

FRESHWATER COUNTRY PROFILE

BULGARIA

Decision-Making

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Decision-Making: *Strategy and policy:* Environmental policy has evolved with overall political and economic changes in the last 15 years. The Environmental Strategy Study of 1992 and its 1994 update carried out with the assistance of the World Bank were the first comprehensive strategic documents in this area. The Strategy and the Environmental Action Plan for the period up to 2000 introduced new approaches to environmental management and set Bulgarian environment policy on track with modern environmental policy making – addressing environmental issues in their intersectoral complexity, thus providing the initial framework for integrating environmental, economic and social issues as a basis for the country's sustainable development. Particularly intensive in terms of legislative changes and new policy implementation was the period after 1997 when Bulgaria signed an association agreement with the European Union (EU) thus formally undertaking obligation to meet European environmental standards. The enormous efforts of the Bulgarian institutions backed by political will and international support have resulted in considerable progress in the period up to 2000.

- Modern environmental legislation in all environmental sectors and areas has been put in place making the process of harmonisation with the EU environmental acquis almost entirely complete.
- Financial mechanisms for environmental policy implementation have been developed and are well functioning. A significant, for the size of the country, environmental investment programme has been implemented.
- The prevention approach in the field of environment as a main prerequisite for sustainable development has been introduced and is being successfully applied.
- A modern environmental quality monitoring system has been developed and is in operation which is a basis for providing information to the public and for decision-making. (Bulgaria became member of the European Environment Agency in 2000.)
- Procedures to actively involve the public and non-governmental organisations in the decision-making process have been introduced in respective legislation and in practice.
- The economic restructuring process has been successfully used for achieving sustainable development goals.
- Environmental quality in vulnerable “hot spots”– mainly related to past pollution has been considerably improved.

Recognising the new stage of environmental policy development the MOEW initiated the elaboration of a National Environmental Strategy and Action Plan 2000-2006. The strategy prepared with the valuable contribution of Bulgarian governmental institutions, scientific organisations, non-governmental organisations (NGOs) and societies and with international support was approved by the Government on 31 May 2001. This strategic document has a primary focus on end results, i.e. on activities and measures for practical implementation of existing legislation with the aim to improve the quality of life and to protect the environment. The strategic objectives for the country for this period go beyond mere environmental concerns and integrate sustainable development considerations in two aspects: preserving and expanding the large clean territories in the country and protecting Bulgaria's rich nature in conditions of economic growth and improved social welfare, and secondly overcoming existing local environmental problems, thus improving quality of life. In line with overall environment and economic policy development, water management priorities have also been set. In 1997 the Government adopted a Strategy for Integrated Water Management in the Republic of Bulgaria. This document identifies the main objectives towards achieving sustainable water management: meeting different water use needs (drinking water supply, recreation, industrial and agricultural use) while conserving water resources; protecting the environment and the aquatic ecosystems; limiting potential impacts of floods and drought. The Strategy also takes into account new challenges arising from market economy development. It introduces the approach of a government regulated water use balance as a way of ensuring the social function of water supply and the protection of the environment. The Strategy identifies economic aspects of water use and water management structures and mechanisms to be established. Recently, a working group chaired by the MOEW and including representatives of other organisations has been set up to draft a National

Strategy for Water Management and Development. It will build upon results and conclusions drawn from implementation of previous strategic documents and programmes in all sectors related to water management. The new strategy will also reflect international commitments, particularly those related to EU accession and the transboundary water management implications it has. The strategy will identify measures and mechanisms for adequate water supply to all citizens and other users in the country while guaranteeing social acceptability of water services and integrating other sector priorities set out in strategic documents such as national economic and regional development plans, district and municipal social-economic development strategies, municipal programmes, etc. The strategy is expected to be adopted by the end of 2004.

Legislation: Based on the key issues and priority actions of the National Environmental Strategy and Action Plan 2000-2006, the Environmental Protection Act (EPA) of 2002 provides a comprehensive legal framework for environmental policy. It ensures common approach in all environmental sectors and at the same time provides a basis for integration of environment into other policy sectors. The EPA also provides for wider opportunities for public involvement in decision making and policy implementation. While the EPA provides the framework for environmental policy, sectoral legislation (laws and regulations) details particular requirements, specifies enforcement and control mechanisms and deadlines. Sectoral legislation ensures that EU accession related commitments and other international obligations are observed. At the same time it gives stakeholders clear guidance on compliance with particular requirements as well as establishes mechanisms for public participation in the decision-making process. Legislative initiatives are undertaken in line with the schedule set in the National Programme for Adopting EU Acquis Communautaire. This ambitious document adopted by the Bulgarian government on 20 April 1999 includes environmental sector legislation as well. The Programme is updated on annual basis in compliance with progress made and newly adopted European legislation. Following the schedule, the legislation in the sector “Water quality” is also adopted, complemented and amended. The general principles of the EU policy in the water sector are introduced in the national legislation through the Water Act (State Gazette, issue 67/1999, enforced on 28 January 2000, amended in State Gazette, issue 87/2000). The Water Act introduces the principle of integrated water management on the basis of river basins. The development of river basin management plans and programmes for water bodies’ pollution reduction and elimination is regulated. The main rules for the operation of the national water monitoring system are specified. Internal monitoring combined with periodical inspections by the state institutions is projected for the big enterprises. Permitting regime for water use and use of water bodies is introduced, including discharges of wastewater from urban collection systems as main tools for regulating water resources use and protection of water from pollution.

