

## **FRESHWATER COUNTRY PROFILE**

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**Decision-Making:** *Institutional context of Belgium:* The Kingdom of Belgium is a constitutional monarchy. The 1993 reform of the Belgian Constitution was the latest in a series of constitutional changes (others occurred in 1970, 1980 and 1988) which have transformed the country into a federal state made up of three Communities and three Regions. The three Communities are the French Community, the Flemish Community and the German-speaking Community. The three Regions are the Walloon Region, the Flemish Region and the Brussels-Capital Region.

Decision-making power is shared by the Federal Government, the three Communities and the three Regions, which are equal in law and exercise their responsibilities independently in various fields. The Federal Government is responsible for justice, social security, monetary and fiscal affairs and national defence.

The three Communities deal with cultural matters, education, use of languages and “person-related matters” such as some aspects of health.

The three Regions have authority in respect of socio-economic matters such as zoning and planning, housing, agriculture, employment, energy and public works.

The Federal Government and the Regions have shared competences in the field of foreign policy, economy, transport and the environment. Regarding foreign policy, each entity has external competence concerning their internal competences.

The Federal Government, communities and regions each have their own parliament and government, although the Flemish Community and the Flemish Region have merged their parliaments and government.

*Federal State:* The federal competence regarding the environment concerns: (i) product norms, (ii) protection against ionizing radiation incl. R.A.-waste, (iii) the transit of waste. All water issues are within the competence of the regions but as the territorial authority of the regions stops at the low tide line; coastal waters and territorial waters remain under the authority of the federal government.

As drinking water is a basic need, the price-fixing of drinking water must be approved by the federal Ministry of Economic Affairs.

*Brussels Capital Region:* In the Brussels Capital 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 are the relevant legislation. The Council directive 98/83/EC on the quality of water intended for human consumption was transposed in the Brussels regulation on 24 January 2002. A project of regional law (transposition of the Water Framework Directive) has been submitted to the Committee for Environmental Affairs end of year 2003 and to the Brussels regional Parliament.

In Brussels, water supply is a public monopoly managed at a regional and local level.

At the regional level the Administration of Infrastructure and Mobility (AED) is responsible for the design, realization and operation of large-scale hydraulic projects while the Brussels Institute for Management of the Environment (IBGEBIM) is the competent authority for supplying permits, controlling water discharges, collecting taxes on industrial discharges and interventions in collaboration with the AED on "blue network" projects. The IBGEBIM is also responsible for the reporting to the EC.

At the local authority (commune) level, the Brussels Inter-Commune Water Company (CIBE) has been set up by the local authorities whose sole responsibility is the collection, treatment and distribution of water for the main water system. In addition CIBE is responsible for the operational side at the IBDE and the IBRA (see below).

The Brussels Inter-Commune Water Distribution Authority (IBDE) has been set up by the 19 local authorities of the Brussels-Capital administrative region and is responsible for distributing water to the inhabitants and companies in the region. The IBDE is invoicing the supply of water and the charges for waste water treatment

The Brussels Inter-Commune Drains Authority (IBRA) has been set up by the 19 local authorities of Brussels-Capital administrative region and the CIBE to collect and control waste water and rainwater for the purpose of returning it to the natural environment, with or without treatment.

In the Brussels Region, the different target groups are consulted through the Committee for Environmental Affairs. The Committee of Brussels Capital Region has the mission to give advice on every environmental matter linked to environment. The Committee is composed by the different stakeholders related to environmental matters. It aims at finding the best equilibrium between human activity and quality of life.

Aquabru is an association federating the different stakeholders involved in water services and water uses.

*Flemish Region:* The institutional framework of the water policy in Flanders is described in the decree of July 18th, 2003 on Integrated Water Policy (Belgian Law Gazette, 14.11.03). This decree is the juridical implementation of all regulations of the European water framework directive (WFD 2000/60/EC). It incorporates even more policy items of integrated water policy than those legally required by the WFD. For example, the decree prescribes more detailed planning on the level of sub-basins and integrates quantitative aspects and the relation with spatial planning. For the organization and planning of the integrated water management, the decree distinguishes 4 levels: (i) River Basin District, (ii) Flemish region, (iii) sub-basin and (iv) sub-sub-basin. In the Flemish region, there are 4 river basins (Scheldt, Meuse, IJzer, Polders of Bruges), 2 river basin districts (Scheldt and Meuse) according to the EU WFD, 11 sub-basins and about 10 sub-sub-basins per sub-basin. The international co-ordination of the river basin districts of the Scheldt, resp. Meuse is assigned to the International Scheldt Commission (ISC, <http://www.isc-cie.com>) and the International Meuse Commission (IMC, <http://www.cipm-icbm.be>) through the treaties of Ghent (03/12/02).

Although the basic framework for water policy is the decree on Integrated Water Policy, other general environmental legislation is relevant for the water policy. The Decree on General Issues of Environmental Policy (1995) establishes general rules on how to protect the environment and creates a framework to establish quality objectives. The Decree on General Issues of Environmental Policy contains a general part and more specific parts of environmental policy. The Decree on Integrated Water Policy is constructed as a separate decree and not as a part of the Decree on General Issues of Environmental Policy, in order to ensure a better integration with other policy areas.

The Decree on environmental licenses (1985) establishes the framework for licenses, like discharges of wastewater. In application of this Decree, the VLAREM regulation (1995) contains the conditions for discharges of wastewater.<sup>1</sup>

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<sup>1</sup> The Flemish legislation can be consulted in English on: [http://www.emis.vito.be/wet\\_ENG\\_navigator/index.htm](http://www.emis.vito.be/wet_ENG_navigator/index.htm)

The Flemish Region is going to integrate all other existing specific laws on water into the Decree on Integrated Water Policy. There are still specific laws on surface water, groundwater, navigable and non-navigable watercourses. In the mean time the Decree on Integrated Water Policy constitutes the general framework for application of these specific water laws. The Flemish Government is also planning to make more specific implementing orders for the practical application of the Decree on Integrated Water Policy.

The Co-ordination Commission Integrated Water Policy (CIW, <http://www.ciwvlaanderen.be>), which replaces the former Flemish Consultative Committee for Integrated Water Policy, is responsible for the co-ordination of the integrated water policy on the level of the Flemish Region. This Commission is the competent authority for the Flemish Region in accordance with article 3 of the WFD and the competent authority for the elaboration of the Flemish river basin management plans. The CIW is composed of the leading officials of all administrative entities involved in water management. The secretariat of the CIW is ensured by the Flemish Environment Agency (<http://www.vmm.be>).

In each of the sub-basins, a common consultative and organizational structure is worked out, i.e. the basin management (political consultation between the Flemish region, the provinces and the municipalities), the basin secretary (technical-official consultation) and the basin council (social consultation with the stakeholders).

At the local level (sub-sub-basin) a district water board is established per sub-basin or per cluster of sub-sub-basins. In accordance with current legislation, the authorities of the water management at the local level are spread over the Flemish region, the provinces, the municipalities and the polders and watercourses.

The water boards are responsible for (i) establishing the sub river basin management plans and (ii) to give advice about the river basin management plans.

The freshwater resources are legally protected by the decree on town and city planning (including water capture zones on the land use level), and the degree on the protection of drinking water (specific protection of water capture zones).

In Flanders, policy-making for drinking water, groundwater, and fresh surface water quantity, ecology and nature protection and development is a competence of the Environment Department (LIN, <http://www.lin.vlaanderen.be>) of the Ministry of the Flemish region. Within this department, the Administration of Environment, Nature, Land and Water Management (AMINAL, <http://www.mina.be>) is in charge of the above mentioned issues and water quantity of the non-navigable waterways while the management of the water quantity of the navigable waterways falls under the authority of the Administration of Waterways and Marine Affairs, (AWZ, <http://www.awz.be>) The Decree on Administrative Policy, grants “Para-regional” authorities a main role in policy-making and implementation. The Flemish Environment Agency (VMM) is covering water quality of surface water and effluents, including standards, sanitation programs of industrial, agricultural – including diffuse emission - and urban waste water and waste water levies. The Flemish Agency for Water Supply (VMW, <http://www.vmw.be>) is in charge of the winning and distribution of potable water in a large part of the Flemish territory. The Flemish Land Company and Manure Bank (VLM, <http://www.vlm.be>) covers land consolidation, nature development, agricultural pollution and the manure bank.

The Flemish Environment Holding Company was created in 1990 (51% public/49% private) to promote investments in the environment sector. In 2002 this company is integrated with the Flemish Participation Company (VPM). Its daughter AQUAFIN, also founded in 1990 is the license holder for the construction and operating of the sewage treatment infrastructure (a supra-municipal infrastructure of sewer collectors and urban wastewater treatment plants).

The provinces are responsible for integrated permits of industrial activities – on advice of an advisory committee composed of experts from the competent environment and land use planning authorities –, while municipalities manage municipal sewers.

Since March 2003, an interdepartmental Working Group on Sustainable Development, an initiative of the Environment Administration, gathers all relevant policy domains on an informal basis in order to start the consultation among civil servants in view of the future development of a Flemish Strategy on Sustainable Development.

The Flemish legislation can be consulted in English on:  
[http://www.emis.vito.be/wet\\_ENG\\_navigator/index.htm](http://www.emis.vito.be/wet_ENG_navigator/index.htm)

In 1999 the Flemish government started an ambitious project entitled Better Governance to reorganize the entire Flemish administration including all para-regional agencies. 3 framework decrees were approved by the Flemish parliament: the decree on Governance, the decree on Accountability and the decree on Strategic Councils. Some 37 decrees establishing independent governmental bodies will be approved by the end of the current government in July 2004. The implementing orders will be taken by the next Flemish government.

