SANITATION COUNTRY PROFILE

BULGARIA

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Decision-Making: The Ministry of Environment and Water (MoEW) is the institution, which, together with the Ministry of Regional Development and Public Works (MRDPW) are responsible for the policymaking process and coordination of all issues regarding sustainable development in Bulgaria. The framework document for all subsequent strategies is the 1999 National Economic Development Plan to 2006. It is complemented by sectoral programmes (transport, energy, tourism, forestry and so on) that have the obligation to include an environment chapter. Regional strategies for economic development include the elements of sectoral strategies relevant to their areas. They help to establish the cooperation mechanisms necessary to ensure effective action, they also help direct municipal environment management plans, which have to be prepared by all municipalities by the end of the year. Several of these plans have additionally been subjected to strategic environmental assessment, whose conclusions are taken into account in the final plan for mulation before approval.

The National Environmental Strategy and Action Plan for the period 2000-2006 (NESAP) is one of the sectoral programmes. Policy is formulated by MoEW and collaborates with others in areas of shared responsibility, especially where economic and environmental interests overlap, such as chemicals controls or industrial risk management. Sectoral priorities and targets have been set in the NESAP and implementation is under way. As the Programme points out in its concluding remark, it "is not believed to be completely comprehensive and is open for expansion of its scope, adjustment and detailed specification and as necessary updating objectives and measures for their achievement resulting from new data collection and analysis and further integration with other sectors' strategies and programmes." The strategic environmental objectives for the country for the next few years 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. This document aims at revealing key issues, priorities and challenges in the field of environment which Bulgaria faces; at assessing major implication as well as setting ways forward which could lead to most substantial benefits for the population and the country's economy. Undoubtedly, this document is an important instrument for the Bulgarian authorities in the negotiation process for EU membership and in environmental policy implementation in the future.

The process of development of complex Municipal Environmental Protection Programmes started in 2002. These programmes provided the opportunity to integrate the environmental requirements in the economic and social planning process at local level. The MoEW together with the United State Agency for International Development developed a guide for developing municipal programmes. It was provided training for the municipalities in the field of environmental programmes development and pilot municipal environmental programmes have been drawn up.

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 wider opportunities for public involvement in decision making as well as policy implementation. The EPA is the key horizontal law governing the environmental control of economic activity, including provisions for SEA, EIA, IPPC and Seveso as well as setting out the responsibilities of Regional Inspectorates as permit and control authorities or the structure of the environmental funds. The objective of the environmental assessment (EA) and of the EIA is to integrate environmental considerations into the process of economic development as a whole with a view to introducing the principle of sustainable development in accordance with Article3 of EPA. Bulgaria has a long practice and experience concerning the implementation of EIA procedures. Since 1993 EIA is the instrument to study the environmental consequences of investment projects in all economic sectors at the early stages of their development.

Results of the EIAs should be taken into account in the process of design, construction, and exploitation of investment projects. EA studies environmental consequences during the elaboration of plans and programmes with a potential significant environmental impact at the national, regional and, or local levels. The provisions of EA for plans and programmes shall enter into force in Bulgaria on 1 July, 2004. While the EPA provides the framework for environmental policy, sectoral legislation (laws and regulations) details specific 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.

A. Basic Sanitation: The Water Act (State Gazette, issue 67/1999, enforced on 28 January 2000, amended in State Gazette, issue 87/2000) introduces authorization regime for water use and use of water bodies, including discharges of wastewater from urban collection systems as main tools for regulating water resources use and protection of water from pollution. The Ministry of Health is responsible for quality of the drinking water distributed from the tab, the Ministry of Environment and Water is responsible for the quality of the water in the water bodies intended for human consumption, the Ministry of Regional Development and Public Work – for drinking water supply systems and urban sewerage systems – state property and local authorities are responsible for water supply and sewerage facilities – municipal property. The Ministry of Health together with the Basin Directorates under the Ministry of Environment and Water and the mayors are responsible for the determination of the places intended for bathing and the bathing water quality.

