

Also see under “**Chapter 35- Science for Sustainable Development**”

Financing: Special rates exist for people receiving the social minimum income (Special Social Tariff). Belgium has set up a national programme to prevent interruptions of electricity and gas supplies under an initiative of the Control Committee for Electricity and Gas. In 1995, two Mutual Funds (Fonds d'entraide), financed by electricity distributors and Distrigaz allocated a total of BF 228 million for this programme. In addition, the resources of the Social Fund, created in 1994 under the Control Committee and financed by the electricity distributors at a level of BEF 100 million, are used to help consumers who benefited from the Specific Social Tariff. In total, the financial effort made in 1995 by the electricity distributors for minimum income consumers amounted to about 700 million. Also see under **Research and Technologies**.

Cooperation: See under **Research and Technologies**

CHAPTER 4: CHANGING CONSUMPTION PATTERNS - TRANSPORT

Decision-Making: In order to make the transport system more sustainable, the Federal Government is acting on three different levels: managing demand, improving infrastructure supply and improving the vehicles's technological characteristics. In the transport sector, the following recent measures are also contributing to the achievement of the objectives: premiums for LPG equipment, support for the European process of reinforcing diesel vehicle standards, the management contract for the Belgian railways which set aims at increasing the number of passenger – kilometers and ton – kilometers by 50 per cent between 2000 and 2010. Various fiscal measures have been taken in order to encourage the use of public transport, carpooling and bicycle between home and the working place. Excise duties on gasoil and gasoline have also been differentiated according to the sulphur content. But all these measures, although necessary, have had an insufficient impact with regard to commitments in the area of atmospheric protection. Several measures are being examined, as for instance reductions in the acquisition tax for low-emission vehicles, reinforcement of exhaust gas checks, and so on. A National Plan for Sustainable Mobility is under redaction. Flemish traffic policy is aimed at improving safety, the efficient transport of passengers and goods to reduce traffic congestion, and the development of an environmentally sound transportation system. Railroads and inland waterways are to be developed as alternative transportation systems. The goal of Wallonia's transportation policy is to reduce energy consumption and detrimental environmental impacts.

Programmes and Projects: LINK TO FEDERAL PLAN FOR SUSTAINABLE DEVELOPMENT

Status: Overall, progress has been slight to fair in improving the transportation systems in Belgium.

Capacity-Building, Education, Training and Awareness-Raising: Every year a “mobility week”, organized around a “car-free day”, brings together national, regional and local authorities in an effort to change people's travel patterns. Projects are under preparation to improve inter-modality at train stations.

Information: No information available.

Research and Technologies: The topics transport and mobility have been studied within the framework of several research programmes of the Federal Office for Scientific, Technical and Cultural Affairs (OSTC)²: the programme “Transport and mobility” (1991-1995) and the programme “Sustainable mobility” within the first Scientific support plan for a sustainable development policy (SPSD I, 1996-2001). In 2001 the Federal Office for Scientific, Technical and Cultural Affairs (OSTC) has launched within the second Scientific support plan for a sustainable development policy (SPSD II, 2000-2005), new research projects related to modes of consumption and production in which transport constitutes one of the priority themes. These research projects deal in particular with the issues of traffic safety, modal choice (freight and passenger transport) and technological aspects of transport within the context of a sustainable development. A budget of EUR 6,6 millions over four years is available for “Transport”.

Financing: No information available.

Cooperation: No information available.

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² A synthesis report is available: M. Beuthe and H. Meersman, Transport and mobility: 10 years of research, OSTC, 2001.

CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

Status: Demographic data - With a land surface of 31,000 km² and a total of 10,2 million inhabitants, Belgium has a population density of over 330 inhabitants per km². This is one of the highest in the world. The population density is unevenly distributed between the three regions (Flemish Region, Walloon region, and Brussels Capital Region). Covering only 45 percent of the territory; but with about 60 percent of the total population, the Flemish Region has a population density as high as 429 inhabitants per km².

The country is highly urbanised. According to the international definitions, 97 percent of the population lives in an urban area. In fact, one out of every five inhabitants lives in one of the 10 largest cities in the country (the biggest one being Antwerp with 450,000 inhabitants, the smallest one being Leuven with 88,000 inhabitants). Adding to the urban population the number of inhabitants living in the highly urbanised Brussels Capital Region (with a total of 950,000 inhabitants) the proportion of inhabitants living in a 'big' city rises to one out of four.

Table 1 - Belgium: Number of inhabitants, by region, 1st January 2000

Kingdom	of Belgian nationality	9,321,772	91.3%
	of foreign nationality	891,980	8.7%
		10,213,752	
Brussels Capital Region	of Belgian nationality	682,314	71.5%
	of foreign nationality	272,146	28.5%
		954,460	
Flemish Region	of Belgian nationality	5,637,773	95.1%
	of foreign nationality	289,065	4.9%
		5,926,838	
Walloon Region	of Belgian nationality	3,001,685	90.1%
	of foreign nationality	330,769	9.9%
		3,332,454	

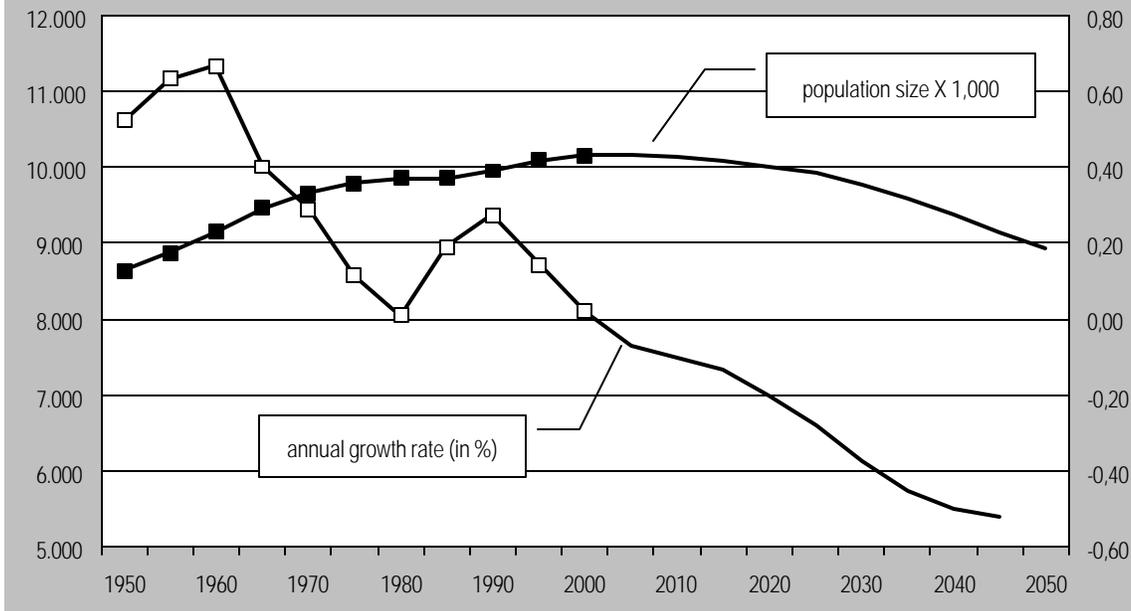
Source: Recent Demographic Evolution in Europe, Council of Europe (Strasbourg, 2000)

Less than 9 percent of the population is of foreign origin (see Table 1). This figure includes the number of foreigners from other European countries. However, although this average can be considered to be relatively low, also here the statistic is unevenly distributed between the regions. Indeed, in the Brussels Capital Region, close to one third of the population is of foreign nationality.

According to the UN population projections, the Belgian population would continue to rise until 2005-2010. After that, there would be a slow but steady decline, resulting in a total population of 8.92 million inhabitants in 2050. This is less than the prospects of the latest national forecast of which the results were made public in December 2001. According to the national forecast the population would continue to rise until 1943, reaching at that time a maximum of 10.97 million inhabitants, after which there would be a decline, similar to the one projected by the UN estimates.

Figure 1 - Belgium: Evolution of the total population size (left axis) and of the annual growth rate (right axis), 1950-2050

Source: UN Population Prospects, The 1998 Revision



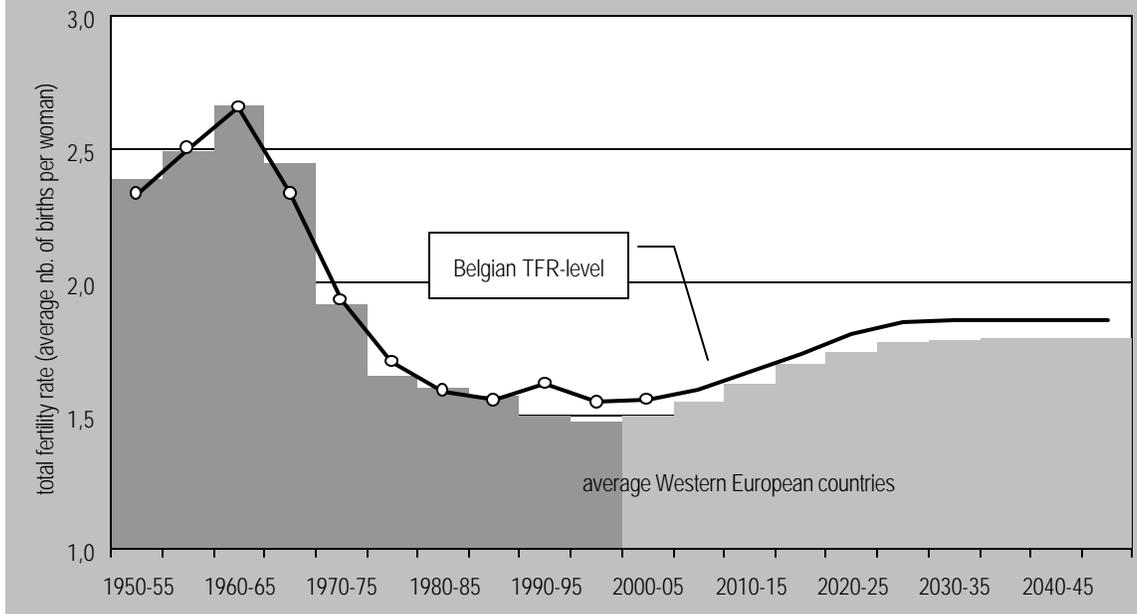
However, the differences are small. From both results, it can be predicted that in the next decades the Belgian population will reach a maximum and then start a slow decline. Both the UN and the national forecast assume that for the next decades the average number of children will remain below replacement level (i.e. 2.1 children per woman)³. As such, the current and future situation in Belgium is quite similar to the ones observed and predicted for the other Western European countries (see Figure 2)⁴, and indeed to the ones observed and predicted in the rest of Europe, and one can add all so-called industrialised nations.

³ The (relatively small) difference in the forecast of the total population is due to differences in the hypothesis of the actual level of fertility as well as its actual evolution, in both cases however a small increase after 2000 (cf. Figure 2).

⁴ According to the UN definition, these include: Austria, Belgium, France, Germany, Luxembourg, the Netherlands, and Switzerland.

Figure 2 - Belgium: Evolution of the level of fertility and comparison with the Western European level

Source: UN Population Prospects, The 1998 Revision



Also as in all industrialised countries, in Belgium, because of the combined effect of low fertility and increased longevity⁵, the population steadily grows older. According to the UN forecast, between 2000 and 2050 the median age of the Belgian population will increase from 39.3 years to 46.8 years (see Figure 3). During the same time the proportion of the population in the age group 15-64 years (the age segment close to the 'active' population) will have decreased from 66.2 percent to 57.2 percent. The ageing of the population, i.e. the changes resulting of increased survival at older ages, can be observed from the increase of the proportions aged 60 and over and aged 80 and over. Especially the increase of the 'oldest old' is spectacular: in just 50 years the share of the persons 80 years or more in the population will more than double, from 3.6 percent to 10.4 percent.

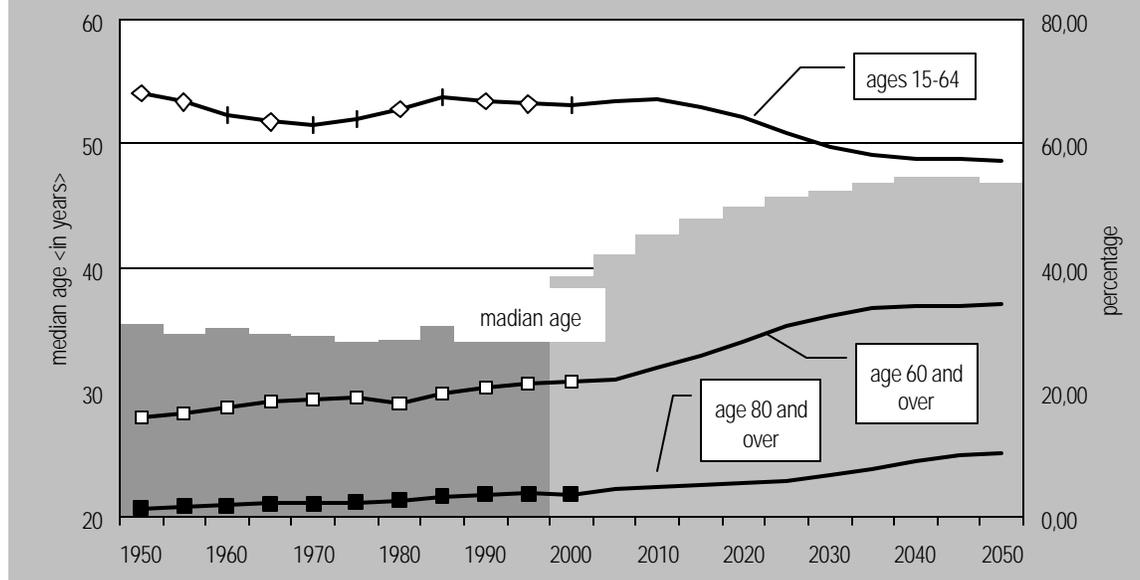
The ageing of the population, and the extreme low fertility that is one of its main causes, are no 'neutral' demographic processes, but are the result of profound social changes. Some scholars refer to it as the Second Demographic Transition⁶. Major characteristics of the Second Demographic Transition are that marriage rates are falling down, that divorce rates are going up, and that there now is a variety of new forms of cohabitation next to the 'classical' family.

⁵ In 2000, life expectancy at birth was 74.6 and 81.1 years for males and females, respectively. By 2050, it is expected to have increased to 79.1 and 85.0.

⁶ See, for example, Dirk J. van de Kaa, *Europe's Second Demographic Transition*, Population Bulletin, Vol. 42 (1), March (1987)

Figure 3 - Belgium: Evolution of the median age ('left axis) and of the proportion in the population aged 15-64, 60 and over, and 80 and over (right axis)

Source: UN Population Prospects, The 1998 Revision



One major outcome of this socio-demographic process, with a particular interest in the discussion on sustainable development, is the emergence of smaller families. In Belgium, between 1970 and 2000, the average household size has decreased from 3.0 to 2.4 persons (see Table 2). Here too, there appear to exist serious regional differences, the Brussels Capital Region experiencing a markedly lower average household size than the other two regions.

Table 2 - Belgium: Average household size, 1970-2000

	1970	1981	1991	1999	2000
Kingdom	2.95	2.70	2.49	2.39	2.38
Brussels Capital Region	2.37	2.17	2.04	2.01	2.02
Flemish Region	3.14	2.82	2.58	2.46	2.45
Walloon Region	2.88	2.68	2.49	2.40	2.39

Source: National Statistical Office

In sum, Belgium is a densely populated country. With the other industrialised countries it has in common the fact that it experiences low fertility and a high life expectancy at birth, the combined effect resulting in an aged population structure.

Decision-Making: any policy measures, especially within the framework of social security and family policy, have direct and indirect repercussions on demographic dynamics. In general, policies for welfare, family, health, education, environment, immigration, data collection, research, and development aid are largely in accordance with the recommendations of the three international conferences on population.

Cooperation: Belgium is an active member of the Commission on Population and Development, which is responsible for the follow-up of the International Conference on Population, and Development (ICPD).

CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

Decision-Making: The three Belgian regional Communities are responsible for the policy of care in and outside hospitals, except for the responsibilities of the Federal Government. The Communities are also responsible for health education and promotion, as well as for preventive medicine (except National measures of profylaxis). The Communities are specifically responsible for: the application of agreement and programme standards; subsidization; preventive medicine (AIDS, alcoholism, vaccinations, etc.); frontline care; inspections; sport and school medical controls; and follow-up programmes for little children. The responsibilities of the Federal Government are: organic legislation; financial requirements of organic legislation; National health insurance; the base rules for programme standards, financing infrastructure, and expensive medical equipment; National agreement standards, only where there are repercussion on financial requirements, health insurance, and the base rules; and fixing conditions in university hospitals. Recently, the Directorate of Medical Practice has proposed several important new laws, such as the law on blood and the law on physiotherapy. The creation of special structures to promote the dialogue between hospital managers, doctors and insurers brings another challenge of harmonizing policies of health insurance with the policies of the Ministry of Social Affairs, Public Health and the Environment. Improving the health of the poor in developing countries is one of the five priority areas of the Belgian International cooperation. The Ministry of Foreign Affairs, in particular the Directorate-General for International Cooperation (DGIC) is still the most important level of decision –making.

Programmes and Projects: Several important projects are being developed and should be implemented in the years to come, such as the High Council for Dental Care, the management of available medical services, and the evaluation of medical practice. The Directorate of Medical Practice also has the task of examining the important question of bio-ethics. Norms for the accreditation of emergency services (Medical Emergency Services) and intensive care units will be developed. Furthermore, the law relating to the Emergency Service 100 has been modified to create provincial schools for ambulance paramedics. The policy for emergency services is supported by the National Council for Emergency Services and by the future Provincial Councils, which are currently under development. Belgium is committed, within the framework of the European section of the WHO, to drawing up a NEHAP (National Environment and Health Action Plan) *to bring together the preoccupations concerning the environment and health, (including occupational health), on a reciprocal basis, in national policies and plans, in plans for economic sectors, legislation, and finance.* The National Environment and Health Action Plan has the mission of providing a reference framework that gathers together and combines all the actions which tend towards the prevention and elimination of hazards to environmental health. (Federal Plan for Sustainable Development, 2000. §250).

Belgium is committed, within the framework of the European section of the WHO, to drawing up a NEHAP (National Environment and Health Action Plan) *to bring together the preoccupations concerning the environment and health, (including occupational health), on a reciprocal basis, in national policies and plans, in plans for economic sectors, legislation, and finance.* The National Environment and Health Action Plan has the mission of providing a reference framework that gathers together and combines all the actions which tend towards the prevention and elimination of hazards to environmental health. (Federal Plan for Sustainable Development, 2000. §250). In the first scientific Support Plan for a Sustainable Development policy - SPSD I (see chapter 35), special attention was given (program " Pre-normative research in the food sector") to the safety of the consumer, via research projects as b.e. the detection of microbial contamination, the determination of allergens and residues of hormones in food, the elaboration of quality rules in the small industries (HACCP).

In the second scientific Support Plan for a Sustainable Development policy - SPSD II (see chapter 35), the topic of consumer health is present are research projects as b.e. the contamination of food by mycotoxins, coccidiostatic residues in eggs, development of tools for predictive microbiology. In the framework of Sustainable Development, in parallel to the Scientific Support Plan for Sustainable Development policy-SPSD SPSD II and I, the Ministerial Council approved, end 1998, a Scientific Support Program for integration of the notions of quality and security of environment, process and goods of production in the framework of sustainable development. This program is composed of 2 sub-programs. One is devoted to the workers health protection⁷, the other is devoted to

⁷ Scientific Support to Workers protection (1998-2003)

standardization⁸. A special attention is given to the “quality” and “security” of industrial environment for the prevention of health and well being of exposed populations. In the same way, “quality” and “security” of processes, products and services are considered from the point of view of the consumer-client protection. By the side of normative and technical dimensions, particularly developed in the program “Standardization”, the research projects from this program are articulated round 4 axes : Toxicology and environmental approach of work; Ergonomy; and Study of psychosociological factors of work

In the first Program on Standardization (approval by the Ministerial Council end 1993) a project was financed on “Data Processing and Telematics applications in the health care sector”. The priorities of the Belgian international cooperation concerning health and population are:

- primary health care in general including reproductive health care, maternal and infant care, prevention, rehabilitation, human resources, education, information and communication, prevention, control and surveillance of the communicable and poverty related diseases; planning and capacity building; and
- a multi-sectoral approach to reduce the burden of HIV/AIDS

Programmes and Projects: LINK TO FEDERAL PLAN FOR SUSTAINABLE DEVELOPMENT

Status: The Belgian health care system can be subdivided into: a) general hospitals: general hospitals, general hospitals with a university character, university hospitals, exclusively geriatric hospitals, and specialized hospitals; b) psychiatric hospitals; c) rest homes and homes for the elderly; and d) psychiatric rest homes and protected living systems. As of January 1, 1993, the number of official hospital beds was 75,360. This means that there are 7.43 beds for every 1,000 inhabitants: 5.75 in general hospitals and 1.68 in psychiatric hospitals. The policies for institutional care are undergoing a dynamic evolution. Over the past ten years different major reforms have been aimed at reducing the supply of hospital services in favor of alternative and better-adapted forms of health care. However, modifying hospital structures was not enough and the financing system is also being revised. The regulations for general practitioners have also undergone important modifications. In addition, new professions have been created such as emergency specialists and intensive care specialists a permanent evaluation of the number of doctors and dentists needed in relation to demographic and sociological developments has been planned since 1996. Rules concerning the evaluation of medical practice can be determined.

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

Information: The implementation of the new financing system due to hospital services reform required the installation of various databases, such as the registration of minimum nursing data, minimum clinical data, and minimum psychiatric data. At this time, the question of including social data is being considered. The registration of these data would not only be useful for fine tuning budgets, but would eventually lead to better management and improved health care practice.

Research and Technologies: No information available.

Financing: The overall National hospital budget was Bfr 144.88 billion in 1977. Almost the entire budget for Belgian bilateral cooperation concerning population is comprised of programmes for primary health care in general, and for maternal and infant health care in particular.

Cooperation: In 2000, the budget of the Belgian international cooperation concerning health was about 71,5 mio EUR. The contribution to health initiatives of the Belgian cooperation (direct bilateral and indirect bilateral) in Africa, Latin America and Azsia was about 51 mio EUR. Belgium contributes to; the United Nations Population Fund (UNFPA: 4,60 mio. EUR; UNAIDS: 9,17 mio EUR; WHO: 2,63 mio EUR; and the Global Fund to fight AIDS, Malaria, TBC (GFAMT): 17,84 mio EUR for the period 2001 – 2003.

* * *

⁸ Standardization and technical regulation (1998-2003)

CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

Decision-Making: The principles of sustainable development, particularly since the 1992 United Nations Conference on Environment and Development (UNCED), are increasingly influencing National decision-making in international responsibilities and in the coordination of Regional Government initiatives. In implementing the decisions of the United Nations, a Belgium National Committee for Human Settlements has been established under the chairmanship of the Ministry of Foreign Affairs. The 1993 Constitution explicitly states the "right to decent housing" as a constitutional right in Belgium. Each Region further expands the modalities and implementation priorities. The Regions are to a very large degree responsible for policies and implementation related to human settlements, housing matters, and urban development.

Regarding the development of Settlements, all levels of government (the Federal Government, the Federated Government levels, the Provincial Councils and the Municipalities) are financing initiatives of international cooperation. However, the bulk of International Cooperation with developing countries is the responsibility of the Federal Ministry of Foreign Affairs, External Trade and International Cooperation. The present policy on International Cooperation (2000) states for the first time urban development in its development objectives. The Habitat and Human Settlements aspects will be tackled under at least three major policy headings:

- fighting poverty, including access to basic infrastructure;
- sustainable development, including Local Agenda 21 implementation and support to the decentralization process in several countries; and
- human rights, including rights to housing, security of tenure, especially for women.

Programmes and Projects: The following examples of programmes and projects specifically addressing Urban Development, all financed by the Federal budget of International Cooperation, can be cited:

- Multilateral cooperation programme "Localizing Agenda 21": Action programme for Sustainable Urban development" in cooperation with UNCHS, Belgium Consortium and partner towns in Kenya (Nakuru), Morocco (Essauira) and Vietnam (Vinh) and a town in Cuba, still to be identified;
- multilateral contribution to UNCHS towards its "Security of Tenure" Campaign;
- bilateral project "Tan Hoa lo Gom Canal Improvement and Urban Development" in Ho Chi Minh City, Vietnam;
- support to cities active in direct cooperation with partner cities from developing countries (support to local democracy, know-how transfer, capacity building programmes);
- the "Clean Air Initiative", implemented in several cities in Africa (Dakar, Ouagadougou, Abidjan, Cotonou, Harare, Douala and Nairobi). Belgium is one of the major contributors to this WB-programme and the Belgium contribution is earmarked for 2 cities, Ougadougou and Cotonou;
- indirect support of capacity building through the financing of a short-term (3 months) programme and a Master's programme (Master of Architecture in Human Settlements); and
- indirect support to NGO's active in the fields of basic infrastructure provision (water, sanitation, housing) and environmental improvement.

Status: Belgium has a strong and unique human settlements and habitat identity. This includes a high degree of urbanization; the urbanization of rural areas; the predominance of medium-size and small towns; a regionally differentiated approach to human settlements and habitat policies; a tradition of socially redistributive human settlements; and a housing policy with high infrastructural services. Household unit requirements are still growing at a substantial rate, despite slow population growth. Physical urban expansion, to the detriment of agricultural land and green areas, has been considerable in the past characterized by suburban development and indiscriminating commercial expansion.

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

Information: No information available.

Research and Technologies: The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) within the framework of its research programmes supports several projects dedicated to urban problematic such as : air quality, mobility, cartography, demography, indicators, residential patterns, insecurity, exclusion. In particular, the OSTC supports a scientific platform “Viable cities” in the framework of its Scientific Support Plan for a Sustainable Development Policy (<http://www.belspo.be/issd/urban/> - temporary address) preparation. A new research programme “Viable cities” will also start in the spring 2002. Two interdependent research themes will be studied. The first relates to the determining factors in companies' and households' location choices and the second to tools that may facilitate the actions of political decision-makers and other urban managers. For more information, please look at <http://www.belspo.be/>

Financing: No information available.

Cooperation: International cooperation in the human settlements field is organized on several institutional levels in Belgium. The Federal Government, the Regional Governments, local governments (municipalities, provinces), and a good number of non-government organizations all participate. These levels provide substantial contributions to human habitat through multilateral and bilateral cooperation channels. Belgian development cooperation stimulates training and capacity-building programmes, assists international courses and research programmes initiated by universities, and contributes to other training and educational activities, for example, local Agenda 21 programmes. For the period 2000-2003 the Belgian Administration for Development Cooperation (DGIC) contributed 0,87 mio EUR/year to UNCHS.

ACTIONS BY THE GOVERNMENT OF THE FLANDERS REGION

Institutional setup - Matters related to urban development are the responsibility of the Minister of Economy, Urban Planning and Media and matters related to housing the responsibility of the Minister for Internal Affairs, Civil Service and Sports. For the implementation of policies and programmes, the ministers can rely on various public, semi-public and private actors.

Population - The Flemish population grows only marginally each year. The number of households is increasing, while the number of persons per household is decreasing. Smaller households consume less 'efficiently'. For example more houses are needed. Because of the increasing welfare there is more consumption.

Housing policy - Housing has been a long-standing priority among the social welfare policies in the country and the region, although during the 80's this important civic priority was politically rather neglected, to re-emerge as a priority at the end of the 80's and early 90's. In the Flemish regional government agreement of June 1995 one of the five great challenges for the coming years was the quality of life and living together. For the improvement of the quality of life and of living together special attention was given to housing including the drafting of a new "*Flemish Housing code*", to increase attention for the elderly also in their specific housing needs, to alleviating poverty and to increase the efficiency of the welfare networks, to increase the effectiveness of education and health care systems without increasing their costs, and finally to stimulate attention for cultural heritage and traditions.

These general policy concerns and priority issues of the Flemish government have, in the second half of 1995, been translated into specific policies and programmes and action plans.

- the "*Flemish Housing Code*" has been approved and some important regulations have been adapted in function of the new "*Flemish Housing Code*";
- legislative measures to tax empty property and dilapidated buildings are being worked out;
- qualitative housing improvement with special focus on upgrading of existing stock is provided for;
- increase of the rental and owner occupied housing is being worked out;
- priority is given to the disadvantaged groups;
- a land and property policy is planned;
- a regional housing plan is about to be available and a few municipal housing plans are also available;

- identification and selection of priority action areas exist for two types of areas : the housing and renovation areas; and
- in the cities of Antwerp, Ghent and Mechelen, the housing programmes are harmonized with urban quality improvement programmes.

The Flemish Housing Code - On 9 juli 1997, the Flemish Parliament has approved the “Flemish Housing Code” so that, according to article 3 : “Everyone has the right to a human habitat. This includes promoting access to an appropriate and good quality dwelling place, in a decent living environment, affordable and with security of tenure.”

The 'Flemish Housing code' contains the following items :

1. The safety, health and quality norms for dwellings; information concerning the conformity certificate; indications whenever dwellings are to be considered as unsuitable or unfit for habitation or as overcrowded; and information concerning sanctions concerning such houses;
2. Information concerning the organization of the housing policy, including information concerning the Flemish Housing Council; the schedule of investments and the territorial planning;
3. Information concerning the social housing organizations, namely the Flemish Housing Company and the social housing companies, the Flemish Housing Foundation for Large Families and the recognized rental offices;
4. Information concerning the instruments of the housing policy, including the Housing Fund, subsidies for governmental initiatives for purchasing land and buildings, housing infrastructure, and to build, improve and adapt dwellings and buildings; social loans and guarantees, the right of repurchase; the right of *pre-purchase* and finally the right to the social management of dwellings; and
5. Information concerning provisions relating to social dwellings for rent.

The main objective for the habitat policy in the period 1997 -1999 was the implementation of the “*right to housing*”. Since the approval of the 'Flemish Housing code' on 09-07-1997, the Flemish government has approved the following elements of the 'Flemish housing code' :

1. the regulation concerning the 'recognized rental offices';
2. the regulation concerning the housing and renovation areas;
3. a regulation to become a support in the 'Flemish Periphery';
4. the regulation concerning the safety, health and quality norms for dwellings; the conformity certificate; the unsuitability of habitations; the occupation of houses; sanctions concerning overcrowded and unsuitable houses. the right of repurchase; the right of pre-purchase and finally the right to the social management of dwellings; and
5. The legislation concerning social rented dwellings (2001).