One of the premises of the reorganization is transparency of administration through the definition and assignment of homogeneous policy items. In stead of 1 ministry of the Flemish Community, 13 ministries corresponding to 13 homogeneous policy areas will be established. As to Integrated Water Policy, 3 ministries will be involved: the ministry of the Environment and Nature, the ministry of Mobility and the ministry of Spatial planning. On the political level there is an agreement by the current government that Integrate water management will be co-ordinated by the Flemish minister of the Environment. As mentioned above, the administrative co-ordination is ensured by the Co-ordination Commission Integrated Water Policy (CIW). Within the Environment policy area, all tasks related to Integrated Water management with the exception of the management of navigable waterways are assigned to the Flemish Environment Agency. The decree establishing the 'new' Flemish Environment Agency will be voted in the plenary meeting of the Parliament in April 2004. The management of navigable waterways will be assured by the Ministry of Mobility.

*Walloon Region:* A new full legislation on water is going to be adopted by the end of May 2004.

The Walloon Government has been willing to face a double challenge: on the one hand, to transpose the E.U. water framework directive 2000/60 (W.F.D.), on the other hand to finalize the codification of environmental legislation as a whole which was decided by the Walloon Government in the C.F.W. (Contract for the future of Wallonia – see chapter II). The water legislation will be included in the Book II of the « Walloon environmental Code ».

The part I contains the main principles of water management and one hundred harmonized definitions including those of the water framework Directive. This part I also defines the rules of the Advisory Water Commission (Stakeholders) and the Committee on the water cost.

The part II (management off natural cycle of water) fully addresses the W.F.D. disposals related to the River basin district approach (delimitation, international co-ordination, analysis of the R.B.D. (art. 5), environmental objectives (art 4), monitoring programs, management plan and program of measure of the R.B.D.

It also recovers the still relevant disposals of the Decree of 7 October 1985 on protection of surface water and the Decree of 30 April 1990 on protection of groundwater.

The part III covers the management of the anthropogenic cycle of water, i.e. water production, water supply and water sanitation, water cost and all the organizations involved in water management (S.P.G.E., S.W.D.E., etc...).

Part IV contains the penalty disposals and parts V and VI only contain the modifying and transitional disposals

### **Programmes and Projects :**

A. Integrated Water Resources Development and Management: Brussels Capital Region: Since 2001, the overall Strategic plan for regional planning is the PRD, (plan régional de développement) which gives the orientation for the development of Brussels. Environmental and water aspects are taken into account in this plan. A key focus point is to keep as much as possible the water visible and integrated into Brussels.

A progressive rationalization of the water sector in the Brussels region is taking place. This evolution should lead to the creation of a unique public actor (by fusion and integration of existing inter-municipalities) that will control all aspects of the water technical cycle (production of drinking water and its distribution, water discharge, sanitation). In some case delegation of competence is probable. This should permit the application of the calculation of a “reality price” for water as foreseen by the Water Framework Directive.

The Development of a « blue network », aims at separating sewage water and rainwater by connecting the latter into new or existing surface water. It also aims at ecologically restoring some sectors of rivers and wetlands, implementing special protection measures and land use rearrangement.

The Integrated legislative Framework for water management is the Water Framework Directive (2000/60/EC). A project of regional law has been submitted to the Brussels regional parliament. International co-ordination for the transboundary river basin districts of the Scheldt and Meuse is done in the International Commission of the Scheldt, resp. Meuse.

*Flemish Region:* The strategic objectives for the Environmental Policy Plan 1997-2001 were: i) encouraging people, companies and authorities to adopt more environmentally responsible behavior; ii) bringing environmental quality in Flanders to the average level of neighboring countries; and iii) preventing damage to nature and the environment, to the maximum extent possible.

A continuation of this plan, and at the same time a renewal, has been foreseen in a “new Environmental Policy Plan (2003-2007)” (MINA3) which has been approved by the government. This plan contains a lot of principles, outlines and a vision on sustainable development from an environmental point of view. The environmental policy plan is putting the long-term dimension, which is fundamental in sustainable thinking, into practice. Several projects and measures, particularly those relating to difficult topics such as climate change, loss of biodiversity, hazardous substances, etc. outline a long-term strategic approach. But a more concrete translation of the long-term vision can be found in the objectives and the related indicators. For every topic (12 in total) at least one long-term objective (2015/2030) and several objectives for the planning cycle (five years) have been defined. For every objective, indicators have been formulated, which allow a follow-up of the objective. Another important accent of the plan lies on the integration within other policy domains: a special chapter analyses into detail the co-operation with other policy domains such as agriculture, economy, health, spatial planning, mobility and energy.

In order to give an answer to the spatial problems, the Flemish government has decided to carry out a spatial policy based on structure planning. In short, structure planning stands for action oriented towards a

dynamic and coherent spatial policy, based on the principle of sustainable development. The Land Use Plan (Spatial Structure) for Flanders (1997) recognizes the physical structure existing of river valleys as an important principle on which the spatial policy in Flanders is based. This means that these structures play an important role by the indication of areas for which a specific policy will be adopted. By means of spatial delineation processes and spatial implementation plans the Flemish spatial planning policy also tries to protect vulnerable water areas and if necessary change their destinations, and tries to map flood areas and avoid them by providing space for water. The current strategy is to further elaborate water as a structuring element for space, as is underlined in the MINA3, and to play a constructive role in the implementation of the Flemish Decree on Integrated Water Policy (2003).

IWRM is the 1<sup>st</sup> subtitle of the chapter on 'Disturbance of the water system' in the MINA3-plan (see also next paragraphs). The main goal is the implementation of the EU WFD with emphasis on: (i) the legal basis (cf. Decision Making: Decree and implementing orders), (ii) transboundary co-operation, (iii) strengthening the sub-basin management, (iv) environmental goals of WFD, (v) establishing of integrated programs of measures, harmonized with cross sectors such as mobility and spatial planning (vi) improving the knowledge of water systems including mathematic modeling, (vii) awareness raising of sustainable water use, and (viii) strengthening the participation of the public.

The links with other topics of the MINA3-plan s.a. soil pollution, manure and fertilizers, loss of biodiversity and fragmentation of natural resources (biotopes, landscapes, groundwater flow...) prove the 'I' of 'IWRM'.

*Walloon Region:* As provided in the water book of Environment law, water is considered as "res communis" i.e. it is a part of the common patrimony of Wallonia. The water cycle is managed in a global and integrated way with the aim of ensuring both quality and sustainability of water resources in the spirit of sustainable development.

According to E.U. W.F.D., they are four River Basins and 15 sub-basins in Wallonia:

- the Meuse R.B. (8 sub-basins) which is assigned to the Meuse international R.B. district;
- the Scheldt R.B. (with 5 sub-basins) which is assigned to the Scheldt International R.B. district;
- the Rhine R.B. with 1 single sub-basin (Moselle) which is assigned to the Rhine International R.B. district;
- the Seine River with the single sub-basin of Oise.

In the meaning of art. 3 of W.F.D., the Walloon Government is the competent authority of the River basin district but the tasks of the management of the natural cycle of water and also the management of anthropogenic cycle of water are assigned to different administrations and public companies.

DGRNE (General Directorate for Natural resources and environment in the Ministry 1 of Walloon Region), is in charge of policy making for surface water and groundwater and for the management of non-navigable watercourses.

DGRNE is preparing the analysis of the River basins and sub-basins, and the future programmes management plus and program of measures.

DGRNE also prepares integrated permits including for wastewater discharges. for controlling the permits and for motoring surface and groundwater networks.

DG2 (of the Walloon Ministry of equipment and transport) is competent for the management of navigable and assimilated water courses (realisation and operation of hydraulic works).

Since 1999, the S.P.G.E. (Society for water management) has been committed for the management of urban wastewater collecting system and treatment plants.

For ensuring integrated water management and the co-ordination between the competent administrations, a “Permanent platform for integrated water management” (P.P.G.I.E. = plate-forme permanente de gestion intégrée de l’eau) has been set out.

The participation process of all water stakeholders one NGO’s is ensured by the “water Commission” which is at a larger scale a component of the CWEDD (Walloon Commission for environmental and sustainable development).

**B. Water resources assessment: *Brussels Capital Region:*** In Brussels, the Brussels Institute for Management of the Environment (IBGEBIM) is in charge of the surveillance (collection of data) of the surface water quality. The information regarding the quantities of groundwater pumped annually for the Brussels Capital Region can be obtained at the Ministry of the RBC. An integrated online network of quantitative surveillance of surface waters and some waste water as well as the pluviometry of the Region of Brussels-capital is being established by the Administration of Infrastructure and Mobility (AED).

The IBGEBIM is in charge of the waste water taxation or the waste water discharges from industries. Therefore, it has also gathered a lot of data concerning emissions of point source pollutions from the industrial sector and the status of natural water bodies. The taxation strengthens also the database for administrative purposes and communication between IBGEBIM and water polluters.

*Flemish Region:* Flanders has well developed monitoring networks of water quantity and physico-chemical and biological quality. The Flemish Environment Agency monitors water quality of surface water and industrial and UWWT effluents. The Administration of Environment, Nature, Land and Water Management monitors groundwater quality; quantity is measured by means of piezometric head of the aquifers combined with a network of pluviographs and limnigraphs. Agricultural data are collected by the region, and the Flemish Land Company and Manure Bank.

The surface water quality is monitored by a general monitoring network and a MAP (Manure Action Plan) monitoring network that is specifically directed at agricultural emissions of nitrate. A very dense network of observation wells to monitor the leaching of nitrates from agricultural activities to the groundwater has been established. A campaign to assess the contamination of groundwater by pesticides will start in 2004.

Water quantity data and management of non-navigable surface water and navigable waterways are monitored by the Administration of Environment, Nature, Land and Water Management resp. the Administration of Waterways and Marine Affairs.

*Walloon Region:* DGRNE is the co-ordinating administration of the monitoring networks for the quality and quantity of water resources.

Within the water Division, the Directorate of non-navigable watercourses is in charge of all the limnigraphs while the Groundwater direction is in charge of the “piezometric” network. But also the SETHY (unit of Hydrologic studies) of the MET (Ministry of equipment and transport) gives a lot of information on the quantity aspects of the main rivers and navigable watercourses (see information for the data management and environmental dashboard of the Walloon Region).