B. Solid Wastes: The Ministry of Environment and Water (MEW) is the competent authority responsible for the development and implementation of the national waste management policy, including development and enforcement of the legislation, strategies, programmes, international projects, as well as regulation of the activities in the public and private sectors. Some of these activities are performed by the Executive Environmental Agency (EEA) which is responsible for data collection and processing and network of 15 Regional Inspectorates of Environment and Water (RIEW) that are specialized control bodies of the Ministry. The municipal administrations have a key role in planning and organization of household (also known as municipal) and construction waste management activities on the basis of authorities imposed to them by the national legislation. Other executive institutions involved in solid household waste management are the Ministry of Regional Development and Public Works (MRDPW), the Ministry of Health (MH), and the Ministry of Agriculture and Forestry (MAF).

More effective legal conditions for regulation of the waste management activities were established by the adoption of the Reduction of the Harmful Impact of Waste upon the Environment Act (RHIEWA) in 1997. Afterwards during the period 1998-2002 a series of secondary legislative regulations were adopted in the field of waste classification, requirements for the sites and facilities for treatment and disposal of waste (landfills, incinerators etc.), requirements for specific waste streams such as waste oils, spent batteries, end-of-life vehicles etc. On 30th of September 2003, a new Waste Management Act (WMA) was adopted that repealed the RHIEWA and is in full compliance with the objectives of the Basel Convention and the legal requirements of the European Union in the waste management field. On the basis of the WMA a Regulation on packaging and packaging waste was adopted in February 2004 and draft Regulations amending the existing secondary legislation and Regulations on disposal of polychlorinated biphenyls and terphenyls and on treatment of waste from TiO2 industry are drawn up. These new Regulations should enter into force until 30th of September 2004. In addition, a Regulation on waste electric and electronic equipment is envisaged to be adopted in the beginning of 2005 at the latest. On local level the municipal administrations develop and adopt municipal regulations on the conditions and the order for tipping, collection (including separate one), transportation, transfer, recovery and disposal of household, construction and wide spread waste on their territory.

On 20 April 1999, a National Waste Management Programme was adopted by Decision of the Council of Ministers. The programme was in force for the period 1999 – 2002 and set appropriate conditions for solving the pressing tasks related with the environmentally sound waste management. In 2003 the program was reviewed and updated and will be in force until 2007. The main objectives of the programme are defined on the basis of analysis of the major problems in the existing waste management system and special attention was paid to the preventive reduction of wastes in the context of sustainable development. The proposed solid waste policy is based on the following principles: a clean and healthy environment; the rational use of available resources; Integrated Waste Management; the polluter pays principal; and public participation. The municipalities in Bulgaria are legally obliged to adopt Municipal Waste Management Programmes. Up to now approximately 95% of municipalities have already developed and adopted such programs. Municipal Waste Management Programmes must be in compliance with the requirements of national waste management legislation and the National Waste Management Programme.

C. Hazardous Wastes: The Ministry of Environment and Water together with the EEA and its control bodies - the RIEW is the competent authority responsible for the development and implementation of the national hazardous waste management policy. The Ministry of Health specifies the requirements for disposal of hazardous hospital waste, takes part in hazardous waste classification, participates in the development of the national laboratory system on waste and gives prescriptions on the permits issued by MEW on hazardous waste management activities.

The hazardous waste management activities are regulated by the Waste Management Act and Regulation on the requirements for treatment and transportation of industrial and hazardous waste (adopted by Decree of the Council of Ministers in 1999). The requirements for construction and operation of landfills for hazardous waste are laid down by Regulation on the conditions and requirements for the construction and operation of waste landfills (adopted in 1998). In addition there are special Regulations on the requirements towards specific hazardous waste streams such as spent batteries, waste oils, end-of-life vehicles, used fluorescent lamps etc. The municipal administrations also adopt municipal regulations on hazardous wide spread waste.

The main directions of the national hazardous waste policy are defined in the National Waste Management Programme (2003 – 2007). The municipal waste management programmes contain measures towards wide spread hazardous waste streams such as spent batteries, waste oils, end-of-life vehicles, used fluorescent lamps etc.