Institutional Setting: Although being small in terms of area (110 000 km²) the hydro-geographical network of the country is particularly dense and complex, though there are no large inland rivers. The Water Act divides the country into four River Basin Management Districts on the basis of catchment area. Following this hydro-geographical criteria these river basin management units are named after the main bodies of surface water that the respective inland rivers flow into, i.e.

- Danube River Basin Management District
- Black Sea River Basin Management District
- East Aegean River Basin Management District
- West Aegean River Basin Management District

The Water Act identifies competent authorities at national and river basin district level and specifies their responsibilities and relationships. Water management authorities at the national level are the Council of the Ministers and the Ministry of the Environment and Water (the Minister). A Supreme Consultative Water Council is also established ensuring integration of all other relevant sector issues at an early stage

of the policy making process. The Council of Ministers adopts the National Water Plan as well as national programmes for water management and gives concessions/permits on water use in specific cases. The Ministry of Environment and Water (MOEW) is the competent body responsible for carrying out the national policy in integrated and sustainable water management. It coordinates, regulates and controls other water management related sectoral and territorial policies in view of meeting current needs for water while conserving water resources for the future generations.

The Ministry of Environment and Water also provides support for the implementation of the Council of Ministers' responsibilities under the Water Act. MOEW's responsibilities as key competent authority in the decision-making process in the field of water also include ensuring coherence of regional (international), national and river basin issues, including through:

- Drafting national legislation in the area of water protection and use;
- Development of national water policy and national programmes;
- Development of National Water Plan;
- Approval of River Basin Management Plans (RBMP);
- Development of national policy for bilateral and multilateral cooperation in water management;
- Issue concessions/permits on water use in specific cases;
- Carrying out monitoring of surface and groundwater networks;
- Providing information;
- Programming, preparation, coordination and management of EU funded projects for implementing EU water related directives.

Some other authorities have responsibilities in the field of the water at a national level, e.g. the Ministry of Health - for quality of drinking water distributed from the tap and bathing water quality, the Ministry of Regional Development and Public Work - for drinking water supply systems and urban sewerage systems – state property, the Ministry of Agriculture and Forestry – for irrigation, etc. Altogether, 10 ministries and government agencies, including the above mentioned ones, are members of the Supreme Consultative Water Council which also includes representatives of academic institutions, local authorities (responsible for water supply and sewerage facilities – municipal property) and NGOs. The Ministry of Environment and Water through its Water Directorate provides a link between national and local level and coordinates the activities of the four River Basin Directorates (RBD). The latter were established as MOEW bodies in the 4 river basin management districts in Bulgaria in 2002 in compliance with the Water Act. The River Basin Directorates perform the following main functions:

- Organize the development of river basin management plans of the respective basin;
- Issue permits for water use and wastewater discharge;
- Implement, at the basin level, the activities for maintaining the National System for Water Monitoring;
- Keep registers of the issued permits and control compliance with the terms and requirements specified in them.

The Basin Councils, established in 2003 in line with Water Act provisions, assist the River Basin Directorates in their operational activities through ensuring effective dialogue and public participation in the decision-making processes. The Regional Inspectorates of Environment and Water, as bodies of the Ministry of Environment and Water, implement the environment protection policy at the regional level and support the River Basin Directorates in their activities thus ensuring effective policy implementation.

At present there are mechanisms for resolution of conflicts related to water resource management and development at national and regional levels. The River Basin Directorates have started the procedure for elaboration of the River Basin Management Plans (required by the Water Act). So far each Basin Directorate has prepared Terms of Reference (ToR) for the elaboration of the respective River Basin

Management Plan in conformity with the requirements of the Water Framework Directive 2000/60/EC. The ToRs have been subjected to a public consultation procedure and are to be approved by the Minister of Environment and Water within the next month. The Permanent Commission on Natural Calamities, Accidents and Catastrophes to the Council of Ministers elaborates the country's policy for handling emergency situations, particularly with respect to floods and droughts. The Ministry of Environment and Water together with other governmental agencies is represented in this Commission. Major groups involved with freshwater resources management include public authorities at central, district, and local levels; municipal water companies and utilities; industrial enterprises; agricultural enterprises and farmers; and the general public and NGOs.