C. Protection of Water Resources, Water Quality and Aquatic Ecosystems: *Brussels Capital Region*: In accordance with the directive 91/676/EC, a vulnerable zone was created by ministerial decree on 25/09/99. This zone resumes the catchment area of water exploited by the CIBE in the southeast of the forest of Soignes.

In spite of its high degree of urbanization, the Region of Brussels-capital also possesses a lot of natural sites. In application of the Directive Natural Habitats (Directive 92/43/CEE), 3 complexes of stations were appointed "as sites of community importance", adding up a surface of more than 2300 hectares (14 % of the territory of the Brussels Region).

*Flemish Region*: As already mentioned in the previous paragraph (A) on IWRM, the MINA3-Plan has two other subtitles in chapter 'Disturbance of the water system'; namely (i) pollution of surface water and (ii) drying up. Together with the cross sector themes acidification, manuring and fertilization, dispersion of dangerous substances, soil pollution and degradation, fragmentation of natural resources and loss of biodiversity, the third quinquennial Flemish environment Action Plan foresees quite a lot of direct and indirect measures to protect the water resources and the aquatic ecosystems. A lot of the programs are a continuation of the ongoing programs or projects under the previous plan (MINA2).

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). From 1999 until 2003 the maximal allowed fertilizer use per hectare has stepwise been reduced. The further implementation of the European Nitrates Directive in 2002 has sharpened the limitation on fertilizer use. The manure legislation, the mandatory license for water winning, the taxes on drinking water use and on wastewater discharge and the environmental permit are instruments to prevent negative effects of agriculture on water quality. In the MINA-plan 2 (1997 – 2002) and 3 (2003 – 2007), a pesticide reduction program is developed.

The Reduction Programs implementing the Dangerous Substances Discharges directive (76/464/EEC) provide for better harmonization of quality standards, discharge licensing and monitoring. They also ensure a comprehensive preparation for the upcoming obligations concerning the Priority Substances under the Water Framework Directive. The MINA-plan 3 puts the implementation of these obligations forward as a priority.

In the Flemish region, the reduction of use of pesticides by public services is regulated by Decree of 21.12.2001. The environmental legislation defines different provisions to protect water capture areas.

**Health**: The Decree on the preventive health policy of 2003 introduces the concept of 'ecological public health'. This concept emphasizes the common grounds between public health and the global environmental problem. Sustainable development and health benefit at population level go hand in hand. It is also possible to take pro-active measures. One of the most important parts is the vaccination policy which is a part of the preventive health policy and very much propagated by the WHO.

A Network of Medical Environmentologists in Flanders has been implemented. This network consists of three steps, namely 1) the local health consultation (LOGO) which takes care of the platform development and consultative structures; 2) the Flemish Health Inspection with policy executive and preparatory tasks on indoor and outdoor environmental health problems, with advice and analysis on more complex problems, in particular risk communication and intervention- and prevention programs; 3) the scientific support center Environment and Health. This network gives an insight into the state of public health of the Flemish population in relation to the environment. With regard to this, a biomonitoring project and an environment-health junction database have been started up. Finally, an important feature of the network concerns its possibility to investigate the relationship between water and health.

In implementation of the National Environmental Health Plan (NEHAP), a co-operation agreement has been made between all Belgian governments to deal together with the problems on environment and health in the future.

*Walloon Region:* The protection of surface and groundwater resources is ensured by the two background Decrees on protection of surface water (1985) and groundwater (1990) which are going to be integrated in the new Walloon environmental law (code).

There are protected catching area for ground and surface drinking water.

Wallonia has improved the implementation of nitrate directive by launching a sustainable nitrogen management in agriculture which involves all the main actors: farmers, water producers and public services.

The program is based on a survey of manure spreading that will allow the authority to assess, for each farm, the volume of effluent allowed according the surface area without risk to the environment.

Recommendations can be made to offer the surplus, under contract, to neighbouring farms when there is a deficit of effluent. Or alternatively, expert advice could be provided on how best to handle the fertilisation of the agricultural land.

An organisation called NITRAWAL, where farmers and water producers are represented on an equal basis, organises with strict rules and regulation the storage and spreading of effluents.

*D. Drinking water supply: Brussels Capital Region:* In Brussels, the water technical cycle is managed through three “intercommunes” (CIBE-IBDE-IBrA).

The Brussels Inter-Commune Water Company (CIBE) is responsible for production of water mainly by transfer from basin (The River Meuse, located in the Walloons Region).

The Brussels Inter-Commune Water Distribution authority (IBDE) is in charge of the distribution of drinking water for the Brussels region. For this purpose, it has figures about the quality of the drinking water and about the consumption of this type of water by citizens and industry. The project of Brussels management plan (Quality control of the drinking water in the 19 Brussels municipalities) is in discussion.

A regional law for the quality of distributed drinking water is of application since 24 of January 2002. The responsibilities for that matter are shared between the water producer for the controls and the IBGEBIM for supervision and EU reporting.

The least favoured groups of the population in the Brussels Region can fall back on social provisions and social institutions for paying the water bill (CPAS or municipal social assistance institutions). (See also under Status.)

*Flemish Region:* In Flanders, the supply of drinking water is a municipal task. For this purpose, municipalities are associated into drinking water companies. There are eight water distribution companies formed out of an association of municipalities; six municipalities distribute drinking water on their own and there is one regional Flemish drinking water company (cf. Decision-Making, Flemish Agency for Water Supply (VMW, <http://www.vmw.be>). Every inhabitant receives 15 m<sup>3</sup> drinking water free of

charge (a minimum of water provision is considered as a public right) and has the right to be connected to a drinking water distribution network which is charged.

Health: The Flemish Decree on drinking water of 2002, implementing of EU Directive 98/83, enables a sustainable water provision and a sustainable water use, with the emphasis on the availability and quality of drinking water itself but also of tap water. According to this Decree, lead pipes should be excluded.

*Walloon Region:* In Wallonia water production and water supply for human consumption is mainly carried out by the SWDE (Walloon company for water supply) and 16 inter-municipal companies. But some municipalities have still their own water company or service. The intention of the Walloon Government is to restructure the water production and supply (by reducing the number of small local companies and to harmonize the water price (see financing).

E. Water and Sustainable Urban Development: *Brussels Capital Regio:* The management of water in urban zones constitutes one of the challenges of the society at the dawn of the 21st century. This is particularly the case for the collection and treatment of waste water and the prevention of intra muros floods, where financial and technical issues are of great importance.

A key focus point will be to keep the water visible and integrated into the urban fabric while being of "good quality". This action will be carried out in the city by the restoration of portions of the river system having survived to the urbanization (sanitation measures, flood protection, urban development, road infrastructures,...) as well as by developing new "spaces for surface waters" (re-creation of artificial beds for rivers, separation of sewage water and rainwater by connecting the latter into new or existing surface water network,...).

In Brussels Capital Region, the ongoing efforts will be to collect wastewater via sewer system networks and treat it by cost effective measures affordable for the citizens. This issue is related to water collection which is a mix of rain water and sewage water.

Another important issue is the development of navigable waterways and the existing harbor (Port de Bruxelles). The transport by water is respectful of the environment. A navigable waterway and a harbor are real assets for the region within the framework of the sustainable development: they allow, for the transport of the goods indispensable to the economic activity, to relieve the road traffic of a part of its load for the benefit of the other more respectful ways of transportation of the environment. The Brussels ship canal can welcome river and maritime units of a capacity which can go to 4.500 tons. Every year, more than 5 million tons of goods are transported by the regional waterway.

*Flemish Region:* The Spatial Structure or Land Use Plan for Flanders (1997) recognizes the physical structure existing of river valleys as an important principle on which spatial policy in Flanders is based. As the MINA3 underlines the current strategy is to further elaborate water as structuring element for spatial planning.

Local authorities, with the financial aid of the regional government are restoring or planning to restore canals in urban environment. A lot of these canals were filled-in in the past because (i) they lost their role as fairway due to the construction of new connecting canals around the town, and (ii) the bad water quality due to the lacking of adequate sewerage and water treatment. Since huge progress is made in urban and industrial waste water treatment and water quality is much better, the reopened canals can give back their pictorial beauty to the cities and add a tourist and recreational value.

F. Water for Sustainable Food Production and Rural Development: Generally speaking, water availability in agriculture is not really a problem in Belgium, although locally some restrictions can arise.

G. Impacts of Climate Change on Water Resources and Flood Protection: *Federal State*: The Science Policy Office (SPO) has a research project on the evaluation of the impact of climate change in Belgium.

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 SPO established a national research programme: “vegetation scientific support programme”, including wetland monitoring,

As for other sectors there are still many uncertainties about the predicted effects of climate change on freshwater systems.

Nevertheless, the following impacts are to be expected:

Effects	Remarks
The replenishment and level of groundwater and surface water reservoirs decreases during summer	Possible problems for the supply of drinking water and irrigation water; possible reduction of wetlands
Probable rise of water level of rivers during winter	Increased risk of flooding
Groundwater quality deteriorates following: salt intrusion caused by higher seawater levels alterations in soil properties due to changed groundwater levels	Groundwater quality is predominantly affected by factors other than climate change
Demand for water for consumption increases	
Increasing frequency of extreme conditions leads to more frequent and more extensive floods on the one hand and dry rivers on the other	The effect is difficult to predict and depends on the river basin
River morphology changes brought about by increased erosion	There is a possible impact particularly on floods and navigation
Lower levels in summer and autumn	Possible problems for river life and aquaculture

Source: Belgiums Third National Communication under the UN Framework Convention on Climate Change, April 2002

It is of major importance that further research is done in the field of hydrology, which will result in improvements to model predictions. The predictions of the frequency of extreme conditions in particular are subject to great uncertainties. The overall trend, however, with regard to Belgian river basins is a likely increase in the frequency and extent of flooding and low water levels.

Given the fact that water management activities can minimise the effects of climate change on freshwater systems, they constitute an important measure for adaptation.