Notwithstanding those results, there is still a lot to do to implement all the ideas of the "*Flemish Housing Code*". However it must be mentioned that enacting the "*Flemish Housing Code*" is the most important decision that was taken in the housing sector World War II.

Housing subsidies (private sector oriented) - The Flemish regional government continues the tradition of the national policy to stimulate private individuals and households to improve their housing situation by purchase, new construction or improvement of their dwelling. Nowadays following subsidies and allowances are available:

1. Subsidies for constructing a house;
2. Subsidies for renovating and redeveloping a house;
3. A relocation, installation and renting subsidy; and
4. Insurance against loss of income.

Municipalities are important partners as between 40 to 55% of all municipalities allocate incentive premiums, and about 15 to 30% undertake initiatives for special target groups (the elderly, handicapped, migrants, etc.).

Social housing - Since the approval in 1996 of four regulations, the partners in the social housing sector are: the Flemish Housing Company and her local Housing/Building Companies, the Municipalities, Associations of Municipalities, the Public Agencies for Welfare (OCMW's), the Flemish Housing Fund, and other investors such as the semi-private corporation Domus Flandria. Each of these partners can become financial interventions such as:

1. Investment credits (the Flemish Housing Company and her local Housing/Building Companies, the Flemish Housing Fund and the semi-private corporation Domus Flandria that was set up for an urgent programme for the building of 10,000 dwellings in the period 1991-1995); and
2. Budgets for property purchase, house construction, infrastructure and community services and special urban renewal projects (the Flemish Housing Company and her local Housing/Building Companies, the Municipalities, Associations of Municipalities, the Public Agencies for Welfare, the Flemish Housing Fund, and other investors such as the semi-private corporation Domus Flandria).

The budgeting allocations have varied substantially over the years. In the 80's, yearly budgets dropped from a high 18 billion in 1980 to 7 billion in 1989. It amounted to 32 billion in 1994 due to an additional finance for the Domus Flandria programme of 30 billion over a 3-year period, and to 7 billion in 1997 it was. The Flemish Housing Company manages 128.368 (1998) rental housing units, accounting for approx. 6% of the total housing market and 18% of the rental market. In addition, the Company builds new purchase housing, renovates existing dwellings or implements social land development projects. The activities of the Flemish Housing Company are spread over many local Housing Companies. Although the activities of the Housing Companies slowed down considerably in the 80's, the 90's were a more active period.

As to the beneficiaries of the various housing programmes, it can be assessed that most of them fall in the category of the low, lower middle and middle income categories, with a clearer indication that 95% of rental subsidies go to the low and lower middle income groups, and the loans go more to the middle income groups (only 10% of beneficiaries below 850,000 income = +21.000 EURO). Loans from the Flemish Housing Fund go to the middle (up to higher middle) income groups (50% earn more than 700,000 = + 17,350 EURO). The social housing programmes benefit for a good percentage the lower income categories, although 12% of the beneficiaries still have a high 850,000 income or above.

“School 4” in Leuven

The school, “School 4”, was completed in 1855 according to the plans of architect Eugène Frische, of Leuven. The school was composed out of 4 parts: the school itself, the principals dwelling, a gymnastics room and a covered gallery. Furthermore, there was a large playground and two courts.

Within the scope of the decision of the Flemish government dd.04/04/90 to encourage the construction of social rental houses – the so-called “alternative financing” -, the social housing company Heuvelhof started in 1990 with the renovation of this school, situated at the Ridderstraat in Leuven.

The purpose of this Flemish decision was to create – preferable in areas recognized as in need of housing – social rental houses for households with an income below 650.000 BFR that would thus leave an unhealthy or overcrowded dwelling.

For the realization of this project, Heuvelhof (now Dijledal) contracted a loan at a private bank, to be paid back out of its own resources. In exchange, the Flemish region gave 1) a building subsidy (265.000 BFR) for each dwelling that is thus realized, 2) (during 27 years) a rent compensation for about 5.000 BFR (at a maximum rental price of 12.000 BFR for a dwelling), and 3) a guarantee for the invested amount.

With the renovation 28 flats were realized as well as a room for the non-profit association “Integratie Zelfstandig Wonen voor Gehandicapten” (Integration, Independent Living for Handicapped Persons): the ten former

classrooms and the attic were rebuilt into 18 flats that surround a central hall destined for public and service functions. Five of these flats were adapted to the physically handicapped. The former principal's dwelling includes eight flats now, and the former gymnastics room two.

The covered gallery forms a public passage nowadays and on the large playground 16 cars can park. Roads were built and terraces and planting laid out. The court on the south is transformed into a public passageway with private gardens and the court on the north serves as public green and private gardens.

This project can be cited as an example: a modern school, meeting all the late nineteenth century requirements concerning schools and education, was perfectly converted into a set of 28 flats that in many ways meets with the late twentieth century expectations regarding the quality of living space and environment.

In a modest but convincing way, architecture, urban development, preservation of monuments and historic buildings, urban renewal and expressive art were brought together in this project with explicit social intentions and expectations.

It should also be noted that the people below poverty or with minimum subsistence income benefit from the programmes only to a small degree. These people are thus truly within the socially excluded groups.

- The plan to build 10,000 social houses was completed in 1998;
- The selectivity and priority rules for allocation of social housing have been improved;
- To improve the functioning of the social housing companies contracts were imposed; and
- For the debts of the past (transfer of national debts to regional agencies) new financing systems have been elaborated.

For the improvement of the existing social housing stock, a special program is being elaborated. An architectural competition has been organized to stimulate creative designs.

Spatial planning - in 1999 the Flemish government approved the new decree on urban planning. Although the 48 sub-regional or sector plans (of which 41 had been approved by the end of the 80's), still form the legal base for physical planning, the three regional governments (Flanders, Brussels, Wallonia) have recently each taken the initiative to elaborate new regional spatial development plans defining the spatial policy for the long and short terms.

On 23 September 1997, the Flemish government has approved the "Flanders Regional Spatial Structure Plan". It formulates first two general objectives on which rests the whole vision of the desired urban structure, namely "sustainable development" and "Flanders, open and urban". Then follow the definitions of the four principles of the urban structure, namely: 1- deconcentrated clustering, 2- gateways as the driving force of development, 3- infrastructure as link and basis, and 4- natural structure as a backstone. Finally the objectives and structural principles are elaborated in detail for four components that determine the urban structure, namely: 1- urban areas and urban networks, 2- open space, 3- areas of concentration for economic activity, and 4- transport infrastructures and mobility.

Social Renewal" and "Social Impulsion Fund" initiatives - Two initiatives in town planning and housing deserve a special mention: the experiment 'Sociale Vernieuwing' (Social Renewal) and the 'Sociaal Impulsfonds' (Social Impulsion Fund).

I. The 'Social renewal' experiment (Sociale vernieuwing) - The experiment 'Sociale Vernieuwing' began in 1995 in five large Flemish towns (Antwerp, Genk, Ghent, Leuven and Mechelen) and consists of making a budget of BF 200 million available for each town. These subsidies enable the towns to undertake projects focusing on the rehabilitation of poor neighborhoods. The aim of these projects is to raise the standard of certain neighborhoods by redeveloping economic activity, improving living conditions and making more efficient use of the existing infrastructure. Special

stress is laid on the active participation of the people living in these neighborhoods. This experiment ended in 1997 with the introduction of the new SIF.

II. The 'Social Impulsion Fund' (Het Sociaal Impulsfonds - SIF) - To improve the quality of urban living, the Flemish government made the improving of urban living a top priority. Since 1995, priority is thereby given on the elaboration of a co-ordinated action plan focussed on housing, urban planning, mobility, family care, education, health, employment, etc. because the stagnation or decline has multiple causes (unemployment, social segregation, sub-urbanization, slowing of social housing investment, physical decline, etc.) that should be radically altered.

The November 1995 policy note of the Flemish Minister of Urban Policy summarized thereby the importance of a coherent, inclusive, integral and innovative urban policy to remedy the urban stagnation and/or decline, particularly in some inner-city areas. In essence the policy underlying this action plan operates now via three leverages:

- An integrative approach, cutting through traditionally sectoral responsibilities and/or improving co-ordination between various actors;
- An inclusive approach to make all actors must feel responsible for the major problems related to poverty and social exclusion; and
- A participatory approach increasing access to information, services and infrastructure, particularly for those most in need.

Urban decline and particularly poverty alleviation is thereby not be seen as the responsibility of one institution or project but is included in all normal responsibilities at all levels of operation. Such an inclusive and integral policy operates in all sectors, various categories and several territorial levels. The sectorally 'integrated policy' accentuates strategies related to labour and employment, to localized urban work, to attention for small and medium-size enterprises, to education and training, to housing, to urban mobility and improved spatial planning, to urban environmental aspects, to health and welfare, to urban culture, and to the improvement of urban resources. The main features of the implementation of such policy include the following actions:

- At the level of the regional Ministry of Urban Policy, the implementation was mainly focused on the 'coherence' of the various actions;
- At the level of the regional administration strategic action plans are elaborated, monitored and redirected for the cities of Antwerp, Ghent and Mechelen. Special attention is given to make neighbourhood development plans; and
- With the municipalities, urban or municipal pacts (result-oriented agreements running for several years) have been elaborated to favour decentralization and increasing local responsibilities. Special attention went to the development of neighbourhood development plans (Localising Agenda 21).

One of the most important tools thereby is the "*Social Impulsion Fund*"-plan (SIF). This plan was established in 1996 to alleviate the most serious problems in priority areas of selected towns. The 'Sociaal Impulsfonds' is an instrument that brings together existing resources (the Flemish Fund for the Integration of the Underprivileged, the Special Grant, the Special Fund for Social Welfare) and contributes some new resources. This Fund amounted to BF 4,428 million in 1996. From 1997 onward the amount increased with BF 1,000 million each year until 1999, when the Fund reached its cruising speed. From the year 2000 on, the budget is increased according to the evolution of the index. So the budget of the 'Sociaal Impulsfonds' has increased from 5.388,8 in 1997 up to 7.466,8 in the year 2000 and will increase up to 7.623,8 million Bfr in 2002. The Flemish Government makes these resources available to local authorities according to objective criteria: numbers of immigrants, 'minimex' recipients, young unemployed, long-term unemployed, disabled persons, underprivileged families, below-standard dwellings, subsidized apartments, etc.

The Flemish Government makes these resources available to the local authorities to enable them to conduct a policy on three fronts:

1. The restoration of quality of life and environment in towns, especially in poor neighbourhoods;
2. The fight against poverty (and social exclusion); and
3. The promotion of well being (and social inclusion).

In practice, the resources are used for the following purposes: co-ordination of the activities: 3%; culture: 4.6%; economy: 1.3%; health: 0.25%; housing: 20.5%; education: 2.3%; urban planning: 10.9%; employment: 24%; safety: 0.8%; welfare: 28%; neighbourhood working: 4.4%. The multiple approach to the existing urban problems amounts to a genuine development policy. It is clear that the efforts are not confined to a single aspect of the problems, but deal in a concerted manner with housing, mobility, the economic fabric, employment, town planning, education, policy on immigrants, socio-economic assistance for the inhabitants, etc. Such an inclusive, integrative and participatory policy is facing directly social inequality and exclusion and is of great help to improve the quality of urban living and to achieve social inclusion.

Antwerp – Rehabilitating the 19th Century Belt

The late twentieth-century metropolis is the stage where the contradictions of modern society are projected most clearly. Between the historic and consumer-oriented city centre and the affluent areas in the suburbs, there were in the second half of the 80's, areas where poverty was increasingly manifesting itself again. Those areas accumulated all the problems of a modern society such as low economic activity, high unemployment, large concentrations of immigrants and refugee, feeling of insecurity, poor housing, etc.

In Antwerp this trend manifested itself most clearly in the 19th century belt, more specifically in the northern part of the town. The most striking aspects there are the poor quality of housing and the concentration of people who are excluded from normal economic life. More than 20% of the people of working age receive income support. Due to the accumulation of problems, the Belgian people move away. The outflow of Belgian nationals and inflow of foreigner's leads to a steady increase in the concentration of foreigners increases steadily. Moreover it can be expected that the concentration of foreigners will increase even more because half of the youngsters are non-Belgian and the immigration of non-Belgians continues.

Side-effects of this evolution are that: 1) the number of community conflicts grows; 2) the neighborhood is avoided more and more by outsiders; and 3) extremist groups gain a foothold. However derelict and threatened the 19th century belt may be, it is an area with enormous potentials for urban reform because it is a lively neighborhood, a meeting place for cultures and a place where people live, work and consume. For some years now, the different levels of government have become aware of this precarious situation and various means have been deployed to tackle the problems.

At the initiative of the Flemish Government, all the forces at the different government levels work together in order to take the inner cities out of its social marginality by the 21st century. The following initiatives in town planning and housing should be mentioned: 1) the URBAN-programme of the European Union; 2) the experiment 'Social Renewal' (Sociale Vernieuwing); 3) the 'Social Impulsion Fund' (Sociaal Impulsfonds-SIF); and 4) the renovation of the housing stock.

With help from the URBAN-programme of the European Union, the small business centre NOA (Bedrijvencentrum Noord Oost Antwerpen met 28 bedrijfsunits) has been established in an old renovated school in the centre of the neighborhood, where new firms can settle and receive administrative support.

With subsidies of the 'Social Renewal' experiment, the restoration of the Antwerp Central Station as main monument in the area and the reformation of a former public bath house into a new local cultural centre have been undertaken. The aim of the chosen projects was to raise the standard of this neighborhood by improving living conditions and making more efficient use of the existing infrastructure.

Unfortunately, to preserve deprived areas from further decline and social marginalisation, physical rehabilitation is not enough.

Stagnation or decline has multi-faceted causes (unemployment, social segregation, sub-urbanization, slowing of social housing investment, physical decline, etc.) that should be altered with solutions, which meet social, economic, cultural and other aspects.

Therefore attention should be given on the elaboration of co-ordinated action plans emphasized on housing, urban planning, mobility, family care, education, health, employment, etc.

In order to become such actions plans, the November 1995 policy note of the Flemish Minister of Urban Policy summarized the importance of a coherent, comprehensive, inclusive, integral and innovative urban policy with a multi-faceted set of actions to remedy the urban stagnation and/or decline, particularly in some inner-city areas such as this one.

In Antwerp several actions can be mentioned such as:

1. Establishment of a neighborhood development center (de Buurt Ontwikkelings Maatschappij Antwerpen Noord - BOM) with as actions:
 - 1.1. Establishment of ATEC - the Antwerp Technology Center with a recycling project (OSCAR) and a center for multimedia education (MEDIA BRIDGE);
 - 1.2. Establishment of a job information center;
 - 1.3. Establishment of a community-based enterprise (the social workshop WOTEPA), where victims of long term poverty receive training in renovation and finishing works for low-income housing to enhance their self-confidence and facilitate their reintegration into the society;
 - 1.4. Establishment of a center where information is given concerning housing facilities and housing subsidies and where technical support is given when residents are starting a renovation project;
 - 1.5. Provision of all-round support on budgeting, managing their personal lives, raising children, eating on a budget, general health, etc. to combat poverty.
2. Establishment of a social restaurant by the Public Agencies for Welfare (OCMW) where victims of long-term poverty can get cheap meals.
3. Renovation of the urban infrastructure (streets, play-grounds etc.).
4. Renovation of the existing social housing stock.

Flemish government policy agreement of 1999

The Flemish government policy agreement of 1999 states that priority will be given to the quality of the living environment in cities. The main objectives for the habitat policy for the coming 4 years are

- Improvement of housing in cities and mainly in Antwerp, Ghent and Brussels;
- Improvement of the 'Social Impulsion Fund';
- Making living in cities cheaper;
- The implementation of a 'City Renewal Fund';
- Making it possible to become 'Public-Private-Partnership' in function of the renovation of cities;
- Improvement of the quality of the existing housing stock and the housing environments;
- Construction of an extra 15.000 social houses;
- Construction of small housing projects so that we become a social mixture;

- Organizing of co-operation between communities, social housing organizations and the 'Public Agencies for Welfare (OCMW's);
- Renovation of the old social housing stock;
- Implementation of the right of pre-purchase and the right to the social management of dwellings;
- Renovation of the old housing stock by recognized rental services; and
- Implementation of a new policy concerning the 'Flemish Periphery' (de Vlaamse Rand).

Environmental management - The environment in Flanders is gradually improving. The efforts of the population, agriculture, industry and the government during the last decades are beginning to bear fruit. Nevertheless the environment is still in a deplorable state, partly due to the enormous historical pollution and our continuing excessive and wasteful consumption behaviour. The situation is improving, but too slowly to assure a sustainable future for the generations to come. The 1995 Decree on General Provisions for Environmental Policy sets out the broad orientation of Flemish Environmental Policy, including the principle of preventive action, the preference for measures aimed at the source of pollution, and the precautionary, standstill and polluter pays principle. It also requires the preparation of a biennial report on the environment and nature (Mira) and the formulation and adoption of a five year Environmental Management Plan (Mina Plan) based on the principles of the Brundtland Report, Agenda 21 and the Fifth Action Plan of the European Community. Finally, the Decree requires the adoption of annual environmental programmes.

Water - The condition of the surface waters in Flanders is still very bad, in spite of the fact that the reduction of water pollution is the largest item on the Flemish environment budget and that many companies deliver considerable financial efforts to purify their waste waters. Water quality is improving, but only very slowly. The fragmented spatial structure in Flanders is a complicating factor in the wastewater treatment.

Nearly all socio-economic activities have direct or indirect impacts on water quality. The pressures are mainly caused by pollutant loads in wastewater discharged by the population and industry, by diffuse emissions from agriculture, and transboundary pollutant loads. The number of houses connected to respectively a sewage and a wastewater purification installation is an indication of purification efforts for household wastewater. This number is steadily increasing. Thanks to the stricter emission standards, the introduction in industry of cleaner production methods and in particular the sharp rise in the cost of waste water discharge (rise of the taxation rate), many large companies have made considerable efforts to reduce their emissions. Regarding the diffuse emissions, only few direct measurements are available for the emission from agricultural land (via drainage, for instance), but emission measurements show that there has been no significant reduction of the nutrient emissions by the agricultural sector.

The indicator for the oxygen balance shows that only 15% of the survey points had an acceptable water quality. There was, however, a 6% decline of the number of heavily polluted survey points in 1997. The indicator monitoring the biological quality has hardly changed since 1989 on two thirds of the measuring points. According to the biological integrity indicator (fish index) 24% of all measuring points were 'biologically dead' in 1998. The measuring network was set up in 1996 and only a few waterways have been sampled for a second time. Their results indicate that 'dead' fishing water developed into 'critical' fishing water in several places, because of clean-up operations.

The bad surface water quality in Flanders however does not affect the supply or quality of drinking water. Drinking water is of good quality and is not expensive in Flanders. 100 litres of water cost 5 Belgian Francs (approx. 0,12 US\$). There is no fluctuation in price during the year. There are however a few complicating facts to measure the exact price. A certain amount of water is for free, but on the other hand there are taxes on water use as well. If all this is taken into account then 100 litres of water for an average user would cost approximately 6,7 Belgian Francs (0,16 US\$). In Flanders one person uses on average 120 litres of water per day for domestic purposes. Recently, the Flemish region has started with a more 'integrated water management' policy, which deals with the problems of an entire water basin (river, lakes, drinking water reserves, etc.) and brings together the various actors responsible for all water management aspects.

The environmental quality standards for surface water were constitutionalised in Vlarem II (Flemish Regulation concerning Environmental Licence). For a large number of parameters, the current legal standards, in a lot of surface waters, are not (yet) achieved, despite of a considerable condition improvement.

Air - For carbon monoxide the measurements in Flanders will start in 2001. But everything seems to indicate that no standards are being exceeded in Flanders. (Measurements in the Brussels and Walloon region indicate that during the period 1994-1999 the CO-levels remained well below acceptable norms in all measuring stations. In 1999 the highest concentration was 2.42 mg/m³ (8 hours averaging time) in the centre of Brussels.). For nitrogen dioxide the global evolution is decreasing. In the period 1994-1997 an upward trend can be noted. For 1998 the situation ameliorates again compared to 1997. The threshold of 400µg/m³ that may not be exceeded during more than 3 successive hours was respected during the entire year 1999. The average NO₂ concentration in Flanders for 1999 was 31.6 (+/- 5.7) µg/m³.

For sulphur dioxide a continuing downward trend can also be noted during the last 20 years, as well as for the last 5 years. The highest concentrations are being measured in industrial areas, the lowest in more rural areas. In 1999 the concentration of SO₂ exceeds the norm 125 µg/m³ during 2 days in one monitoring point (Harbour of Antwerp) and during 11 days in another point (Tessenderlo-Wezel). All other monitoring points show figures below 125 µg/m³ for every day of the year 1999. There is a decreasing trend in lead concentrations in the last ten years. However high lead concentrations are still found in industrial areas (especially close to non-ferro factories). The averaging time in one year should not exceed 0.5 µg/m³. Only in one monitoring point (Hoboken) this norm is not reached. In another monitoring point (Beerse) the annual average is 0.35 µg/m³. All other monitoring points show figures below 0.25 µg/m³.

For ozone indicators have also stagnated during the last few years, although important differences may occur between the individual years due to changing climatic circumstances. In 1998 the protection level for public health was exceeded 28 times, 7 days of warning occurred and the average ozone overload was 1992 (µg/m³) hours above the EU health level. These were the lowest values registered since 1992. The low emissions in 1998 were accompanied by the lowest impact on public health since 1992: only about half of the average impact during the last 10 years. In this respect it has to be taken into account that the health impact may fluctuate approximately a factor 9 between an ozone low year (for instance 1998) and an ozone high year (for instance 1995). For the last 10 years, it can be calculated that the Flemish population, on average, has been exposed 16 days a year to an ozone overload that correspond with a 5% decline of the lung function. Consequently, both for the protection of public health and nature, urgent additional measures are required to reduce the exposure to ozone. Attention used to go to air pollution on local scale, e.g. in and around industrial areas. Gradually, the attention went to a steady approach about the Flemish Region. The relevant regulations are entered in the Vlarem II (general and sectoral conditions). The legislation also contains environmental quality objectives (marginal values for the air quality), based on the European legislation and foreign examples.

Soil pollution - Ground pollution is also problematic, both due to industrial waste and agricultural waste. Industrial waste pollution causes so-called 'black spots'. These spots are however localised and can be tackled 'on site'. In some cases, the soil has become so seriously polluted as to necessitate soil remediation. The 1995 Decree on Soil Remediation stipulates a regulatory framework aimed at making the polluter pay. This was further elaborated in 1996 in the VLAREBO (Flemish Regulation concerning Soil Remediation).

Within the agricultural sector intensive livestock farming is the main source of the extensive supply of nutrients. Since 1991 the cattle stock has decreased gradually, but the pig and poultry stock was still increasing in 1997. With a 56% share cattle contributes most to the animal production of nitrogen. Intensive livestock farming, in particular pig and poultry farms, are mainly responsible for the burden on the environment. The nitrogen and phosphorus balances show that the surpluses (138.5 million kilos of N and 21.6 million kilos of phosphorus in 1997) have hardly changed during the last few years. The pressure on the environment from nutrients therefore remains high in Flanders. The fertilizer policy in Flanders enters its third phase with a new fertilizer decree, which defines the total quantity of nitrogen and phosphorus that may be deposited on the agricultural soil. The standards take into account crop and area dependent vulnerability. Under the new fertilizer policy the agricultural sector will have the opportunity to choose its own method of complying with the stipulations of the decree. The renewed fertilizer policy aims at reducing the losses of nitrogen from agricultural soil to a pollution level of maximum 50mg of nitrate per litre of ground and surface water.

Waste - An example of the progress is the Flemish waste disposal policy. This policy resulted in a large decrease of the share of waste disposal in the emissions of several pollutants. For instance, the emissions of suspended substances caused by domestic waste incineration decreased with a factor 10 between 1995 and 1997 and at the same time the emissions of dioxins fell sharply. The joint and vigorous approach of domestic waste processing by the federal, regional and local authorities also continued in 1997. For the first time more domestic waste was collected selectively than non-selectively. In 20% of the municipalities the 2010 objective of 150 kilos of domestic waste for final processing per capita was already reached in 1998. Still, the total tonnage of both domestic and industrial waste continues to rise. The increase in the total amount of domestic waste can partly be attributed to an improved stocktaking, but is mostly attributable to an increased consumption.

In 1999 62,3% of the household waste was collected selectively, so that it could be recuperated (reuse, recycling, composting.). This is 10.3% more than in 1998. Of the remaining 37.7%, 22% was incinerated in 1999 (3% more than 1998) and 15.7% (13% less than 1998) is dumped under strict regulations. As there is an increase in both domestic and industrial waste, there is still no absolute disconnection between economic growth and waste production. But as the former grows faster than the latter, one can see a positive trend. This is partly due to the prevention policy of the last years. The Decree of 2 July 1981 with regard to the prevention and management of waste substances, better known as the Waste Decree, lays the foundation of a co-ordinated and permanent waste policy in Flanders at managerial level. By repetitive modifications, the accent moved gradually from definitive removal of waste substances to the prevention and useful application of it. VLAREA (Flemish Regulation concerning Waste Prevention and Management) implements the Waste Decree and integrates a number of implementing decisions into a convenient whole.

Noise, light and odour - Noise, light and odour nuisance are less quantifiable local problems, which require sophisticated measurements and surveys in order to map the emissions, emissions and the percentage of those (seriously) hindered. Nevertheless, from the results of the first, still limited studies we can deduce that the number of people hindered in Flanders is likely to be fairly high, especially for noise and odour. Light nuisance seems to hinder fewer people at the moment. Reglementations about noise-, light-, and odour nuisance can be found in Vlarem II (general and sectoral conditions).

Traffic - Motorized traffic undoubtedly contributes largely to the abundance of environmental problems. Measures taken or planned to reduce the emissions of this target group – such as better public transport, use of alternative fuels, environment friendly driving manners, etc.– therefore have a direct effect on the evolution of several environmental issues. Nevertheless, the existing or planned measures are in most cases insufficient to limit the observed problems or alter the trends. Drastic changes in society will have to be considered if these problems are to be solved effectively. Solutions to be considered are for instance tele-working, a reduction of the registration cost for the house purchases, separate traffic lanes for public transport and taxis in all Flemish cities, protected traffic lanes for cyclists, etc.

Local agenda 21 - Local agenda 21 is used as a starting point for the development of environmental policy plans at provincial and municipality level. Municipalities can enter into voluntary agreements with the region of Flanders, establishing municipal environmental covenants. In order to get subsidies, municipalities agree to achieve a series of environmental goals, which go beyond the minimum legal requirements. Municipalities and provinces can also develop an environmental policy plan, but this is not compulsory either. If they decide to do so, this plan has to be in line with either the provincial environmental policy plan (for municipalities) or with the regional environmental policy plan (for provinces). All Flemish provinces have adopted such a plan, and have the 308 municipalities, 68 did so as well. This municipal environmental policy plan has a legal basis (Decree on General Provisions of the environmental policy of April 5th 1995).

Local governance - Local authorities have a long-standing tradition to care for the day-to-day quality of human settlements and habitat, particularly in view of the many towns in the Flemish region with an important historical heritage (Antwerp, Ghent, Brugge, Leuven, Mechelen, Tongeren, etc.).

The 308 Flemish municipalities have at their disposal a total budget of 178 billion BEF (1993) or 30,756 BEF (approx. 1000 US\$) per inhabitant/year. Some towns (e.g. Ghent and Antwerp) even have up to 68,000 BEF per inhabitant, and increasing by 18% between 1989 and 1993. Expenditures also rose accordingly and amount to 176.7 billion in 1993. Although the total may seem positive, several municipalities (particularly some larger ones) have run deficits so that the accumulated debt is as high as 89% of the total income.

Particularly the obligations related to social welfare (e.g. Public Welfare Commissions) are costly; in addition, several municipalities had neglected their inner-city areas and now find themselves having to invest heavily in renewal and maintenance. Public participation on local level is high, through the formal election system (every 6 years) but also to the Municipal Council activities as well as through the various local agencies for housing, environment, infrastructure, social welfare, etc. In 1994, 7202 council persons were elected and 2798 aldermen/women established for a total of 398 municipalities. In addition to the formal local authority system, many non-government initiatives exist on local level. Several of these have in recent years been active in human settlements and habitat matters:

- Environmental councils;
- Renters co-operatives;
- The League for Better Environment (BBL);
- traffic organisations (e.g. 'Langzaam Verkeer');
- Flemish Housing League;
- Flemish Housing Society through the local Housing/Building Societies; and
- Social Rental Offices (Sociale Verhuur Kantoren).

City of Ghent – participatory approach to a Global Action Plan

As a result of the industrial revolution in Belgium in the 19th century, a belt around the medieval city centre of Ghent came into being. The belt consisted in of factories, surrounded by a “labour reservoir” (arbeidsreservoir). In the meantime the activities inside this belt had largely come to a standstill, which resulted in large burned out industrial premises and precincts in the middle of run-down quarters.

That is why the municipality decided to allocate these problematic areas, within the planning process of the Environmental Structure Plan Ghent (ESG), a particular place with respect to the innovative processes of the city. The purpose of the monographs is to lay a foundation of a new functional and liveable structure in the quarters of the 19th century-belt. Together and in co-operation with the inhabitants the municipality took up the challenge to give these quarters a (positive) place on the map of the city of Ghent. This means that the negative spiral, which is so characteristic of these neighbourhoods, should turn over towards a definition of quarters with a huge potential to develop the concept of ‘municipal living’ in its most positive denotation. It is only possible to acquire an authoritative solution when all relevant parties are involved in the process of “problem definition”, the choice of solution(s) up to and including the execution thereof. Particular attention should be paid to:

1. The development of a broad basis (stakeholdership).
 - For the execution of the chosen solution, the support of all relevant parties is required.
 - No support without commitment.
2. To try to reduce the substantive insecurity & the incorporation of dynamism as much as possible. When encountering unstructured problems, it is of major importance to have all relevant information at hand and to confront the items mutually. This also applies to the problem definition and the formulated solution alternatives.
3. To seek a transparent decision process (administrative innovation). Decision-making processes are in general very complex. This is often caused by too high a number of parties, procedures and subjects. A procedure plan yields a certain transparency.
4. To avoid (too much) substantive steering (bottom-up-approach).