Programmes and Projects:

A. Integrated Water Resources Development and Management: The project "Study on integrated environmental management for the Maritza river basin" (1997-1999) was developed by the Japan International Co-operation Agency (JICA) and the Ministry of Environment and Water. "Water Quality Protection and Management in the Maritza river basin" (1996-1998) – funded by the United Nations Development Programme (UNDP) and implemented jointly with the MOEW identified the sources, type and magnitude of pollution in the Maritza river basin and recommended measures for improving the situation. A National Forest Policy and Strategy developed with international donors assistance was adopted by the Council of Ministers in 2003. "Establishment and strengthening of the Bulgarian water authorities" – funded through the EU PHARE TWINNING programme, the project was implemented in cooperation with the French Ministry of Spatial Planning and Environment for 18 months (2001 – 2002). The project assisted the Bulgarian water administration executives in defining and setting up organizational structure and tasks of the River Basin Authorities (RBA). It gave recommendations for improving inter- institutional relationships and provided training to MOEW and RBA staff in water management and administration issues. "Implementation of the Water Framework Directive in Bulgaria - support to the Bulgarian Ministry of Environment and Water and to Black Sea Basin Directorate" (April 2003 – October 2004). The project is financed by the Danish Environmental Protection Agency and Danish Cooperation for Environment in Eastern Europe (DANCEE). The objectives of the project are to assist the Bulgarian Ministry of Environment and Water in its efforts to improve water management practices with a special focus on compliance with the Water Framework Directive. The Black Sea River Basin is a pilot project area.

B. Water Resources Assessment: National Programme for Water Resources Conservation in Conditions of Drought (see section C below).

C. Protection of Water Resources, Water Quality and Aquatic Ecosystems: "The National Programme for Priority Construction of Urban Wastewater Treatment Plants for settlements of over 10 000 population equivalent" (1999-2014), adopted in 1999 by the Council of Ministers of the Republic of Bulgaria is an important national document. This investment programme identifies the necessary urban wastewater treatment plants for settlements of over 10 000 population equivalent. Construction of 81 new, as well as reconstruction and modernization of 23 operating plants is planned. Out of the 104 priority facilities, 36 should be built and reconstructed up to 2007. Investment needed is about 550 million EURO (about 660 million USD). This Programme is currently being updated to include settlements with population equivalent between 2 000 and 10 000.

The "Programme for monitoring of ornithological important places" of the Bulgarian Society for the Protection of Birds; the research projects undertaken through the Bulgarian-Swiss Biodiversity Conservation Programme in the regions of the Black Sea coast, Strandja, the Eastern Rhodopes, Dobrudja and Central Balkan; study and mapping of the vegetation in the reserve Tissata; etc. National Strategy for the Conservation and Management of Wetlands was prepared in 1993. "Feasibility study for identification of the sensitive areas in Mesta, Struma, Arda, Tundja and Maritza river basins in accordance with the

criteria of Directive 91/271/EEC” was conducted for all rivers in South Bulgaria, covering two of the four river basins management districts. The study was implemented within a project under the PHARE Cross-Border Cooperation Programme Bulgaria – Greece. “Institutional strengthening at national and regional level for implementation of the drinking water, fish water and shellfish water, bathing water and dangerous substances discharges directives” - funded through the EU PHARE TWINNING programme, implemented in cooperation with the French Ministry of Spatial Planning and Environment and the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety for 24 months (2002 – 2003). It identified key drinking water supply problems and proposed a programme of measures (including investment ones) for meeting drinking water quality standards and adequate monitoring procedures. Recommendations for fish and shellfish water pollution reduction were made. Training and public awareness campaigns including dissemination of information on European standards for drinking water supply, internal and external monitoring system through seminars for national and regional authorities and local water supply companies were also part of the project.

“Protection of Water against Pollution caused by Nitrates from Agricultural sources, Directive 91/676/EEC in Bulgaria” - the project defined necessary measures, responsibilities, including a financial and legislative overview regarding the implementation of Directive 91/676/EEC in Bulgaria. The key project activities involved MOEW, Ministry of Health, Ministry of Agriculture and Forestry and Executive Environment Agency staff and comprised: assessment of transposition of Directive 91/676/EEC in Bulgaria; review of the nitrate monitoring system and recommendation for improvements; determination of nitrate polluted water, vulnerable zones and recovery measures; a pilot farming project - development of ‘Code of Good Agricultural Practice’; assessment of needs and costs for extra staff and resources to fulfill the requirements of Directive; needs and costs of water quality monitoring and management. The National Programme for Water Resources Conservation in Conditions of Drought was adopted by the Council of Ministers in 2001 in view of climate changes observed and the resulting reduction of regeneration in the natural hydrological cycle after 1980. It contains detailed water resources assessment and identifies issues of priority concern. The Programme specifies legal, institutional and investment measures for a 10 year period aimed at ensuring water resources conservation; overcoming water shortages; availability of water for irrigation purposes; public awareness raising related to water saving and rational water use.