Concerning flood disasters, the Federal Public Service Home Affairs' Directorate-General for Civil Protection is in charge of the overall coordination, in association with relevant authorities, of disaster prevention such as floods. Water distribution companies, municipalities, provincial authorities, and civil protection agencies are responsible for drought prevention

*Flemish Region:* The objective of the Flemish high water management policy is to limit the damage caused by floods. The policy has changed over the last couple of years. Being aware that nature will not bow to man and that floods are and remain a natural phenomenon, the new policy to mitigate flood damage is based on the natural water system.

Water managers try to avoid the end-of-pipe approach such as technical measures fighting symptoms locally and accelerated draining of water. The objective of the Department Environment and Infrastructure of the Ministry of the Flemish Region is to anticipate problems, following a 4 steps strategy:

- At first the cause of potential problems, is dealt with at the source by retaining as much precipitation water as possible (i) through infiltration into the soil, and (ii) retention in the surface waters;
- When those measures at the source are not sufficient, extra buffering areas are created by restoring 'natural flood areas' alongside rivers. This 'More Space for Water'-policy has not only a protective function for man but also restores wetlands and nature. There are two types of buffering areas, namely permanent and controlled; the controlled flooding areas are only used in situations of very high water.
- Where the ecological approach is not sufficient or not appropriate, additional infrastructure works, such as flood gates, pumping stations, waiting basins are constructed.
- A permanent surveillance and early warning system gets additional manpower and means in case of extreme meteorological situations or danger of flooding. The waterways and civil protection emergency services are directly connected to the surveillance and early warning system. In case of danger of flooding or flood disaster also the population and inhabitants are informed directly.

In application of the Decree on Integrated Water Policy (cf. chapter 1: Decision-Making), local authorities have to apply since November 24th, 2003 the 'Water Test' before permitting any construction or housing demand or application for industrial activity. The water test should establish whether or not the construction or activity can cause any damage to the water system or are themselves vulnerable to flooding. The outcome of the water test can be the obligation to take appropriate measures or even a prohibition.

New threats for the water management are likely to occur:

- Based on measured water levels, a continuous rise of the mean sea level is detected. During the last 100 years, the (linear) rise was 15 - 20 cm. The rise is expected to grow and have a parabolic tendency. A rise of 60 cm during the next 100 years is not unrealistic.
- A change in the pattern of rainfall occurrence can be expected too. There will be a few percentages extra rainfall yearly. The rainfall will be clustered more: more and longer periods with rain during winter and more and longer dry periods during summer.

In the review of the flood risk strategies or Sigma-plan, those threats are taken into account (<http://www.sigmaplan.be> ).

*Walloon Region:* Flood management plan "PLUIES": Faced with the recurrence of floods on the regional area during recent years and with their important resulting damages, the Walloon Government decided, on the 9th January 2003, to address structural factors that increase the flood episodes.

It subsequently agreed the principle of the realization of a global and integrated plan called "Pluies" for preventing and fighting the floods and their consequences on disaster victims ("Pluies" is the French acronym for "Plan global et intégré de prévention et de lutte contre les inondations et contre leurs effets

pour les sinistrés". This global plan includes each aspect of the regional policy in this issue and makes sure that the taken measures are consistent.

With this aim in view, 27 actions have been specified amongst the five main concerned fields. These actions should contribute to the effective realization of a plan composed of five objectives:

1. a better knowing of risks ;
2. reducing the run-off in the river basins ;
3. adjusting the river beds and the alluvial plains ;
4. decreasing the vulnerability of flooded areas ;
5. improving the reaction whenever a calamity occurs.

**Status :** Belgium has about 10.239.085 inhabitants (2000), spread over an area of 30,518 km<sup>2</sup>. It is a very densely populated country with about 335 inhabitants per km<sup>2</sup>. Its population is quite unevenly distributed. The highest population densities are found in the north and center of the country, more especially within the quadrangle formed by the cities of Antwerp, Brussels, Ghent and Leuven, in which more than 40 % of the national population lives. By contrast, the population density south of the Charleroi-Namur-Liège axis is less than 80 inhabitants per km<sup>2</sup>. Nowadays some experts argue that Belgium has reached virtual 100% urbanization, even though the official figure is around 96-98%."

The high density together with the very high degree of urbanization, and high level of industrialization has had its effect on the overall environmental quality. In the 1996 Habitat report it was already stated that environmental degradation of rivers, watercourses and coastal areas of soil and subsoil including aquifers, of air, of green and forest areas, and the problems of waste, were all serious problems in Belgium.

Since then both the public and private concerns of environmental degradation have come to the fore strongly and substantial efforts to remedy problems have been undertaken. Far from being solved such problems are, in some domains, either stabilized or partially remedied. It is expected that further public policies as well as efforts of individuals and civil society in general will, in the coming years continue to be of high priority.

*Brussels Capital Region:* The main watercourses are the River Senne, partly vaulted and the Canal Charleroi-Brussels-Willebroek (essentially devoted to navigation). Several other affluent rivers of 1 to 2m large are also to be mentioned. One of the characteristics of these rivers is the fact that they are not directly connected with the Senne, but on the sewage collecting system.

The Brussels-Capital Region has few water resources. The average amount of rainwater is estimated at 125 million m<sup>3</sup>. The Region can rely on underground water at a level of 2 million m<sup>3</sup> (Forest Soignes and Camber). The remainder of its requirements of drinking water is met by transfer from basin (The River Meuse, located in the Walloon Region) of the order of 60 millions m<sup>3</sup> per annum. The total amount of surface water passing through the Region via the Senne and the canal (binding to the sea, via the Rupel and Scheldt Rivers) is estimated at 240 millions m<sup>3</sup>, which represents a relatively low water flow in comparison with the very urbanized Brussels Region. Due to this high urban point sources, pollution from households mainly, and the relatively low water flow, the quality of surface water is relatively mediocre or even very bad (high levels of urban and industrial pollution - BOD, nitrogen, heavy metals, PAH...). Only the heads of rivers close to the damp and forest areas from which they rise are of a relatively good quality.

A slight improvement in the quality of the effluent discharge can be expected with the construction of the waste water treatment plant (Northern plant) in 2006.

*Flemish Region:* Drinking Water Quality, price and Quantity: The drinking water supplied by the drinking water companies is excellent and complies with all standards of the European Union. Drinking water in

private wells often causes problems (nitrates, bacteriological contamination). About 4% of the population is not connected to a distribution network. The average price for 1m<sup>3</sup> of drinking water supplied by network all included is 1,32 Euro (variation from 1,04 to 1,62 Euro). 80% of all the drinking water produced originates from Flanders: 20% is imported from the Walloon region. The production of drinking water in Flanders comes for 50% out of groundwater and 50% out of surface water.

Water and industry: The main water source for the industry is the public water supply and own abstractions of groundwater and surface water. Surface water abstractions represent 94% of all abstractions of which 89% is for cooling purposes. The other 11% are used by industry and for drinking water production. Groundwater abstractions represent 6% of the total abstractions mainly for drinking water production (57%), industry (36%) and agriculture (4%). The stress on the hydraulic resources is still very high in Flanders; abstractions represent about 56% of the annual renewed freshwater. The stress on groundwater is very high and represents about 80% of the annual renewed freshwater. Some aquifers are overexploited

The following data on status and trends are quoted from the 2003 Report on the Environment and Nature in Flanders (cf. chapter 5. Information).

Eco-efficiency of the population: The residential area is still increasing and is rising more rapidly than the increase in households. The household burden on surface water (COD: 22.4 towards 15.7 kg/inh between 1990/91-2001/02) has clearly decreased since 1992 thanks to the water purification policy. This pressure indicators shows a total decoupling. Water use remains rather stable: 45.27 m<sup>3</sup>/y.inh in 2001/02 vs 45.40 in 1990/91. The daily drinking water use is about 110 L/inhabitant. The goal is to reach 98 L/day.inh in 2007 through sensibilization campaigns such as “Water, every drop counts” (cf. chapter 4, awareness raising).

Eco-efficiency of industry: Between 1990 and 2002, the production index (an economic indicator representing industrial production) rose by 26 %. The discharge of, inter alia, COD (81-40 kT), N and heavy metals in waste water showed a falling trend as a result of increased efficiency of purification processes, renewed processes and other measures. Water use decreased with about 30% during the period 1990/91 to 2001/02. The use of surface water decreased but not for ground water which is becoming a diminishing resource.

Discharges of COD, N and heavy metals in industrial waste water: In the period 1992-2002 the industrial discharge of BOD and COD dropped markedly: by 57 % for BOD and by 51 % for COD. The most important reductions occurred in the food and textile industries, as well as in the ‘other’ industries. Between 1992 and 2002 the total emission of heavy metals dropped by 74 %, mainly in the period up to and including 1995. Those discharging the most were the metal (43 %) and chemical (24 %) sectors. The discharges of nitrogen and phosphorous decreased continuously and were significantly lower in 2002 than in 1992 (-42 % and -60 % respectively). The total quantity of industrial waste water discharged in 2002 amounted to 213 millionm<sup>3</sup>. A rise could be observed until the mid 90s but the discharged flow rate has dropped since 1999. This is due, amongst others, to the increased levies on groundwater collection and on waste water discharge, which causes an increasing number of companies to work more sparingly with water.

Concentration of brominated flame retardants in eels in surface water: In 2000, brominated flame retardants (HBCD, TBBP-A and PBDE) were measured in eels at 18 Flemish measuring points. The concentration of HBCD in eels varies significantly and fluctuates from < 1.7 to 33 000 µg/kg fat weight, depending on the measuring point. High values may be connected to the textile industries. The measured concentrations of TBBP-A are mostly low.

Eco-efficiency of agriculture & fisheries: The environmental pressure of agriculture & fisheries is decreasing. The acidifying and eutrophying emission in particular fell sharply by more than 35% since 1990. The driving forces behind the drop in 2001 were the shrinking numbers of livestock, the falling use of chemical fertilizer and the fodder's lower nutrient content. In the period 1990-1995, crop protection's pressure on aquatic life dropped but since then it has again been slightly increasing.