Transformation processes do often provoke inhibitions. As regards the approach of a project it is not the contents of the transformation, which will be indicated. Only the process towards a possible change will be mentioned.

Think globally act locally. To that effect, a Global Action Plan (GAP) will be drawn up and divided in six district programmes (projects). From the classification of environmental and structural approaches and social economic perspectives, a selection of interventions on quarter and neighbourhood level will be deduced and embedded in quarter and neighbourhood pacts. In function of the programme, which has been drawn up in consultation, those pacts establish mutual commitments between all actors. In a first stage this should result in a strategic programme of concrete and specific operations per location. Enough attention should be paid to the linking between urGhent (short), medium and long-term options.

In function of this and parallel to this a complete and balanced programme of council housing will be set up. Every single intervention in this belt mostly has impact on the number of houses. In order to avoid social elimination there will be a meticulous supervision. The municipality will also develop a mobility policy, which has to or will act as structural support of the environmental planning. We finally have to point out the development and use of a 'sustainability barometer' on the level of the city of Ghent. This way each (policy) development can be tested on its sustainability character. Critical successful influences are e.g. 'bright ideas', 'reliable programmes', 'watertight organisation structure', 'motivation of all parties involved', 'establishment of priorities' and 'financial discrimination'.

Their importance to increase citizen awareness should be accentuated. In fact, surveys have indicated that the civic society has a much higher esteem and appreciate better the credibility of local initiatives, particularly non-government ones, than the formal government initiatives. Local solidarity is an important task for both local authorities and citizens as a whole. Local measures to improve housing, to start modest land-banking initiatives and to ensure a minimum assistance to the socially excluded, have recently been taken; nevertheless income disparity and social-economic exclusion remains a problem, particularly in large cities and in so-called new-rich boom towns.

International cooperation by the Flemish Region - The Flemish government accentuates the importance of international co-operation, whereby the Flemish government wants to deliver a contribution to minimize the differences in welfare and well being between the western world and countries or regions in development. The projects and partners are chosen, taken into account, following principles and criteria:

- Supporting sustainable development;
- Active co-operation of the partners;
- Strengthening the institutional capacity;
- The economic and social impact;
- The technical and financial feasibility;
- The efficiency of the planned way of implementation;
- The attention given to gender equality; and
- Respect for the environment.

At present the international co-operation of the Flemish government concerning housing is mainly oriented towards South Africa and Palestine and concerning environmental aspects towards the countries of Central and Eastern Europe.

Cooperation with South Africa - A particularly important initiative has started in the Habitat field to establish co-operation between the Flemish regional government and South Africa to assist in South Africa's ambitious plan to make available over 300,000 new housing units a year, contributing towards training of small construction companies in management, and towards social housing policy exchanges.

Information is given to set up a social housing policy in South Africa.

The Johannesburg Housing Company and the New Housing Company are being given a capital subsidy to build houses (+- 3000).

Cooperation with Palestine - A new initiative has started up to give financial support at the Palestine government for the reconstruction of damaged houses in Palestine.

Cooperation with Eastern and Central Europe - At present several co-operation projects by Flemish and private organizations with partners in Central and Eastern Europe have been carried out. Because the available means do not allow for intense co-operation with all the countries and regions of Central and Eastern Europe, priorities were first given to Poland, Hungary and secondly to the Slovak Republic, Rumania, the Baltic States and the St. Petersburg region.

Cooperation with Benelux and Western Europe - This co-operation deals with active exchange of information as well as harmonizing proposals and plans related to regional plans in the countries.

1. Specific exchange exists between the Flemish region and the border provinces in the South of the Netherlands concerning matters of planning in the border-river region.
2. The Flemish region co-operates actively in the Euroregio (Kent, Nord-Pas-de-Calais, Brussels, Walloon and Flemish region).

This co-operation covers economic, social, environmental and physical planning aspects and stimulates co-operation and exchange related to the whole northwestern European network of rail, road and water bound transport. Because of the fact that the Council of Europe only recognizes the national entities in Europe, the Flemish region is represented on an alternating basis with their Walloon and Brussels colleagues in several organizations, and high-level civil servants of each region participate in the preparation of activities particularly related to human settlements matters.

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CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

Decision-Making: In Belgium, The Ministry of Foreign Affairs has a Topical Coordination Division (TCD) for coordinating consensus on environmental matters among Federal, Regional, and Community authorities. It also coordinates the drafting of the Country Profile of Belgium for the Commission on Sustainable Development. On the other hand, Cross-sectorial and inter-departmental coordination has been initiated between the Federal Government and the three Regional Governments in the context of cooperation on international environmental policy. The Coordination Committee for International Environmental Policy (CCIEP) was established and became fully operational in 1995. It systematically reviews the relationship and overlaps between international agreements, and is charged with coordination and consultation activities to ensure vertical and horizontal integration regarding environmental policy. It also decides on Belgium's international environmental policy.

The Act of May 1997 improving the planning and management of sustainable development at the Federal level brings institutional changes and introduces new procedures to facilitate the integrated consideration of social, economic, and environmental issues. The two main instruments or policy documents required by the Act of 5 May 1997 on the Coordination of the Federal policy on Sustainable Development are a Federal Report and a Federal Plan (see Programmes and projects). The first Report developed by the Task on Sustainable Development of the Federal Planning Bureau (FPB) has been published in August 1998 and covers the federal home policy from 1992 to 1998. This report specifically focuses on four major themes of sustainable development, which are also chapters of Agenda 21: *eradicating poverty and social exclusion, protecting the atmosphere (climate change and ozone in the troposphere) and marine ecosystems (dangerous substances, over-fishing...), and changes in consumption patterns.*

The law assigns at least three functions to Federal Reports concerning the implementation of sustainable development. (1) Belgium's position regarding sustainable development objectives must be described, which is done with the help of indicators. (2) The Report should then analyze the government's federal policy, which is done by classifying policies into two groups (federal policies « focused » on major sustainable development and other federal policies, which can support the goals of the former - such as fiscal, finance, science and foreign policies). Finally, (3) the Report should survey future prospects by evaluating current trends and expected developments in the light of pertinent assumptions regarding the different policy measures. A brief outline is provided of three scenarios that each departs from different risk perceptions in the environmental, social and economic fields. This approach is a useful input for a societal debate on possible future courses of action regarding sustainable development options. The "operationalisation" of the concept of sustainable development, i.e. its translation into actual decision-making or into precise actions or standards, requires a more detailed conceptual and institutional approach than the usual definitions of sustainable development. Accordingly, the Report fulfils two additional functions: (4) it suggests a methodological framework that makes it possible to work systematically and rigorously on the economic, social, environmental and institutional components of sustainable development and (5) it stresses the decisive part played by the quality of participation in the chances of a sustainable development project succeeding, underlining and analyzing the role played by major social groups. Based on the material assembled, the findings of the Report were used as a strong reference in the elaboration of the Federal Plan for Sustainable Development (see Programmes and projects).

The Minister of Scientific Research is responsible for the scientific aspects of sustainable development, as indicated in the Royal Decree of 7 August 1995 fixing some ministerial competences concerning the Ministry of Health and Environment. According to the Act of 5 May 1997 on the Coordination of the Federal policy on Sustainable Development, the Minister of Scientific Research is represented in the Interdepartmental Commission for Sustainable Development (ICSD) by a member of his administration, the federal Office for Scientific, Technical and Cultural Affairs (OSTC) (see Chapter 35).

The Flemish Region has enshrined the principle of Sustainable Development as general point of reference for policy development. As the Flemish coalition agreement puts it, "Future oriented and modernizing management implies bearing Sustainable Development in mind at the different levels of policy-making of the Flemish Government. This implies, meeting the needs of the present without compromising the ability of future generations to

meet their needs. Sustainable development is to be kept within the limits of the ecological carrying capacity, and has to have eye for the poor in the society.” Strategic planning has been implemented on the basis of reports on the state of the environment, regional plans for addressing sustainable development issues, and explicit environmental policies. Moreover, Sustainable Development is the cornerstone of the environmental policy, which has been systematically developed over the last ten years within the Flemish Region. Ever since 1995 this environmental policy was raised to a statutory level in a basic environmental law. The law demands the development of a transparent `state of the environment` reporting system and regulates the policy planning at the different levels of policy-making within the Flemish Region. An environmental management plans every five years, and an environmental programme every year. With respect to content, Agenda 21 and Sustainable Development form the frame of reference for environmental policy development. This has been reflected in the emphasis given to the principles of the declaration of RIO (e.g. the precautionary principle) and the emphasize being put on integration of environmental concerns in all policy domains, e.g. within the domains of energy; spatial planning; agriculture. Waste and wastewater plans have been prepared and a special plan has been developed to solve problems caused by the disposal of large quantities of manure. Several cities (Ghent, Antwerp and others) have prepared plans addressing the mobility issues. The strategic objectives for the Environmental Policy Plan 1997-2001 were:

- Encouraging people, companies and authorities to adopt more environmentally responsible behavior;
- Bringing environmental quality in Flanders to the average level of neighboring countries; and
- Preventing damage to nature and the environment, to the extent possible.

Changes in consumption and production patterns have been stimulated by the use of economic instruments. Flanders's regional authorities levy taxes on wastewater effluents, waste, manure and water extraction, and the local authorities apply general environmental or waste levies and quasi-taxes on distributed electricity and gas. The expenditure on pollution abatement and control appears to have been about 0,8 percent of the regional GDP. In Flanders, local authorities have increased their environmental expenditure by 75 per cent since 1991, mainly on wastewater and household waste. Nearly 70 per cent of local environmental expenditure is related to solid waste. The regional environmental expenditure is mostly related to water pollution, in particular investment in wastewater infrastructure.

Les progrès accomplis dans la Région wallonne sont nombreux, comme le montrent les rapports thématiques transmis annuellement à la Commission du Développement durable des Nations Unies. Le Plan d'Environnement pour un Développement Durable (PEDD), outil de planification générale en matière d'environnement, adopté le 9 mars 1995, a joué un rôle important comme moyen de sensibilisation et de mise en œuvre du développement durable. Deux évaluations du PEDD ont été réalisées : une première en 1998 et l'évaluation finale, qui vient d'être clôturée. Ses conclusions sont certes mitigées mais de réels progrès sont à souligner. Néanmoins, le PEDD était peut-être trop focalisé sur l'environnement. Mais la Région wallonne a dorénavant choisi d'agir pour le développement durable au travers de la mise en place d'un « Contrat d'Avenir pour la Wallonie », adopté par le Gouvernement wallon le 20 janvier 2000. Cet outil permet une intégration plus importante de l'économie et du social aux côtés de l'environnement, et renforce deux vecteurs de facilitation que sont la concertation gouvernementale et la consultation des citoyens. Par ailleurs, de nombreux autres outils ont été mis au service de l'application des objectifs d'Action 21 dans notre région (voir infra II. Ainsi, de manière générale, les autorités wallonnes peuvent affirmer que les résultats sont globalement positifs même si des progrès importants doivent encore être réalisés en matière de développement durable et d'intégration des politiques.

Programmes and Projects: *At the Federal level, based on the findings of the Report, a Federal Plan for Sustainable Development has to be decided once every four years by the federal government. The Plan is designed to promote the effectiveness and internal coherence of government policy with respect to sustainable development. The Federal Plan features both normative and indicative planning. It does not have regulatory force but rather indicates the main guidelines of the sustainable development policy, which the Federal Government intends to carry out. The draft Plan is to be developed under the responsibility of the Interdepartmental Commission for Sustainable Development (ICSD) and submitted to an extensive public consultation, amended as necessary and finally submitted to the Council of Ministers for political approval. The ICSD is a entirely new body created by the Act of 5 May 1997. It is composed of representatives of all Federal ministries. The regions and communities in Belgium each have a representative in this commission, which is placed under the chairmanship of the Secretary of State for Sustainable Development. The ICSD (1) is entrusted by the law to publish a preliminary draft of the Plan, (2) must*

organize a broad consultation of the public on this preliminary draft and (3) take into account the results of this consultation in the draft plan, which is submitted by the ICSD to Government for finalization/approval. The ICSD has fulfilled these three missions with the support of the Task Force Sustainable Development of the Federal Planning Bureau. But the role of the ICSD is not limited to the preparation of the Plan. It is also responsible for its implementation and follow-up. Every year, the federal administration (through the federal members of the ICSD) reports to the ICSD on progress in the implementation of the Federal Plan for Sustainable Development and on the progress of the sustainable development policy in their department and other public institutions for which their minister is responsible. The Commission has to co-ordinate these annual reports and can negotiate protocols of co-operation with the different federal administrations to streamline the information wanted from them and the methodology to use in order to facilitate the tasks of its members.

Regarding the issue of "information", the public participation process is clearly defined in the Act of May 5, 1997, and in a Royal Decree for the implementation of article 4 § 2 of the Act. The preliminary Draft Plan was released by the ICSD on the 10th of January 2000. It underwent an extensive and probably unique consultation process for such a detailed document (described in the previous section). From February 1 to March 31 2000, 17.000 copies of the preliminary draft plan were distributed. The preliminary draft of the federal plan was automatically sent to all the members of the federal Parliament, the governments of the Regions and the Communities as well as to the members of the Federal Council for Sustainable Development. The preliminary draft plan could also be examined in all municipal offices and public libraries. A preparatory mailing addressed to all municipalities and public libraries was carried out at the same time as the advertisement of the public consultation. The distribution was also supported by a campaign in the media, organized in collaboration with the Federal Information Service. This included a governmental communication on radio and television, consisting of four spots approaching a different topic, always referring to the preliminary draft plan; two advertisements in national newspapers; and two advertisements in the weekly press. Moreover, two websites making the preliminary draft plan accessible on Internet and aiming at stimulating the debate on sustainable development, were launched. 4.200 copies of the document were printed via the official website (www.cidf.fgov.be), and from February 1 to March 31 2000, the website "Billy Globe" attracted 5.500 visitors (www.billy-globe.org). About thirty other websites supported the public inquiry by indicating a link towards the official website.

The authorities throughout Belgium organized more than 100 public debates, workshops, briefings and presentations of the preliminary draft plan during February and March. The SD experts of the FPB guided dozens of them. They were also included in a list of fifty experts (mostly members of the administrations and associations but also some independent or university experts) who offered their competence to take part in the discussions in certain areas. In this context, a call was made to public interest associations or organizations that could also introduce proposals to obtain subsidies for information projects related to this consultation of the population on the preliminary draft plan. Twenty-five of the 46 proposals submitted were approved and supported financially by the cabinet of the Secretary of State for Sustainable Development. This Public participation in the Planning Process concerns all *the natural or legal persons and, in accordance with national legislation of practice, their associations, organizations or groups* who took part in this Process. No less than 2.104 responses were sent by citizens (89%), organizations, institutions and other associations (11%) to the secretariat of the ICSD. Expressed as a percentage of the consulted population, the rate is of the same magnitude as that of other consultations. Compared to the slightly more than 20.000 copies of the preliminary draft plan which were downloaded and printed, this gives a ratio of approximately one remark for every ten copies distributed. After suppression of some opinions declared inadmissible on formal grounds, there remained 1.887 responses to be analyzed. On the whole, the 1.887 responses contained almost 15.753 proposals or remarks of the consulted population on the various issues included in the 800 paragraphs of the Preliminary Draft Plan.

The key role played by the federal Council for Sustainable Development (FCSD) and the outcome of the consultation of that Council has a totally different status from the one of consultations at the level of individual persons or groups. This official advisory body, composed of representatives of the major social groups and stakeholders, was created in the spirit of Rio to advise the Federal Government on the draft sustainable development plans as well as other proposals for legislation regarding sustainable development. This council is an advisory body for the federal government regarding policy related to sustainable development. In addition, the

Council is conceived as a forum for exchanging ideas, as an initiator of research and an instrument for raising the consciousness of the general public. The council is composed of representatives of civil society as shown in Box 10. All members of the federal government and all governments of the regions and communities can send a representative with the status of observer. The Federal Council can by authority of the law, convoke people from the different ministries when they want to be informed. The Act of 1997 asks the Federal Council to give a motivated advice on the preliminary draft of the Federal Plan. The act prescribes that the federal government has to motivate every divergence of the final plan regarding the advice given by the Federal Council. In this way, the act indicates the importance that is given to the opinion of civil society in the context of the Federal Plan.

Box 10: Composition of the Federal Council for Sustainable Development of Belgium

- 6 representatives of environmental NGOs;
- 6 representatives of NGOs working in the field of development-co-operation;
- 6 representatives of employees' organizations;
- 2 representatives of consumer organizations;
- 6 representatives of employers' organizations;
- 2 representatives of the energy producers;
- 6 representatives of the scientific world (universities).

On the basis of this consultation, the ICSD has prepared a new proposal, again with the support of the Federal Planning Bureau. The final stage of the procedure was the approval by the Government of the final document submitted by the ICDO-CIDD and the publication of the Royal Decree containing this approval. The Plan is available to the public.

The Flemish Region has yet no uniform strategy on sustainable development. However, the different policy developments, when combined and consolidated, can be understood as an un-outspoken Flemish strategy on sustainable development. The various policy developments towards sustainable development are hereunder summarized.

- The 1995 Decree on General Provisions for Environmental Policy sets out the broad orientation of Flemish environmental policy, including the principle of preventive action, the preference for measures aimed at the source of pollution and the precautionary principle, the stand-still and polluter-pays principles. It requires the preparation; formulation and adoption of a five-year Environmental Management Plan. These environmental policy plans (MINA-plans) are based on the principles of the Brundlandt Report, Agenda 21 and the Fifth action Plan of the European Community. Through these plans, full integration of planning is envisaged, and steps (MINA III being prepared) are being undertaken for further development of this integrated approach. This process of integral environmental policy development is further being strengthened by the publication of the biannual reports (MIRA I & II), the publication of yearly (MIRA T), and more recently the environmental scenarios report (MIRA S). The second MINA Plan entered into force in January 1997, and strategies around 13 themes and nine target groups. It is linked to a biennial environmental status report and the annual environmental programme approved by the Flemish Government.
- The most recent Flemish coalition agreement is stressing the importance of incorporating the principle of Sustainable Development as general point of reference for policy development.
- The decree on Administrative Policy, granting the 'Para regional' authorities a main role in policy-making: OVAM for solid waste; VMM for waste water and air (and the preparation of the Environment and nature reports), VLM for land use planning; and VMW for the winning and distribution of potable water.
- The development of environmental policy plans at provincial and municipality level. Point of departure is the local agenda 21. Municipalities can enter into voluntary agreements with the Region of Flanders, establishing municipal environmental covenants. In order to get subsidies, municipalities agree to achieve a series of environmental goals, which go beyond the minimum legal requirements.

- The regional structure plans for Flanders aiming at the preservation, strengthening, and, if possible expansion of open spaces, is regulating the use of the land by setting standards in function of types of usage.
- Various policy plans that deal with the energy sector; the transport sector; and other sectors are being prepared; and
- Voluntary agreements with businesses and other instruments for influencing the behavior of the population for encouraging businesses and the public to act sustainable. The toolbox consists of the following instruments: environmental policy agreements; licenses; policy regulations; levies; subsidies; advertising in the media; direct financing of projects; and the use of manpower.

In all of the aforementioned strategies, the process of a public investigation/hearing is becoming more and more rule. The process as such can be summarized as follow:

- The design of an Environmental Policy Plan (five years cycle) by a group of experts within the administration.
- Public consultation/hearing/investigation in which many institutions including all sectors (both the government and the private sector) and the broader public is involved.
- Discussion of the draft by the parliamentary commission on environment.
- Adoption by the Flemish parliament.
- Implementation.
- Yearly monitoring report submitted to the advisory organs; the Flemish parliament; and the Flemish government.
- Periodic publication of state of the environment reports ‘Report on the environment and nature in Flanders’ (MIRA); ; ‘Report on the environment and nature in Flanders: Themes’; ‘Report on the environment and nature in Flanders: scenario’s’.

Flanders has come a long way in developing and initiating a policy process towards sustainable development. The different initiatives are becoming more concise, and above all, the process in itself enjoys Decree supported status. The environmental administration is very active in drafting and implementing plans and strategies to promote the environmental policies. However, special efforts are needed to ensure that environmental concerns are reflected in all sectoral policy making.

Dans la Région wallonne, le Décret du 21 avril 1994 relatif à la « la planification en matière d’environnement dans le cadre du développement durable » est sans conteste un tournant dans le domaine du développement durable. Celui-ci prévoit en effet la mise en place d’une planification en matière d’environnement en plusieurs étapes :

- L’élaboration d’un rapport sur l’état de l’environnement wallon (EEW) doit comporter «un bilan des efforts réalisés en Région wallonne en matière de développement durable en référence au programme Action 21. . Alors que jusqu’en 1996 l’EEW n’abordait que quelques thèmes par année, l’année 2000 a vu la sortie d’un « Tableau de bord de l’environnement » qui correspond certainement mieux aux objectifs du décret susmentionné.
- La deuxième étape est constituée par le Plan d’Environnement pour le Développement durable (PEDD)(cfr. Annexe 1. Ce plan doit donner une vision à "moyen et long terme" en matière d’environnement et de développement durable, et fait l’objet d’une consultation publique. Le plan est établi tous les 5 ans (1^{er} plan en 1995) et reste d’application tant qu’il n’a pas été remplacé. Il est divisé en 12 cahiers thématiques et contient 257 actions. Son efficacité s’est directement exprimée à travers l’enquête publique et les différentes consultations, mais également par la prise de conscience des responsables des actions. Une dernière évaluation de ses résultats montre que globalement il a eu des effets positifs, tant sur la transversalité des décisions, que sur la rencontre des objectifs d’Action 21 et notamment une meilleure gestion des ressources naturelles.

- La troisième étape est constituée par divers programmes sectoriels. Le Gouvernement doit ainsi établir un programme d'action pour la qualité des eaux, un programme d'action pour la qualité de l'air, un programme d'action pour la qualité des sols, un programme d'action pour la protection de la nature et enfin un plan de gestion des déchets (le premier date de 1991 et couvrait la période 1991-1995, le second s'intitule « plan wallon des déchets, horizon 2010 » et a été adopté en 1998) ; and
- Depuis le 22/01/1998, le Décret a été modifié pour inclure l'élaboration de Plans Communaux d'Environnement et de Développement de la Nature (PCEDN), lesquels constituent l'application du concept d'agenda local 21.

Outre la planification, ce décret a également prévu la création du Conseil Wallon de l'Environnement et du Développement Durable (CWEDD). Cet organe consultatif a pour mission essentielle d'être le reflet de la société civile et des grands groupes sociaux, représentés en son sein, dans les avis qu'il remet. Il est également chargé d'une mission de contrôle de la mise en œuvre du PEDD. Ce conseil regroupe entre autres l'Union Wallonne des Entreprises, les organisations syndicales et représentatives des classes moyennes, les associations des consommateurs et de protection de l'environnement, l'Union des Villes et des Communes de Wallonie, les institutions universitaires et l'éducation en général. En outre d'autres commissions consultatives existent en Région wallonne : Conseil Supérieur Wallon de la Forêt et de la Filière Bois, Conseil Supérieur Wallon de l'Agriculture, de l'Agro-alimentaire et de l'Alimentation, Conseil Supérieur Wallon de la Conservation de la Nature, etc.

Le Décret relatif au permis d'environnement marque également une avancée importante en matière d'intégration. Ainsi, le concept de permis unique permet d'intégrer le développement des activités humaines aux problématiques d'environnement et de gestion du territoire (information, consultation, aide à la décision, autorisations administratives, sensibilisation, prévention des nuisances, études d'impact et recherche de solutions alternatives. Le permis d'environnement apporte également des améliorations à l'évaluation des études d'incidences. Instrument de développement territorial, le schéma de développement de l'espace régional (SDER) concerne l'ensemble des politiques régionales ainsi que celles qui ont une retombée sur le territoire wallon. Outil transversal, il vise à fournir une ligne de conduite pour assurer une cohérence régionale et une inscription de la Région dans le contexte européen (SDEC). Adopté par le Gouvernement wallon le 27 mai 1999, il fera l'objet d'un suivi et d'une évaluation.

Enfin, le Contrat d'Avenir pour la Wallonie adopté par le Gouvernement wallon le 20 janvier 2000, est un projet qui fixe des objectifs définis à un horizon de 10 ans, et marque la cohésion de l'action gouvernementale par la transversalité des actions de chacune des compétences. A travers ce projet d'avenir, le Gouvernement wallon a non seulement souhaité tendre vers une Wallonie active et solidaire sur la voie du développement durable, mais aussi recueillir l'adhésion de toutes les forces de la Wallonie. Il a ainsi rencontré tous les partenaires de la société lors de réunions organisées dans les principales villes de Wallonie en 1999, ce qui a permis la prise en compte de 206 amendements au projet initial. Dans cette approche, l'accent est mis sur les complémentarités indispensables dans les domaines social, économique et environnemental et sur la nécessité de trouver un équilibre entre eux lorsqu'ils entrent en conflit. 20 groupes de mesures ont été déterminées par le Gouvernement. Elles constitueront une première phase d'actions au cours des deux prochaines années. Le Contrat d'Avenir rencontre une lacune du PEDD, à savoir d'envisager le développement durable sous un angle plus large que le seul aspect environnemental. Le Gouvernement vient de réaliser une première évaluation interne au 15 février 2001.

Cooperation: The Act on the Belgian International Cooperation of 1999 defines sustainable human development as the overall objective of the Belgian effort in international cooperation. The act sets the respect for the protection of the environment as one of the 6 criteria to evaluate the pertinence of supported interventions for development. The protection of the environment, together with gender and social economy, is one of the 3 transsectoral issues to be considered in all bilateral interventions. An environmental policy strategy, providing guidelines on how to mainstream the environment in international cooperation policy at all levels is currently being developed and will be presented to the parliament by mid-2002. To promote this process, an informal transsectoral working group on environmental issues, representing all departments of the Directorate General on International Cooperation as well as representatives of the Cabinet of the Secretary of State on International Cooperation and the Directorate on Scientific and Environmental Policy of the Ministry of Foreign Affairs has been set up. The working group will

also assist in the preparation of the Belgian participation in the Conference of Parties of major Multilateral Environmental Agreements relevant to International Cooperation such as the Convention on Biodiversity, the Convention to combat Desertification and the Convention on Climate Change.

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CHAPTER 9: PROTECTION OF THE ATMOSPHERE

Decision-Making: Regarding protection of the atmosphere, the Federal State is responsible for setting environmental product labels and standards, including on energy efficiency, for protection against ionising radiation and for taxes e.g. on transport and fuels, for follow-up and co-ordination of environmental policy on an international level. The latter is the case for treaties in which the federal state and the regions share environmental competences (mixed treaties). The three regions are competent for all other environmental matters not within the competence of the Federal State i.e.: air quality standards, environmental permits, emission inventories and the monitoring of environmental quality.

The Federal and the Regional Governments actively support the development of a more progressive European Union (EU) legislation for control measures on ozone depleting substances (ODS) and are actively involved in EU working groups concerning, for example, illegal importation of chlorofluorocarbons (CFCs). In coordination with the Regional authorities, a system for monitoring and data gathering on imports, exports and use of ozone depleting substances is being put into place to improve the waste management of used ODS (recovery, recycling, and destruction) as well as the control of illegal importation of CFCs. A transition strategy is being developed for CFCs containing free metered dose inhalers (MDIs). Moreover, a number of studies have been undertaken on ozone depletion.

Belgium follows EU Directives on air quality. Concerning climate change, no specific legislation is currently in place, although legislation in the fields of energy, transport and atmospheric pollutants has a mitigating impact on greenhouse gas emissions. A co-operation agreement between the Federal State and the Regions is under preparation, which will provide the main legal basis to make the implementation of climate change policy in Belgium operational, as is called for in the Federal Plan for Sustainable Development (FPSD) adopted by the Federal Government in 2000. The follow-up of international environmental policy is dealt with in the framework of the Committee for the Co-ordination of International Environmental Policy (CCIEP). Similarly, international energy policy is covered by the State-Regions Energy Consultation (CONCERE/ENOVER). Both bodies have specialised expert groups to deal with climate change and atmospheric pollution.

The main means through which stakeholders participate in decision-making processes on the federal level is the Federal Council for Sustainable Development (FCSD). The FCSD is an advisory body that advises the Belgian federal authorities about the federal policy on sustainable development. In addition to its advisory duties the FCSD acts as a forum to encourage the sustainable development debate, for instance by means of organizing symposia. Experts in the area, representatives of government and civil society, and a wider public have the opportunity to explain their point of view and to dialogue. The members of the FCSD represent various social organizations: environmental organizations, development organizations, consumers' unions, trade unions, employers' federations, energy producers and scientific experts. Federal and regional government representatives and delegates of environmental and socio-economic advisory bodies have an advisory vote in the meetings. Eight working groups prepare the FCSD advices and forum activities, including groups on Energy and Climate, Federal plan, and Product standards.

Programmes and Projects: The so-called National Programme for the Reduction of CO₂ Emissions (NPRE), adopted by the Federal and Regional Governments in 1994, guided climate change policy up to 2000. This programme was aimed at reducing CO₂ emissions over the 1990-2000 period with 5 %. This programme consisted of 14 sets of new measures in addition to a number of existing actions, which had already been taken for purposes other than CO₂ emission abatement, i.e. fiscal measures, research and development measures, and measures in electricity and steel production. Policy plans have also been adopted for the prevention of tropospheric ozone pollution (1996, regularly updated). The Federal Plan for Sustainable Development (FPSD) calls for the development of a *National Climate Change Plan*. This National Climate Change Plan is currently under preparation. Its completion is planned for December 2001. Additionally, the FPSD mandates the development of a number of other policy plans in areas closely related to climate change policy. These other plans concern acidification and ozone, mobility and the reform of energy and transport taxation. Obviously, these plans will

strongly interact with climate change policy. A number of policies aimed at reducing greenhouse gas emissions are already set forth in the FPSD itself and relate to the energy sector, transport and mobility, agriculture and science policy.