D. Drinking Water Supply and Sanitation: The Ministry of Regional Development and Public Works (MRDPW) supports local initiatives in water management, through the provision of subsidies for construction and reconstruction of water supply and sewerage systems, etc. National Programme for the construction of sewerage systems (1999-2014) was prepared by the Ministry of Regional Development and Public Works to complement the Programme for Urban WWTPs (see section A above).

National Programme for Water Resources Conservation in Conditions of Drought (see section C above).

E. Water and Sustainable Urban Development: National Programme for the construction of sewerage systems (see section C above).

F. Water for Sustainable Food Production and Rural Development: The activities supported under Measure 1.6. Water Resource Management – Irrigation, are included in the National Investment Programme until 2006. “Wetland Restoration and Pollution Reduction” Project (2002-2007) - jointly funded by the Global Environment Facility (GEF), EU PHARE Programme, the Austrian government and the Bulgarian government is underway. The 13.280 million USD project aims at assisting the government of Bulgaria in meeting its national and international commitments to reduce transboundary nutrient loads and to conserve biodiversity in the Danube and Black Sea basins through improved management and sustainable use of natural resources and restoration of wetlands.

National Programme for Water Resources Conservation in Conditions of Drought: see section D above.

G. Impacts of Climate Change on Water Resources: The Second National Communication on Climate Change, published by Ministry of Environment and Water in 1998, addresses issues related to critical uncertainties. The evaluation of GHG emissions and the study of their impact were conducted under the project “Study for Bulgaria of Climate Change Issues”, developed in 1993-1996 with the financial assistance of the Department of Energy of the USA.

Status: Bulgaria has strengthened its water management efforts in recent years. The country is gradually increasing the amount of financial resources allocated to those purposes. Early progress has been made in increasing water conservation and pollution prevention approaches in industry and livestock production. National priorities related to freshwater are focused on continued and strengthened efforts on efficient water resources management on the basis of river basins, in partnership with all interested parties, aimed at ensuring adequate water availability for present and future generations while preserving water related systems. Overall problems of water quantity and quality remain an issue in some areas. Availability and distribution of water still present difficulties particularly in some of the small settlements during summer. Analysis of the situation revealed climate change and prolonged drought as major causes for current water shortages. As a result, the government adopted in 2001 a National Programme for Water Resources Conservation in Conditions of Drought aimed at providing long term solution to the problem of fresh water availability. The Programme is also related to activities undertaken in the framework of the UN Convention on Desertification ratified by Bulgaria in 2001. Problems with old and leaking distribution systems and with wasteful agricultural and industrial use remain a serious concern. However, the water use permits introduced with the Water Act and the system to control compliance currently being improved already gives positive results, particularly with respect to industrial use and water supply companies’ practices.

Municipal wastewater treatment plants require considerable investment which limits the progress achieved over relatively short periods. Allocation of funds is done on the basis of well established set of criteria taking into account the environmental effect of the facility, local environmental situation as well as international obligations related to transboundary waters. There are 61 operational WWTP in Bulgaria. Twenty WWTP are completed, operate successfully and no expansion, reconstruction and modernization are presently projected. The remaining treatment plants (41) are also operational, however additional measures for expansion, reconstruction and modernization are now implemented or should be undertaken. According to the last census data, the constructed wastewater treatment plants serve 40% of the population, which in terms of population equivalent is 5 282 360. In 12 settlements the construction of urban wastewater treatment plant is under way. Further 19 settlements included in the National Program for Construction of WWTP with available project documentation have been approved for funding by international programmes (ISPA Programme of the EU, PHARE Cross-Border Cooperation Programme (PHARE -CBC), etc. or by the Bulgarian government. Priority in water quality protection efforts is given to transboundary water courses and their respective basins, particularly in basins subject to serious antropogenic pressure e.g. Iskar, Yantra, Maritsa, Struma River Basins etc. and the Black Sea. Such basins or parts of them are designated as “sensitive areas” which entails stricter requirements for waste water discharge with mandatory nutrient removal for WWTP in settlements with population equivalent above 10 000. This measure is directed at maintaining good status of the receiving water body.