Eutrophication - Surplus on the soil nutrient balance of agriculture: Agriculture's surplus on the soil nutrient balance is the difference between what ends up on the agricultural soil (manure, depositions) and the quantity that leaves the soil as harvest. This surplus eventually ends up in the air and the water or remains in the soil. In 2002, compared to 1990, the nitrogen surplus dropped by 33 % and phosphorus by 53 %. This marked drop was a specific result of reduced use of fertilizer and/or manure: -35 % in respect of nitrogen and -79 % in respect of phosphorus. In addition, the production of animal manure dropped because of shrinking livestock numbers and a lower nutritional content of the fodder. The 2007 nitrogen target is not in fact intended to avoid eutrophication, but as a general protection of drinking water collection.

Pressure on aquatic life due to crop protection: Between 1990 and 2001, the use of crop protection agents decreased by 18 %. This conclusion is based on sales figures inside and outside the agricultural sector. The use is weighed according to ecotoxicity and persistence in the environment because use in kg of active substances does not sufficiently represent the environmental risks. The pressure on the aquatic life, to be viewed as risk to aquatic life, is expressed as the sum of the dispersion equivalents ( $\Sigma$ Seq). The  $\Sigma$ Seq dropped by 19 % between 1990 and 2001, inter alia because of the decreasing use of the lindane insecticide and the herbicide paraquat. The target (50 % reduction of the  $\Sigma$ Seq in 2005 as compared to 1990) was not even half realized in 2001.

Pesticides in surface water: In 2002, surface water was sampled in 134 locations and analyzed on 109 active substances, including a number of breakdown products. A large variety of pesticides was found, particularly in the Haspengouw fruit region and in the Yzer basin. Relatively many substances were also detected in the Leie basin. The herbicides diuron and glyphosate were found in more than 60% of the measuring places. A general evaluation is not possible because no particular standards exist for these and many other substances. There is indeed an improvement to be seen in respect of the organochloro group of pesticides. In 2002, the standard was exceeded in only 13 % of measuring points as against a multiplicity in previous years.

Emission of heavy metals into surface water: The discharges of all heavy metals in surface water were reduced sharply in the period 1985-2002, inter alia, because of improved processing techniques and more efficient waste water purification. Nevertheless, the Cu, Pb and Zn targets for 2002 were not achieved. As regards Cr and Cd, the 2010 target has already been satisfied. The diffuse emissions make an important contribution to the total emission. As the purification of industrial and domestic waste water increases, the diffuse discharges increase their share. Relevant diffuse sources are, inter alia, soil erosion, wash-out and wash-away, deposition, chemical fertilizers, wood preserving agents and building material corrosion.

Bio-accumulation of heavy metals in eels in 1999-2002: Measurements of pollutants in eels' muscle tissue give an indication of the quality of the Flemish inland water. At present, the eel measuring network (IFG/IBW, Institute of Forestry and Game Management, <http://www.ibw.vlaanderen.be/eng/text/index.html>) consists of more than 300 measuring points spread across canals, rivers and streams, closed waters and polder watercourses. The results of the analysis are divided into quality classes in respect of the reference point for the various heavy metals. Measuring results that deviate sharply from the reference for Cd, Pb, As and Ni were found at various historically polluted sites. The consumption standards for Cd and Pb were exceeded only in one canal.

Surface water quality, physico-chemical parameters: The oxygen condition of surface waters (O<sub>2</sub>, COD) is improving and nutrient concentrations (except for NO<sub>3</sub>-N) are falling. Several industrial sectors made a big effort to reduce their waste water loads, and the expansion of waste water treatment plants led to the reduction of waste water loading by households. However, many measuring points do not yet satisfy the basic quality standards and only about ten measuring points have a good physicochemical condition concerning all parameters. Industrial companies should be further disconnected from the sewage network and discharge permits should be adjusted to ecological standards. The additional connection of households to waste water treatment plants should also further decrease waste water loads. The nitrate concentration remains a sticking point, for which mainly agriculture will have to find a solution.

Belgian Biotic Index (BBI): The proportion of measuring points with extremely bad to very bad biological quality (BBI) is falling sharply and the proportion of measuring points with good to very good BBI is increasing (30 % in 2002). However, according to the VLAREM standards, all measuring points must have a BBI of at least 7. In addition, the standstill-principle (no deterioration of the present situation) is often not applicable. There is still much to be done to arrive at a good ecological situation in all watercourses by 2015 (European Water Framework Directive). Not only must the physico-chemical quality of the water be improved, but the quality of the sediment and the natural morphology of the watercourses must also be restored.

Red List of higher plants classified according to nitrogen tolerance: The Red List of 'higher plants' indicates which plants are extinct threatened with extinction, threatened or vulnerable. 40% of the nitrogen-avoiding plants is on the Red List, while it is only 13 % of the nitrogen-tolerant species. Eutrophication is one of the factors causing this critical position. Not only oligotrophic ecosystems, but also eutrophic ecosystems suffer due to eutrophication, e.g. the Blankaart pond in West Flanders. In the polders, too, it is possible that the deterioration of water plants is due to eutrophication. Standards for manure application and atmospheric depositions take preconditions in respect of nature conservation into account to a limited extent, but this has not yet sufficiently resulted in the realization of a nature-oriented environmental quality. This quality is required to remove plants from the Red List.

Shallow groundwater level in nature: The shallow groundwater levels in 11 nature reserves show annual seasonal fluctuations. The levels dropped in all regions due to the extraordinarily dry period between July 1995 and July 1996. Since 1996, the level slowly rose and reached a maximum 2001, a year with an extraordinarily high rainfall. The rising trend in groundwater levels in nature reserves is possibly the combined effect of a number of successive wet years and a change in the management of the nature reserves in favour of wet nature types. The smaller canals in many nature reserves are, for example, no longer maintained, resulting in a lower drainage.

Precipitation trends: Analysis of the 20th century's precipitation data shows that the country's annual average precipitation is rising. If the data are divided into 25-year intervals, the rise between the first and the last interval amounts to 6.6 %. Considered in intervals of 10 years, the rise rather presents a wavy – but also rising – pattern. The annual average precipitation in the last decade was 16 % higher than in the first decade. On the other hand, the second decade of the relevant period is almost as wet as the penultimate decade.

Since the start of meteorological observations in Ukkel (near Brussels), 2001 and 2002 are absolute record years in precipitation of respectively 1 088.5 and 1 077.8 mm as compared to the normal 780.1 mm. The IPCC's (Intergovernmental Panel on Climate Change) model simulations indicate that precipitation will keep on rising in the 21st century and that the annual fluctuations will become sharper in many regions.

The environmental quality standards for surface water are laid down in Vlarem II (Flemish Regulation concerning Environmental Safety) and are being evaluated within the framework of Dangerous

Substances Discharges Directive (76/464/EEC) and the Water Framework Directive). 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.

The share of MAP measuring points exceeding the 50 mg/l nitrate standard decreased from 1999 to 2003. The average concentration in the MAP measuring network also lowered and this decrease was sharper than the one in the general network. This was the result of the farmers' efforts and also of the abundant precipitation in 2001 and 2002. Also the influence from horticulture became clear from this monitoring network. Nevertheless, the nitrate concentration in the MAP network still remained higher than in the general network. Regarding groundwater, it is to soon to draw firm conclusions but 1/3 of the surface for agricultural use is likely to present risk for contamination.

According to the biological integrity indicator (fish index) 24% of all measuring points were 'biologically dead' in 1998. 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 cleanup operations.

Diffuse emissions due to industrial activities: A systematic review of potential contaminated soil and groundwater is performed in 2003 about 22% as already been screened. 80% of the total appeared to be effectively contaminated. The contaminant are mainly chlorinated solvent, metals and mineral oils.

In the conclusions of the Nature Report 2003, the Institute of Nature Conservation of the Flemish Community (<http://www.instat.be/>) states the following: "The decline of Flemish nature has been partially slowed down, although environmental pressures in this small, densely-populated and highly industrialised and urbanised region are still too high for vulnerable ecosystems. However, there are some encouraging signs. Water quality – particularly in our larger rivers – has improved, thanks to efforts to purify household and industrial wastewater. More fish species can be found and in higher densities. The increase in the populations of several overwintering duck species in the river Scheldt makes it an area of international importance."

*Walloon Region:* Water abstractions in Wallonia are stable and do not compromise resources in spite of losses (15%) and substantial exportation of drinking water to Brussels and Flanders (45%).

<i>Water abstraction (mln m<sup>3</sup>/year) (average 1994-2001)</i>	<i>Groundwater</i>	<i>Surface water</i>	<i>Total</i>
Public network	300	90	390(*)
Industry (excl. cooling water)	70	600	670
* 170 exported to Brussels and Flanders, 60 losses, 160 invoiced in Wallonia			

The average consumption by the households of water supplied by the public network is 82 l/inhabitant/year which is 2 times the WHO minimum standard.

When adding water used by industry, offices, hospitals, schools, etc..., the average consumption is 132 l/inhabitant/year which is much lower than the European average.

Based on the SWDE (Walloon Company for water supply) figures, the average price of a m<sup>3</sup> water supplied in 2002 was 2.3725 €/m<sup>3</sup>. This price includes VAT and taxes and fees mentioned in chapter 7(financing).

As far water quality is concerned, nitrates contamination remains a cause for concern. A rising trend in nitrates concentrations was observed in some groundwater, while stabilization at a relatively high level (10-50 mg/l) was noted for surface waters. Contamination with pesticides is not increasing much in

groundwater and seems to be progressively falling in surface water. Organic pollution is decreasing in watercourses. These substantial improvements were marked by a recovery in biological quality : the proportion of sampling points where the biological quality was average, good or excellent rose from 64 to 79% between 1990 and 2002.