D. Radioactive Wastes: The policy of the Republic of Bulgaria in the field of radioactive waste is directed towards radioactive waste (RAW) management in a safe for the society and the environment, economy efficient, comprehensive and integral approach, where the historical aspect and the contemporary trends, the scientific, technological and financial resources of the country are considered, and the responsibilities of the government and of the nuclear facilities operators are clearly defined. The principles, preconditions, purposes, tasks, measures and priorities for implementation of the national policy for safe RAW management are formulated in the National Strategy on Safe Spent Fuel and Radioactive Waste Management, adopted by the Council of Ministers in 1999. The strategy is directed towards the establishment of Joint National System for Spent Fuel and Radioactive Waste Management in compliance with International Atomic Energy Agency (IAEA) recommendations, the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management (Joint Convention) and with the Acquis Communautaire. RAW management in the Republic of Bulgaria is subject to an authorization regime and is conducting after obtaining permits and licenses and in compliance with the conditions for the safe implementation of the relevant activities.

The Council of Ministers determines the policy, implements the state regulation and controls the producers of radioactive waste, the operators of RAW management facilities in order to ensure that they

implement their operational and financial obligations in compliance with the legislation.The regulatory authority in the field of radioactive waste is the Nuclear Regulatory Agency (NRA). It implements the state regulation and control of the safe management of RAW. The Ministry of Energy and Energy Resources formulates and carries out the national policy and strategy for management of RAW. The Ministry of Environment and Water develops and implements the state policy in the field of environmental protection, which is integrated into the other sectors policies – transport, energy production, civil construction, agriculture, industry, education, etc. The Ministries of Health, of Interior, of Defence, of Agriculture and Forestry, of Transport and Communications, of Education and Science exercise specialized control in accordance to their legal authorization. The Permanent Commission for Protection of the Population in case of Disasters, Accidents and Calamities implements the organization, management and control of the activity on prevention, mitigation and liquidation of the consequences in case of natural disasters, accidents and calamities off-site the nuclear facilities. RAW generators are responsible for the same management of waste generated by them till they deposit it to the sites for RAW management sites. In compliance with the principle "the polluter pays", they cover the expenses for the management of their waste from its generation until its disposal, including monitoring of storage facilities after their closure.

The radioactive waste activities are regulated by the Act on the Safe Use of Nuclear Energy (ASUNE), adopted in 2002. The Act regulates the social relations associated with the State regulation of the safe use of nuclear energy, ionizing radiation and with the safety of radioactive waste management and spent fuel management. It specifies the rights and obligations of licensees using nuclear energy or sources of ionizing radiation, performing radioactive and spent fuel management and/or conducting nuclear activities. ASUNE states that nuclear safety and radiation protection shall have priority over all other aspects regarding the use of nuclear energy. Occupational and public exposure to ionizing radiation shall always be kept as low as reasonably achievable.

The Environmental Protection Act (EPA) regulates the social relations associated with the preservation of environment for present and future generations and with the protection of human health. It specifies the rights and obligations of the State, municipalities, legal and physical entities and the control and management of the factors damaging the environment. According to the EPA the prevention of contamination shall have priority to the following elimination of the caused damages. The act specifies the participation of the public in the decision-making process concerning the environment. Detailed requirements in the field of RAW management are specified and regulated in several Regulations with reference to basic issues of safety and financial resources for the activities on RAW management: Regulation ¹ 7 on Collecting, Storage, Processing, Keeping, Transport and Disposal of Radioactive Waste on the Territory of the Republic of Bulgaria (1992); Regulation ¹ 10 on Safety during Decommissioning of Nuclear Facilities (2001); Regulation on Determining the Amount of the Contributions and the Order for Collecting, Spending and Control over the Financial Resources of the Fund “Safety and Storage of Radioactive Waste” and its management (1999).

Programmes and Projects:

A. Basic Sanitation: ational Program for Priority Construction of Urban Waste Water Treatment Plants for settlements of over 10 000 population equivalent (1999), adopted in 1999 by the Council of Ministers of the Republic of Bulgaria is an important national document. This investment program identifies the necessary urban waste water treatment plants for settlements of over 10 000 population equivalent. In relation to the negotiations of Bulgaria for membership in the EU, the Ministry of Environment and Water has developed an Implementation Program for the Directive 91/271/EEC concerning urban waste water treatment. The Implementation Program together with the additional information to the official position of Bulgaria in the negotiations, was adopted by the Council of Ministers on 04.04.2003. According to the Implementation Programme until 2014, 2,218 billion euros is needed for building sewage systems and/or waste water treatment plants (WWTP) for all 430 agglomerations that are within the scope of the

Directive. The National Programme is currently being updated to include settlements with population equivalent between 2000 and 10000, according to the Implementation Programme. ational Program for the construction of sewerage systems (1999-2014) was prepared by the Ministry of Regional Development and Public Works to complement the Program for Priority Construction of Urban Wastewater Treatment Plants for settlements of over 10 000 population equivalent" (1999-2014).