Industry, together with municipal activities and agriculture is among the key factors impacting water quality. Ferrous and non-ferrous metallurgy, petro-chemical industry, basic chemicals industry, pharmaceuticals industry have been significant sources of water pollution in the past. Although still a potential threat, these industries as a result of economic restructuring and specific environment related measures required by national legislation have improved their performance with respect to effluent water parameters. Water quality monitoring data in the period 1982 -2002 show lasting trends of surface water quality improvement after 1997. For example, the average annual heavy metal concentrations in the

country in 2002 were below the strictest standards for cadmium, lead, arsenic, nickel and chromium. Further improvement in industrial sector performance with respect to water is expected after the end of the Integrated Pollution Prevention and Control (IPPC) permitting of significant industrial polluters according to Annex IV of the EPL and the respective regulation. It is a general requirement that operators of the existing installations prove their compliance with the environmental legislation and the implementation of Best Available Techniques (BAT) by submitting Compliance Schedule Plans (CSPs). The CSPs are reviewed and approved by the permitting authority during the permitting procedure. The final deadline for compliance is also specified – it can be up to 31.12.2011 for some installations. The participation of the public concerned is ensured by the legislative provisions as well. Additional measure to improve water quality is the new permit regime for wastewater discharges (required by the WFD) is in force in Bulgaria. The individual emission limits are defined using “combined approach”: emission standards and quality objectives for the receiving water bodies. Resource intensity of the economy remains high. Drinking water supply is very well developed with central system supply for 98.8% of the population in the country in 2002. The National Water Supply System includes over 50 000 km urban distribution network; over 24 000 km main distribution network out of the settlements; 10 dams; 52 Drinking Water Treatment Plants; 5900 reservoirs; 3850 pumping stations. Drinking water quality is generally very good and meets the respective standard related to human health. Disinfection of drinking water is done mainly with chlorine.

Capacity-Building, Education, Training and Awareness-Raising: *Capacity building:* Integrated water resources management on the basis of river basins is a challenging task even for countries with high resource mobilization capacity. In line with the international commitments undertaken, including European integration priorities necessary provisions at legislative and executive level have been made for setting up River Basin Authorities. Since the adoption of the Water Act the number of staff directly involved in water management has increased considerably (over 250 new staff in the MOEW and the River Basin Management Directorates). Adequate provisions including financial ones have been made to allow the River Basin Management Directorates to perform their tasks. Currently, all 4 RBDs and the Water Directorate of the MOEW are satisfactorily staffed with specialists in all areas within their competencies. Equipment is being upgraded and replaced to allow the use of modern technology, e.g. GIS.

Training: Training courses and seminars for the experts and/or other officials in the central and regional administration are organized regularly in view of developing and improving general administrative skills and special competence in particular water management issues. Training for all civil servants is provided through the Institute for Public Administration and European Integration and includes general administrative skills courses as well as specialized ones. Additional training, better tailored to specific responsibilities and tasks of water administration staff is provided through international projects in the area of water management implemented in Bulgaria. Most project mentioned in this report (see section “Programmes and Projects” above) include a training component. Specialized training in water management is also part of bilateral cooperation with some countries, e.g. Japan – Japan International Cooperation Agency (JICA), the Netherlands – the Dutch government programme ADEPT, the United Kingdom – British Council and the European Union – TAIEX, etc. The Water Directorate of the MOEW also organizes seminars for government officials involved in water management.

Education: Among actions taken to integrate environment and sustainable development into education curricula at all levels are the following: Governmental decree N 241, of 26.09.1996, and the Higher Education Act which provisions are the basis for setting up BSc and MSc university courses in “Ecology and Environmental Protection”. Graduates of the above courses have already joined the water administrations at central and river basin level. In the context of the priorities, approved by the Fifth Ministerial Conference “Environment for Europe” (Kiev, May 2003) for further development of the education for environmental protection and sustainable development in Europe, in correspondence with the proclamation of the United Nations Decade on education for sustainable development starting in 2005,

and in recognition of the importance of inter-institutional cooperation for improving efficiency of the integrated approach education for environmental protection and sustainable development in January 2004 the Ministry of Environment and Water and the Ministry of Education and Science signed a Memorandum for Cooperation. The “Environmental Education Curriculum Development Project for Primary Schools in Bulgaria” of TIME Foundation (NGO) explored the possibilities for integrating environmental education into primary school curricula. The project produced two books: Curriculum for Integrated Environmental Education; and Manual for Teachers. Both texts have been approved by the Ministry of Education and are recommended for use in schools. The Capacity 21 Programme in Bulgaria has a very strong component relating to education and awareness raising, which includes, among others, the following actions: assisting the Ministry of Education, Science and Technologies to develop a new education strategy for integrating sustainable development concepts into primary and secondary school’s extra - curricular programmes; developing and implementing a “training of trainers” programme with older students and students from teacher training colleges; etc. Building on the results of the above activities and on other countries’ experience a number of national and international projects targeted at environment education have been implemented. Water, as one of the key environment components features in these educational activities, examples of which being:

Educational sets “Green Pack”. Every Pack includes a handbook for teachers (with 34 lesson plans); a CD-ROM (comprehensive information on 22 topics related to the environment and development; an interactive game “Dilemmas” (with 22 case studies, related to the sustainable development); a videocassette (32 educational films and video-clips with total duration of 3 hours); a certificate; a stamp, and information leaflet. “Environmental Education in Initial Stage of the Bulgarian Formal School System” – project implemented through the MATRA programme coordinated by the Ministry of Foreign Affairs of the Netherlands. “Support of Environmental and Natural Education in Bulgaria”- financed by the British Government through the “Darwin” initiative this is the third joint project of the Ministry of Education and Science and the Ministry of Environment and Water of Bulgaria.