Improvement in water quality mainly results from the implementation of several measures. For example, loads of industrial waters in surface waters fell by a quarter in 6 years. A considerable effort, structural as well as financial, has been made in recent years (especially in 1999-2003) in order to reduce the considerable delay in treating urban waste water.

On 1 January 2003, 50% of the total treatment capacity that the Region has to install before 2005 to meet its European obligations, was in place. With the plants currently under construction, contracted for or committed financially, 80% of the objectives to be met are covered.

For more details see chapter water in the “environmental dashboard of the Walloon Region – 2003 pp 37-54” available on the Walloon environment portal described here after.

**Capacity building, Education, Training and Awareness-Raising:** *Brussels Capital Region:* To direct and develop the environmental policy of the Region of Brussels Capital, it is necessary to have reliable information on the state of the environment. The use of indicators is useful to direct the political decisions. It also allows the comparison between cities or regions. That is the reason why it is interesting to develop a common approach and that various initiatives aiming at the elaboration of environmental indicators at the local level were born.

The IBGEBIM is involved in some of these projects.

The RESPECT project: Network of exchanges and support for the environmental policies of regions financed at the European level.

The project Eurorégion «Indicators of Sustainable Development » allowed to put in relation and to confront regional administrators (of 5 European regions) specialized in the creation of indicators in relation with environment.

Within the framework of the IDDU project (Indicators of urban sustainable development), the IBGEBIM elaborated, by means of a network of Belgian cities, a set of indicators intended for the urban administrators. It is a question of one management tool of the city which aims at facilitating the decision-making and the evaluation of the progress towards the sustainable development at the local level.

The region is actively involved in raising awareness activities, essentially by financing NGOs which implement various activities linked to water.

The Region supports for 5 years a project entitled "Brussels by Water ". This project is developed by the association "Escaut sans Frontières - Coordination Senne ". This project articulates mainly around 2 aspects:

- The educational Cruises "Brussels by Water ": More than 2000 participants every year coming from schools of all the municipalities of the Region of Brussels-capital. The program is adapted to the elementary and secondary schools. It concerns activities of sensitization about water problems with a concrete and realistic approach of these problems.
- Distribution in 2003 of more than 1000 copies of the guide ' the Water in Brussels ' (guide understanding piece of information and activities to be made on the water).

The Parliament of young people from Brussels for water is another project supported by the Region and constitutes a good example of civil participation for water management. This parliament brings together young “parliamentarians” who are 8 to 18 years old and also adults who are involved in the various stages of the water policy. This parliament tries to make young people aware of good water management practices by giving them the possibility to build a solid and coherent action program to improve water management. The action plan is implemented and concrete actions have been realized. For more information, please consult the web site: [www.lamaisondeleau.be](http://www.lamaisondeleau.be).

Another project: “Chercheurs d’eau” (Researcher of water) was set up in 2003 by the cell InforScience (promotion of the Sciences) of the Université Libre of Brussels. The purpose was to take advantage of the period of construction of the Water-treatment plant of Brussels North to organize an operation on the theme of the Water and its management in a perspective of sustainable development. The global objective is to offer to the young people the possibility of approaching and of experimenting the scientific initiative, as well as of developing the active citizenship.

*Flemish Region:* The Flemish Region provides information to the public, stakeholders and youth by written (brochures, booklets and course materials for primary and secondary school) and electronic way (web site with on-line data on air and water quality). Brochures on sustainable water use and sanitation are already established 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.

All Flemish provinces have nature and environment centers and run environmental campaigns. A thematic center 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 through organized press conferences. Furthermore, awareness-raising campaigns are organized through printed (newspapers and magazines) and audio-visual media (TV and radio). The Centers for Environmental Education in Flanders provide workshops and symposia for professionals on ecological themes, such as small-scale wastewater treatment. The Provincial Institute for Environmental Education of Antwerp has educational sewage plants, and has held an exhibition on the wise use of water. Examples of the ways in which eco-tourism and nature-based tourism are being promoted include the annual ‘Day of Heritage’.

In the Flemish Community, school curricula (attainment targets) 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. Moreover, a multi-media educational package on water has been put together by the Flemish Environment Agency (VMM) for all educational levels in primary and secondary schools.

Flanders has been taken diverse initiatives concerning awareness-raising, training and education. The project Environmental Care at School (ECAS, in Dutch ‘MOS’) was set up by the Flemish Environment Ministry in co-operation with the 5 Flemish provinces in September 2001 to encourage children and youth to experiment with environmental sound behaviour. In October 2003, ECAS launched a thematic manual on “Water” for primary schools. This compilation is a working instrument to convert schools into a water friendly place in an educational way. In September 2002, the Green School'-project was integrated in the ECAS -project. This project pays attention to and helps schools with the implementation process of the attainment targets of Environmental Education and other cross-curricular attainment targets in the primary and secondary schools (as mentioned before).

Another Flemish initiative concerns “Floepje”, the name of a flying fish and the central figure of an environmental-educational project for children. The fish symbolises water and air. By means of picture books, videos, a dominoes game, a song and a puppet, the project aims at teaching young children an

environment saving attitude. The project started in Flanders in 1996. In the framework of the bilateral co-operation between Flanders and South-Africa an adapted version in English was introduced in South-Africa in 2000. Meanwhile, the project was presented at the European Commission's Green Spider meeting of environmental communicators in Santorini, where it started its European career. The educational packages are now available in ten languages: Dutch, German, Italian, Bulgarian, Greek, Estonian, Hungarian, Romanian and Slovenian and are used in 13 European regions.

Another initiative concerns the "Milieuboot" (or the "Eco-ship"). This is an environmental organisation that dedicates itself through actions and projects to freshwaters. The Milieuboot is particularly aiming at a better water quality of rivers and canals and at the conservation of the nature around water. The organisation wants to make youth and adults aware of water pollution and water purification. Investigation, education, information and awareness-raising are keywords. The Milieuboot takes with it around 15000 youth and adults on a yearly basis to enjoy an educational discovery trip on the water. A scientific environment boat trip is also on the programme.

Furthermore, the Flemish government launched a number of campaigns (and will plan some in the future) aiming at the different categories of water users: households, industry and agriculture. The campaign "Water. Every drop counts" implies advertising spots on television and brochures for different target groups to inform all water users on how to deal with water in a sustainable way. Following the latter campaign, the Centre for Natural and Environmental education "De Helix" prepared an educational project for a broad public: families, associations, schools, local authorities, environmental educators,... Departing from their personal living conditions and interests, the target groups were confronted with their own behaviour and the sometimes opposite concerns of the different water users. The objective was to stimulate a change in the behaviour of the target groups to reach a sustainable bond with water. The training of intermediates with a view to multiply the effect has also been an important objective.

Besides these campaigns, the Flemish Focal Point for Sustainable Water Use ("Steunpunt Duurzaam Water") established a permanent water information desk, called "Waterloket". The focal point provides information on sustainable water use, water pollution prevention and other water-related problems to all applicants. The service is free of charge and can be reached by telephone, e-mail and the Internet. The web site "www.waterloket.be" has been launched on World Water Day 2003. The information on the website is grouped by target-groups: municipalities, households, agriculture and industry. Numerous links to websites of water service providers help the user to find solutions for an important range of water issues, such as: water legislation, permitting, sustainable water use, water pollution, water quality, the collection of precipitation water and infiltration, individual or small scale waste water treatments.

*Walloon Region:* Educational and public awareness programs: There are a lot of programs for all categories of citizens including children at school with environmental organisations like WWF or Nicolas Hulot Foundation.

Around the "world water day" (22 march), the "Walloon water days" are organized, one day for schools and one day for the general public. All the water installations (water supply, waste water treatment plants, etc...) can be visited with educational documents on the whole water cycle.

Networks as CRIE (Regional centre for initiation to environment) have been created. The CRIE network covers the whole Wallonia and provides environmental education for youth and adult groups (see sanitation). On the other hand the IDEA-network exists to provide information on all the material available on different environment fields - especially water - for teachers and local youth workers.

The Walloon Minister for environment has a special phone line and a web site ([www.lalignebleue.be](http://www.lalignebleue.be)) where the citizens can put questions.

Training: The Minister for the Environment has set up two main training projects for young people interested in water-related skills - the "Water Polygon" and "Crescendeau".

- The "Water Polygon ", operated by the Walloon Water Company (SWDE) in Verviers, the capital of Walloon water, brings together the operators and services from the region's water industry. The " Water Polygon " comprises two main elements :
  - A Centre for Water Management, run by the SWDE, promotes and publicises water professions and publicises water-related environmental technology.
  - A Training Centre for water-related professional skills, run by FOREM, caters to companies and individuals active in the water sector, to job-seekers considering the water industry, to teachers and students from the technical and professional educational sector, and to young people approaching the end of their studies and heading towards the world of work. This project seeks to create a new structure capable of tackling the tasks devolved to skill centres, particularly in terms of training for the new technologies in this sector. Some 10 trainers are employed, providing full-time training to 50 trainees at a time, or some 300 workers, 50 job-seekers, and 100 students and educationalists annually.
- "Crescendeau", backed by the University of Liege - brings together under one roof a research centre and a centre of water-related scientific expertise designed to meet the needs of both public operators and industry. The Walloon Region has thus at its disposal a scientific and technological tool to develop its qualitative and quantitative expertise of the whole water cycle, and develop its water industry - in response to the challenge of the European framework directive on water. The centre will be fully operational from mid-2004. It will have a staff of seven in its start-up phase, and eleven when fully operational.

**Information:** *Brussels Capital Region:* Leaflets on water addressed to the large public has been edited by AED, IBGE/BIM, CIBE, IBDE.