On the EU level, Belgium advocates the development of an ambitious set of so called *common and Co-ordinated policies and measures* for reducing greenhouse gas emissions. These cover the development of an EU scheme for CO₂ emissions trading to be operational by 2005, and the harmonisation of taxes on energy products as well as other measures, including those to be developed in the framework of the European Climate Change Programme. Domestic action, including EU measures, constitutes a significant element of the effort to meet emission limitation and reduction commitments. Nevertheless, it will be supplemented by the use of the Kyoto flexibility organisms. The exact extent to which Belgium will use the Kyoto Mechanisms in its climate change policy is still subject to further examination and depends on i.e. the marginal cost of domestic measures and the cost of AAUs, ERUs and CERs on the international market, but will not exceed 50 % of Belgium's commitment to reduce emissions. In preparing the use of these mechanisms, the Federal Plan for Sustainable Development (FPSD) requires that an institutional and legal framework be put into place, aimed at building capacity and know-how within government and private sector, i.e. through setting up pilot projects.

All regions have air quality standards, general emission limit values and sectorial standards for a large number of industrial processes. In the Flemish region these standards are taken up in the integrated Flemish environmental legislation *Vlarem*. Depletion of the ozone layer, climate change and transboundary air pollution (with environmental problems as acidification, photochemical pollution and scattering of hazardous substances) are major issues in the MINA-plan 2, the Flemish Environmental Policy Plan 1997-2002. The plan contains numerous actions towards different stakeholders and polluters. Some examples of major actions are emission reduction programmes for industrial sectors, more ambitious emission limit values, cooperation with the federal authorities on product standards for heating installations and solvent containing products, specific measures in polluted areas, introduction of environmentally sound vehicles, measures on energy efficiency, mobility plans, etc. A new plan will cover the period 2003-2007. The Brussels Region is finalising (end of 2001) the Air Plan (2001-2010), in conformance with the Brussels Ordonnance for the evaluation and improvement of the air quality in the Brussels Region. This plan constitutes the strategies, priorities and actions that the region will undertake in the coming ten years.

In the Walloon region, air quality standards are taken up in regional decrees. Sectorial limit values for industrial processes will be taken up in the integrated environmental legislation (also called environmental permits), which is under preparation. Climate change, depletion of the ozone layer and transboundary air pollution (referring to environmental problems such as acidification, photochemical pollution and scattering of hazardous substances) are major issues in the "Plan Wallon de l'air" which is under preparation.

Status: Belgium faces various challenges in the areas of greenhouse gas emissions, ozone depletion and air pollution. When implementing current legislation and the Gothenburg protocol, the area of ecosystems with acid deposition above their critical loads for acidification will mount up to 110000 hectares in 2010.

Population ozone exposure indices will mount to 29 million persons.ppm.hours. Vegetation exposure indices will be 130000 km² excess ppm. hours. Since 1990, greenhouse gas emissions have continuously increased, reaching 155,0 Mt CO₂ eq in 1998, i.e. an increase of 13,4 % compared to 1990. Compared to other Parties to the Kyoto Protocol, Belgium has only a very limited potential for the use of domestic carbon sinks from forests to reach its commitments.

Capacity Building, Education, Training and Awareness-Raising: Two brochures have been published, explaining the two following issues in a comprehensible way for the broad public: climate change and tropospheric ozone. During the summer (june-july-august 2000) a campaign was held to promote public awareness of the mechanisms underlying the formation of tropospheric ozone and how to prevent this problem. The campaign consisted of TV-programmes, radio-commercials and messages on electronic panels along roads. The Federal Department of the Environment website also provides an introduction to the issue of climate change, its causes and consequences, a description of Belgian and international policy and a 'clearing house' type section containing a broad selection of relevant national and international official documents and legislation (this website needs updating, in order to take into account the latest developments in climate change policy).

By means of diverse publications the Federal Office for Scientific, Technical and Cultural Affairs (OSTC) is trying to provide a broad public with information on the scientific knowledge with respect to the climate problem and the climate policy. The Walloon Region published the Atmospheric Atlas in 1999 containing a chapter on climatic change. The OSTC contributed in 1998 to the action Global (Ex) change that is a "science by mail project" for 14 to 18 year old youngsters. Two teenagers participated in the Belgian delegation to the Youth Conference during UNFCCC COP.6 in November 2000 in The Hague. At COP.7, two youngsters joined the Belgian delegation.

The Royal Belgian Institute for Natural Sciences' organised together with the OSTC and other federal scientific institutions, an exhibition on "living and surviving" in which also the atmospheric processes and climate change problems (including their socio-economic aspects) were tackled. The exhibition took place from October 1998 until June 1999 and was basically aimed at a young public 15-18 years old. The OSTC promote the scientific and technological collaboration with Central and Eastern European countries and developing countries through the financing of joint research and demonstration projects and by offering research grants. These actions are executed within the scope of bilateral agreements between the BLEU and the country concerned or are part of valorisation actions within the scope of the OSTC research programmes.

Information: In 1994, the Flemish, Walloon and Brussels regions signed a co-operation agreement to survey emissions of polluting gases and to monitor episodes of enhanced air pollution. The Interregional Cell for the Environment (IRCEL-CELINE) was created to implement this agreement. IRCEL has a mandate from the three regions to, inter alia, monitor ozone levels, report on the results of the measurements, inform and alert the population (if necessary), publish forecasts for the next three days and to prepare the reports concerning ozone in the atmosphere required under directives of the European Union. There is also a cooperation agreement between the Federal government and the regions concerning the coordination and reporting of all data related to air pollution. IRCEL-CELINE is also in this agreement interlocutor and is charged to decide whether to inform or alert the public about air pollution levels. Belgium reports inventories of emissions and removals of greenhouse gas emissions, ozone precursors and SO_x to the European Commission under the so-called Monitoring Mechanism (Decision 1999/296/EC) and to the UN FCCC Secretariat under articles 4 and 12 of the Framework Convention on Climate Change. Data for compiling these inventories are collected by the Regions and compiled by IRCEL-CELINE, under the guidance of a Working Group composed of regional and federal experts and officials. The methodologies used conform to the guidelines set by the Conference of the Parties of the Climate Change Convention (IPCC guidelines, Common Reporting Format) and the guidelines adopted by the EU Committee under the Monitoring Decision.

As mentioned earlier, a new co-operation agreement between the Federal State and the Regions is under development, on the implementation of the new Climate Change Plan. This soon to be finalised agreement will i.e. set up a National Climate Change Secretariat which will play a central role in the collection and reporting of data related to climate change policy, including emissions inventories, policy related information and projected emissions. All Regions have inventories of their emissions. The Walloon region has global observing systems, an earth observation platform, an earth observation help desk, a sustainable development information system (ISDD), earth observation and geo-information systems, and integrated and dynamic oceanographic data management (IDOD). Nationally and regionally, information is available on the Internet.

Research and Technologies: The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) is in charge of the scientific aspects of Sustainable Development at the federal level. Some projects in research and technologies include the following: In 1995 the Council of Ministers approved the construction and exploitation of the VEGETATION programme. It is a joint initiative by the EC, Belgium, France, Italy and Sweden. The instrument was launched on March 24, onboard the SPOT 4 satellite. Vegetation products are used to monitor the world vegetation cover, deforestation and desertification, to forecast agricultural production, to study effects of climate change and in combination with ecosystem models to estimate carbon sequestration. The space department of OSTC established a national research programme: "vegetation scientific support programme", funding in particular feasibility studies in the area of forest and savannah fires, land cover changes, wetland monitoring, the improvement of the vegetation processing chain. The OSTC contributes to the study of transboundary air pollution research through its research programmes and activities. The OSTC is in charge of the Belgian contribution to the

European Space Agency (ESA). With respect to the transboundary air pollution, GOME on ERS-2 and GOMOS, MIPAS, SCHIAMACHY on ENVISAT are the most important instruments. These instruments allow measurements of trace gases, the ozone concentration and the changes in the atmospheric composition. Belgium is also taking part in the DUP (Data User Programme) of ESA, looking for the operational cartography of trace gases.

Financing: For the years 2001 and 2002 the budget for activities concerning the protection of the atmosphere of the Federal Department of the Environment was reduced a total annual sum of ca 5,5 million BEF (approx. € 136000,-) not counting the overhead costs, housing, personnel costs, which are covered elsewhere in the budget and are difficult to separate). Personnel were increased from one to three university level staff members. Contributions to the Core Budget of the UNFCCC (approx. 121700 US\$ for the year 2001) continue to be paid by the Federal Department of the Environment, pending the entry into force of a co-operation agreement on sharing these costs with the Regions. The budget for atmospheric process research within the Global Change and Sustainable Development programme amounts to 135 MBEF for a 4-year period. Several programmes, actions and projects from companies and sectors exist under different forms. The average annual budget of the Flemish region for air quality monitoring, emission inventory and policy studies is ca. 160 million BEF. The average annual budget of the Brussels region for air quality monitoring, emission inventory and policy studies is ca. 60 to 70 million BEF. The average annual budget of the Walloon region for air quality monitoring, emission inventory and policy studies is ca. 100 million BEF.

Co-operation: The OSTC promote the scientific and technological collaboration with Central and Eastern European countries and developing countries, through the financing of joint research and demonstration projects and by offering research grants. These actions are executed within the scope of bilateral agreements between the BLEU and the country concerned or are part of valorisation actions within the scope of the OSTC research programmes. In Belgium, the Vienna Convention on the Protection of the Ozone Layer (1985) was signed in 1985 and ratified in 1988. The Montreal Protocol (1987) was signed in 1987 and ratified in December 1988. The London Amendment (1990) was signed in 1990 and ratified in October 1993. The Copenhagen Amendment (1992) was signed in 1992 and ratified in 1996. The latest report to the Montreal Protocol Secretariat was prepared in 1996. Through the Directorate General for International Cooperation (DGIC), Belgium contributes to the multilateral fund of the Protocol, which was established to enable developing countries to comply with the agreement. This contribution amounts to 1,7 million EURO yearly.

The United Nations Framework Convention on Climate Change (UNFCCC) was signed on 4th June 1992 and ratified on 16th January 1996. The Kyoto Protocol was signed on 29th April 1998. Belgium will ratify the Protocol together with other EU Member States and the European Community as a whole. The national procedure for ratification of the Kyoto Protocol is nearing finalisation and will conclude in time for the entry into force of the Protocol by the WSSD⁹. A major part (approximately 40%) of Belgian contribution to the Global Environmental Facility is spend on projects to counter atmospheric pollution and climate change. Through the budget of DGIC, Belgium contributes with 1,66 % to the capital of GEF-2, amounting to 7,73 million EURO per year. DGIC also contributed 347000 EURO to the World Bank Project "Clean Air Initiative Africa". The Convention on Long-Range Transboundary Air Pollution (1979) was signed in 1979 and ratified in 1982. The Cooperative Programme for Monitoring and Evaluation of the Long-range Transmission of Air Pollutants in Europe Protocol (EMEP) (1984) was signed in 1984 and ratified in 1987. The Helsinki Protocol on Sulphur Dioxide (SO₂) (1985) was signed in 1985 and ratified in 1989. The Sofia Protocol on Nitrogen Oxides (NO_x) (1988) was signed in 1988 and ratified in 2000. The Geneva Protocol on Volatile Organic Compounds (VOCs) (1991) was signed in 1991 and ratified in 2000. The Oslo Protocol on Sulphur Dioxide (SO₂) (1994) was signed in 1994 and ratified in 2000. The Aarhus Protocols on Persistent Organic Pollutants (1998) were signed in 1998. The Gothenburg Protocol on Acidification, Ground Level Ozone en Eutrofication (1999) was signed in 2000.

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⁹ Three out of five parliamentary assemblies have already adopted legislation accepting the ratification, one regional parliament is currently discussing the ratification and to the remaining regional parliament, government is expected to submit a Bill concerning the ratification very soon

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

Decision-Making: In Belgium, the Regional Governments of Flanders, Wallonia, and Brussels Capital City are each responsible for the integrated planning and management of land resources, including territorial planning. The Regional Governments are carrying out a number of activities to manage land resources in a sustainable manner, including formulating appropriate policies, improving information systems, public awareness campaigns, and pilot projects. The decrees on land planning and on town and country planning and the existing land use plans encourage the biodiversity by protecting the territories of the region allocated to nature and forest. The recent decree on nature is geared towards the protection of biodiversity and nature in the non nature-areas. The fresh water resources are legally protected by the decree on town and country planning (indicating water capture zones on the land use plans), and the decree on the protection of drinking water (specific protection of the water capture zones). In the Wallonia region there are regulatory and market-based measures and new financial tools. The first evaluation of the Land Master Plan for Flanders is being prepared.

The evolutionary options of Regional policies concern the management of land resources in the following ways: define territorial planning and infrastructural zones and their relationships; define town and village planning, in order to reinforce the density of urban areas and obtain more urban and rural specificity; organize parsimonious management of soil and natural resources while allowing for harmonious lifestyle development; and propose the location of transport infrastructure, a hierarchy of transport modes, and the implementation of complementarity between them. The former and the recently approved new law on town and country planning provide for the establishment of regional, provincial and municipal committees on town and country planning in which representatives of major groups, local communities and citizens are represented in all regions.

Programmes and Projects: No information available.

Status: The Flemish Environmental Policy Plan (MINA Plan) proposes to create 3 000 hectares of forest reserve by 2002; the forestry sector is one of the target groups of the plan, which also proposes to formulate and implement a forestry action plan. In addition, the Flemish Government expects to convert, by 2002, 10 000 hectares of agricultural land into forest under the provisions of EU regulation 2080/92 which provides subsidies to that end. Flemish region: The expansion of human settlements is fairly restricted and under control in the actual spatial planning processes, in favor of the protection of the open space, landscape and wetlands. The forest decree and the coastal area decree are other tools for the conservation and protection of forest and coastal areas. By means of the new decrees on land planning and on town and country planning, the best possible land use and sustainable management of land resources is better assured than ever before. The recently modified forest decree prohibits the transformation of forestland into all other use. Land ownership and tenure rights are fairly ensured. Ownership and tenure rights are fully ensured by national legislation. The interactions between the social policy and the land use policy in the Flemish region are underlined by a number of priorities in the implementation of the Land Master Plan for Flanders. To support the realization of this goal the government is given a number of instruments. One of these instruments is the 'priority right on buying properties' for the public authorities, which exists within certain areas of the city centers. The expansion with new areas for housing in the implementation of the land planning regulation in Flanders is exclusively reserved for social housing projects. Other policies and strategies include measures on hazardous waste and rehabilitation of contaminated sites.

Wallonia region: The action in this field is multi-faceted, but it is mainly being carried out pursuant to the Wallonia Code of the Regional planning, Town planning and Inheritance (CWATUP). The Wallonia Government in 1999 adopted the Scheme of Development of Regional Space (SDER) and Communal Master Plans (SSC) and Communal Land use Plans (PCA, Plans Communaux d'Aménagement). Brussels region: The Brussels region is an essentially urbanized area, where urban policies are relevant and not so much land resources policies.

Capacity-Building, Education, Training and Awareness-Raising: Education and training on integrated approaches to land management, institutional strengthening, and strengthening of technological capacities are important activities which are not being implemented by all Regional Governments.

Information: There is sufficient access to all the information necessary for making sound decisions. This information is disseminated at the local level by means of maps and texts on the different subjects. The different land inventories are performed with the most recent and appropriate techniques: satellite image processing and aerial photograph surveys. Existing maps are digitalized and put into a geographic information system. The regional governments have all developed sufficient and adequate indicators on integrated land management and sustainable use of land resources. The report on the State of the Wallonia Environment makes it possible to evaluate the evolution of land allocation. In the near future, indicators for our region will be applied, which will allow an even more effective follow-up. A lot of data are available, some of which are included in maps and atlases. Nevertheless, there is a need for continuing the inventories and research. The collaboration of the National Institute of Statistics (INS) is necessary. Meanwhile, The evolution of land allocation can be followed in the reports on the State of the Walloon Environment. The adoption of indicators for our area will allow an even more effective follow-up. The State of the Wallonia Environment is widely publicized (some reports are on the Internet). The future indicators, once worked out with the assistance of the Center of Studies for the Sustainable Development of the Institute of Environmental Management and Regional planning (IGEAT) of the Université Libre de Bruxelles, will make it possible for all the actors to have access to reliable and useful data. There are, inter alia, indicators on: pressure from urban centres, the number of applications for permits in the Wallonia Region, evolution of the physical occupation of the land, etc. It is currently possible to obtain some information on the web site of the Directorate General for Land use, Housing, and Cultural Heritage.

Research and Technologies: In the Wallonia Region, the administration of the Land register makes it possible to follow the evolution of the property situation. A land occupation map was worked out in 1989. Communal Numerical Photographic Plans are being carried out. There are also "orthophotoplans", based on aerial pictures.

Financing: In Flanders, regional expenditure on nature conservation has risen significantly in recent years; in 1997, the allocation (from the administrative budget and the MINA Fund) amounted to BF 2 123 million; BF 867 million of this was for land acquisition and BF 200 million on subsidies for local nature development plans. In addition, BF 104 million was spent over the five-year period up to 1996 on forestry subsidies. In addition, subsidies are available to private forest owners who provide public access to their properties; as of October 1997, a forestry action plan setting out the region's forestry objectives was in preparation.

Cooperation: At the federal level, the Belgian cooperation supports a large number of projects on the management of land resources using an integrated approach. The projects cover a large spectrum of activities, from agricultural reform (e.g. the BIARSP project in the Philippines), land use planning (e.g. the land use project in Vietnam), combating desertification (e.g. the Tunisian integrated project for combating desertification and erosion), to water management and irrigation. The Regional Governments participate in a number of European initiatives, such as the elaboration of a framework for the development of the European Area. They participate in a number of inter-regional projects within the framework of the European region and have cooperative agreements with the cities of Berlin and Beijing.

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CHAPTER 11: COMBATING DEFORESTATION

Decision-Making: The Regional Governments in Belgium are the focal points of authority and competence with respect to managing forests, with forest services being quite decentralized. For the most important questions of the Flemish forestry policy, the Flemish Minister in charge of forestry must consult with the Flemish High Council for Forests. This advisory body is composed of private forest owners, scientists and representatives of forestry NGO's, forestry exploitation companies, tree nurseries... In this way, participation in policy and consultation is guaranteed. The participation of all stakeholders in the decisions related to forests is ensured by the Wallonia Higher Council of the Forest and the Wood Chain, which has an advisory role, either at the request of the Minister in charge of forests, or at its own initiative. Similar consultative bodies exist for fishing and hunting as well as nature conservation with cross-representation between them. Private owners are represented within companies and management groupings, as well as within the Trade union of the Forest Owners of Wallonia. Public owners, whose forest properties are managed by the Division of Nature and Forests, take an active part in the elaboration of the management plans for their forests and in their implementation. Since 1992, several amendments and specifications have been adapted (for example public accessibility, regional forest inventories, forest reserves, support for the private forest sector). A number of Regional laws ensure that conflicting uses of forests do not occur. The right of property is a basic right covered by the constitution. In forest law there are certain restrictions on the use of forests, but these are meant to protect the forests and their sustainable development. The item of customary and traditional rights of indigenous people is not relevant to Belgium. In 1993, the Flemish Government developed a long-term strategic forestry plan. A Forest Action Plan is due to be approved. National as well as international developments (eg. IPF/IFF process and MCPFE-process led to considerable changes in Flemish forest policy in the last years (e.g. development of management unit level criteria for sustainable forest management, regulations on the stimulation of cooperation structures between private and public forest owners). Private forest owners, rural cooperatives, local authorities and communities, youth, and NGOs are among those playing an important role in sustainable forest management. Women, however, do not play a role as a special group in forestry. Overall social actions for equality and emancipation include the forest sector. Consultative mechanisms have been created to include representatives of wood sector stakeholders, such as the ministerial advisory councils in both the Walloon and Flemish Regions.

Programmes and Projects: Since the United Nations Conference on Environment and Development (UNCED), a number of forest-related activities have been fully addressed by the Regional Governments. This includes promoting extension services, public awareness campaigns, research projects, regional forest inventories based on sampling in a systematic grid, geographical information systems, remote sensing, National plans, multiple roles for forests, land classification, and environmental impact assessments (EIA). . In the Flemish region forest policy has participated in several important policy integration projects such as the Structure Plan Flanders (land use planning), the strategic Flemish Environmental Policy Plan 1997-2001 (MINA-Plan 2) and the Rural Development Plans. In these plans the enlargement of the forest area in Flanders is connected to the regional strategy to combat climate change and to enhance the livability of highly urbanized areas. Another example is the action 7 of the MINA-Plan 2 in which the Flemish government will develop specific measures to enhance the carbon storage function in materials and sinks, such as timber. This can lead to measures to promote the use of timber as a renewable material that contains carbon. At the moment the Flemish Government runs several projects in the forestry sector in execution of employment plans for young people, unskilled laborers and long-term unemployed. With the support of the whole forest sector a task force started in 1996 to work out practical proposals in order to generate jobs in the forest sector. The Forest Service supports the FSC-certification system and the "Forest and Timber"-campaign of WWF-Belgium. At the moment three "domanial" forests (owned by the Flemish region) or 4.298ha are FSC certified as pilot projects. The aim of this project was to gather experience with this new instrument and to make the certification process more concrete for every interested party.

The Environmental Plan for Sustainable Development of the Walloon Region has given particular attention to forest issues and related issues such as hunting and biological diversity. The implementation of this plan is regularly evaluated, under the Walloon Council for Sustainable Development, in which all stakeholders can participate.

Status: The primary obstacle to reforestation and afforestation efforts is the attitude of agriculturalists, the limited availability of land areas, and the limited financial rent prospects of forest estates. This is aggravated by the long-term nature of forest investments, high maintenance charges, inappropriate taxation structures, forest fragmentation and silvicultural practices not always adapted to the site. Walloon's forests do not suffer significantly from deforestation. In fact, the forest cover has increased from 300,000 ha to 531,000 ha over the past 150 years, with a forest cover of 32%. Although the Flemish Region's forests have also shown a continual increase in area, particular attention is given to afforestation and forest protection in urban areas and around historically old forests. Flanders still remains a region with low forest cover (about 8%).

Capacity-Building, Education, Training and Awareness-Raising: Efforts have been undertaken to improve the qualifications of forestry personnel. The Flemish and Walloon Regions have institutions, which focus on forestry research and high level education (universities). Training and extension services are important in the three Regions. The Educational Forestry Centre Groenendaal of the Flemish region participates in a variety of activities. Since 1979, the Flemish Forest Service has been organizing every first or second week of October an information campaign called "the Forest Week". Each year a specific theme is brought to the attention of forest owners, forest managers, the public at large and schools by means of excursions, expositions and other public events. The Flemish Forest Service manages 10 forest visitors' centres. The Forest Service also publishes several brochures about forestry items. The Institute for Forestry and Game Management publishes an annual activity-report.

In the Wallonia region the actions of the authorities relating to the private forest have been ongoing for ten years: they consist primarily in incentives (conditional subsidies) and training (in collaboration with private owners organizations), as well as measures supporting the co-operation between owners. The Division of Nature and Forests publishes technical reports on forests and nature for owners and managers, and for general public.

Information: Belgium participated on a voluntary basis in the testing of the indicators for sustainable development, co-ordinated by the CSD. In the framework of the MCPFE Belgium contributed with a report on the use of criteria and indicators for sustainable forest management, which was presented at the third ministerial conference on the protection of forests in Europe (Lissabon, 1998). Policy information and monitoring results are published in official publications and/or in specialized magazines. Some are made available via the Internet. Flemish Region: Some indicators about forestry are integrated in the "Flemish Environment and Nature Report" (MIRA) and the overall Flemish Regional Indicators (VRIND) which analyze the whole spectrum of the competencies of the Flemish government. Official publications of the Ministry of the Flemish Community and the Flemish Government can be ordered via the Internet. Wallonia Region: The Wallonia region elaborated a detailed report on the basis of the 6 criteria and quantitative and descriptive indicators taking into account Pan-European criteria in the policy-making. The Ministry of the Wallonia region frequently publishes official documents or articles in specialized magazines concerning forest sustainable management in the region. Forest inventories have been prepared for the three Regions. They are completed annually for the Brussels Capital City Region, and about every ten years for the Flemish and Walloon Regions. Walloon's forest inventory is presently being updated, and sustainable management and biodiversity indicators have been integrated in the observations and measures since 1997. The first overall Flemish forest inventory programme started in 1996 and the first report will be published in early 2002.

Research and Technologies: The Institute of Forestry and Game Management was founded in 1991 and wants to be the central institute in Flanders, internationally recognized, responsible for scientific research and scientific services, concerning greenery, forests, fauna, fish stock and their management. Today's scientific research focuses on forests (site research and forest development, forest ecology, forest protection, selection and breeding of forest tree species), fish stock and fauna (game management). Research topics are identified in response to questions from the forestry, inland fishery, nature conservation and hunting sectors, as well as from other research institutions. Other research is carried out in support of regional and European policy making. The Institute has access to its own library, nurseries, seed orchards, climatised greenhouses, laboratories for in vitro, pedological, phytopathological, genetic and zoological research, a measuring unit for air pollution, a fish breeding center. Results of Research activities are disseminated through articles in national and international journals, participation in seminars and meetings, organization of study tours, excursions, advice, as well as through own publications: scientific reports, the annual activity report and the periodical "Mededelingen".

Two Flemish Universities (Ghent; Leuven) have specialized courses in forestry and conduct research on a wide variety of scientific and policy relevant issues. In Wallonia, a Framework Forest Research Agreement has been convened between the Division of Nature and Forests and the forest entities of the Universities of Gembloux and Louvain-la-Neuve. This agreement comprises a five year research program, dealing mainly with forest practices and management research, and a annual budget of about 1 million €. This program is launched in complement with the work of the Regional Center for Nature, Forest and Wood Research.

Financing: The 2001 budget for forest management (wages and research not included) was Bfr 1.5 billion (EURO 37.1 million). In 1995, the budget was Bfr 1.15 billion (EURO 28.51 million). [Walloon budget in 2001 (wages not included) for forest: 570 Mbef; Nature: 645 Mbef; hunting and fishing: 145Mbef]. The National Revenue from the forest sector (including wood processing industries) is approximately Bfr 117 billion (EURO 2.9 billion). The Regional Governments provide subsidies using objective criteria for the sustainable management of forests.

Cooperation: Belgium participates actively in a number of regional and international organizations on forest policy, such as the EU, BENELUX, and International Tropical Timber Organization (ITTO). Belgium also participates actively to develop criteria and indicators for the sustainable management of forests in the Ministerial Conference for the Protection of European Forests. The Federal and Regional Governments carry out a number of programmes and projects in other countries on a bilateral basis, such as forest information systems with Morocco, and afforestation and forestry research projects in China. Special attention is given to countries with economies in transition. Belgium has actively participated at the IPF-process the implementation of other proposals for action is rather weak, e.g. international co-operation in the field of forestry. The Belgian support for international forest programmes stands in sharp contrast with the recent evolutions and policy both at the European level and in some neighboring countries. In the colonial period Belgium had built up a strong expertise in forestry, especially in Congo. In the eighties the Belgian Ministry of Development Co-operation still supported several projects in forestry both on a bilateral basis, as well as multilaterally through the FAO.

The most important ones were afforestation, forestry research and agroforestry projects in the Andes, in Central Africa and in Cape Verde. In the nineties however, the assistance of the Ministry of Development Co-operation to forestry programmes and projects dropped sharply despite commitments at the Rio-summit. Following international trends, there was a shift away from large afforestation schemes. Parallel to this, major forestry projects in Central Africa were interrupted due to the political situation in the great lakes region. A reorientation of priorities towards poverty reduction and participatory approaches unfortunately resulted in a diminishing focus on forest issues. With the current reform of Belgium's international co-operation, the environment was withheld by law as one of the three transsectoral themes, together with social economy and gender. An environmental strategy determining objectives and priorities for Belgium's international co-operation policy is currently in preparation and will address the problem of deforestation within the context of sustainable forest management and the fight against desertification. Belgium recently submitted a voluntary report in preparation to the second session of the United Nations Forum on Forests, which is to be held in Costa Rica (March 2002).

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CHAPTER 12: MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

Decision-Making: The Directorate General for International Cooperation (DGIC) of the Ministry of Foreign Affairs is in charge of elaborating bilateral development projects and of coordinating Belgian contributions to multilateral interventions through government-to-government agreements or agreements with international organizations. DGIC, which has a long-standing record of action in the field of combating desertification and drought within both frameworks, especially in Africa, functions as the focal point for desertification issues. It organizes periodic meetings with the scientific and academic society, as well as with all interested NGOs of Belgium in order to prepare upcoming international meetings or to discuss the outcome of past ones. In this way professional colleagues are kept informed while having the opportunity to provide their input to the negotiating process. At the same time this group represents the Belgian network of desertification experts and specialists that is continuously updated and connected to other networks worldwide. Many members of this group are included in the CCD's Roster of Independent Experts.

Programmes and Projects: From an institutional viewpoint, Belgium, through DGIC, is active on the direct bilateral level (government cooperation), the indirect bilateral level (NGOs, academic and scientific institutions), the bilateral/multilateral level (actions implemented by multilateral institutions for earmarked contributions) and the multilateral level (core funding). While development co-operation activities on the bilateral level are limited to 25 partner countries, multilateral agreements and programs often cover a wider geographical setting. Regarding their nature, activities can be characterized as purely scientific when specific research is conducted on desertification topics that occur worldwide, as research and development activities when scientific research is being directly applied in development projects or as specific development projects when field projects use long-known techniques.

Status: the above mentioned decision-making process, as well as the different types of programmes and projects is all fully operational. DGIC, as the focal point for desertification is currently fine-tuning the administrative and statistical follow-up of its activities in this domain, in order to enhance its reporting of this issue. The developments within the UNCCD have also influenced and widened the range of DGIC's activities by e.g. financing the preparation of National Plans of Action (NAPs) and the organization of donor Roundtables for the funding of NAPs in partner countries.

Capacity-Building, Education, Training and Awareness-Raising: Target populations of development projects in the field of combating desertification and drought are mainly situated at the grass-root level, with increasing attention being paid to women. Local governments are the focus of capacity building through an objective oriented project cycle which includes all major groups in the decision making process, thus promoting the participatory approach at all levels. The project cycle also ensures that all types of bilateral projects include the aspects of capacity building, education, training and awareness raising.

Information: Through DGIC's administrative channels, geographical desks at headquarters, development cooperation offices overseas and Belgian embassies abroad have been informed about the existence of CCD and its current situation, as well as about the Belgian activities in the field of combating desertification. Through this mechanism Belgium intends to contribute to making the CCD known to an ever increasing public, within its own administrative structure and outside of it. As a result it is hoped that more attention will be paid to the CCD and more importantly, to the problem of desertification and drought itself, when programming future bilateral cooperation actions.