Awareness Raising: Public awareness raising is one of the strategic objectives of the National Environmental Protection Strategy and Action Plan 2000-2006. The Press Centre of the Ministry of Environment and Water sends information on all forthcoming important events to over 100 interested journalists from different media. Thanks to good cooperation established environment issues receive wide media coverage. MOEW experts often participate in TV and radio programmes. Important events and initiatives are presented by the Minister of Environment and Water or the Deputy Minister in charge of specific issues. Awareness raising campaigns are organized by the MOEW to provide better information to the public and change behavior patterns with regard to environment conservation. “Water for Life” is the motto of the Earth Day 2003 and 2004 campaigns organised to celebrate the Earth Day – 22 April. Activities include competitions for drawings or essays on water quality protection, outdoor activities dedicated to water, e.g. restoring water springs in mountainous areas. The Green Week campaign of 2003 also had water as one of its key issues. Television and radio stations participate in the campaigns broadcasting video and audio clips of the campaign and providing coverage of main activities. Preparation of Danube Day celebrations are underway on the occasion of the 10th anniversary of signing the Danube River Protection Convention (29 June 1994, Sofia, Bulgaria). Activities on local, national, sub-basin and international level throughout the Danube Basin are planned to encourage environmental, economical and cultural understanding and integration.

Danube Day targets include:

- increasing awareness of the citizens and stakeholders of sharing one river basin and depending on each other;
- providing a communication platform and setting up a dialog with the broad public;
- inspiring joint actions to maintain and improve the ecosystem in the Danube Basin and providing regional, economical and cultural integration;

- improving transparency and acceptance of water management.

Activities on national level are organized by a Danube Day Preparation Team comprising MOEW and Danube RBD representatives, NGOs, local authorities in the settlements along the Danube. The Danube Day will be celebrated annually and will have a specific theme each year. Awareness campaigns on water issues (mostly on local or river basin level) are also organized by NGOs; some of the activities are carried out in partnership with MOEW or other government bodies.

Information: In Bulgaria the collection of environment data and the production of, and access to, environmental information inter alia information on water are regulated by a number of laws and regulations, the most important being:

- the Environmental Protection Act;
- the Water Act;
- the Statistics Act;
- the Access to Public Information Act;
- the Administrative Procedures Act.

International obligations, for example the ones undertaken with the ratification of the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus convention) in 2003, are also incorporated in relevant legislation. The Environmental Protection Act specifies the institutions responsible for collecting information on the state of the environment and the ways for disseminating information, including via the mass media or by other means in a form understandable by the average citizen. Following the provisions of this law the Ministry of Environment and Water prepares annual report on the state of the environment “Green Book”, which is adopted by the Council of Ministers, submitted to the National Assembly and published following its approval. The reports contain detailed information on water quality and use, including wastewater discharges.

Ministry of Environment and Water (MOEW) is the key institution which collects, publishes and disseminates information on water resources and their quality. Through the Executive Environment Agency (EEA) which is in charge for the national environmental information system, data from the Regional Inspectorates of Environment and Water and the River Basin Authorities concerning water resources and water economy is made available both in support of decision-making as well as to the public and other interested stakeholders. The MOEW is responsible for the National Automated Environmental Monitoring System (NAEMS), which is the source of significant portion of environmental information collected. The NAEMS also maintains information registers on permits for water use and use of water bodies. The Ministry of Health (MH) through the 28 regional Hygienic Epidemiological Inspectorates (HEIs) monitor drinking (tap) water and bathing water quality and support related information databases. The National Institute of Hydrology and Meteorology (NIHM) (Bulgarian Academy of Sciences) collects hydrological and meteorological data and manages related databases, e.g. on weather conditions, precipitation, and quantities of surface and ground water. The Ministry of Agriculture and Forestry (MAF) collects information on irrigation, use of pesticides and forest management.