Official web sites:

- Brussels Institute for Management of the Environment: [www.ibgebim.be](http://www.ibgebim.be)
- Plan Régional de Développement (Régional Development Plan) : [www.prd.irisnet.be](http://www.prd.irisnet.be)
- Conseil de l'Environnement de la Région de Bruxelles-Capitale (Committee for Environmental Affairs) : [www.cerbc.be](http://www.cerbc.be)
- Port de Bruxelles (Brussels harbour): [www.havenvanbrussel.be](http://www.havenvanbrussel.be)
- Aquabru: Association des Eaux de Bruxelles (Association of Waters in Brussel) : [www.aquabru.org](http://www.aquabru.org)
- Université Libre de Bruxelles (Brussels University of the French Community) : [www.ulb.ac.be](http://www.ulb.ac.be)
- Vrije Universiteit Brussel ( Brussels University of the Flemish Community) : [www.vub.ac.be](http://www.vub.ac.be)
- Intercommunale Bruxelloise de Distribution de l'Eau (The Brussels Inter-Commune Water Distribution Authority) : [www.ibde.be](http://www.ibde.be)
- Compagnie Intercommunale Bruxelloise de l'Eau (The Brussels Inter-Commune Water Company) : [www.cibe.be](http://www.cibe.be)
- Intercommunale Bruxelloise d'Assainissement (The Brussels Inter Commune Drains Authority) : [www.ibra.be](http://www.ibra.be)

Relevant documents:

- Rapport sur l'Etat de l'Environnement en RBC 2002 by IBGEBIM.

*Flemish Region:* In 1992 the Flemish environmental authorities decided to establish one integrated environmental data bank composed of three 'pillars': (i) permits and levies, (ii) monitoring data, and (iii)

soil data; the pillars are run respectively by AMINAL, VMM en VLM. In 2000 the strategic project “Milieu Management Informatie Systeem”

MMIS:[http://www.vlaanderen.be/NASApp/cs/ContentServer?pagename=MVG\\_Portaal/Page/WeakIntegration/PopUp/PopUp&bron=http://mmis.milieuinfo.be/custom7\\_02.cgi?id\\_tab=3&urlWI=http://mmis.milieuinfo.be/custom7\\_02.cgi?id\\_tab=3](http://www.vlaanderen.be/NASApp/cs/ContentServer?pagename=MVG_Portaal/Page/WeakIntegration/PopUp/PopUp&bron=http://mmis.milieuinfo.be/custom7_02.cgi?id_tab=3&urlWI=http://mmis.milieuinfo.be/custom7_02.cgi?id_tab=3) )

or “Environmental Management Information System” has been launched to integrate all data to one sound entity. Different steps have already been taken such as a collective business company data bank and others measures to attain a simplified administrative and environmental information service.

All quality and quantity related data on water and air monitoring, coupled to GIS, are available on internet.

There are also the internet sites of the environment and its related administrations and para-regional agencies where the organization, policy and monitoring data can be obtained. Most of the internet sites have links with the other relevant sites of authorities and stakeholders.

The following web sites enable to find all competent authorities, water actors and data:

- <http://www.flanders.be/>: general information about Flanders
- <http://www.lin.vlaanderen.be/>: Department of Environment and Infrastructure of Flemish Ministry
- <http://www.lin.vlaanderen.be/awz/>: Waterways and Marine Affairs Administration
- <http://www.sigmaplan.be/>: Sigmaplan for flood protection
- <http://www.mina.be/>: Environment, Nature, Land and Water Management Administration
- <http://www2.vmm.be/>: Flemish Environment Agency
- <http://www.milieuinfo.be/>: environmental information and links
- <http://www.milieubeleidsplan.be/>: Environment Policy Plan
- <http://www.ciwvlaanderen.be/ciwhomepag.html>: Co-ordination Commission Integrated Water Policy
- : Energy and Environment Information System of the Flemish Institute of Technological Research
- [http://www.emis.vito.be/wet\\_ENG\\_navigator/index.htm](http://www.emis.vito.be/wet_ENG_navigator/index.htm): Flemish Environmental Legislation Navigator
- <http://www.mina.vlaanderen.be/milieueducatie/informatief/webwater.htm>: Natuur - Milieu - Educatie - Informatie Nature and Environment Education and Information (+ links to water actors & stakeholders)
- [http://www.vlm.be/Wie+Zijn+Wij/VLM\\_E.htm](http://www.vlm.be/Wie+Zijn+Wij/VLM_E.htm): Flemish Land Agency
- <http://www.aquafin.be/>: Aquafin, sewerage and UWWTP
- <http://www.svw.be/watis/default.asp>: umbrella organization of water providers (+ links to all members)
- <http://www.waterloketvlaanderen.be/>: Flemish Water Information Desk (+ links to water actors & stakeholders)
- <http://www.minaraad.be/>: Environment and Nature Council
- <http://web.gisvlaanderen.be/gis/index.jsp>: GIS
- <http://www2.vmm.be/servlet/be.coi.gw.servlet.MainServlet/id1082019953584/standard/?toDo=open&id=8>: monitoring data on water

The Flemish Environment Agency (VMM) publishes annual reports on water quality of surface water and effluents (industrial and UWWTP)

The VMM is in charge of the annual Environment and Nature Reports or MIRA (Milieu-en Natuurrapport Vlaanderen):

- T-reports: the Theme-report describes the status of the environment and nature in Flanders, evaluates trends and the effect of the policy and measures;
- S-reports (quinquennial): the Scenario-report describes the expected evolution of the environment and nature with unamended or actual policy and different scenarios of amended policy;
- BE-reports: description and evaluation of the environmental policy.
- <http://www2.vmm.be/servlet/be.coi.gw.servlet.MainServlet/standard?toDo=open&id=13&&>
- The water authorities have also a central information desk “Waterloket” (see last paragraph of previous chapter) and publishes guidelines for water users (architects, cattle breeders ...)
- The status of nature is described in the annual Nature Report of the Institute of Nature Conservation of the Flemish Community (<http://www.instnat.be/>)

*Walloon Region:* The Wallonia environment portal (<http://environnement.wallonie.be>) brings together important data by theme and makes various types of information available to the general public (briefings, links to reference sites, events, news, etc). The portal dedicated to the geographical information systems used at the DGRNE also helps users find and access information and cartographic data.

The DGRNE (Avenue Prince de Liège, 15 B-5100 JAMBES, tel. +32 81 33 50 50) is the main source of information and issuer of permits for citizens and companies alike. It also provides technical advice on permit exemptions, approval of waste collection agencies and other dossiers. In addition, the administration interprets international legal rules in the context of Walloon law to prepare environment-related bills. In fulfilling its missions, the DGRNE mobilises almost 1500 officers based at its head office in the region’s political and administrative capital Namur, its research centre in Gembloux and many local branches. Driven by a commitment to improve its response to the needs of its officers and its partners, the DGRNE recently launched a quality control initiative focused on three fundamental values : transparency, diligence and dialogue. This drive to create a modern high-performance administration also extends to initiatives launched by the government aimed at establishing target-guided management, simplified administration and IT co-ordination, to name but a few.

Wallonia publishes on an annual basis the “Environment dashboard of the Walloon Region”. The 2003 dashboard is available on the environment portal in French and English. A summary of the dashboard is also available in four languages (F, Eng, Dutch and German).

The DGRNE has virtually exclusive responsibility for monitoring pollution in the Walloon Region through the authority granted to its environmental police. Its officers investigate and prove offences in response to complaints or in the course of scheduled inspections. The environmental police are also responsible for the permanent monitoring of a string of pollutants. That includes managing a network that analyses the water quality rivers.

**Research and Technologies:** *Brussels Capital Region:* The Region set up two programs:

- Prospective Research for Brussels, which finances the projects of young researchers in subjects of importance for the Brussels region.
- Research in Brussels, a program which aims at welcoming in the region of Brussels-capital the researchers coming from the whole world.

*Flemish Region:* The Environmental Policy Plan 2003-2007 (MINA3) emphasizes the importance of policy sustaining instruments: (i) knowledge acquisition, (ii) information management, and (iii) reporting. In addition of the management of the research policy by a Support Center For Environmental Policy Sciences, a strategic cross sector research program is set up with the following items; (i) causality

between abiotic and biotic factors and environmental quality, (ii) evaluation of environmental policy through survey, (iii) sustainable development and resource management, (iv) development and use of indicators, (v) economic and other instruments, (vi) environmental costs modeling, and (vii) development of new technologies and innovations. The consultation with the Research and Technological Innovation Department (IWT: [http://www.iwt.be/iwt\\_engels/default.htm](http://www.iwt.be/iwt_engels/default.htm)) will be improved and get a better structure. Some research items need a particular cross sector co-ordination such as the drying up of soils and the dispersion of dangerous substances.

The program of 2003 of TWOL (<http://www.ovam.be/jahia/Jahia/pid/285#Doelgroep>) or Applied Scientific Research on the Environment treats a variety of water related items, inter alia: nitrogen leaching through soils, feasibility of environmental levies on the use of pesticides, priority substances of the WFD, ecotoxicity of effluents, various items of the WFD, pathways of dangerous substances, modeling of sewers, reduction of pesticides, eco-hydraulic modeling of waterways, drying up and flood protection, monitoring strategies.

The Flemish Institute for Technological Research (VITO) runs a Energy and Environmental Information System (see Information) with particular information on BAT for small and medium sized industry. VITO is also the research center for establishing BAT and participates actively in the Belgian delegation in the EU IPPC BREFs Committee.

OVAM, the Flemish Public Waste Agency for waste management is promoting clean technologies with respect to water resources management and waste reduction through the Presti-project, <http://www.ovam.be/jahia/Jahia/pid/285#Doelgroep>.

*Walloon Region:* The Minister has invited the universities to work together in PIRENE (the program for integrated research on water and the environment). Eighteen services from seven Walloon universities work with the Walloon political and administrative authorities, and the water operators, based in the environment pole of the University of Liege.

The aim of this large and innovative project is to develop a model for each sub-basin to provide real assistance and input to those managing the integrated water cycle.

**Financing:** Brussels Capital Region: The principal sources of funding are:

- The water invoice which covers production, distribution, collection of waste water and treatment
- The endowment of the Regional budget for the Water Policy is used for the financing of the Regional administrations AED and IBGE

In 2003, the regional budget was used to finance principally the following works:

- Works in fight against the floods, the collection and purge of waste water (17,1 M€);
- Exploitation of the water-treatment plant of Brussels - South and the Stormbasins (6 M€);
- Cleaning out of streams, restoration of banks, studies...