Research and Technologies: Several Belgian universities are involved in the research of various aspects of desertification and are developing and transferring technology through research and development projects supported by DGIC. Among a wide variety of topics the following can be mentioned as a sample: detection and monitoring of environmental degradation and of soil salinity, assessment of potential and actual erosion risks, ethnobotany and vegetation management in the combat of desertification, physiological responses of plants to

drought, use of windscreens for controlling wind speed and sand transport. Many of these R&D initiatives concentrate on the development of user-friendly procedures and all include capacity building and training components.

Financing: Since the issue of desertification is increasingly being dealt with in the context of integrated programmes that combine the combat of poverty, rural development and food security. Taking into account the direct bilateral aid, the financing of NGOs, multilateral contributions (IFAD, FAO, GEF, UNEP, UNDP, UNCCD), the support to Belgian universities and international research institutions (CGIAR), a conservative estimate amounts to 22,5 million EUR each year.

Cooperation: After having participated in the Intergovernmental Negotiating Committee for the elaboration of an international convention to combat Desertification in those countries experiencing serious drought and/or desertification, particularly in Africa (INCD), from the very beginning, Belgium was able to accede as a Party to the United Nations Convention to Combat Desertification (UNCCD) on June 30, 1997. As a result of the Convention, the Belgian scientific community has established a National group of desertification experts to be included in the future European network that will contribute to the Committee on Science and Technology (CST) of the Convention. Belgium is also active on the international level when it comes to matters of science and technology through its participation in the (informal) Expert Group on Desertification (EGD) of the European Union. Another field of action currently underway is the set-up of the European network of desertification experts and specialized institutions. Until now a total of 276 experts, academic, scientific and technical organizations have signed up and the list is continuously being updated. Through this mechanism the fulfillment of the broad objectives will be greatly facilitated. In addition to this, coordination and cooperation regarding the more technical and scientific issues of the combat against desertification will be enhanced.

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CHAPTER 13: MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

Decision-Making: No information available.

Programmes and Projects: No information available.

Status: No information available.

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

Information: No information available.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: No information available.

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CHAPTER 14: PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

Decision-Making: Agricultural and rural development policies in Belgium are the shared responsibilities of the Federal Ministry of Small Enterprises, Traders and Agriculture, the Ministry of the Walloon Region and the Ministry of the Flemish Region. The federal Minister of Agriculture is represented in the Federal Council for Sustainable Development. The reformed Common Agricultural Policy provides the basis for agricultural production methods compatible with environmental protection. A number of activities has been implemented in the field of agriculture, such as regulation (for example, the approval of phyto-pharmaceuticals), agricultural research, training and financial assistance. The main areas of legislation, regulation, strategies and policies herein are: Agricultural policy review, planning and integration programmes in the light of the multifunctionality of agriculture; Integrated pest management in agriculture; Rural energy supply to enhance productivity; and Improving farm productivity and farming systems through diversification of agricultural and non-agricultural activities on the farm and infrastructure development. Major groups involvement includes ensuring peoples' participation and promoting human resource development for sustainable agriculture. At the federal as well as at the regional level, there are regular consultations with the main farmers' organizations. Advisory councils, agricultural trade unions and local communities are all involved in decision-making in some manner.

Programmes and Projects: In order to promote crop diversification at the farm level, the government has created regional agro-environmental programmes with the aim to improve farm productivity and farming systems through diversification of agricultural and non-agricultural activities on the farm and infrastructure development. At the federal level, several pilot projects are subsidized since 1995. These pilot projects promote production methods with reduced inputs (pesticides and nutrients), organic farming and early detection and warning systems in various crops. A mandatory official control of sprayers has been imposed. In 1995 a support scheme for organic farming has been set up. Organic farming and integrated production methods for pomes are legally protected.

Status: Agriculture represents 1,42 % of the gross national product in 1998 in Belgium. Concerning external trade, the relative importance of agricultural products in 1999 was about 5,09 % of the export and 5,56 % of the import value. In 1998 1,89 % of the active population was working in agriculture. The number of farms is decreasing. (From 1989 to 1999: - 25%). The useful agricultural area is 1.393.800 ha (45,7 % of the total area).

There are major differences in the type of agriculture between the two main regions of Flanders and Wallonia (in the Brussels region, agriculture is rather marginal). Flanders has an intensive agricultural and horticultural production with top production levels. Flemish agriculture has become highly intensified, due to the lack of sufficient agricultural land caused by a high population density. On about 20% of the area, intensive arable farming is the characteristic farming practice. The main sustainability problem of this type of agriculture is the use of too many nutrients. Regional legislation, action plans and a code of good agricultural practice are tackling this problem. Since the end of 1999, the Flemish region provides financial assistance to farmers to encourage them to adopt various nature, biodiversity and habitat protection measures and environmental measures (reduction of pesticides and nutrients). In 2000, a strategic program has been set up to promote organic agriculture. It aims the Flemish area for organic agriculture to be 10 % of the total agricultural area in 2010. This program has various actions to support farmers to switch over towards organic agriculture and stimulate consumption of organic food. Measures as subsidies (rural development plan), education, information and consultation are being applied in a balanced mix.

Dairy, beef, cereals, sugar beet and potato are the main products of the Walloon agriculture. Two significant documents translate the concern for a sustainable development of the Walloon agriculture: the Environment Plan for Sustainable Development supplemented by a first evaluation in 1999, and the contract between society and agriculture (1998). These stated intentions are reflected in a very significant number of actions, in various fields such as product quality improvement, organic products, input reduction, better land planning and better effluent management.

The new rural development policy, now the “second pillar” of the Common Agricultural Policy, meets the varied needs of the rural areas, the expectations of today’s society and the environmental requirements. As an essential part of the European agricultural model, it aims to put in place a consistent and lasting framework for guaranteeing the future of rural areas and promoting the maintenance and creation of employment.

One of the main innovations in this policy is the method used to improve integration between the different types of intervention, to help ensure smooth and balanced development in all European rural areas. The main features of this development can be defined as follows:

- Strengthening the agricultural and forestry sector;
- Improving the competitiveness of rural areas; and
- Preserving the environment and rural heritage
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Belgium introduced three rural development plans: a horizontal federal plan, a Flemish plan and a Walloon plan. The horizontal rural development programme for Belgium aims to facilitate the development of agricultural areas with an emphasis on the increased use of environment friendly production methods and on the preservation of as well the countryside as the biodiversity, is particularly encouraging organic farming and establishes demonstration projects and aid schemes for business management. The rural development programme for Flanders aims to improve product quality and enhance diversification of agricultural and rural activities, as well as to stimulate employment while supporting the multifunctional role of rural areas through an integrated policy of sustainable development which respects the environment, the landscape and animal welfare. The general objective of the rural development programme for Wallonia is to offer the prospect of sustainable agriculture by encouraging efforts to increase its added value, by restoring its professional and social appeal and by providing the means to respond to public concern about the environment and the food quality. The environment permit and the single permit are other significant instruments of a sustainable agricultural policy.

Belgium has no problem with poor soil productivity. The problem lies rather in the excessive use of nutrients. Water availability in agriculture is not really a problem in Belgium. The authorities set up small irrigation schemes for agriculture. Farmers easily practice irrigation on farm scale themselves; subsidies for irrigation are no longer granted. There is no salinization problem. The problem of land degradation or loss is not a crucial one. Erosion is not widespread. Although, by means of the code for good agricultural practices and in some land consolidation projects, erosion control measures are undertaken. A so-called regeneration of agricultural soils is not necessary. The local food and water distribution systems are very well organized, as well in the cities as in the countryside. There is only a need for inspection of the overall quality. Food security is not a problem in Belgium. However, new policies are stressing food quality (quality labels etc.), especially for public health purposes.

The manure legislation has reduced significantly the use of chemical fertilizers and has ensured a better utilization of animal waste as a fertilizer (quantity, application time, application technique, regional exchange with farms without animal production). The manure legislation, the mandatory license for water winning, the taxes on drinking water use and the environmental permit are instruments to prevent negative effects of agriculture on water quality.

Capacity-Building, Education, Training and Awareness-Raising: In order to ensure people’s participation and to promote human resource development for sustainable agriculture, the federal and regional governments have taken several initiatives such as: codes of good agricultural practices (nutrients and pesticides), agricultural pilot projects at the field level, post-school educational programmes by authorities and private organizations. The Walloon Contract between Society and Agriculture also raises awareness among the actors and the population. Many of the recommendations for promoting sustainable agriculture in Agenda 21 have been or are being implemented. These include measures which take into account demographic trends, studies on land taxation structures, linkage between international trade and agricultural production, strengthening farmers' rights, developing databases, and developing policy to rehabilitate degraded lands. These measures are being achieved by legislative and regulatory reforms, pilot projects, training and the development of National plans. The three Communities are responsible for the post-school education of regional farmers. This education integrates sustainable agriculture.

Information: No information available.

Research and Technologies: No research has been undertaken on the effects of ultraviolet radiation on plants and animal life or on agricultural activities. Research on the effects of tropospheric ozone on vegetation is carried out at the Federal Agrochemical Research Institute. Conservation, characterization, evaluation and utilization of plant genetic resources are an important research topic in the federal agricultural research centres. The National Botanic Garden of Belgium (NBGB) maintains, since a long time, a vast collection of living plants. The International Plant Genetic Resources Institute (IPGRI) recognizes the gene bank of wild Phaseolineae as a base collection. For quite a number of years, scientific programmes have been developed for e.g. in vitro culturing, seed banking of native wild plants and educational programmes. Besides the NBGB, a panoply of larger and smaller botanic gardens and parks, some related to the main universities, others to the private sector, is established in Belgium. The research stations of the Federal Ministry of Agriculture in Gent and Gembloux have major collections of grass species, fodder plants, vegetables, chicory, fruit trees and conifers. A special reference has also to be made to the so-called International Network for the Improvement of Banana and Plantain (INIBAP) Transit Centre, hosted by the Catholic University of Leuven; and to the poplar variety collections (some 140 genotypes of *Populus nigra*, some 1,000 genotypes of *Populus deltoids*, and more than 2,000 genotypes of *Populus trichocarpa*) held by the Flemish Institute for Forestry and Game Management and the Walloon Forestry Research station.

In the framework of the first Multi-annual Scientific Support Plan for a Sustainable Development Policy (SPSD I) the OSTC supported prenormative research in the food sector within a context of sustainable development. As a result, one of the research projects of the programme (supported by the OSTC) aims to establish a general inventory of the economical, sociological and agronomical indicators relevant for a sustainable development of agriculture. In 2001 the OSTC published - within the programme "Levers for a sustainable development policy" - a report on the development of evaluation criteria for the environmental fiscal policy of pesticides and a summary of the project "development and application of indicators of sustainable development in Belgium: sectoral approach (agriculture and transport)". Within Part I of the SPSD II 'Sustainable Production and Consumption Patterns' the OSTC developed four themes targeted towards government needs. Agro-food is one of the main topics (see chapter 35). Agricultural projects of the second Multi-annual Scientific Support Plan for a Sustainable Development Policy are:

1. Framework for assessing sustainability levels in Belgian agricultural systems;
2. Survival strategies for a multifunctional agriculture in peri-urban areas;
3. Development of sensibilisation instruments for the sustainable use of pesticides; and
4. How can organic agriculture contribute to sustainable production and consumption patterns?

Financing and Cooperation: On the federal level, the law on international cooperation of 1999 provides for the development of a strategy for the sector "agriculture and food security". This strategy, which will be finalized before August 2002, defines the strategic priorities for the sector as well as guidelines on how to ensure sustainability in designing interventions in the fields of agriculture and rural development. Contrary to international trends, the Belgian contribution to the sector in terms of budgetary expenditure remained stable at around 12 % (53,5 Mio EURO) of the total development assistance budget. Africa is the main beneficiary, with more than 50% of the total expenditure, followed by Latin America and Asia. A part from the bilateral cooperation, a substantial part is disbursed through several multilateral organisations such as the International Fund for Agricultural Development (IFAD), the Food and Agriculture Organisation (FAO), the Consultative Group on International Agricultural Research (CGIAR) and the World Food Programme (WFP) as well as Belgian NGO's.

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CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

Decision-Making: The Regional Governments and the Federal Ministries of 'Social Affairs, Public Health and the Environment', 'Science Policy', 'Development Cooperation' and 'Agriculture', are the principal agencies in charge of different aspects of the conservation of biological diversity and genetic resources. The follow-up on the action plans concerning the conservation of biological diversity at the national level is coordinated by the Biodiversity Convention Steering Committee under the authority of the Coordination Committee for International Environmental Policy. A number of thematic contact groups have been set up as a support to the Steering Committee. Several of them are now fully operational (e.g. forest biological diversity, access and benefit-sharing, national reporting, national strategy) while others will soon be organized (e.g. alien species, indicators). A number of Regional Laws on the conservation of nature include provisions for the conservation of biological diversity and the Regional Governments have developed strategies and action plans dealing with conservation of biological diversity. A National Biodiversity Strategy is being developed at the federal level, in cooperation with the Regions, and will be published in 2002. A number of measures have been undertaken for the in-situ conservation and restoration of ecosystems and habitats and their components, and ex-situ conservation of biological and genetic resources. The participation and input of local authorities is considered to be essential to the success of efforts to conserve biological and genetic resources.

At the Regional level, the *creation and management of nature reserves mainly assure the in-situ conservation of ecosystems and/or habitats*. These were and are being developed by the three Regional Governments and also by private organizations. Each year, new areas are designated as nature reserves or existing ones are enlarged. A complementary nature conservation policy has also been developed for areas outside reserves in order to maintain or restore ecological corridors. In the Flemish Region efforts are being made to create a Green Main Structure, a coherent network that can be integrated in the development of a Pan-European Ecological Network. It will be built from core areas, rich in biological diversity, corridors or stepping-stones, and areas where nature conservation, forestry, and agriculture are combined in a sustainable way. In the Walloon Region, an ecological network has also been set up as a partnership for managing the rural environment. The Brussels Capital Region has developed a bio-indicator information network based on birds, amphibians, reptiles, higher plants, and mosses. All Regions participate actively in the built up of the Natura 2000 Network, an EU-wide ecological network that brings together habitats that have been identified as being of EU importance. The network is made of Special Protection Areas (SPAs) to conserve bird species and sub-species listed in Annex I of the Birds Directive as well as migratory birds, and Special Areas of Conservation (SACs) to conserve habitat types, animal and plant species listed under the Habitats Directive. As of June 2001, Belgium has designated about 430,000 ha of SPAs (14% of its territory) and about 162,000 ha of SCAs (5.2% of its territory). Negotiations are undergoing to designate a maritime site of 17,000 ha located in the Belgian territorial waters of the North Sea.

Programmes and Projects: For a detailed outlook of programmes and projects, see the Second National Report of Belgium to the Convention on Biological Diversity, published in 2001 (<http://www.naturalsciences.be/bch-cbd/belgium/contribution/documents.htm>)

Status: The decline of animal diversity is due primarily to human activity, especially land use leading to natural habitat destruction. Pollution and the introduction of exotic species are also threats to the maintenance of indigenous animal diversity. Over-exploitation appears to play a minor role but the introduction of exotic animal species seems to be a problem. Natural habitat destruction and pollution are the primary causes for the loss of plant diversity in Belgium. The introduction of exotic plant species is also considered a threat. The introduction of exotic animal species and over-exploitation are considered minor to the loss of plant diversity. Scientific studies demonstrate that from 1950 onwards certain invertebrate groups have shown a significant and sometimes dramatic decline in populations and in numbers of species. A comprehensive evaluation of the status of biological diversity in Belgium will be available soon in the National Biological Diversity Country Study of Belgium that will be published in 2002. The Country Study will be available on the Internet (<http://www.naturalsciences.be/bch-cbd/belgium/contribution/documents.htm>).

Capacity-Building, Education, Training and Awareness-Raising: There are a number of capacity-building, education, training and awareness-raising efforts both at the Federal and Regional levels. These include environmental education centers, green classes for school children, training courses, visits of nature reserves and other protected areas, awareness campaigns, etc.

Information: National capacities for studying, assessing, and monitoring biological diversity need to be strengthened. Belgian research institutes and universities do carry out a large number of activities at sub-national, national, and international levels. The inventory of Belgian researchers participating in studying, assessing, and monitoring biological diversity has been updated in 2001 and is available on the Internet (<http://www.br.fgov.be/BIODIV/>). The Belgian Biodiversity Platform (BBPF) is an advisory and communication body of the OSTC (Belgian Federal Office for Scientific, Technical and Cultural Affairs) for scientific aspects of biodiversity study and conservation. It aims to establish strong links between scientists in Belgium and abroad and to promote Belgian biodiversity research in the frame of the international trends, conventions and research programmes. A number of institutions play an important role in the ex-situ conservation of biological and genetic resources. Conservation is maintained in botanical and zoological gardens. For micro-organisms, four collections form the basis of an important network coordinated by the Federal Office for Scientific, Technical and Cultural Affairs. The Royal Belgian Institute of Natural Sciences, Brussels, has been designated as the CBD National Focal Point. This Focal Point launched in October 1996 a Belgian Clearing-House Mechanism on the Internet (<http://www.naturalsciences.be/bch-cbd/homepage.htm>). The Belgian CHM functions as an information-sharing mechanism set up to facilitate the exchange of scientific and technical information related to the objectives of the Convention. One of the highlights of the Belgian CHM is its partnership with a number of developing countries. This cooperation is translated into 1) temporarily hosting national CHM websites until they can be repatriated on national servers and 2) training courses on the building and maintenance of national CHM websites. In 2001, Belgium was the first Party to the CBD to launch its Biosafety Clearing-House. It is developed and managed by the thematic focal point for Biosafety based at the Scientific Institute of Public Health (<http://www.biosafety.be/bch/bch.htm>). Several other Internet-based initiatives related to biodiversity have been developed both at federal and regional level. Examples include Metafro InfoSys (<http://www.africamuseum.be/Metafro/>), the website of the Belgian Biodiversity Platform (<http://www.biodiversity.be/BBPF/index.htm>), the Biodiversity Information Server of the Walloon Region (<http://mrw.wallonie.be/dgrne/sibw/>).

Research and Technologies: Belgian universities and research institutes carry out many projects at the Belgian and international level. There are 18 universities in Belgium. Federal research institutes include among others: the Royal Belgian Institute of Natural Sciences and the Royal Museum for Central Africa. Regional research institutes include: the Institute of Nature Conservation, the Institute for Forestry and Game Management and the National Botanical Garden for the Flemish Region and the Nature, Forests and Wood Research Center for the Walloon Region. Long term scientific studies under national and international collaboration are carried out in the tropics (for example, Central Africa, Papua New Guinea, Indonesia, Galapagos, the Gulf of Mexico, the Caribbean), Lake Baikal, the Antarctic, Atlantic archipelagos, the Mediterranean, the Red Sea, and in Europe. Belgium participates actively in the CGIAR.

Financing: See under **Cooperation**.

Cooperation: In Belgium, the Convention on Biological Diversity (CBD) was signed in June 1992 and ratified on 22 November 1996. The engagement for international cooperation in the field of biodiversity conservation is mainly channeled through assistance to multilateral initiatives. The Directorate General for International Cooperation (DGIC) contributes to the Global Environmental Facility which has biodiversity as one of its 4 priority themes. To GEF-1, the total contribution amounted to 27 million EURO and to the current GEF-2 this was raised to 31 million EURO, 1,66 % of the total amount pledged. Furthermore, Belgium has substantially increased its contribution to UNEP in the period 2000-2001 to 5,7 million EURO, which was earmarked for specific programs, of which several were directly concerned with biodiversity conservation. Within its contribution to UNESCO, part of the funding was earmarked for supporting a biodiversity project in DRC in the framework of the World Heritage Convention and through the World Bank, the setting up of a regional database on forests and biodiversity of the

Congo basin was supported. A major contribution was also made to the Consultative Group on International Agricultural Research (6 mio EURO in 2001), a.o. For projects related to research on agro-biodiversity. Through its efforts of mainstreaming the environment, DGIC has the objective to increase the pertinence of all interventions for environmental issues. An environmental policy strategy is currently being developed and will emphasize biodiversity conservation as one of the priority themes. The Federal Ministry for the Environment contributed US\$ 88,281 in 2000 and US\$ 96,942 in 2001 to the General Trust Fund for the Convention on Biological Diversity. Specific data are given in the Second National Report of Belgium to the Convention on Biological Diversity (URL of e-version, see above 'Programmes and Projects').

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

Decision-Making:

Technologies: The Regional Government bodies are responsible for elaborating the necessary, regulatory framework to develop and use environmentally sound technologies. There is no specific legislation addressing clean technologies, but environmental legislation prescribes the use of best available technology (BAT). For several selected sectors, BAT guidelines are now in preparation. These guidelines are developed cooperatively between the authorities, the sector, and research institutions.

Biotechnologies: The Regional Governments are responsible for economics, science policy, prenormative research, and environmental regulations of the contained use of genetically-modified organisms (GMOs) and pathogens. The field testing of GMOs is a joint responsibility with the Federal Government. The Federal Government is responsible for norms, normative research, the implementation of international norms, and related coordination with specific ad hoc bodies. At the Federal level, ministries are responsible for product and market regulations as well as for the control of companies involved in GM technologies and are increasingly involved in international experts meetings coordinating information fluxes through common contact points. The Regional Ministries of the Environment control the application of the biosafety regulations through focal agencies. In Belgium, the management of biotechnology is coordinated at the Regional and Federal levels by setting up and implementing an integrated biosafety regulatory framework. This incorporates the implementation of the European Union's (EU) directives on the contained use and the deliberate release of GMOs into the environment. Extensive coordination with sectoral regulations on medicinal, food/feed, and raw material products is carried out. The center of this coordination is the Advisory Biosafety Council, whose executive staff operates within the Service for Biosafety and Biotechnology (SBB) located in Brussels. The Council is a collegiate of representatives of various competent authorities from the Regional and Federal levels. The SBB is a scientific center helping all scientists involved in recombinant DNA pathogen research fulfill regulations where applicable. Flemish biotechnology work has a coherent structure from academic research to patent technology and biotechnology financial mechanisms

Programmes and Projects:

Technologies: A good example of an initiative is the Wallonian Cellule Technologies Propres within the Walloon General Directorate for Natural Resources and Environment (DGRNE). A good example of the latter is the knowledge center on Best Available Technologies based in the Flemish Institute for Technological Research (VITO). Other agencies promoting clean technologies include: L'Institut bruxellois pour la Gestion de l'environnement (IBGE); the Flemish Public Waste Agency (OVAM) for waste management, Aquafin for water, and ANRE for natural resources, and IWT for industry research in Flanders.

Biotechnologies: No information available.

In the first and the second Scientific Support Plan for a Sustainable Development policy - SPSD I and SPSD II (see chapter 35), research projects deal with the determination and quantification of GMO's of GMO's derived food as well as with the development of new technologies for a better preservation of food products (SPSD I).

Status:

Technologies: In Belgium, there is some evolution from "end of pipe" technologies to those which emphasize pollution prevention. In all regions, the two principle centers, VITO and PRESTI, promote projects and research on environmentally friendly technologies. Adoption of environmental management systems is slowly emerging. Pilot case studies, run by the European Commission with the support of the Wallonia and Flemish environmental ministries, have been established to implement the European environmental management system. In Belgium, the Belcert institution is in charge of the International Standards Organization standard ISO 14000 and the European Union's Eco-Management and Audit Scheme (EMAS). Most of the instruments to transfer environmentally sound technologies are also being used to help small and medium sized enterprises.

Biotechnologies: Belgium has already adopted during the past years a comprehensive domestic regulatory framework in order to prevent the potential adverse effects on human health and the environment which might arise

from the use of living modified organisms (LMOs). Most Belgian legislation related to LMOs (GMOs) implements or enforces European Community (EC) legislation. Among the general legal provisions one finds the "Cooperation Agreement between the Federal State and the Regions on the administrative and scientific coordination concerning Biosafety" (25/4/1997) which establishes a common scientific evaluation system for the Federal State and the Regions, consisting of the Biosafety Advisory Council and the Service of Biosafety and Biotechnology and the "Royal Decision of 18 December 1998 concerning the deliberate release into the environment and the placing on the market of GMOs or GMO-containing products" which define authorizations procedures. The Cartagena Protocol on Biosafety to the Convention on Biological Diversity has been signed by Belgium on 24 May 2000. The ratification process in Belgium is currently in progress. The Protocol has to be ratified both at the Federal, Regional and Community levels in order to be fully implemented.

The Wallonian Region has over three hundred clinical laboratories, universities, and companies, as well as high schools which are active in the biotechnology sector. The presence of the European Commission in Brussels catalyzes the interaction between the local scientific community, and the international scientific and biotechnology milieu. Three large universities and five scientific institutions have made important contributions to education and training in related sciences. The Brussels Capital City Region has some 40 public and private institutions which carry out activities related to state-of-the art technology on biology, genetics, pharmacology, and medicine, etc. About 2,000 academic and industrial researchers work in the Brussels Capital City area, of which about one-quarter come from EU member countries, Eastern Europe, and developing countries.

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

Technologies: The main goal of agencies set up by government initiatives consists of informing all interested parties, particularly the private sector, on sound technologies (what exists, how can it be implemented, what special government aid is available, and so on). These institutions, therefore, develop databases on, for example, legislation, reference material, and environmental sound technologies. All interested persons and institutions can consult the databases. The objectives in Wallonia are to change behavior at the source within a sustainable development context, to create synergistic effects among industries through collaboration, and to succeed in the reconstruction of the industrial fabric. In Flanders, the PRESTI programme aims to assemble sectoral information, to implement demonstration projects, and encourage companies to make plans to reduce waste. In contrast, the activities of the clean technology group at VITO primarily focus on informing public authorities. The following are the instruments used by the different authorities to foster the implementation of sound technologies: financial aid programmes to enterprises to encourage environmental investment; public awareness campaigns, information packages on financial aid programmes for companies to encourage environmental investment, on environmental audit systems; on how to reduce the environmental impact of industrial activities, on product policy such as eco-labels and eco-consumption, on sectoral agreements between Regional authorities and the private sector, and on financial support to business federations to enhance their dissemination of environmentally related information specific to their industry members; R&D programmes run by the different Regional agencies; and pilot programmes in different sectors. The knowledge gained in these pilot programmes is then disseminated to all companies in the sector.

Biotechnologies: No information available.

Information:

Technologies: Insufficient information, collaboration, and communication are the key obstacles to the use of environmentally sound technologies. A number of efforts have been made during recent years to improve the quality and accessibility of information on environmentally sound technologies. Several attempts have been made by the different authorities to disseminate all kinds of information related to sound technologies, environment policy aspects, or sustainable development through the INTERNET. "The "Royal Decision of 18 December 1998 concerning the deliberate release into the environment and the placing on the market of GMOs or GMO-containing products defines the information that ought to be put on the labels of GMO/LMOs when commercialized".

In addition, European authorities in collaboration with the different Belgian Regional and Federal authorities were setting up Environment data networks.

Biotechnologies: As information provider, the SBB is currently managing INTERNET services to the public and users on matters of local and international interest.

Financing:

Technologies: No information available.

Biotechnologies: No information available.

Cooperation:

Technologies: Belgium is a member of the ESTO network which regularly completes reports on the socioeconomic impact of new technologies. These reports are sent to the EU technology observatory in Seville.

Biotechnologies: At the international level, business and research centers are subject to administrative controls to ensure protection of the environment. This is also in keeping with directives of the EU.

A limited part of the 5,9 millions EUR annual contribution of the Belgian Directorate General for International Cooperation (DGIC) to the 16 centers of the Consultative Group on International Agricultural Research is devoted to biotechnology research on tropical crops. Together with the research centers, the Belgian cooperation pays much attention to the safe application of these technologies, which currently remain limited to the research stage. In the framework of a partnership with the Royal Belgian Institute for Natural Sciences (RBINS), the DGIC provides assistance to a number of developing countries for the establishment and management of their national Clearing-Houses under the Convention on Biological Diversity. Since October 2001, the RBINS has progressively extended its assistance in order to include in these national Clearing Houses the relevant information on biosafety issues, in compliance with the Cartagena Protocol.

The Walloon Government participates in a number of bilateral initiatives. The SBB is a contact point for both internal and international scientific and regulatory interactions. Governmental experts on the SBB are National contacts for the United Nations Environment Programme (UNEP), the Organization for Economic Co-operation and Development (OECD), and the European Union (EU). Part of the 220.5 millions BEF annual contribution to the CGIAR

Is devoted by CGIAR research centra to biotechnology research"

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

Decision-Making: The Federal and Regional Governments share, through various mechanisms of internal concentration, the responsibilities on the definition and implementation of Belgium's policy on oceans related to the protection of the marine environment from land based and sea based activities including the integrated coastal zone management. At the administrative level, the main actors on this matter are: the Management Unit of the North Sea Mathematical Model (MUMM) for the Federal State, the Flemish administration (AMINAL), the Brussels administration (BIME) and the Walloon administration (DGRNE). Sustainable use and conservation of marine living resources is the responsibility of the Fisheries Sector of the Ministry of Agriculture. A new framework Law on the protection of the marine environment in the sea areas under Belgian jurisdiction has been published on the 12th of March 1999. Moreover, Belgium has declared its Exclusive Economic Zone (EEZ) in the North Sea by its law of 22 April 1999. Belgium fulfils its obligations related to marine environment and the sustainable use and conservation of marine living resources within the EU and within the framework of various global and regional conventions. The above mentioned law on the protection of the marine environment foresees in particular that all the human activities at sea are subject to permits. In case of important activities, the process leading to a possible permit implies a wide public consultation. As an example, this is the case for possible implementation of offshore windmill parks presently under examination. Most of the major groups are very well organized and have frequent contact with the authorities. They have also permanent access to activities within international frameworks such as OSPAR. Moreover, industry associations and official organizations of fishermen, representing mainly small-scale artisanal fishermen, participate in an advisory capacity in the national decision making processes.