The Ministry of Regional Development and Public Works (MRDPW) deals with information related to drinking water consumption and sewerage systems. The National Statistics Institute (NSI), collects on municipal or district level, processes and manages on national level information related to: environmental expenditure, inter alia expenditure related to water quality, water supply and use, water consumption and waste water - based on information provided by firms, municipalities and other institutions. Municipalities through the Water Supply and Sewerage Companies are responsible for providing data on municipal water supply and the operation of sewage facilities. They not only provide data to the reporting

system but also receive collated data which they use to prepare management plans and programmes. Concerning environmental information in general the MOEW has established regular working relationships with a number of other ministries and government agencies, particularly the National Statistics Institute and Ministry of Health. For water in particular a Memorandum for Joint Action and Exchange of Information related to Bulgaria's Obligation for Implementing European Water Legislation requirements was signed in February 2004 by the Minister of Environment and Water, The Minister of Agriculture and Forestry, The Minister of Regional Development and Public Works, The Minister of Health and the Minister of Energy and Energy Resources. In addition there agreement is reached with the National Statistics Institute to provide relevant data including economic data on river basin district level of disaggregation.

In addition to serving national purposes collected data is also used to satisfy international requirements and reporting obligations. Information on water resources and water quality is provided on a regular basis to European Union agencies including the European Environment Agency and EUROSTAT, the International Commission on the Protection of the Danube River, etc. and the Organisation for Economic Cooperation and Development and other international organisations in certain cases. Monitoring and information systems for water quality and quantity are relatively well developed but need improvement in terms of technical sophistication and user friendly interface. The National Water Monitoring System managed by the MOEW provides timely, reliable and detailed information about surface water including coastal marine water, ground water and waste water discharges. Surface water monitoring (hydrometric, physical-chemical and biological) is done at monitoring stations/points located throughout the country in accordance with national and European standards requirements. Hydrometric and physical-chemical parameters of ground water are also monitored.

Water monitoring data is available in the form of maps – hard copies and electronic format (except for old data), specific databases and in the last few years in Geographical Information System (GIS) format for some of the data. Development of GIS is a priority activity in terms of water related information with specific resources allocated for the purpose. For example the Ministry of Environment and Water is developing a geographic database including all agglomerations in the National Programme for Priority Construction of WWTPs. The database will cover the following basic layers: settlements, relief, road network, hydrographical network, reservoirs and river basins. The project also includes an information-advisory system, which is a decision support tool. The software used for the GIS is ArcView 8.3. Environmental Information Centres are established in the MOEW, the Executive Environment Agency, as well as in the Regional Inspectorates of Environment and Water, providing overview and specialised information. MOEW's website with its 50 000 visitors per year has become an important source of environment information. The Executive Environment Agency and the regional structures also have web-pages of their own. Freshwater policy documents and information on water related activities are usually under a separate section of the main menu of these websites. Additional information on water related activities in the country can be obtained through the following websites:

- Ministry of Environment and Water - http://moew.government.bg/index_e.html;
- Executive Environment Agency - <http://nfp-bg.eionet.eu.int/ncsd/eng/index.html>;
- National Institute of Hydrology and Meteorology-
<http://www.meteo.bg/main.php?page=main&lang=en>;
- National Statistics Institute - http://www.nsi.bg/Index_e.htm.

Relevant reports and documents for further reference include:

- National Environment Strategy and Action Plan 2000 – 2006 (MOEW, 2001);
- Strategy for Integrated Water Management in the Republic of Bulgaria (1997);
- National PHARE Instrument for Structural Policies for pre-Accession (ISPA) Strategy Paper - Environment (MOEW, 2003);

- National Programme for Priority Construction of Urban Wastewater Treatment Plants for settlements of over 10 000 population equivalent (MOEW, 1999);
- National Programme for Water Resources Conservation in Conditions of Drought (MOEW, 2001);
- Environmental Information Systems in Bulgaria – an OECD Assessment (OECD, 2001).

Research and Technologies: Research activities related to fresh water are undertaken by scientific institutes within the Bulgarian Academy of Sciences, e.g. the National Institute of Hydrology and Meteorology, Institute of Water Problems, Institute of Ecology, other scientific organizations and universities. Such activities are part of the regular research programme of the respective scientific institution or result from specific assignments by government agencies, public and private entities. In support of environment policy development and implementation the Enterprise for Management of Environmental Protection Activities allocates fund for specific research activities, following a decision of the Kolegium of the MOEW – the collective decision making body. Research projects are awarded on the basis of transparent competitive procedure in compliance with national legal requirements. Almost half of the research projects approved for 2004 are related to water issues, including economic analysis of water use. The National Fund “Science Research” is one institution, which facilitates dialogue among the scientific community, the Government and the public at large with respect to issues related to sustainable development. It develops and implements national priorities and promotes research. Although it is not involved in the decision-making process it contributes to the process towards sustainability with scientific research. The Environmental Protection Act and the Water Act and specific regulations set strict water quality standards compliance with which often which necessitates advanced technological solutions. On the other hand economic incentives arising from resource saving, recycling etc. combined with financial mechanism (charges for water use and fines for excessive pollution) provide powerful motivation for the introduction of environmentally sound technologies. Know-how and technology transfer is also part of bilateral cooperation – e.g Japanese technology and equipment in Sofia Drinking Water Treatment Plant, new technology for tanning in Bulgaria leather industry – Danish support.