In addition, a fund for the financing of the water policy was created in 2001. This fund is intended to finance the repurchase of a collector (the end of 2006) and for the payments of the annual installments of the future northern water treatment plant (50 M€/year).

The incomes of this fund are from 2 sources:

- The regional tax on the draining of waste water
- The financial participation of the Flemish Region in investment for collection and waste water treatment plant

*Flemish Region:* The provision of drinking water is now completely self sustaining. There are no more subsidies or other intervention from the region in investments for drinking water production and distribution. The price paid by the consumer covers all the costs. As mentioned earlier (cf. 2.D: drinking water supply) every inhabitant receives 15 m<sup>3</sup> drinking water free of charge and has the right to be connected to a drinking water distribution network which is charged.

Cf the sanitation review

*Walloon Region:* For 2001, income from taxes and dues was the following

- |                                                    |        |
|----------------------------------------------------|--------|
| - domestic tax (0.55€/m <sup>3</sup> )             | 600 M€ |
| - industrial tax (on water discharges)             | 94 M€  |
| - dues on water collection (0.10€/m <sup>3</sup> ) | 3.4 M€ |

These taxes and fees are used for financing water resources protection and urban waste water treatment via the SPGE.

The SPGE's program for 2000-04 budgets more than 1 billion Euro of investments for collecting and treating urban waste waters in the region's priority agglomerations, whereas the 1991 wastewater treatment budget did not exceed 25 million Euro.

**Co-operation:** Treaties of Ghent (2002): Belgium – comprising the co-signature by its three regions (Brussels Capital Region, Flemish Region and Walloon Region) - has signed in Ghent on December 3rd, 2002, together with France, Germany, Luxembourg and the Netherlands, two new treaties on integrated river basin management for the transboundary river basin districts Scheldt (BE, FR, NL) respectively Meuse (BE, FR, GE, LUX, NL). By these treaties, the international co-ordination of the river basin management plans for implementing the EU Water Framework Directive and flood prevention and protection is assigned to the International Scheldt and Meuse Commissions. The new treaties will replace the existing treaties of Charleville-Mézières (1994) which scope was limited to the protection of the water quality of the main river.

More information:

- International Scheldt Commission: <http://www.isc-cie.com>
- International Meuse Commission: <http://www.cipm-icbm.be>

Scaldit-project: an international action programme for a cleaner and safer river basin district of the Scheldt (01/01/2003 - 31/12/2005). (FL, BR & WL)

The name 'Scaldit' is made up of 'Scaldis' - the Latin name for Scheldt - and Integrated Testing. Scaldit is a transnational project with six partners from five regions in three countries. It runs within the International Scheldt Commission with support of the Interreg IIIB North West Europe funding programme.

1. Lead partner - Flemish Region: Vlaamse Milieumaatschappij (VMM)
2. Partner - Brussels Capital Region: Institut Bruxellois de Gestion de l'Environnement - Brussels Instituut voor Milieubeheer (IBGE - BIM)
3. Partner - Walloon Region: Direction Générale des Ressources Naturelles et de l'Environnement (DGRNE)
4. Partner - France: Le Préfet Coordonnateur du Bassin Artois Picardie - La Direction Régionale de l'Environnement Nord-Pas de Calais
5. Partner - The Netherlands: Ministerie van Verkeer en Waterstaat, DG Water
6. Partner - The Netherlands: Provincie Zeeland

The river basin district of the Scheldt has an area of 37,170 km<sup>2</sup>. 12,686,000 people live in the area. The Scheldt river basin itself has an area of 21,863 km<sup>2</sup> and 10 million inhabitants.

With Scaldit, the partners want to lay the basis for the development of integrated water management in the Scheldt River basin District. They are investigating the feasibility of the guidance documents that the European Union has provided in connection with the Common Implementation Strategy of the Water Framework Directive in the entire river basin district. The experience accumulated from this pilot international river management plan will later on benefit international river basin districts management plans.

The action programme is constructed around five themes:

1. Characterisations of the river basin district
2. Data and information management
3. Water management and spatial planning
4. Communication and public participation
5. Up to the international river basin management plan

More information:

- Scaldit: <http://www.scaldit.org>
- International Scheldt Commission: <http://www.isc-cie.com>
- Interreg III B North West Europe: <http://www.nweurope.org>

*Federal State :*

1. Sustainable human development is the overall objective of the Belgian (international) development co-operation (BDC). This objective is to be achieved through effective poverty alleviation.

2. BDC considers the respect for the protection of the environment as one of the 6 criteria to in evaluating the relevance of supported interventions. The protection of the environment, together with gender and social economy, is indeed one of the 3 cross-sectoral issues to be considered in all bilateral interventions assessment. An environmental strategy paper providing guidelines on how to mainstream the environment in international co-operation at all levels was developed and presented to the parliament in 2003, together with the basic infrastructure development in development co-operation strategy paper, in direct charge of the water issues.

3. At the international level, under the overarching objective of poverty alleviation, water and its sustainable management are recurrent focuses of many programmes of BDC. Indeed, the annual financial contribution of BDC, made through the Directorate General for Development Co-operation (DGDC) in particular, to water related projects was close to 25 millions \$US in 2002. Belgium is committed to increase its investment in the water sector development in co-operation in order to achieve the amount of almost 38 millions \$US for 2005. The water sector includes water supply, including water for food security, sanitation, and integrated water resources management at watershed and river basins. The eligible projects include activities of monitoring and evaluation, education in water resources engineering and management, technical studies on different water management related topics, including water vulnerability and appropriate sanitation technologies, etc.

4. In the framework of the Belgian Trust Fund with the World Bank, the DGDC provides funding to support the development of the water supply and sanitation components in the Poverty Reduction Strategy Papers in African countries (0.8 million \$US per year). In addition, approximately 13 % of the Belgian annual contribution to the Global Environment Facility (7,7 million \$US/year) is allocated to projects to reverse the degradation of international waters.

5. The Belgian Development Co-operation supports also projects related to the management of water resources in arid and semi-arid areas such as the Tunisian integrated project for combating desertification and erosion, including irrigation water management. Indeed, the issue of desertification is increasingly being dealt with in the context of integrated programmes that combine poverty alleviation, rural development and food security. The investment of BDC in water management as related to desertification control, 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), is estimated of 22,5 millions \$US per year.

6. The Directorate General for Development Co-operation (DGDC) contributes to the budgets of a limited number (20) of international organizations and funds, such as the European Development Fund (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. DGDC has momentarily still projects operational in 47 countries, but this number of partner countries is reduced today to 18 after having been reduced to 25 countries during the previous years.

7. About 15% of development co-operation assistance goes to the EDF, that is, approximately million US\$ 91.

8. Finally, 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 definitely positioned itself in favour of the adoption of core labour and social standards within trade agreements in order to expedite the achievement of sustainable development, namely in developing countries. 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 environmentally related MD goals.

*Brussels Capital Region:* 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.

To concretize the principle of solidarity North-South and to defense the right of access to water for all, the Brussels Region supports an awareness campaign which has for federative subject "Water". This campaign is managed by the National Center of Co-operation for Development (CNCD). This body develops every year information, educational and sensitization campaigns about supporting developing countries from the South. The campaign: "Get wet for the Water" has for purpose to conceive and to spread tools of sensitization on the subject: Water, Common good for humanity (leaflet introduced into the water invoice of the consumers, posters and radio commercials) as well as the organization of a popular event at Place de la Monnaie on March 21st of this year (within the framework of the World Day of the Water).

Another project that merits to be mentioned concerns rehabilitation and installation, management and maintenance of wells and pumps in villages in the Democratic Republic of Congo.

*Flemish Region:* Transboundary co-operation via the River Commissions. Flanders – under the lead of Waterways and Marine Affairs Administration - is party to the bilateral Flemish-Dutch Technical Scheldt Commission and the Dutch-Flemish Meuse Commission of the various Water Treaties and agreements between the two riparian countries. The NVIWO or Dutch-Flemish Integrated Water Consultation co-ordinates the water policy of the transboundary non-navigable sub-basins; the leading Flemish authority is Environment, Nature, Land and Water Management Administration Commission for Transboundary Non-

navigable Watercourses and to the International Conventions for the Protection of the Rivers Meuse and Scheldt.

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.

Development co-operation concerning water. Flemish development co-operation started getting shape in the 1990s, when Flanders obtained the constitutional competence to pursue its own foreign policy. Ten years later, instruments and budget are still limited and modest, allowing the Flemish minister of Development Co-operation to focus on a small number of priority countries and themes only. Water and sanitation are not included in the list of main priorities, but are nevertheless not totally omitted: both in South-Africa (more particularly in the Limpopo province) and at home (by financing education and sensibilisation projects in Flanders), Flemish development co-operation pays attention to water and sanitation issues.

The establishment of the Flemish Partnership “Water for Development” (<http://www.watervoorontwikkeling.be>), under impulse of the Flemish Minister of Environment, sets the objective of giving an incentive from Flanders to the Millennium Development Goal with regard to safe water and to the WSSD sanitation goal.

This Partnership is a school example of a forum where both the policy fields of environment and development co-operation work in close co-operation with watercompanies, NGOs, universities and private companies towards the realisation of these goals.

*Flemish and Walloon Regions:* Co-operation on the subnational level. On the Summit of Johannesburg, Flanders and Wallonia joined the Network of Regions for Sustainable Development, together with 20 other regions all over the world. Thereto, the Flemish and Walloon Regions subscribed principally the Gautengdeclaration, in which the regions take on engagements concerning sustainable development. The focus lies on the possibilities of co-operation on the subnational level to help reaching the goals of the World Top. At the same time the network wants to install a direct line of communication with the United Nations because multinational organisations haven’t been paying attention yet to this policy level.

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