B. Solid Wastes: n 2003 National Plans for implementation of Directive 1999/31/EC on landfill of waste, Directive 94/62/EC on packaging and packaging waste and Directive 2000/53/EC on end-of-life vehicles were adopted. Through the same EU programme, it was developed National plan for treatment of sludge from Waste Water Treatment Plants (WWTP) together with guideline for treatment of sludge from WWTP.
The Ministry of Regional Development and Public Works (MRDPW) supports local initiatives in water and sanitation areas, through subsidizing construction and reconstruction of local landfills, etc. Waste recycling and reduction of the number of rejects are among the national objectives. Currently, only papers are recycled. These documents were used as a basis for the elaboration of the National Waste Management Programme for the period 2003 - 2007.

In the field of waste recovery and recycling, the following projects were carried out:
- system for collection, treatment and recovery of used tires was established;
- installation for separation, grinding and purification of glass waste was put into operation**;**
- several projects for recovery of wood waste and production of briquettes were accomplished;
- projects for establishment of system for separate collection and improvement of the infrastructure for recycling of plastic packaging were realized.

Considerable progress was made in construction of national infrastructure for municipal waste management. For the period-1999 – 2002, 17 regional landfills for disposal of municipal waste were constructed. During 2003 the construction of 6 new regional landfills for disposal of municipal waste was started. The regional landfills for municipal waste covering the whole country should be constructed until 2009. The National Waste Management Programme determines the amount and the sources of the necessary funds. Through a project of World Bank for support of the environmental protection and the privatization in 1999 it was implemented Programme for elimination of damages to the environment caused by past activities or lack of activities before the privatization of eleven industrial enterprises.

C. Hazardous Wastes: The National Plan for implementation of Directive 1999/31/EC on landfill of waste contains the measures that will be taken by the country in the field of hazardous waste disposal by landfilling. National plan for disposal of hospital waste was developed through the programme "REAP" of European Union. This plan specifies the priority measures and objectives in the field, the number of the necessary facilities for treatment of hospital waste and their location on the territory of the country. The main measures of the plan were included in the National Waste Management Programme. Bulgaria puts forth great efforts for the construction of National centre for treatment of hazardous waste. In the framework of the project, "Feasibility study and preparation of documents for construction of National centre for treatment of hazardous waste" an assessment of the quantity and characteristics of the hazardous waste generated in the country was carried out. Based on this initial information the most suitable disposal technologies were selected and a blueprint of the necessary facilities and installations was developed.

The preparatory and organizational activities for construction of landfills for hazardous waste were carried out. The construction of two landfills with cells for hazardous waste started in 2003. By the financial support of the Danish Environmental Protection Agency and EMEPA it was constructed incinerator for hospital waste on the territory of Medical Academy in Sofia. The capacity of the incinerator is 2800 tons per year and it is intended for disposal of the hospital waste from the territory of Sofia municipality. This is the first facility on the territory of the country that is constructed in compliance with all European requirements.