Financing: Main funding sources include the state budget, municipal budgets, companies’ own resources, the Enterprise for Management of Environmental Protection Activities (EMEPA), the National Trust Eco-Fund, external funding. Considerable portion of environment, inter alia water expenditure comes from companies and municipal own resources. On the other hand the state through the legislative requirements in place influences the processes of environmental funding. The total expenditure for environmental purposes in 2002 was 474 million BGL, 26 % out of it, i.e. 123 million Leva (BGL) was spent on water related activities as follows: acquisition of tangible and intangible fixed assets 55 million BGL, and operation and maintenance – 68 million BGL. Total water related expenditure was 151 million BGL in 2001 and 122 million BGL in 2000. The state budget subsidy for municipal environmental investment projects was 17 million BGL in 2000; 18 million BGL in 2001; 29 million BGL in 2002; 30 million BGL in 2003. The subsidy for construction of waste water treatment plants and sewerage systems was 9 million BGL in 2000, 9 million BGL in 2001, 15 million BGL in 2002, 16 million BGL in 2003. The Enterprise for Management of Environmental Protection Activities is a successor of the National Environmental Protection Fund and was established with the Environmental Protection Law in 2002. The core activity of EMEPA is the implementation of environmental projects and activities supporting the implementation of environmental strategies and programmes at national and municipal level. EMEPA provided just over 33 million BGL for environmental investment projects in 2003, out of which almost 18 million BGL for water quality improvement. (Average exchange rates - 2003: 1 BGL = 1.73 USD; 2002: 1 BGL = 2.08 USD; 2001: 1 BGL = 2.18 USD; 2000: 1 BGL = 2.12 USD)

The European Union through its ISPA Programme provides considerable share of investments in the water sector in Bulgaria in the last couple of years. Construction of WWTPs with total project cost of about 250 million USD out of which about 190 million USD ISPA funding has been approved under Financing Memoranda agreed between the European Commission and the Republic of Bulgaria for 2002

and 2003 - for projects implemented by the ISPA Implementing Agency within the MOEW. (These investments are not reflected in the statistical data above as main part of the disbursement was made from 2003 onwards.)

Cooperation: The Government's policy objective to ensure economic and social prosperity implies sustainable water resources management, overcoming water shortages and eliminating public health risks in particular. The government is pursuing this objective through national scale activities as well as Bulgaria's active involvement in international actions within the framework of global, European, regional and bilateral agreements. The country is party to the Convention on Cooperation for the Protection and Sustainable Use of the Danube River (Sofia, 1994) signed in 1994 and ratified in 1999, the Convention on the Protection of the Black Sea Against Pollution (Bucharest, 1992) signed and ratified in 1992, as well as to the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Helsinki, 1992) signed in 1992 and ratified in 2003. Currently, Bulgaria through the Ministry of Environment and Water is part of the joint efforts of the parties to the Convention on Cooperation for the Protection and Sustainable Use of the Danube River to prepare a single basin-wide coordinated Danube River Basin Management Plan in accordance the Water Framework Directive requirements.

Water quality issues also relate to activities in the framework of the Convention on Biological Diversity, the Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention), the Convention on the Conservation of Migratory Species of Wild Animals to which Bulgaria is a party. In line with EU water related legislation requirements and the river basin approach to water management adopted by the government, Bulgaria is in the process of reviewing the existing bilateral agreements in the field of water management. The aim is to identify the need of updating them or signing new agreements as appropriate. The focus is on agreements with neighbouring countries because of common transboundary river basins. An Agreement between the Republic of Bulgaria and the Republic of Greece for the use of Mesta River Waters, signed and ratified in 1996 is an example of a framework document for bilateral cooperation on freshwater issues.

Cooperation with non-neighbouring countries is also an important aspect of international activities with direct implications on water quality and water management. Exchange of experience and know-how, water issues tailored training for Bulgarian officials as well as technical assistance and investments tie in well with activities on a national scale. (see also under "Capacity Building"). Bilateral partners, to mention but a few, are the Danish Environmental Protection Agency which has co-funded construction and equipment supply for Waste Water Treatment Plants and provided support for WFD implementation; the Swiss Government which has supported WWTP modernization; the Italian Ministry of Environment and Territory - currently involved in supporting WFD implementation, the Japan International Cooperation Agency, etc. (see also under "Programmes and Projects" and "Capacity-Building, Education, Training and Awareness-Raising").

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