Programs and Projects: In a project co-funded by the EC (LIFE Nature, 1997 - 2000), human activities and their impact on the marine environment were assessed, and the possibilities for establishing one or more marine protected areas were investigated. In another EC-LIFE project (Ecology Cluster for Overall Waste Re-Engineering in Flemish Seaports: 1998-2000) waste production of ships sailing to Flemish seaports has been calculated and improved waste management options to avoid discharges at sea have been studied. Belgium has also evaluated the execution of the program for a 50 % reduction of emissions to the sea of 37 dangerous substances between 1985 and 2000, which has been achieved for 25 substances.

Status: The major uses of the coastal areas in Belgium are tourism, fishing, mining (sand and gravel), and dredging and shipping and harbor development. The primary sources of land-based pollution are industry, municipal waste waters and agriculture, the last one being the source heaving revealed almost no downward trend in the recent years. If the primary sources of sea-based pollution are the oil discharges from ships and litter, important ecological effects are also linked to the manipulation of huge quantities of sediment (dredging, dumping of dredged material, exploitation of sediment, etc). Fishing represents 0.04 percent (landings/GIP) of the national economy. The methods to encourage sustainable fishing are in place in the European Common Fishery Policy. ien UK geen EEZ heeft ingesteld. Major government activities under the umbrella of the above mentioned law on the protection of the marine environment include the following: preparation of an emergency plan in case of maritime accidents (including the acquisition of appropriate equipment), preparation of a list of species to be protected, environmental impact assessment procedures and public participation for the establishment of offshore windmills, identification of marine areas to be protected (marine reserves) and their related management plans, supplemented by the implementation of the EU water framework directive and the 5 OSPAR strategies. As far as the main constraints are concerned, one might say that at the national level, the coordination between all concerned parties is fruitful because it increases the involvement of all the actors but it takes a lot of time and energy with limited human resources. At international level, there is a multiplicity of initiatives, sometimes in overlap or even in concurrence and the definition of a coherent Belgian position in all the fora remains a difficult exercise. At both levels, more attention must be paid to an effective implementation of all the decision taken.

Capacity-Building, Education, Training and Awareness-Raising: Belgium participates in the training and exchange of experts programmes organized by the European Commission in the field of counter-pollution measures at sea and there are contacts towards Belgium to coordinate this program. Awareness-raising events related to sustainable coastal management have been organized on a local basis in the framework of the above mentioned LIFE-Nature program. Following a successful exhibition on sustainable development (with important sections devoted to the oceans, the coastal zone and the estuaries) which was held at the museum of the Royal Belgian Institute for Natural Sciences (from October 1998 to January 2000), plans are now established to set up a permanent section of this museum on the North Sea protection.

Information: National information to assist both decision-makers and planners working on coastal issues, fishery and other living resources, marine pollution and mineral resources are available through the Belgian contribution to international reports. In particular, the OSPAR quality status reports which have been published in December 2000 with an active participation of Belgian experts, are presently the best synthesis of knowledge of our marine ecosystem. In the same line, Belgium submits regularly a lot of implementation reports to OSPAR and the EU and contributes to the drafting of the progress report for the preparation of the fifth North Sea Conference. The use of GIS is more and more a common practice and a database on the marine environment is now considered as operational; a lot of work having still to be done to import big amounts of data from past years. A number of sustainable development indicators are presently under study and will cause no difficulties as soon sufficiently long time series of high quality data are available. This action must be also seen in conjunction with the development of ecological quality objectives within OSPAR. Finally, in OSPAR, Belgium is lead country for PCB's, Trichlorobenzenes and Dioxins.

Research and Technologies: Within the framework of the first multi-annual Scientific support plan for a policy on sustainable development (SPSD I, 1996 - 2001) a program was devoted to the problems concerning the sustainable management of the North Sea. The final results of this program will be presented during a symposium to be held in January 2002. Support for oceanographic research was also provided within other programs of the SPSD I such as "Research on the Antarctic" and "Global Change". Moreover the Government has decided to launch a second phase of the SPSD for the years 2001 - 2005, which provides support for marine research (mainly North Sea and the Antarctic waters) within the subprogramme "Global Change, ecosystems and biodiversity". The Federal government provides access to and use of the oceanographic vessel (BELGICA) executing intensive monitoring and research (200 working days a year) in collaboration with different universities and other institutions.

Financing: The sector of oceans and seas is financed by public budgets at Federal, Regional and European level.

Cooperation: Belgium ratified the United Nations Convention on the Law of the Sea (UNCLOS) on 13 November 1998. Belgium is party to the following international or regional marine related conventions: Convention on Intervention on the High Seas in cases of Oil Pollution Casualties and Protocol on Intervention on the High Seas in cases of Pollution by Substances Other than Oil, Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar Convention), Convention on Civil Liability in Maritime Carriage of Nuclear Material, 1992 Protocol to the Convention on Civil Liability for Oil Pollution Damage (CLC), 1992 Protocol to the Convention on the Establishment of an International Fund for Compensation of Oil Pollution Damage, Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter, International Convention for the Prevention of Pollution from Ships (MARPOL 73/78), Convention on the Conservation of Antarctic Marine Living Resources, Convention for the Conservation of Salmon in the North Atlantic Ocean, Convention for the Protection of the Marine Environment of the North-East Atlantic, International Conferences on the Protection of the North Sea, Agreement for Co-operation in dealing with Pollution of the North Sea by Oil and other Hazardous Substances, among others. One could note that the ratification by Belgium of the Standing Stock Agreement is in its final stage. The Belgian Directorate general for International Cooperation (DGIC) provides financial support to UNEP's Global Plan of Action for the Protection of the Marine Environment from Land-based activities (GPA). This support covers a number of projects in developing countries related to waste water management, guidelines to the private sector and the preparation of National Plans of Action (1,8 million EUR for 2000 and 2001).

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

Decision-Making: In Flanders, the Environment Department (LIN) is in charge of policy-making for drinking water, ground water, and fresh surface water quantity. The Flemish Environment Agency (VMM) is covering fresh surface water quality, including standards. The Administration of Environment, Nature, Land and Water Management (AMINAL) is responsible for coordination, permits, inspection, and quantitative aspects of non-navigable watercourses. The Flemish Environment Holding Company was created (51% public/49% private) to promote investments in the environment sector. Through its daughter AQUAFIN, supra-municipal infrastructure is being developed (wastewater treatment plants and collectors). There are 11 sub-river basin committees in charge of implementing integrated water policy under the coordination of the Flemish Consultative Committee for Integrated Water Policy. The Provincial level is responsible for permits for important industries, while municipalities manage municipal sewers. The relevant water related authorities for the Walloon region are the General Directorate for Natural Resources and Environment (DGRNE) and the Ministry of Infrastructure and Transport (MET). The Brussels Institute for Management of the Environment, the Water Committee, the Administration of Infrastructure and Mobility (AED), the Port of Brussels, CIBE and IBDE are the competent authority enforcing the water policy of the Brussels Region. In Flanders, environment and water policy is integrated via programmes rather than by a centralized body. Quality and monitoring of fresh water, groundwater, and drinking water are based on Regional ministerial orders or decrees which implement European Union (EU) directives. Water policy in Wallonia is based on the law on non-navigable water resources, the decree for the protection of surface water, and on the decree for the protection and use of groundwater and drinking water. In the Brussels Region, the law for the protection of groundwater against pollution, the law concerning water quality objectives for specific purposes, and the regional prescription on environmental permits, and the existence of integrated permits for the release of wastewater and taxation of waste water are the relevant legislation.

In Flanders, the General Water Treatment Plans (AWP), within the general environmental policy, is being designed especially for surface water quality. The Walloon Environment Plan for Sustainable Development (PEDD) sets guidelines for a Water Action Programme. In the Brussels Region, the Brussels Capital Region and Flanders have formulated some aspects of integrated management in the Regional Water Plan which defines water works, their location, and the shared financing. The main target groups for freshwater management in Flanders are households, agriculture, industry, transport, energy supply, and water supply. When major environmental decrees are launched, the Flemish Government provides a period of consultation for the general public prior to finalizing the decree and prior to its enactment by the Flemish Parliament. In the Walloon Region, the various target groups (industry, agriculture, water companies, NGOs) are consulted through the Water Commission. In the Brussels Region, the different target groups are consulted through the Committee for Environmental Affairs. Flanders is preparing a decree on integrated water management where the organizational structure and planning for an integrated water management will be worked out according to the Water Framework Directive (WFD).

Programmes and Projects: Implementation of Water Framework Directive (2000/60/EC). There is a Flemish Environmental Management Plan, based on an environmental decree, within the Flemish Water Management is also described. The implementation of this plan happens by annual environmental programmes.

Status: In Flanders, cost recovery for wastewater amounts to about 70%. There is a manure decree which applies to agriculture. For consumers a levy per unit pollution load applies. Drinking water supplies are under the authority of municipalities. However, five major companies supply most drinking water. Total drinking water consumption in Flanders amounts to 475 million m³ per year. About 85% of wastewater is collected through sewers, with 52% treated in wastewater treatment plants in 2001. Flanders has entered the stage where pilot projects for recycling wastewater into drinking water will be initiated. Flanders aims to attain about 98% coverage for both water supply and sanitation. In the Walloon Region, about 400 million m³ of water are annually abstracted for the drinking water distribution network. Ninety public companies distribute 246 million m³ in Wallonia and 149 million m³ are supplied to the other two regions of Belgium. In 1999, 47% of the global load of urban waste water aimed at by the

EC directive 91/271 (3 630 000 IE) was treated (at least secondary treatment).. Wallonia aims to attain 98% coverage for water supply and 80% coverage for collecting and treatment in the urban waste water treatment plants complying with the standards of EC directive 91/271. The 20 % remaining will be treated in appropriate individual or autonomous installations. The public Company for Water management (SPGE) has been established to coordinate the water cycle as a whole (production ,supply ,sanitation).. In the Brussels region, for wastewater, the cost recovery amounts to about 30%. One of the major objectives of the Brussels Region is the construction of adequate sewerage and wastewater treatment facilities. The construction of the main water treatment plant with a 1.3 million m³ capacity for the northern part of the Region is foreseen by the year 2006. Every inhabitant of Flanders gets a free supply of 15 m² of tap water per year. In Flanders and Wallonia, the least favored groups of the population are exempt from paying water levies on wastewater. The least favored groups of the population in the Brussels Region can fall back on social provisions and social institutions (CPAS or municipal social assistance institutions). In all regions, civil protection completes the overall coordination, in association with relevant authorities, for disaster prevention such as floods. Water distribution companies, municipalities, provincial authorities, and civil protection agencies are responsible for drought prevention. Various constraints to meeting objectives are listed by the regional governments. Maintaining a sustained level of investment is a difficulty faced by Flanders. The Walloon Region expresses difficulty to reach water targets set for 2005. Both Flanders and Walloon Regions require a code of good practice for collectors and small scale treatment units. The main problem in the Brussels Region is the collection of sewage and consequent treatment of mixed waters This issue is related to the financial difficulties to sustain the cost of the investment for the urban Brussels Region.

Capacity-Building, Education, Training and Awareness-Raising: In Flanders information is provided to the public, stakeholders and youth by written (brochures, booklets and course material for primary and secondary education) and electronic way (website with on-line data on air & water quality). Brochures on sustainable water use and sanitation are made for architects (2000), cattle breeders (2001) and municipalities (2002). The launch of these brochures is organized on provincial level by means of seminars or workshops. A thematic centre provides tailor made information on sustainable water use on request of any individual or organization. Annual reports on water quality and discharges are made public by organizing press conferences. Further more, awareness raising campaigns are organized through printed (newspapers and magazines) and audio-visual media (TV and radio)

Information: Various agencies in the three regions collect water management and development data. In Flanders, VMM monitors water quality and levies on wastewater. AMINAL monitors groundwater quality and piezometric head of the aquifers. Agricultural data is collected by the region, and the Flemish Land Company and Manure Bank (VLM-Vlaamse Landmaatschappij). In Wallonia, the Water Division of DGRNE collects the bulk of water information. Water distribution companies in both regions collect data on the household sector. Information is released in annual reports and increasingly on the INTERNET. In Brussels, the Bime is in charge of the surveillance (collection of data) of the surface water quality. The office in charge of the distribution of drinking water for the Brussels region has figures about the quality of the drinking water and about the consumption of this type of water by citizens and industry. The information regarding the quantities of groundwater pumped annually for the "Région de Bruxelles-Capitale" (RBC) can be obtained at the Ministry of the RBC. Being the administration (with more than 7 employees) also in charge of the waste water taxation or the waste water discharges from industries, the Bime has also gathered a lot of data concerning the quality and the quantity of water in Brussels. Those data are completed with data concerning the same enterprises or other enterprises because the Bime is also in responsible of the authorization and the inspection of classified installations

Research and Technologies: The Walloon Government has decided in 2000 to launch an integrated research programme for water and environment (PIRENE), which should be finalized in 2004. The Flemish Government approved in 2000 a research project to redraft Flemish water legislation to support a sustainable integrated water policy.

Financing: The budget for drinking water companies in Flanders is estimated to exceed €620 million per year. The investment and operating budget for water treatment and sewerage amounts to €248 million per year. The 2000-2004 budget of the Walloon Region for collecting and treatment of urban waste water amounts to 790 millions Euro The wastewater release tax has increased from 0,40 to 0,55/m³. The global budget for investment

and operation of the water infrastructure in the Brussels Region amounts to €618 million for the next ten years. Most is covered by the Regional budget, but some comes from collection of wastewater release taxes.

Cooperation: Coordination between the regions has been institutionalized by the creation of a Coordination Committee on International Environment Policy. Belgium cooperates with the European Environment Agency, the Organization for Economic Co-operation and Development, and the Global Environment Monitoring System of the United Nations Environment Programme. Flanders is party to the Flemish-Dutch Commission for Transboundary Non-navigable Watercourses. Flanders, Wallonia, and Brussels are Parties to the International Conventions for the Protection of the Rivers Meuse and Scheldt, together with the Netherlands and France. The Meuse and Scheldt Commissions are designated to operate as the co-ordination bodies required by the EU Water framework directive for these two International river districts. Belgium (Wallonia) is also member of the Steering Committee created for the same coordination within the international district of the Rhine. Federal and Regional authorities participate in the activities of the International Convention for the Protection of the North Sea (PARCOM) and the North Sea Conferences. Belgium is also a party to the Helsinki Water Convention (UNECE, 1992) covering transboundary rivers and international lakes.

Under the overarching objective of poverty alleviation, water and its sustainable management are recurrent focuses of many programmes of the Belgian cooperation: the annual financial contribution of the Directorate General for International Cooperation (DGIC) to water related projects was close to 21 millions EUR in 2000. The projects supported include water supply, sanitation, watershed and river basins management, monitoring and management of water resources, irrigation, education in water resources engineering, technical studies on different topics, including water vulnerability and appropriate sanitation technologies, etc... In the framework of the Belgian Trust Fund with the World Bank, the DGIC provides funding to support the development of the water supply and sanitation components in the Poverty Reduction Strategy Papers in African countries (0,9 millions EUR per year). In addition, approximately 13 % of the Belgian annual contribution to the Global Environment Facility (7,7 millions EUR/year) is allocated to projects to reverse the degradation of international waters.

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

Decision-Making: In Belgium, there is a Coordinating Committee on International Environmental Policies (CCIEP), which has a number of working groups acting as negotiating fora between the various Federal and Regional Ministries involved. Political decisions are approved at ministerial level by the Interministerial Commission for the Environment. Belgium's activities within the six Agenda 21 programme areas for toxic chemical management are, in the first place, developed in the context of the Intergovernmental Forum on Chemical Safety (IFCS) and are, for the most part, completed within the framework provided by the European Union (EU) and the Organization for Economic Co-operation and Development (OECD). Federal Departments of Health, Employment, Environmental Affairs, Economic Affairs, Transport, Regional Environmental Units, and industry (particularly the Federation of Chemical Industries) are the major groups involved in decision making with respect to toxic chemicals.

Programmes and Projects: For risk reduction programmes, Belgium participates in the work undertaken at EU and OECD (Ad Hoc Group on Risk Reduction). In addition, a number of working parties under CCIEP closely monitor environmental problems: a working party on Risk Reduction, for example, is part of the larger umbrella group on Dangerous Products and Chemical Risks. Another initiative is a law imposing product standards to protect health and the environment. Belgium takes part in the assessment of risks caused by existing chemicals within the framework of the EU and OECD's High Production Volume programme. This involved, inter alia, the establishment of a group consisting of experts from various universities, scientific institutes, and the scientific and administrative units of government agencies.

Status: No information available.

Capacity-Building, Education, Training and Awareness-Raising: Issues related to capacity building include extending staff, getting expertise from universities and scientific institutions, and establishing technical interdepartmental working parties.

Information: In 1996, a study called "Crossroads Bank" was initiated with the primary aim to make an inventory of available information and the needs for information about chemicals (environmental affairs, public health, health of workers, intoxications, accidents, etc.). The initiative is in the context of the Global Information Network on Chemicals (GINC) of the Intergovernmental Forum on Chemical Safety (IFCS). Belgium participates in the work of the OECD/United Nations Environment Programme (UNEP) Group on Information Management.

Research and Technologies: No information available.

Financing: Belgium finances or co-finances some international initiatives. The country is considering introducing a system of fees to be paid by persons responsible for marketing dangerous substances or preparations. The proceeds are intended to contribute towards the costs of the Risk Control Division of the Ministry of the Environment.

Cooperation: In terms of preventing international illegal trade in dangerous products, Belgium believes that measures should be considered, such as export notification requirements, phase-out mechanisms, and framework provisions for the possible adoption of protocols on further measures. Belgium takes part in international cooperative efforts mainly through the EU. It also participates in relevant actions initiated by OECD, IFCS, and UNEP. The London Guidelines for the Exchange of Information on Chemicals in International Trade and the procedures relating to the Prior Informed Consent (PIC) are implemented within the relevant EU rules and regulations. In addition, Belgium organized and financed the first meeting of the Intergovernmental Negotiating Committee charged with the task of establishing a legally binding instrument for the implementation of the PIC procedure in Brussels in March 1996. It supports the coordination efforts of the Interorganization Management

Committee (IOMC). Belgium engages in harmonization of classification and labeling of chemical substances as a member of the Senior Officials Group of the EU and the Advisory Group on Harmonization of Classification and Labeling Systems of the OECD. In the context of the Concise International Chemical Assessment Documents (CICAD), Belgium organized and co-financed one of the meetings held in Brussels. . In 2000 and 2001, the Directorate General for International Cooperation (DGIC) provided financial support for the interim process on Persistent Organic Pollutants and for the organization of a workshop on the Prior Informed Consent (PIC) Convention in Africa (to be held in Dakar, in 2002).

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

Decision-Making:

Hazardous wastes: Dangerous waste management, including the import and export of dangerous waste, is a responsibility of the Regional Governments of Flanders, Wallonia, and Brussels Capital City. The transit of waste through Belgium is a responsibility of the Federal Government. The Coordinating Committee of International Environmental Policy (CCIEP) is charged with coordination and consultation activities between the different actors. An agreement between the three Regional Governments and the Federal Government regulates the control of the transboundary movements of hazardous waste. Customs and National police are fully involved in the control system. In Belgium, the environmentally sound management of hazardous waste is consistent with the regulations and directives of the European Union (EU) and the international legal instruments to which Belgium is a party. Eco-taxes and environmental taxes are applied for various hazardous wastes. Industry, business, individuals as citizens and as consumers, and local and Regional public authorities are involved in hazardous waste management. This management is based on the precautionary and prevention principles, as well as on the principle that the polluter should pay and environmental impairments should be rectified at their source.

Solid wastes: In Belgium, Regional Governments are responsible for waste management policies. The transit of waste through Belgium and some prevention policies (product norms, eco-taxes, etc.) are within the competence of the Federal Government. The first priority of the Regions has been the adoption of a series of general legislative measures establishing the legal framework for the waste management policy. An important precondition was the establishment of a sustainable legal framework of basic definitions and concepts as well as the incorporation of the European Union (EU) definitions of waste and hazardous waste and their respective lists. The key objective of Belgian's waste policies, which are based on the precautionary and prevention principles, is to prevent the generation of waste and to reduce the content of hazardous materials in waste. Prevention has led to the adoption of new instruments such as eco-taxes on products, promotion of clean technologies and products, and actions on consumer information and education. Public authorities, private and public companies, environmental organizations, and individuals as citizens and consumers are the main actors concerned with waste management.

Radioactive wastes: The management of radioactive waste in Belgium is the responsibility of the National Agency for Radioactive Waste and Enriched Fissile Materials (Niras/Ondraf). The management of the nuclear fuel cycle rests with the private company Synatom. The Government has two representatives on the Governing Board of Synatom. Each installation in the field of nuclear waste has to be authorized by the competent safety authorities. The procedure includes consultation of the local community, a National expert commission, and in some cases the European Commission. Belgium has introduced a complete management programme for its radioactive waste. This management considers several steps, from production to final disposal: a) limitation of waste quantities at the production site by sorting, identification, decontamination, etc.; b) chemical stabilization and volume reduction by chemical treatment, incineration, super compaction; c) conditioning of the treated waste in a stable matrix to limit dispersion; d) temporary storage in appropriate buildings with adequate shielding and safety provisions; and e) proposed final disposal facilities based on a multi-barrier concept.

Programmes and Projects:

Hazardous wastes: The Flemish region has a management plan for the prevention, the valorisation and the disposal of all wastes. A specific destruction programme is established for PCBs and PCTs, also for the collection and final treatment of medical waste.

Solid wastes: The Flemish region has specific waste management plans for organic and biological waste, for building and demolition waste, for municipal waste, for industrial waste of small companies, and for packaging waste.

Radioactive wastes: No information available.

Status:

Hazardous wastes: Flanders has 38 installations for the treatment, the conditioning and temporary storage for all types of hazardous waste.

Solid wastes: The Flemish region has several reuse centers where a lot of consumer goods are restored and put on the second hand market; 320 container parks are put into place for the separate collection of municipal waste; the separate collection, recycling and other treatment of industrial waste is well developed; there are 20 composting plants; 12 installations for the incineration of municipal waste, and 28 landfills.

Radioactive wastes: Belgium has developed nuclear energy with seven nuclear power plants in operation. There are two fuel fabrication plants in the country. Belgium has a nuclear research center with a material testing reactor and several research facilities. Belgium has planned all the necessary installations for the treatment, the conditioning, and temporary storage for all types of wastes produced in the country. With respect to spent fuel management, Belgium had opted in the past for reprocessing. A programme has been started on the conditioning of spent fuel, and the research programme on the geological disposal of waste has been extended to cover the disposal of conditioned spent fuel.

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

Hazardous wastes: No information available.

Solid wastes: The Brussels Region, the Flemish Region and the Region of Wallonia have developed a campaign for awareness on waste minimization, "less waste", including awareness for prevention at source, reuse, composting, ..., that is, waste minimization in a broad sense.

Radioactive wastes: No information available.

Information:

Hazardous wastes: A data collecting system has been developed. The Flemish Region has developed and uses a full-automated system (ASB) for the administration and control of imports and exports of waste, including on-line consultation by all maintenance forces and fulfillment of administrative requirements by waste producers and treatment plants. The Region of Wallonia has developed a waste management and control system based on automated registration at the waste treatment plants.

Solid wastes: Both for hazardous waste and for solid waste, the quantities and categories handled are declared by the waste handler in the Brussels Region and a database has been developed where these declarations are encoded.

Radioactive wastes: No information available.

Research and Technologies:

Hazardous wastes: The introduction of new techniques and technologies that reduce the use of dangerous products is one issue in the prevention of dangerous wastes. Material recovery, production of secondary raw materials, and development of new waste treatment techniques are encouraged.

Solid wastes: New tools are being developed in the Flemish region that concern waste prevention and ecodesign.

Radioactive wastes: With respect to final disposal of radioactive waste in all categories, important R&D programmes are being carried out. Ongoing research must provide a preliminary safety assessment report early in the next century to be submitted to the safety authorities.

Financing:

Hazardous wastes: All costs incurred for the management of hazardous waste are borne by the waste producer or by those who are financially responsible for it..

Solid wastes: For some waste flows, like used tires, used batteries, end-of-life-vehicles and waste from electrical and electronical equipment, take-back agreements have been concluded between the 3 Regions and the sector, including in most cases a fee for the financing of the collection and recovery of the waste. In the Flemish region subsidies are possible for actions that encourage prevention of waste and emissions. .

Radioactive wastes: All costs incurred for the management of radioactive waste are borne by the waste producer or by those who are financially responsible for it.

Cooperation:

Hazardous wastes: The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was signed by Belgium in 1989 and ratified in 1993. An interregional network of installations for the environmental sound disposal of dangerous waste is negotiated based on the proximity principle. International contacts with neighboring member states of the European Union are achieving the same goal.

Solid wastes: An interregional agreement on packaging and packaging waste is put in place. The Coordinating Committee for International Environment Policy (CCIEP) has decided to create a working group charged with the coordination of advice concerning international waste policy. In addition, a working group consisting of the three Regional Governments and the Federal Government organizes the preparation of the Belgian packaging and packaging waste policy.

Radioactive wastes: Belgium participates in the programmes and activities of international bodies such as the European Commission, the Nuclear Energy Agency, and the International Atomic Energy Agency.

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CHAPTERS 24 TO 32: STRENGTHENING THE ROLE OF MAJOR GROUPS

Women: Decision-making: Policies and strategies are being established to achieve equality in all aspects of society and full participation by women in sustainable development. The Belgian Government is taking the necessary measures to review projects and programmes proposed within the framework of Agenda 21 to improve women's conditions, to eliminate gender stereotyping, to involve women and their organizations in environmental policy processes, and to increase women's influence in environmental decision-making processes. Steps have been taken to coordinate operational programmes to ensure that gender considerations are fully integrated into all policies and activities. Recent initiatives include: the presence of women on advisory and management committees, education and training, and health institutions, etc. The Women's Council is formed of many NGOs whose actions are focused on women's development, highlighting the special role of women in society. Both the Social Democratic and the Christian Democratic trade unions are involved in the organization of programmes aimed at improving women in labour market conditions, and the associated social needs. The proportion of women in decision making roles in 1996 were as follows: Federal Government 10.5%, Regional Governments 11%; the Chamber 11.3% (17 women on 150); the Senate 23.6% (17 women on 72); Regional Parliaments 17.6%; and in Walloon, Flemish, and Brussels municipalities 20%, 20%, and 27% respectively. Capacity-Building, Education, Training and Awareness-Raising: Curricula and education materials already provide gender relevant knowledge. Information: Mechanisms are being formulated to assess the implementation and impact of development and environmental policies on women. Cooperation: In Belgium, the Convention on the Elimination of All Forms of Discrimination Against Women was signed on 17 July 1980 and ratified on 10 July 1985. The Belgian Development Cooperation seeks to promote equality between man and women. The development policy in this area is governed by the Declaration and the Platform for action of Beijing (1995), the declaration of the Development Assistance Committee (DAC) of the OCDE (1995) and the resolution of the Council of the European Community on the integration of gender issues in the development co-operation (1995). The law of 25 May 1999 on the Belgian international co-operation, provides a legal force to the objective of equality between man and women: It places the equal rights and opportunities between women and men as a cross-sectoral theme which has to be taken into account in all development policies, strategies, projects and programs and as a criterion for "pertinence" for all actions. In order to strengthen its impact, the Belgian co-operation promotes gender equality in four specific areas:

- A better access of girls and women to basic health and to reproductive health;
- A better access of girls and women to basic education; and
- An active participation of women in economic activities, though a better access to productive resources e.g. land, credit, technology. -The struggle against different forms of violence against women.

A specific attention is also given to the role of women in conflict situations. A new strategy note on equality between women and men and a plan of action for integration gender issues in development co-operation is being prepared and will be submitted to the Belgian Parliament in 2002. A Commission "Women and development" (CWD) was established in October 1994 by the Belgian Secretary of state for development cooperation. This Commission is an advisory body formed by members of the Belgian Directorate-General for international Co-operation, the National Center for Development Cooperation (NCOS-Nationaal Centrum voor Ontwikkelingssamenwerking), the National Council of Women, and the Inter-university Councils ("conseil interuniversitaire de la communauté française"- Ciuf / "Vlaamse interuniversitaire raad"-Vlir) and experts. It provides advice to the Secretary of State on policies concerning women and development, and enhances awareness, information and knowledge on gender issues. The secretariat of the CWD is entrusted to the Gender Unit of the Directorate-General for International Cooperation (DGIC) of the Ministry of foreign Affairs, Foreign Trade and Development Cooperation.

Children and youth: Decision-making: Two law projects were started in 1995 to reinforce existing Belgian laws on the exploitation of children. The Government is working to create new laws to reduce the incidence of child abuse and neglect. It is proposing strategies to prevent sexual and physical abuse of children and to promote strategies to identify factors, which contribute to child abuse. A National Centre for Missing Children will be created in the near future. The Youth's Community Councils for the Environment were created in the Wallonia

Region to involve youth in the decision making process. Local authorities fund specific projects conducted by youth. A second important youth fora is the Federal Sitting for Youth Help. These fora play an ad hoc role in the National decision-making process. Important NGOs include the Flemish Consultation on Sustainable Development, the World Workgroup Training, and the Youth for Development Platform. These NGOs are very active in areas such as networking with other NGOs to reinforce their involvement in the decision making process by focusing on specific topics, such as the role of youth in environmental issues and community groups, and education campaigns; To assure "children rights" the Flemish Community has introduced the Child Impact Assessment (Kindeffectenrapportage) as an instrument to evaluate the impact of new regulations on children.

Cooperation: The security of children needs a special vigilance in the consolidation of the society and in the prevention of conflicts. This preoccupation is transformed into collaboration with UNICEF in their programs for children rights and particular in one of their programs in gain to liberate and reintegrate child-soldiers. Status: The Belgium government commit to an internationally agreed set of development goals and time-bound targets through the United Nations Millennium Declaration. Greater gender equality is one of these goals with the headline target being the equal access for girls and boys to primary and secondary schooling by the year 2015.