D. Radioactive Wastes: By article 16 of ASUNE persons, performing RAW management activities are obliged to maintain high level quality of the performed activities. According to article 7a of Regulation No5 of 1988 on Issuance of Licenses for the Use of Atomic Energy, a quality assurance programme accompanies every written request for permit. NRA controls and inspects the quality assurance programme application. In Kozloduy NPP, a policy for establishment of joint, integrated quality assurance system, combining the existing systems in the structural subdivisions, is in force since 1993. Kozloduy NPP Plc. has developed and implemented Quality management system in compliance with EN ISO 9000:2000 since 2000, taking into account the recommendations of IAEA documents 50-C/SG-Q.
Programs, ensuring the quality of RAW management activities in Kozloduy NPP:
1. Quality assurance programme for the operation of Units 1-4 of Kozloduy NPP;
2. Quality assurance programme for the safe operation of Units 5 and 6 of Kozloduy NPP;
3. Quality assurance programme for the commissioning of RAW treatment and storage plant of Kozloduy NPP;
4. Quality of assurance programme for the operation of RAW treatment and storage plant of Kozloduy NPP;
5. Quality assurance programme for the reception and storage of spent nuclear fuel from Units 1-6 Kozloduy NPP.
In the Permanent Repository for Radioactive Waste Novi Han (PRRAW- Novi Han) an integrated quality and environment management system is in a process of establishment since November 2001 according to the standards EN ISO 9000:2000 and BDS EN ISO 14001:1996, and IAEA documents 50-C/SG-Q recommendations.
Programmes, ensuring the quality of RAW management activities in PRRAW-Novi Han:
1. Quality assurance program for RAW transport;
2. Quality assurance program for RAW storage;
3. Quality assurance program for the radiation protection of PRRAW-Novi Han;
4. Quality of assurance program for monitoring of PRRAW – Novi Han.
Bulgaria participates in international projects in the field of emergency planning, preparedness and response, as follows:

- IAEA project REP/9/050 "Emergency planning harmonization in Central and Eastern Europe";
- PHARE project for installation of RODOS (Real-time on-line decision support) in the Republic of Bulgaria;
- EC programme for accession to the project for early notification and exchange of information for nuclear and radiation accident (ECURIE – European Community Urgent Radiation Information Exchange).
- Programme for reconstruction and modernization of PRRAW – Novi Han until the end of 2007 has been developed and is implemented.

In the period 2001-2003, under the IAEA technical co-operation programme for Bulgaria, several national projects concerning RAW management have been implemented, among which:
0/005 – Strategic Planning of Energy and Nuclear Energy;
0/008 – Human Resource Development and Nuclear Technology Support;
4/005 – Increasing Safety of Novi Han Radioactive Waste Repository;
9/008 – Strengthening the Capacity of the Nuclear Regulatory Agency.

Status: *Socio-economic aspects*: The Government believes that population growth rates in Bulgaria are too low, and it has undertaken measures to raise the rate of population growth. Environmental surveys show that in 1989, more than 40% of the population lived in human settlements with bad air quality, seriously polluted rivers, and poor groundwater quality. Heavy metal contamination is characteristic for areas adjacent to the motor ways in the towns and the outskirts. Noise pollution of the environment as a result of the transport and industrial sector is a big problem for towns affecting about 40% of the urban population. The problem of waste disposal has not been solved yet and the construction of wastewater

treatment plants is very slow. The low technological and energy efficiency in the production and household sectors make human settlements big electricity consumers. However, the state of the environment in the small towns and villages is good apart from the low level of infrastructure. In comparing conditions in human settlements with previous years, there has been a decrease in environmental pollution caused by industry, due to reduced production and consumption. This tendency is not sustainable in character, because at present Bulgaria is in a process of economic activity restoration. The pollution from the transport sector is increasing due to increased travel, old aged vehicle fleet, and the imperfections of the existing road network.

Ecosystem: Mountain and semi-mountain areas (up to 2,925 m) comprise 46% of the national territory; 34% of the Bulgarian population live in 1,207 communities in those areas. No desertification processes have been observed in Bulgaria. Degradation processes are observed in the low-mountain areas of South Bulgaria and along the southern slopes of the mountains. This is the result of deforestation activities carried out in the last century and at the beginning of this century, as well as the progress of intensive erosion processes which have strongly or very strongly affected 8,020 km^2 of agricultural lands. For the last 45 years, 9,760 km^2 of forest species have been planted, 6,800 km^2 of which were for erosion control projects. In the last 7 years, the number of erosion control activities has significantly decreased due to financial difficulties. There are significant damages of forests caused by poaching. At the same time the forestry is the main livelihood in certain regions e.g. local people in rural areas commonly use firewood.