Indigenous people: Decision-making: Belgium signed in 1993 and ratified in 1996 the Agreement creating the "Fondo Indigena". Since Belgium was the third non Latin American Country to ratify this international Agreement, Belgium, through a representative of the Directorate General for International Cooperation (DGIC), is a full member of the General Assembly of the Fondo Indigena. Programmes and Projects: The only systematic form of direct bilateral cooperation supporting the initiatives of indigenous people is being financed through the mechanisms provided in the above-mentioned international Agreement. Initially only projects supporting bilingual basic education for indigenous children and adults in three countries, Guatemala, Ecuador and Bolivia were financed. In 2000, Belgium contributed a total amount of 1,24 mio EUR as core funding. Several NGOs in Belgium are working in programmes aimed at indigenous people and their communities. Most of them are subsidized by the federal Directorate General for International Cooperation (DGIC). Through the Climate Alliance, the Flemish Organization for Sustainable Development (VODO) cooperates with the Coordinating Organization of Indigenous Communities of the Amazonian Region (COICA) whose actions are aimed at defending land rights, human rights, indigenous culture, and representation at the National level. The Confederation of Christian Trade Unions of Belgium (CSC/ACV), in collaboration with the organization Solidarité Mondiale/Wereld Solidariteit, works on programmes concerning the social emancipation and well-being of indigenous people in several areas of the world.

Non-governmental organizations: Decision-making: Belgium is reviewing formal procedures and mechanisms to involve NGOs in decision making and implementation. Mechanisms already exist that allow NGOs to play their partnership role responsibly and effectively and a mutually productive dialogue exists at the federal level between NGOs and governments. NGOs participate in a wide range of special programmes at local, regional, and National levels such as women in development, maternal and child health, assistance for developing countries, community development, development education, indigenous people and their communities, etc. NGOs in Belgium provide a bridge between the government and the community for the exchange of views and information on National and international environmental issues. The Belgian Government encourages participation by NGOs on Belgian delegations to major international conferences. NGOs have been represented in the National delegations to the Commission on Sustainable Development In 2000 and 2001, the Directorate General for International Cooperation (DGIC) provided 496 000 EUR to UNEP for supporting the participation of civil society organizations in the preparatory process for the World Summit on Sustainable Development of 2002. Capacity-Building, Education, Training and Awareness-Raising: Many of the NGO's actions are related to Agenda 21 including training and educational programmes on North-South issues; and political actions related to National and international policy and support of development programmes in developing countries. The Federal Government provides financial and technical assistance to NGOs with a view to raising community awareness, and increasing understanding of environmental issues and ecologically sustainable development principles. Cooperation: NGO's are among the main partners of the Belgian "indirect" Development Cooperation; in 2001, the DGIC contributed 90 millions EUR to 80 programmes involving 135 Belgian NGO's. All these programmes involve partnerships with local institutions of developing countries (among which local NGOs), capacity building activities and/or educational activities in Belgium. In addition, international and local NGO's have been supported through other channels, such

as the Belgian Survival Fund and the budgets for conflicts prevention and humanitarian aid. Since 2001, the Belgian DGIC also provides direct support to NGO's from developing countries. The annual budget allocation for this programme, which was initiated in 4 countries in 2001, amounts to 6,2 millions EUR in 2002.

Local authorities: Decision-making: The Belgian Government supports local Agenda 21 initiatives. It also encourages local authorities to implement and monitor programmes that aim to ensure participation of women and youth in local decision making. Municipal authorities have established a number of actions for the coordination of operational programmes and projects to ensure environmental infrastructure, to establish local environmental policies and regulations, to assist with the implementation of National environmental policies, and to help coordinate programmes for infrastructure development. They are involved in operational programmes to facilitate a dialogue amongst themselves, the citizens, and private enterprises, concerning sustainable development. Local authority actions strengthen social responsibility, improve the social and cultural quality of life, preserve village structures, rehabilitate and revive rural communities, establish biological diversity and river contracts, establish noise and waste pollution regulations, regulate land use for construction purposes, and complete environmental impact assessments and educational programmes. Cooperation: The Belgian Development Cooperation contributes to the funding of a number of projects aiming at strengthening the local authorities in developing countries. A few examples: the Habitat's "Localizing Agenda 21" programme in the cities of Nakuru (Kenya), Essaouira (Marocco) and Vinh (Vietnam) is a collaborative initiative to enhance the local capacities for sustainable urban planning and management; the UNCDF's Local Development Funds programmes aim to promote decentralized planning and financing of rural development by providing capital budgets and technical support to local governments; the Belgian programme of "Coopération Communale" supports partnerships between Belgian "communes" (districts) and local authorities in developing countries, with the objective of promoting the democratization and decentralization processes.

Workers and trade unions: Decision-making: Belgium trade unions are committed to preventive occupational health and safety. They play an important role in the tripartite mechanisms of safety, health, and sustainable development; and participate in the environmental, economic, and social policies of the country. Trade unions are involved in the design of operational programmes and projects aimed at strengthening the rights of individual workers such as industrial strategies, International Labour Organization (ILO) Conventions, employment policies, collective mechanisms to achieve sustainable development, and educational programmes. Belgian trade unions participate in the Council of Scientific Policy where issues of technology assessment and transfer are discussed. They have independently initiated a number of actions promoting sustainable development. Both the Social Democratic and Christian Democratic trade unions are members of the Federal Council for Sustainable Development. The unions collaborate with the Federal and Regional Governments on projects at the Regional level, including the elaboration of sustainable development projects for the Walloon and the Flemish Region, and the design of educational and training programmes. Status: Workers take some part in Agenda 21 discussions and implementation. Activities to the year 2000 include: promoting ratification of ILO Conventions; establishing bipartite and tripartite mechanisms on safety, health, and sustainable development; increasing the number of environmental collective agreements; reducing occupational accidents and injuries; and increasing workers' education and training efforts.

Business and industry: Decision-making: Belgian business and industry are closely involved in developing initiatives to promote sustainable development and attend National and international meetings related to environmental issues. The Belgian business community is developing a progressive environmental policy supported by information campaigns and environmental strategies. In Belgium, there are government policies encouraging the efficiency of resource use, and there are government policies requiring recycling and reduction of waste. In addition, the Government encourages the concept of stewardship in management and use of natural resources by entrepreneurs. The Federal Government provides assistance to industry, primarily to integrate environmentally sound technologies in production processes and technology transfer. Most big and several small and medium sized enterprises have adopted sustainable development policies. Capacity-Building, Education, Training and Awareness-Raising: Business and industry perform public information activities such as awareness campaigns in order to involve the population in discussions on environmental issues and sustainable development. The Belgian Federation of Enterprises has been actively involved in the promotion of sustainable development production

patterns. This includes the design and organization of an environmental management system training programme, and coordination of a pilot studies programme with a consortium of eight industrial companies aimed at the integration of International Standards Organization standards and the European Union's voluntary Eco-Management and Audit Scheme (EMAS). The Wallonian Federation of Enterprises consistently informs and sensitizes small and medium sized enterprises on environmental management through its team of environmental consultants. Research and Technologies: The Wallonian Directorate General for Natural Resources and the Environment has created the Clean Technologies Group particularly for the industrial sector. It aims, among other things, to implement an R&D programme on pollution prevention, provide assistance to the Wallonian Federation of Enterprises, help small and medium sized enterprises adopt more environmentally responsible production methods, and provide financial assistance to industry for investment in environmentally sound technology. Financing: Flemish enterprises can get financial assistance for investments in environmental technologies through the Flemish Ministry of Economic Affairs within the framework of economic expansion legislation. Cooperation: Belgium provides international development assistance with a view to promote the use of environmentally sound technology in foreign industries. Priority areas include emissions and waste reduction, alternative methods of energy production, state-of-the-art production standards, and efficient resource utilization. In 2001, the Belgian Development Cooperation has supported the creation of a new investment society, called BIO, for the promotion of the private sector in the developing countries, mainly through providing risk capital and supporting financial intermediaries in the South. In order to benefit from the support of BIO, the financial intermediary institutions in the South will have to operate in accordance with a number of principles of good governance and of sustainable development: the social and ecological impacts of their activities will be fully taken into account. The BIO's financial allocation for the period 2001-2003 is 56 millions EUR; for the next triennium, it is expected to rise up to 110 millions EUR

Scientific and technological community: Decision-making: The Federal Council for Sustainable Development allows scientists to examine science-related issues of National importance and to provide advice on specific issues. The Federal Ministry of Science Policy has undertaken a round of consultations with the scientific community and the Council aimed at bringing forward new and innovative programmes to promote sustainable development. There is some effort to exchange knowledge and concerns between the scientific and technological community and the general public in Belgium. The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) is developing an information crossroad on sustainable development. Research and Technologies: The scientific community is conducting research on sustainable development; much however, remains to be accomplished. Areas of research include climatic change mobility, human rights abuse, food strategies and food security, sustainable agricultural development, soil fertility conservation, land management, indicators of sustainable development, technology transfer, biological diversity, poverty, health, indigenous people, gender issues, etc. Financing: The Belgian Administration for Development Cooperation (BACD) provides financial assistance for R&D efforts. The 1993 Institutional Reform has put the Regional Governments and local authorities in charge of the majority of policies for R&D, and several programmes have been created in recent years to obtain funding for R&D. Belgium develops, improves, and promotes international acceptance of codes of practice and guidelines related to science and technology and its role in reconciling environment and development.

In all, the scientific and technological community responded to the Rio call to support SD in its reductionistic aspects. Real integrated, interdisciplinary research along the lines mentioned in Agenda 21 seemed to be a target, which is more difficult to realize.

Farmers: Decision-making: There are a number of NGOs which represent farmers and rural communities on issues such as social welfare, animal health issues, education, trade and transport, etc. Activities are also being implemented to involve NGOs in decision-making processes related to sustainable agriculture, production and consumption patterns, and regional quality production. Other activities being implemented by NGOs focus on issues such as food security, sustainable agricultural policy, North-South agricultural impacts, and reorientation of agricultural and environmental policies. A number of farmers' unions are involved in many activities, including the design of projects (for example, cleaner production and water conservation); environmental impact assessment (EIA) projects; and workshops and training courses at the local, Regional, and Federal levels. The Federal Government, Regional Governments, and municipalities have all started activities, which encourage farmers to protect biological diversity on their land. Farmer's organizations participate in the design and implementation of

sustainable development policies. Financing: The Federal Government and the Regional Governments provide financial assistance to a number of activities.

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CHAPTER 33: FINANCIAL RESOURCES AND MECHANISMS

Decision-Making: No information available.

Programmes and Projects: No information available.

Status: No information available.

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

Information: No information available.

Research and Technologies: No information available.

Cooperation: No information available.

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CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

Decision-Making: In Belgium, policy competences for S&T are distributed between several authorities, in particular between the Federal Authority, the Flemish Community (and Region), the French Community, the Walloon Region and the Region of Brussels-Capital¹⁰. The “primary” jurisdiction for Science, Research, Technological Development and Innovation (STI) policy is conferred to the Regions and Communities within their areas of competences. As an exception to this general rule a number of competences involving scientific research are entrusted to the Federal government. This results in the following situation:

The *Communities* are competent in the following areas: Research related to education, culture and other individual matters, such as health policy and personal assistance. This covers both research in these areas as well as research conducted by organizations of the sectors concerned, namely universities and other higher education institutes. One can thus say that Communities have the main responsibility for fundamental research in universities and applied research in higher education establishments.

The *Regions* are competent in the following areas: Research related to the economy, energy policy, public works, environment, transport and the other regional competences. This covers, among others, support for basic, technological and industrial research, the development of new products and production processes, the distribution and transfer of technologies and technological innovation. In short, Regions have the main responsibility for economically oriented research, technological development and innovation promotion.

The *Federal State* is competent in the following areas:

Autonomously:

- Scientific research, which is necessary to perform its own general competences including scientific research aimed at the execution of international or supra-national agreements;
- Space research within an international framework; and
- Federal scientific institutes.

In agreement with the Communities and the Regions:

- Programmes and actions requiring homogenous execution at national or international level;
- Maintenance of a permanent inventory of the country’s scientific potential;
- Belgian collaboration in activities of international research bodies; and
- Any action in areas belonging to the competences of the Communities or Regions, and which furthermore are either related to an international agreement or refer to actions and programmes going beyond the interest of one Community or one Region.

¹⁰ More information on institutions and competences for STI and STI policies in Belgium can be found in the “*Belgian Report on Science, Technology and Innovation 2001: Volume I*”, edited by the OSTC, under the authority of the CFS-STAT (soon available on line: <http://www.belspo.be>).

Programmes and Projects / Research and Technologies: Based on a decision of the Belgian Government (May 2000), the Federal Office for Scientific, Technical and Cultural Affairs (OSTC)¹¹ has launched the second Scientific Support Plan for a Sustainable Development Policy (SPSD II, 2000-2005), which is a follow-up of the first Scientific Support Plan for a Sustainable Development Policy (SPSD I, 1996-2002). These framework programmes aim, among other objectives, to give scientific support to the decision-making related to sustainable development. The *first Scientific Support Plan for a Sustainable Development Policy* (SPSD I, 1996-2002; budget 59,49 million euro) was composed of:

- Five thematic programmes, namely: the programmes “Sustainable Management of the North Sea”, “Global Change and Sustainable Development”, and “Antarctica”, as support for the agreements and treaties signed by Belgium, and the programmes “Sustainable Mobility” and “Pre-normative Research in the Food Sector”, within the framework of which the environmental component is closely interwoven with the specific concerns of the involved sectors;
- A programme, “Levers for a Sustainable Development Policy”, whose main theme is the adaptation of economic, social and environment-related behaviors in the light of the development of policy-guiding instruments;
- Specific actions devoted to the development of research instruments, by encouraging the use of earth observation data via satellite and the BELNET telematics network for data exchange; and
- Finally, the Supporting Actions that have the integration of scientific data, their appropriated management, and the active promotion of communication and information exchange with all involved spheres as their objective. The objectives pursued under the heading of Supporting Actions reflect the concerns addressed by Agenda 21 in sections III (“Strengthening the role of the main groups”) and IV (“Means of implementation”) and more specifically in chapters 35 (“Science for sustainable development”) and 40 (“Information for decision-making”). Specific tools have been developed in order to achieve these objectives: databases, platforms for concertation¹² (biodiversity, viable cities, indicators for sustainable development), synthesis report.

The *second Scientific Support Plan for a Sustainable Development Policy* (SPSD II, 2000-2005, budget 57,88 million Euro):

To have a better-knit, more integrated and coherent scientific approach, which is also more flexible with regard to new research and policy developments, it was decided to give SPSP II (2000-2005) two co-ordinated structures, called “Global Change, Ecosystems and Biodiversity” and “Sustainable Production and Consumption Patterns” arching over - and in some cases - reorienting the programmes of SPSP I and strengthening biodiversity and energy matters.

- Part I “Sustainable Production and Consumption Patterns” deals with four main themes: General issues, Energy, Transport and Agri-food.
- Part II “Global Change, Ecosystems and Biodiversity” covers the following themes: Atmosphere and climate (incl. Antarctica), Terrestrial ecosystems; Marine ecosystems (North Sea); Biodiversity (terrestrial and marine ecosystems, incl. Antarctica), Hydrological cycles.
- Besides these two co-ordinated structures, there are the Supporting Actions (see above) and the Mixed Actions. The Mixed Actions are intended to enhance the integration of environmental, social and economic

¹¹ The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) (<http://www.belspo.be>) is the administration responsible for the implementation of the federal science policy.

¹² Belgian Biodiversity Platform: <http://www.biodiversity.be/>

Platform Viable Cities: <http://www.belspo.be/issd/urban> (under construction)

Platform “Indicators for a Sustainable Development”: <http://www.belspo.be/platformisd> (under construction)

dimensions in order to get a better balance between those 3 components of sustainable development - a strategy with high political priority at both European and international level.

To achieve its full impact, SPSD I was implemented within the framework of a Co-operation Agreement between the federal government and the Regions. The federal government, Regions and Communities will sign a Co-operation agreement to implement and follow up the SPSD II. At several levels of the SPSD II, and I the Co-operation Agreement installs advisory committees to ensure the transmission and implementation of the programme results.

Besides the SPSD I and SPSD II, other research programmes - launched by the OSTC - deal with specific aspects of the problematic nature of sustainable development: "Social cohesion" (2000-2004, see Chapter 3), Scientific Support Programme for integration of the notions of quality and security of environment, processes and goods of production in the framework of sustainable development - subprogrammes "Workers' healthcare" and "Standardization and technical regulations" (1998-2003, see Chapter 6) -, "Belgian coordinated collections of micro-organismes" (1998-2003, see Chapter 15), "Transversal actions: Belgian public institutions - Science and society - Viable cities" (2000-2003, see Chapter 7), the Research programme for earth observation "STEREO" (2001-2006). The latter programme focuses on studying the use of remote sensing imagery for vegetation monitoring, agriculture, land management and management of coastal areas.

In Flanders, three research programmes were of special importance in the context of sustainable development: a Programme on Environmental Technologies (VLIM), a Programme on Energy Technologies (VLIET) and a Programme Focused on Nature (VLINA). VLIM aims to enhance the development and implementation of those techniques that make ecologically sound and economically efficient production possible. VLIET addresses traditional energy sources, renewable energy sources, final utilization of energy technology and all policy aspects. Both programmes financed mainly technology driven projects. A total of 176 projects were supported for 39.24 million Euro between 1992 and 1999. VLINA is oriented to research concerning the different components of the ecosystem. The government of Flanders did not prolong these programmes. Priority is given to develop criteria to substantially support those Energy and Environmental R&D projects in which sustainable development is clearly incorporated. A new initiative is the creation of structured funding of policy-oriented research 'support centres'. Thus so far 13 support centres (e.g. 'Health end environment', 'Sustainable agriculture', 'Equal rights policy',) are selected. The initial budget amounts to 4.96 million Euro. The Science and Innovation administration of the ministry of Flanders support an action programme for awareness building and communication activities related to science and technology, with a total budget of 4.1 million Euro.

In Wallonia, the main research programme is the Environmental Technology Programme. It is jointly managed by the Wallonian Research Agency (DGTRE) and the Wallonian Directorate General for Natural Resources and the Environment (DGRNE). It covers two types of financial support: subsidies as well as reclaimable financial aid. Five sectors of research are included: prevention of industrial pollution, and limitation of waste especially packing materials; recycling of effluents, industrial waste, residential waste, and agricultural waste; treatment of industrial effluents and industrial waste; control of industrial emissions; and methods to effectively intervene in cases of industrial pollution. In addition, DGTRE has developed a broad information campaign directed to industry through the publication of very detailed sectoral technology and environment files. The Brussels Capital Region supports R&D activities in universities and research centres with two original programmes; "Research in Brussels" (grants to foreign researchers) and "Prospective Research in Brussels". Within these programmes projects are financed dealing with social, economic and environmental aspects of sustainable development. Through its scientific policy and its various subsidies, the French Community pursues two primary objectives:

- To finance high quality fundamental research in all areas corresponding to priorities in universities;
- To ensure excellent training of researchers.

Since the mission of the French Community is to finance basic research, no thematic orientation is followed in the policy. All participation and subsidies are managed under the "bottom-up" principle – i.e. on the initiative of the

research players themselves – and on criteria of scientific quality. Four main channels are used for the implementation of the French Community STI policy:

- Basic funding of universities
- The “Fonds National de la Recherche Scientifique” – F.N.R.S. (National Fund for Scientific Research) and associated funds, supporting researchers and research projects at universities. The associated funds, specialized in certain areas of research, are the following ones: I.I.S.N.,- Institut interuniversitaire des sciences nucléaires ; FRSM – Fonds de la recherche scientifique médicale ; FRFC – Fonds de la recherche fondamentale collective à l’initiative des chercheurs ; FRIA (Fonds pour la Formation à la recherche dans l’industrie et dans l’agriculture).
- The “Actions de Recherche Concertées” – ARC (Concerted Research Actions), aim to develop centres of excellence within the university institutions, in fields that are considered important for the creation of knowledge-base and its application in the middle and long term.
- The “Fonds Spécial pour la Recherche” (Special Research Fund), has been set up to grant research subsidies to universities, in addition to their basic allocations.

Status: The science policies adopted in Belgium are based on the consensus and conviction that research can play a major role in ensuring social and economic progress, and in improving the quality of life and environmental quality. This is manifest in different ways through: a) the creation of the Federal Interministerial Commission on Sustainable Development, which prepared the Federal Plan for Sustainable Development 2000-2004 (approved by the Council of Ministers from the Federal Government on July 20, 2000)¹³ (see also Chapter 8); b) the adoption of the first and the second Scientific Support Plan for a Sustainable Development Policy (SPSD I and SPSD II) within the framework of a Co-operation Agreement with the Regions and the Communities; c) the completion of various regional sustainable development reports based on scientific expertise.

Capacity-Building, Education, Training and Awareness-Raising: When it comes to enhancing the role of science and the scientific support of a sustainable development policy, several activities exist, such as :

- The conference “Sustainable development: towards a sustainable dialogue between science and policy”, November 24-25, 1999, organized by the OSTC (publication available);
- The forthcoming “Dictionary on sustainable development in Belgium” and the Platforms for concertation mentioned above (both within the Supporting Actions of the SPSD I);
- The workshop “Setting concepts in motion: Sustainable Development and R&D policies – development of scientific tools in support of Sustainable Development decision-making”, jointly organized by the OSTC and the European Commission DG Research, November 28-29, 2001 (proceedings will become available);
- The OSTC site for young people (<http://www.belspo.be/young>); and
- BEO, an educative CD-Rom on earth observation in the context of sustainable development

Several conferences hosted by the Belgian EU Presidency July –December 2001

(<http://www.cordis.lu/belgium/events.htm>):

- “Public awareness on science and technology in Europe and its regions: building bridges with society”, co-ordinated by Flanders and in co-operation with the Walloon region, the French community, the OSTC and DG Research of the European Commission, December 17-18, 2001;
- “European Biodiversity Platform - Scientific tools for biodiversity conservation (models, monitoring and experiments)”, organized by the Belgian Biodiversity Platform of the OSTC in co-operation with DG Research of the European Commission, December 2-4, 2001;
- “Unity and diversity: the contribution of the social sciences and the humanities to the European Research Area” co-ordinated by Flanders and in co-operation with the French community and the OSTC and DG Research of the European Commission, October 29-30, 2001;
- The European Initiative "Global Monitoring for Environment and Security (GMES): towards implementation", co-ordinated by the Federal Office for Scientific, Technical and Cultural affairs (OSTC)

¹³ Federal Interministerial Commission on Sustainable Development: <http://www.cidd.fgov.be>

in co-operation with DG Research and DG Environment of the European Commission, October, 15, 2001; and

- “Urban environment and European policies”, seminar organized by IBGE-BIM, the Brussels Institute for Management of the Environment, in co-operation with the Committee of Regions.

The working group “Scientific research and sustainable development” of the Federal Council for Sustainable Development¹⁴ (see Chapter 8) developed several advices in the field of science and sustainable development, among others: SPSD I; CGIAR (Consultative Group for International Agricultural Research); European directive on the precautionary principle; Indicators for a sustainable development (forthcoming). The working group on “science and sustainable development” also formulated recommendations on the SPSD II in a letter addressed to the Minister of Scientific Research.

Information: The Commission on Sustainable Development (CSD) has regularly sent overview reports on science activities, which support sustainable development. There are several INTERNET addresses covering the scientific response to sustainable development (see above and Chapter 40).

Research and Technologies: See **Programmes and Projects / Research and Technologies**

Financing: See **Programmes and Projects / Research and Technologies**

Cooperation: At the international level, SPSD I and SPSD II refer to the priorities brought to light at the Rio Conference (Agenda 21) and all the international agreements and European directives with which Belgium should comply in the areas concerned. Within the framework of SPSD I and SPSD II international co-operation is stimulated at different levels:

- Within the framework of SPSD II, calls for proposals are open to the participation of European universities or research institutes since June 2001. Participation is limited up to 10 % of the total budget asked for in the proposal and based on the principle of 50 % co-funding.
- Within the framework of SPSD II, research projects may be extended to a complementary international research. This complementary research may be carried out in the context of the commitments that the federal authority has made within international organizations (e.g., United Nations, UNESCO, IPCC, etc.), as well as under the bilateral science and technology agreements that have been signed with China and the countries of Central and Eastern Europe; and
- In a general way, researchers of SPSD I and SPSD II are stimulated to participate in international research and assessment programmes (ex. IPCC, IGBP, Diversitas, IHD).

The Belgian development cooperation provides financial support to a number of academic and scientific institutions for joint research programmes and institutional partnerships with institutions from developing countries. This support also covers the organization of international courses on development related topics, and studies for policy preparation. The Institutions supported include, among others: Belgian universities (35 million EUR for year 2001); the Royal Museum for Tropical Africa (1,4 million EUR for 2001); the Institute of Tropical Medicine of Antwerp (9 million EUR for 2001) and the research centers of the Consultative Group for International Agricultural Research (CGIAR- 5,9 million EUR per year, including 4 million EUR for joint research programmes with Belgian universities and scientific institutions).

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¹⁴ Federal Council for Sustainable Development: <http://www.frdo-cfdd.be/>

CHAPTER 36: PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

Decision-Making: The Flemish, French, and Germanic Communities are responsible for education at all levels, professional training, and scientific research. The Flemish authorities primarily involved are the Department of Education and the Environment Administration of the Ministry of the Flemish Community, , and scientific institutions. Provincial authorities as well as municipalities often develop various kinds of environmental education initiatives. In Flanders the Environmental Policy Plan contains provisions for education. A working group on education and Agenda 21, active in the Flemish Region, has been investigating how the recommendations of the United Nations Conference on Environment and Development (UNCED) should be implemented in the Flemish Region and Community. Creating a network of Centers for Environmental Education run by different authorities and private organizations, new working models, and an interdisciplinary approach in schools should be promoted. Government transparency is put into practice through public hearings and implementation of the Plan for the Environment Policy 1997-2001. The environment division of regional development companies provides environmental information to business. A significant number of NGOs participate in the consultation and practice of environmental education. Environmental and consumer organizations inform the public about ecologically sound products. Socio-cultural associations and trade unions inform members of their organizations.

Programmes and Projects: All Flemish provinces have nature and environment centres and run environmental campaigns. The Provincial Institute for Environmental Education of Antwerp has educational nature gardens, and excursions to nature reserves and sewage plants, and has held an exhibition on the wise use of water. In 1995, OVAM supported the Eco-Team Programme in three pilot municipalities involving about ten households per team willing to try and achieve a more sustainable way of living over a period of about seven months. In 1998, there will be a campaign of water management for families in which AMINAL, the World Wildlife Fund (WWF), and the Bound of Young and Great Families will be working together. In the Flemish, the French and the Germanic Communities, school curricula are being revised at all levels to incorporate environmental issues. Environmental health, safe drinking water, sanitation, food, ecosystems, recycling, and energy savings are issues covered as subject-related or cross-curricular themes at all levels of both the primary and secondary school curricula. There are a large number of initiatives which respond to the present need for environmental education within the education system. In 1997 the Flemish Government started the implementation of the environmental educational project 'Groene School' (*Green Schools*) for secondary schools. By June 2001 approximately 40% of alle Flemish secondary schools are participating in the project. In September 2001 the Flemish Government started the project MOS (*Caring for the Environment in our school*) which is intended for primary schools. From September 2002 on, the 'Groene School'-project will be integrated in the MOS-project. In the first place, this project will pay attention and will help schools with the implementation process of the attainment targets of Environmental Education in the primary and secondary schools.

Another example is the multi-media educational package on air and water put together for all educational levels in primary and secondary schools by the information department of VMM. Public libraries, environmental education centres, the press, and the main environmental organizations also received a pack. OVAM also targets school children with the "Be Smart, Avoid Waste" material (folder, binder, poster) and with a waste prevention Internet game. In the French Community, tools have been developed to introduce concepts required to understand the physical and socioeconomic aspects of environmental problems. Broad environmental education is practiced in all primary and secondary schools in the Germanic Community. An awareness campaign on waste prevention, involving aspects related to sustainability and consumption patterns, is planned for 1998. The campaign will reach citizens through four advertisements in a variety of newspapers, placards and bills, and radio spots. The municipalities in the Flemish Region regularly inform the public about these initiatives for the prevention of domestic waste, the results of collections, and the processing methods. Specific training concerning the rational use of energy for energy managers and agents in the building and construction sector, has been organized in Wallonia and Flanders. The Centers for Environmental Education in Flanders also provide workshops and symposia for professionals on ecological themes, such as, small-scale wastewater treatment. The Federal Government developed

a Federal Plan for Sustainable development. A video is produced for schools to stimulate young people to take actions for sustainable development.

Status: No information available.

Information: The Federal State and, to a larger extent, the Regions, have a number of initiatives to inform the general public on environmental issues, such as energy-saving plan information on the Internet. A summary of the annual reports on the quality of surface water, discharges of waste water, and air quality and emissions will be published every year for secondary school teachers. Copies of the brochure summarizing the Flanders Environment and Nature Report were distributed in 1995. As part of the DYNAMO² projects, the Flemish Minister of Education each year awards prizes (financial support) to schools that submit valuable environmental educational projects. In the area of energy use and climate change, for instance, a first campaign on the greenhouse effect and possible mitigation measures was set up by the environment administration of the Federal Government. Schools and the public are informed via educational kits, leaflets, and the media. Other instruments used include audiovisual means, learning paths, visitor centres, information days, papers, periodicals, posters, radio, and television. The Wallonian Region published a number of information files aimed both at secondary education and the general public in the period after the Rio Conference. In order to disseminate environmental information, a large official Flemish Internet-site offers a wide range of both static information and on-line data. Among the range of instruments to inform individuals on energy saving in Wallonia are television and radio spots, a system of 13 energy offices distributed across the Region, and the publication of energy guides and brochures.

Research and Technologies: No information available.

Financing: No information available.

Cooperation: Sustainable development has also been a recurrent theme in the Information, Education and Awareness-raising activities of the Belgian Development Cooperation for the last few years, and in particular since the adoption of Agenda 21, in 1992. In 2000, the DGIC has produced a number of communication supports focusing on sustainable development, among which: the policy note "*Quality and Solidarity: a partnership for sustainable development*"; 9 thematic folders on sustainable development in Belgian international cooperation; the periodical publication "*Dimension 3*"; the program on development education for the Belgian schools; a new exposition called "See and Understand" and various audiovisual programmes in co-production with the Belgian television and independent film producers. The Belgian cooperation also financially supports the organization of international courses on sustainable development related matters. The DGIC also provides developing countries students with training grants and scholarships for studies, research, or training sessions: in 2001, 12,6 millions EUR were allocated for this purpose. any of these training/education programs closely relate to sustainable development: they cover topics such as environmental sanitation, ecological marine management, human settlements, human ecology, water resources engineering, etc.

The Agency for European Programmes supports many activities aimed at concrete collaboration with schools in France, Germany, Spain, Burkina Faso, Canada (Quebec), and Mexico. Flanders maintains close and amicable relations with a great number of friendly countries and regions. Flanders, as represented by AMINAL, collaborates with the World Conservation Monitoring Centre (WCMC), the think tank of the World Conservation Union (IUCN). VMM represents Belgium on the Green Spider Network. The Department of Education reports currently to the European Commission DG 11, and also to the Organization of Economic Co-operation and Development (OECD) about the 'Project Environment and School' initiatives. There is a great deal of collaboration, for example through working groups on the environment, with the Netherlands. The Flemish Environmental Agency has contacts with South Africa in order to contribute to their educational projects. Flanders is also involved in the EUROREGION, which unites Kent (United Kingdom), Nord-Pas de Calais (France), Brussels-Capital, Wallonia, and Flanders, which also includes a working group on the environment that has created a joint declaration called the Environment Charter.

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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.

- 1) Major Treaties ratified by Belgium and relevant to Agenda 21 include:
 - Basel Convention on the control of Transboundary Movements of Hazardous Wastes and Their Disposal, date of ratification: 01/11/1993;
 - the United Nations Framework Convention on Climate Change (UNFCCC), date of ratification: 16/01/1996;
 - the Convention on Biological Diversity date of ratification 22/11/1996 and the Global Environmental Facility (GEF); and
 - Convention to Combat Desertification, date of ratification: 30/06/1997

- 2) Major Treaties signed by Belgium and relevant to Agenda 21 include:
 - Kyoto Protocol to UNFCCC, date of signature: 29.04.98;
 - Protocol on Persistent Organic Pollutants (POPS) to the Treaty on Long-Range Transboundary Air Pollution (LRATP), date of signature: 24/06/1998;
 - Rotterdam Convention on Prior Informed Consent, date of signature: 11/09/1998;
 - Cartagena Protocol on Biosafety, date of signature: 24/05/2000; and
 - Stockholm convention on Persistent Organic Pollutants, date of signature: 23/05/2001

- 3) Major Environmental Treaties ratified by Belgium before the United Nations Conference on Environment and Development:
 - Convention on the International Trade of Endangered Species of fauna and flora (CITES), date of ratification: 03/10/1983;
 - Ramsar Convention on Wetlands, entry into force in Belgium: 04/07/1986;
 - Convention on the Conservation of Migratory Species of Wild Animals, date of entry into force in Belgium: 01/10/1990; and
 - Bonn Convention on the Conservation of Migratory Species of Wild Animals, date of entry into force in Belgium: 01/10/1992

- 4) Vienna Convention for the Protection of the Ozone Layer (ratified) and its: Montreal Protocol on Substances that deplete the Ozone Layer (ratified); London Amendment, ratified; Copenhagen amendment, date of ratification: 28/10/98; Montreal Amendment, signed; and Beijing Amendment, date of signature: 03/12/1999

Belgium participated in the GEF Pilot Phase (1991-1994), contributing 4.42 million SDR to the Core Fund and co-financing projects in Tunisia and Burkina Faso/Côte d'Ivoire for a total of 5 million SDR. Since 1995, Belgium has fully joined the restructured GEF. Through the Belgian Agency for Development Cooperation, Belgium is contributing its 1.68% share of the GEF Trust Fund that is close to 24 million SDR for the period 1994-1997.

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CHAPTER 40: INFORMATION FOR DECISION-MAKING

Decision-Making: Coordinating Bodies Agencies involved in information include the Federal Planning Office, the Federal Department for Social and Environmental Affairs, the Environmental Ministry of the Flemish Government, the Walloon Directorate General for National Resources and the Environment, and the Brussels Institute for Environmental Management.

Programmes and Projects: LINK TO FEDERAL PLAN FOR SUSTAINABLE DEVELOPMENT

Status: In 1996 Belgium decided to become a testing country in the Commission on Sustainable Development (CSD) Programme on Indicators of Sustainable Development. The implementation of the testing can be described in three successive phases. (1) A technically oriented testing phase on environmental ISDs took place in the framework of a specific working group established by the Interministerial Conference on the Environment (ICE) in June 1996. It reviewed 20 environmental ISD of the Working list of the CSD (which contains a total of 57 environmental ISDs). (2) An analytically oriented testing phase on social, economical, environmental and institutional ISDs took place in the framework of the Act on the Co-ordination of the Federal Policy on Sustainable Development (May 5th 1997). It concerned 34 social, economical, environmental and institutional ISDs (one quarter of the CSD list) related to the four key areas of sustainable development analysed in the Federal Report (changing consumption patterns, eradication of poverty, protection of seas and coastal areas and protection of the atmosphere). (3) A third policy oriented testing process on all ISDs took finally place in the framework of the Act on the Co-ordination of the Federal Policy on Sustainable Development through the public inquiry on the project of Federal Plan for Sustainable Development.

At the Federal level, work on ISDs takes place in the framework of the Act on Co-ordination of the Federal Policy on sustainable development, in particular in the report on sustainable development and the plan for sustainable development. At the Regional level (Flanders, Wallonia, and Brussels), work on indicators is carried out under the framework of Regional environmental reporting and policymaking. Also at the Regional level, legislation has been adopted under European framework legislation aimed at enforcing the evaluation of environmental impacts of projects. The Regions, in accordance with the European Union's voluntary Eco-Management and Audit Scheme (EMAS), are implementing a voluntary system of environmental evaluation for firms.

Flemish Regional demographic and environmental indicators are published annually in VRIND. The Flemish Government has created a Functional Regional Database (FRED) to cover all types of policy relevant indicators. All Flemish agencies concerned with environment and sustainable development policies are connected to this database. The Walloon State of the Environment report, published each second year, has proven to be an excellent tool for decision making for both the public and private sectors in the Walloon Region. The Wallonia Government is also developing a central database of environmental data and indicators. Particular importance is given to the maintenance and improvement of networks to control environmental quality and inventories of polluting emissions. In the Brussels Region, the implementation of existing plans includes the use of indicators to assess the performance of policies and actions launched in fields such as waste management and promotion of biological heritage (plans for the management of air quality and noise data are under development). About fifteen environmental and social indicators included in a "dashboard" are published regularly as well as reports on the State of the Environment (1990,1994). Since October 1996, an environmental statistical observatory has been created to collect data and produce indicators.

Research and Technologies: The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) is responsible for the "Scientific Support Plan for a Sustainable Development Policy" (1996-2002; 2000-2005). The objective of this programme is to translate the various dimensions of sustainable development into specific political measures. In this framework, the OSTC finances research on sectoral ISDs (Indicators of Sustainable Development) as well as on institutional ISDs. It also finances a platform on ISD to improve the communication between research and policy. There are different OSTC activities that promote the integration of scientific knowledge and an

appropriate management of this information. Information systems and databases, supported by the OSTC, are responsible for giving the potential users easy access to this information. For example:

- The Information System for Sustainable Development: <http://www.belspo.be/issd/>;
- The Information System for Sustainable Mobility: <http://www.agr.kuleuven.ac.be/smisv2/>;
- The database on Biodiversity: <http://www.brfgov.be/biodiv/>;
- MetafroInfoSys : a catalogue of data sets and data sources on Central Africa : <http://www.africamuseum.be/metafro/>;
- The TELSAT Guide for Satellite Information : A Belgian Platform on Remote Sensing - A service of the Earth Observation help Desk : <http://telsat.belspo.be/>; and
- IDOD (Integrated and dynamical oceanographic data management) : <http://idod.mumm.ac.be>

In the framework of its research programmes, the OSTC has also supported the publication of the first Environmental Data Compendium for Belgium, which intends to increase the visibility of a substantial portion of environmental information provided by international organizations together with its documentation [http://www.belspo.be/belspo/ostc/act_scienc/fedra/proj.asp?l=uk&COD=AS/DD/02]. The OSTC also finances a research programme on the application of satellite remote sensing data and geographical information systems. This includes activities to raise public awareness on satellite data and to demonstrate its use as a tool for decision-making through case studies. For more information, please look at <http://www.belspo.be/>

Cooperation: In 1995, Belgium hosted an International Workshop on Indicators of Sustainable Development for Decision-Making organized with the Government of Costa Rica, the United Nations Environment Programme (UNEP), and the Scientific Committee on Problems of the Environment (SCOPE). A Working List of Indicators, in the form of a set of methodology sheets, was proposed at this first workshop from which countries could select the indicators for their National policies, according to their own problems, policies and targets. The Commission on Sustainable Development (CSD) in 1996 adopted this Working List. The same year, Belgium hosted a second International Workshop, which welcomed the methodology sheets as a valuable basis for harmonization in methodological approaches and commended the Department for Policy Coordination and Sustainable Development for their publication. The second Ghent meeting marked the launch of the testing phase of the indicators of sustainable development and produced guidelines and a timetable for this testing phase.

Click here for links to statistical agencies in the UN ECE Region.

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CHAPTER: INDUSTRY

Decision-Making: Today the Regions are competent for the protection of the environment (soil, subsoil, water, air noise), industrial waste policy, the environmental control of companies, spatial planning and the redevelopment of contaminated or deserted industrial sites. The federal government remains competent for the transit of waste and for radioactive waste, ionising radiation (nuclear power generation industry), and chemical pollutants. The SEVESO directive and the management of the risks of major industrial accidents fall under both regional and federal competence. Since responsibilities for environmental industrial development are mainly under regional competence, regions have set up local plans and programmes for a sustainable industrial development. In 1996, the Flemish Region adopted the Five Year Environmental Policy Plan (MINA 2 1997-2001). This plan is complemented by a FSP (Flemish Strategic Plan) for each year, which has been translated into concrete actions. The succeeding plan MINA 3 for the period 2002-2006 is about to be approved by the Flemish government. In 1997, the Walloon Region adopted the Wallonia Sustainable Development Plan (PEDD), which included the mainly industry-oriented Wallonia Waste Plan. The Brussels Region sustainable development plan is in preparation and should be approved at the Ministerial level in early 1998.

The advisory Federal Council for Sustainable Development is composed of thirty-four members, representatives of non-governmental organisations, the scientific community, and federations of workers and of trade unions. The Federal law on the coordination of the federal policy on sustainable development (May 5 1997) introduced an obligation to set up a report and a plan on the federal policy on sustainable development. The first Federal Plan for Sustainable Development 2000-2004 included the participation of the regions and a public consultation procedure. The role of industry, one of the major groups, is obviously an important part of the report and the plan. At the federal level, the introduction of regulating eco-taxes (16 July 1993) and the forthcoming Law on Product Standards should be mentioned. The latter will provide an integrated, sustainable product policy, and promote sustainable production and consumption patterns. Industry is a major partner for government efforts to use new and environmentally sound technologies. The Brussels Region has initiated sectoral environmental conventions with textile industries and stations services. Since 1996, an Executing Act is in force for laundry services. The Flemish region has developed both the means of environmental taxes and of voluntarily Environmental Policy Agreements with several industrial sectors. The existing subvention mechanisms towards companies are reoriented into the direction of stimulating investments that reduce CO₂ emissions and use resources more efficient. Therefore Best Available Technologies and foreign best practices are the minimum norm.

Programmes and Projects: National Programmes and Voluntary Agreements have been set up since 1994. Reduction of carbon dioxide (CO₂) in the energy sector is part of the Belgian National Programme for Reducing CO₂ Emissions. Some 14 measures are devoted to the industrial sector including voluntary agreements, energy audits and accounting, promotion of the use of renewable energy sources, and subsidies for RUE investments. The Flemish region has set up a CO₂/Rational Energy Use Policy Plan and is developing an integrated climate policy.

Status: Under the auspices of the Organisation for Economic Co-operation and Development (OECD), a voluntary agreement on brominated flame retardants and a Ministerial declaration on lead apply at the Federal level (Ministry for the Environment). On October 18, 1991, the Federal Government and the regional authorities signed a voluntary agreement with electric power producers (Electrabel and SPE) to reduce sulphur dioxide (SO₂) and nitrogen oxide (NO_x) emissions from conventional power plants. Taking 1980 as the reference year, the aim is to reduce SO₂ emissions by 70% in 1993, by 75% in 1998, and by 80% in 2003. For NO_x the aim is to reduce emissions by 30% in 1993, 40% in 1998, and 45% in 2003. Parties to the agreement have set up a committee to monitor its execution and to amend its rules according to economic trends. Emissions of industrial wastewater effluents in the Flemish Region were significantly reduced over the period 1992-2000; in the future further necessary investments are planned. . Flemish industry remained responsible for 27% of BOD and 20% of COD in 2000. For waste, the Flemish manufacturing industry is responsible for 36,8% (excluding river slime) of the quantity (in tonnes) of waste produced. In 1998, the industry shares (excluding electricity generation) of total air emissions were: SO₂ Flanders 22%, Wallonia 49%; NO_x Flanders 17%, Wallonia 29%; non-methane volatile organic compounds (NMVOC) Flanders 49%, Wallonia approximately 23%; carbon monoxide (CO) Flanders 25%, Wallonia 5%; CO₂ Belgium

25%, Flanders 22%. Main pollutants handled at the Federal level are asbestos (controlled by the Ministry of Labour), persistent organic pollutants (POPs) including biphenyl-polychlorinated terphenyl (PCB-PCT), bio-cumulated pesticides (Ministry of Agriculture), and benzene (Federal Ministry of Public Health).

Belgium has no reliable data on green industries, due mainly to a lack of definition in this sector. The European Commission (DG XI) opposes the OECD/Eurostat definition of eco-business. They prefer a broader concept that shows that environmental legislation has also a positive effect for business. The European Community (EC) does not allow member states to provide subsidies for "end-of-pipe" equipment industries (waste recycling, air and water euration, etc). A 1999 study by the Social Economical Council of Flanders calculated the impact of the environmental industrial sector on the economy. The turnover was 4.5 milliard €. There were 3,289 companies with as employment figures: recycling activities 5,333 jobs; core activities as waste, water, air, soil, noise 20,160.

In the Wallonia Region, investments in "end-of-pipe technologies" are mainly foreign direct investment (FDI) projects by foreign and multinational companies. Public regional policy promotes rational upstream investments in clean technologies, the Eco-Management and Audit Scheme (EMAS) or the International Standards Organization standard ISO 14000. Implementation means include permits, tax refunding, etc. The Flemish Region promotes ecological business activities through: improving the functioning of environmental markets (eco-management and auditing legislation/EMAS); grants for green investments (energy saving) and special loans for cleaner technologies; fiscal measures including environmental taxes and levies on wastewater and water use; regular consultations with target groups; establishment of an Association for Energy and Environment Technology; support for environmental R&D (energy saving, renewable resources, cleaner production, green products); specialized environmental training for environmental officials and coordinators; sectoral policies including the development and use of renewable energy; and green investment subsidies and aid for training for small and medium sized enterprises (SMEs).

In Belgium, the climate, hydrography, and water management have provided a sufficient supply of industrial freshwater to date. However, a growing concern for industry is the access to groundwater, which is becoming a diminishing resource. In the Flemish Region, industry is responsible for 69.2% of the non-household use of water. Within the Walloon Region, 80% of all freshwater (ground and surface water) is used by industry (68% for electricity generation, 20% for other industries, 11% for households, and 0.5% for irrigation). Although recent data indicate that the pollution of freshwater by industry is a major problem, it is diminishing as a result of actions undertaken by companies themselves, in downstream actions (wastewater treatment, end-of-pipe filters), and upstream prevention (groundwater rational use, new technologies, EMAS, ISO 14000). Since discharge data are being structurally collected in view of wastewater taxes, more than 75% of all industrial discharges in the Flemish Region have registered a decrease. It has to be pointed out that the importance of the industry as a polluter of freshwater depends on the pollutant. In the Flemish Region, 20% of the total discharges of COD after treatment is attributed to industry, as is over two third of total cadmium, and 20% of total copper. The importance of industry as a major water polluter also depends on the sub-sector. Important to mention is the very high influence of activities in neighbouring countries on the presence of certain metals as cadmium and chromium.

The petroleum industry takes care of its own water treatment and does not cause problems. In the chemical industry, which is mostly situated in the Flemish Region, acids and chlorine compound emissions into water are still being recorded. The ferro-industry and the non-ferro sector SMEs (Wallonia & Flemish Regions) are responsible for solvent and heavy metal (arsenic, cadmium, chrome, nickel, lead) pollution.

Capacity-Building, Education, Training and Awareness-Raising: The policy sectors economy and environment finance each a network of universities that will support and enrich policy making during 2001-2006. Also an academic chair environmental policy will be financed for the following years. In a growing number of primary and secondary schools the 'green school' project is learning children the concept of sustainability by integrating it in their school activities.

Information: Belgium's First National Communication on Greenhouse Gas Emission, under the United Nations Framework Convention on Climatic Change (UNFCCC), reports an inventory and projection of industrial

emissions of principal greenhouse gases by different sectors, including the industrial sector. Various INTERNET sites cover the role of industry in Belgium. The information includes: Industrial discharge and surface water quality data; energy use and energy price; environmental permits; regulations & legislation; prevention measures; clean technologies; industrial joint ventures; and industrial discharge agreements and licences. See also under “**Status**”.

Research and Technologies: Within Belgian implementation of the European Commission's ExternE project, Belgium has contributed to scientific research on the external costs of fuel cycles in electricity generation. Results are reported to the European Commission, DG XII. The Flemish Institute for Technological Research (VITO) stimulates sustainable technological development for the government, industry and SME's. This research institute is active in international and national R&D projects in the fields of energy, environment and materials

Financing: No information available.

Cooperation: With regard to the EU, the Federal Ministry of Foreign Affairs provides coordination. With regard to other international organizations, the Regions may appoint a delegate, but the Belgian point of view must be determined following mutual consultation procedures and be channelled to the organization by the Federal State. Belgium has participated in the regulation concerning the export and import of chemicals, which are banned or severely restricted on account of their effects on human health and the environment, under the framework of the United Nations Environment Programme/Food and Agriculture Organization (UNEP/FAO) prior informed consent (PIC) voluntary agreement. The provisions of the Regulation are in effect at the National level through the December 21, 1994 Act, which contains legal measures in case of non-compliance. Belgium reporting to international agencies includes: radioactive waste from nuclear reactors to the INEA; an annual report on energy policy in Belgium; monthly statistics on production and consumption of oil products, and coal and natural gas to Eurostat and the IEA; and sulphur emissions, and eco-taxes, charges, levies including industrial levies to OECD. An Energy Audit of Belgium was completed in 1997 by AIE. Similarly, an Environmental Performance Review of Belgium was completed in 1997-98 under the auspices of OECD. Belgium currently reports to the European Commission on the matters of preventative and curative controls for the management of water, air, waste, and natural resources/areas. At the Federal level, the management of new chemical products and hazardous substances are part of binding harmonized processes at the EU level, which require close co-operation and consultation among Member States, as well as mutual control through the exchange of relevant information. The European Commission coordinates this collaboration between Member States.

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CHAPTER: SUSTAINABLE TOURISM

Decision-Making: Since 1971, tourism no longer comes under the authority of the national – later federal – parliament, but under that of the communities. At first there was uncertainty about whether this was the case, not just for the cultural aspects but also for the economic aspects of tourism. A 1986 judgment from the Court of Arbitration gave a positive answer to this, albeit with one restriction: support or backing given to the tourist industry is a matter for the regions. At present, it is assumed that the authority over tourism is a mixed and divided matter for communities and regions and which is carried out differently on each side of the linguistic border:

- For Flanders and the Flemish community in Brussels, the Flemish government handles the entire tourism policy. The minister in charge is Renaat Landuyt, minister of Employment and Tourism;
- This is handled for Wallonia by the government of the Walloon region, which took over this authority from the French community in 1994. Serge Kubla is the minister in charge;
- COCOF (the Commission of the French Community) conducts the policy for the French-speaking community in Brussels. The minister in charge is Didier Gosuin; and
- The government of the German-speaking community handles this for the German-speaking community. Bernd Gentges is the minister in charge.

The entire tourism policy for the Flemish community is led by the public organization Toerisme Vlaanderen (Tourist Office for Flanders). The “Office de Promotion du Tourisme” (OPT) (Office for the Promotion of Tourism) markets tourism for Wallonia and Brussels in the name of the French Community. The “Commissariat Général au Tourisme (CGT) (Government Tourism Advisory Service) is an administrative department of the Ministry of the Walloon Region and there it comes under General Economic Management and Employment. The CGT is responsible for the preparation and implementation of tourist policy of the Walloon regional government. The COCOF is competent for the institutions of the Brussels region that belong to the French Community. Brussels International – Tourism and Conventions (BI-TC) is the tourist service of the Brussels-Capital region. A cell inside the Cultural department of the Ministry of the German-speaking Community is responsible for implementing Community tourist legislation and for all subsidizing. The “Verkehrsampt der Ostkantone” (Tourist Office for the East Cantons) carries out promotions for this region.

In the Flemish region, The Decree on Nature Conservation and the Natural Environment of 21 October 1997 provides the possibility for the designation of areas as nature reserves and for the elaboration of management plans for these nature reserves. Other relevant legislation exists concerning camping-grounds, and monitoring of nature reserves and forests. In the Wallonia region, legislative framework exists that supports sustainable tourism in several sectors, including the following activities: waste water treatment installations, work on renovating infrastructure aiming at rational use of energy, and building and maintaining infrastructure for recreation. In the Brussels region, monitoring of tourism activities in the Brussels region is under development.

At the present, there is no systematic integration between tourism and environment at the regional policy level. There are no specific national or regional strategies on sustainable tourism, but the sustainable development of tourism is a horizontal criteria for the Flemish tourism policy. In the Flemish region, relevant policies include: a Strategic Plan Tourism Flanders, a Coastal Action Plan, The Environment and Nature Policy Plan, the Provincial Strategic Planning for Tourism. In the Wallonia region, The Environmental Plan for Sustainable Development includes a chapter on tourism. There is also An Action Programme for the Protection of Environment. In the Brussels region, the voluntary Action Programme for Sustainable Development of the Brussels Region, developed by BRAT for the Institute of Environmental Management (IBGE) in 1997, includes a chapter on promotion of environment and tourism.

All the major social and economic groups are represented in this in the Flemish region, through the Environment and Nature Conservation Council and other advisory committees, including NGOs, workers and unions, business and industry, scientific and technological community and farmers. In Wallonia, Environmental NGOs, especially

nature conservationists, organize nature exploration tours in natural parks and train nature guides. Farmers promote farm tourism and local farm products. Young people participate in decision-making concerning especially their open-air activities and camps.

Programmes and Projects: In 1997, a LIFE nature project Integral Coastal Conservation Initiative was established. Human activities and their impact on the environment in Trapegeer- Stroombank (sandbanks in the shallow sea) are assessed within this project. Based on the assessments, possible management measures will be proposed for the conservation of this marine site, and where feasible, for the restoration of the natural values of the site. In 1998, the AWZ-Waterways Coast Division of the Ministry of the Flemish Community started a TERRA project on Integrated Management of the Flemish Coast. The project examines the possibility of removing unlicensed camping grounds from dune areas that are important for coastal protection. In the Brussels region, since 1998, an IBGE project labels 'Eco-dynamic enterprises in Brussels' including e.g. hotels and congress centres. Another IBGE project aims to raise public awareness by the 'Brussels – the Green City' programme.

Status: Tourism represents 5.5 % of the GDP and provides 116,000 jobs in Flanders. In the Brussels region, the total turn over in the tourism industry was 140 milliards FB tourism and it provided 32,000 jobs in 3,500 enterprises. In the Wallonia regions tourism provides some 46,000 jobs. There is a need for a drinking water supply plan. A large part of the drinking water of the sea resorts along the Flemish coast originates from the ground water reserves of the dunes, especially during the top season in summer. This leads to a decline of habitats and species on humid dune slacks. In the Wallonia region, actions related to sustainable tourism can be divided into two categories: Promotion of certain products including the development of rural and farm lodging, promotion of sustainable tourism in natural parks and riversides, and development of a specific network of paths for hiking, cycling and horse-back riding; and Reducing negative impacts of tourism by regulations for holiday resorts, waste water, solid waste collection, recreation in forests and on water areas, and for use of rocks and cavities (on private land) for climbing.

The major constraints for implementing sustainable tourism in the Flemish region are the following:

- The fragmentation of open spaces in Flanders by build-up areas and roads resulted in a strong spatial reduction of the remaining natural areas that have a rather small surface;
- Strongly regulated public access to the remaining nature-sites due to the fact that relatively reduced relicts of sensitive natural areas cannot support a high recreational pressure from their visitors;
- The lacking of a consultation platform between supporters and adversaries of sustainable development; and
- The economic and speculative interests of some important landowners and of non-sustainable tourism industries (e.g. unlicensed camping grounds in natural areas).

Capacity-Building, Education, Training and Awareness-Raising: Flemish region: Examples of activities related to eco-tourism and nature based tourism include guided walking-tours in nature reserves and forests organized by the municipalities and NGOs in collaboration with AMINAL-Nature Division and -Forest Division, special events such as the 'open nature reserve day' or 'the week of the forest', plans for afforestation of areas near coastal resorts (Blankenberge, Oostende, Nieuwpoort) to create recreational areas, the 'Green Flanders' campaign promoted by Toerisme Vlaanderen, and farm-tourism promoted by the Federation for Countryside Tourism. Toerisme Vlaanderen developed a bicycle action plan in order to establish a symbiosis between nature and recreation. The installation of an information point on sustainable tourism to inform and make the consumer aware of sustainable tourism will normally be realized in 2002. The Centre of Nature-Education organizes each year lectures for the training of nature guides. Special occasions such as the 'open nature-reserve day' or 'the week of the forests' are promoted by AMINAL in collaboration with NGOs by leaflets, TV-spots, and articles in the newspapers.

Wallonia region: Examples of the ways in which eco-tourism and nature-based tourism is being promoted include guided tours in forests, organized study-tours to explore nature in natural parks, local initiatives to promote quality tourism, cultural events, recycling facilities, annual 'Day of Heritage', campaign of the German speaking Community to improve environmental practices related to reducing waste and water consumption, certification of hotels and other lodgment by the specific WWF environmental criteria, audit and renovation of camping places,

and the initiative on the most beautiful villages of Wallonia. Several institutions organize training of eco-counselors. Various associations offer courses and other activities related to environment to public, and especially young people. The primary school curricula include environmental courses'. In Libramont, a professional degree is offered on rural tourism. An information campaign on the code of good practice has been launched. It is aimed to all practices in the nature and includes 400,000 examples. A specific green campaign, initiated by Fondation Roi Baudouin, was carried out directed to young people. Several centres use literature to promote sustainable tourism. There are regional centres (e.g. in Bérinzenne and Hotemme), provincial centres (e.g. in Chevetogne) and private centres established by nature conservation associations (e.g. in Virelles). The Tourism Promotion Office carries out information campaigns under a slogan 'Ardennes, nature and culture' aimed to promoting the exploration of both natural and cultural heritage. Regulations for access to forests and watercourses emphasize also that nature-based tourism has an aspect of finding silence in nature. The German speaking Community has carried out a specific campaign on sustainable tourism addressed particularly to young people. Information signs have been put in place in the areas that are frequently visited. Furthermore, environmental guides are published and distributed to tourists.

Brussels region: The Open University of Brussels (IGEAT) offers a degree in tourism. The studies cover also environmental issues. A project is going on to train the implementation of Environmental Management Auditing System (EMAS) in hotels. IBGE is preparing brochures on environmental management for hotels and for Bed and Breakfast places.

Information: The Federal Belgian OSTC service of the Prime Minister has a project on the evaluation of the impact of climate change in Belgium. Tourism is one of the sectors to be analyzed in the project. Flemish region: Bond Beter Leefmilieu (NGO) has published a brochure, Tourism and Environment. Governmental agencies have no publications to promote sustainable tourism. The AMINAL-Nature Division of the Ministry of the Flemish Community produced in 1996 an inventory of the natural resources and ecosystem characteristics of the Flemish Coast, including maps, under the title "Ecosystem Perspective for the Flemish Coast".

Wallonia region: Initiatives on information to promote sustainable tourism include an audit on tourism (Raynaud, 1987), reports by provincial tourism organizations, publications by NGOs such as Inter-Environment Wallonie and WWF, and information on new tourism products launched e.g. by Fondation Roi Baudouin. The Wallonia region has launched an inventory and follow-up programme on biodiversity. A databank has been set up containing information on both protected and non-protected natural. Natural resources are continuously assessed in the natural Parks. In addition a study is underway for compiling environmental indicators of the region. More information can be obtained through the Internet. Brussels region: State of the Environment of the Brussels region (1996) study was carried out by IBGE. It contains maps of natural sites access to public and information on valuable biological sites and protected areas. Efforts are underway to develop indicators for urban development, including possible an indicator related to tourism.

Research and Technologies: The Federal Office for Scientific, Technical and Cultural Affairs (OSTC) (see Chapter 35) has a project on the evaluation of the impact of climate change in Belgium. Tourism is one of the sectors that have been analyzed in the project. Flemish region: The MINA-plan 2 has put the restoration of the eco-hydrological system of the coastal dunes forward as a priority action. In 1999, a scientific project called Integrated Water Supply and Nature Development Plan for the Western Coast (GWEN) will be started up by the AMINAL as a pilot project in the western part of the Flemish coast. It is planned that camping and hotel industry would get grants for environmentally friendly measures such as the use of solar energy systems. Wallonia region: Technology initiatives are mostly local, and include improvement of the water distribution system, especially during the tourist season, recycling, and provision of supplementary trains to frequently visited destinations.

Financing: In the Flemish region, e.g. the establishment of visitor centres is financed by a specific the Fund for the Environment and Nature (MINA-fonds). Environmentally friendly measures in camping grounds are financed by grants. In the Walloon region the activities are financed by regional subsidies.

Cooperation: Related to mapping of natural resources and ecosystem characteristics in tourist areas, the Federal Belgian OSTC service of the Prime Minister supports TELSAT research projects in developing countries, examples

include: Baseline information system development for sustainable forest management planning, including zone mapping for diverse functions of forests, one of them being eco-tourism (Kalimantan, Indonesia); and Management support information system for protected areas, ECOFAC Site (Congo); among others. Regional cooperation examples by the Flemish region include: Trans-boundary activities such as the establishment of visitor-centres in the coastal dunes near the French border (e.g. at De Panne), often financed by the European Community programmes, among others. Examples by the Walloon region include: Trans-boundary natural parks (Sûre (Luxembourg), Scarpe-Escaut, Croix-Scaille (France), among others.

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