Economy: In 1996 Bulgaria entered into a deep foreign currency and banking crisis, which led to unprecedented financial destabilization and dramatic decline in the economic life. The economic programme approved in mid 1996 which was supported by an agreement with the IMF, failed mostly due to the attempt to bypass the commitments undertaken with respect to the structural reform in the state owned sector. The depth of the financial crisis reflected the economic performance in 1996 and more specifically: real Gross Domestic Product (GDP) declined by approximately 9%; foreign trade contracted by about 12%; the Lev depreciated 6.9 times (from Lev 71 per USD at end 1995 to Lev 487 per USD at end 1996); and annual average inflation increased twice (from 62% in 1995 to 121% to 1996).

In 1997 a currency board was established in Bulgaria. At present the position of Bulgaria to reach the standards of EU member states already looks good: the budget deficit and inflation are low, the currency board is well capitalized, a declining debt/GDP ratio is in place and the restoration of investors' confidence in the potential of the economy of the country to service its external debts in the long run. The GDP in 2002 was with 4.8 % bigger than the previous year. The rates of growth were positive in 1998 and the highest rates of growth (5.4%) were reached in 2000. For the first time the GDP in 2002 was above the rate in 1995. It increased with 4.6%. The inflation was 3.8% in 2002 which is 1 % higher than the 2001 inflation. It was a positive factor for the national economy development. The annual rate of inflation had a low value after the currency board arrangement.

Bulgaria is one of Europe's fastest developing destinations. Revenues from tourism made a 15.3% in 2000. The contribution of international tourism in the balance of payment was 89% in 1999 It is envisaged local tourism revenues in the share of tourism industry to point to a GDP growth of 10.511%. This figure does not include income from transport and the collateral tourist activities. The share of tourism in the GDP was 8.5% in 2001, which placed Bulgaria on the second place among the Central and Eastern European countries. Data shows that the number of tourists who have visited Bulgaria raise by 17.06% comparing to the number of foreign tourist in 2000. Tourism was activated in 2002 comparing with the previous year because of the increase in the visits of foreign tourists. The number of foreigners was 9% higher in 2001. Forecasts until 2011 show that the share of tourism will form 9.7% of the GDP in 2011 and we may expect that in the future tourism will provide approximately 182 000 extra jobs.

A. Basic Sanitation: While the water supply infrastructure is relatively well developed and covers almost all the population, the level of development of the sewerage system and urban waste water treatment plants is much lower and might be assessed as unsatisfactory. The length of the urban sewerage network in 2001 was 7718 km, total with external collecting tanks – 9150 km. Only 400 km of it were in villages. The number of settlements connected to a sewerage system was 272: 167 cities and 105 villages. The total number of cities in Bulgaria is 240 and about 70 % of the population lives there. Settlements with a sewerage system are some 70.5% of the total number of settlements, and villages with sewerage system – 2.1%. The sewerage system covers 48.5 of the total length of cities' streets, in villages this percent is 0.6%. Sewers are of a mixed type, mainly with concrete and steel-concrete pipes. Over 20% of sewers need complete change. Over 40% were constructed in the period 1960-1965. They are not in a condition to receive increased waste water flow and need major reconstruction. The level of groundwater infiltration is considerably higher compared to the level in Western countries. Overloading results in discharge of waste water in periods of drought into rivers by overflow of mixed sewers. In addition to the poor technical status of sewerage systems and unfinished construction works, lack of compatibility between sewerage systems and existing waste water treatment plants may be observed. Some of the WWTP were overloaded and others work without using the full capacity. Up to now 62 urban wastewater treatment plants (WWTP) have been constructed, from which 11 have only mechanical treatment of the water and 51 - have also biological treatment. They service over 53 populated areas and 40 % of the population of the country. Projects for the construction of urban WWTP in the remaining 13 cities are implemented. Some of the existing urban WWWTP need upgrading, reconstruction and modernisation.

B. Solid Wastes: The waste quantities generated during the period 1999-2002 remain relatively constant – at the rate of 14 358 thousand tons annually and there is a tendency towards slight decrease. The quantity of the municipal waste related towards the population served by waste collection systems also remains relatively constant – round 500 kilograms per inhabitant per year. In the end of 2002, the organized municipal waste collection covers 80% of the population of the country. The National Waste Management Programme envisages that in 2007 the whole population will be served by organized municipal waste collection systems. The existing system for collection of waste for recycling such as papers, glass, plastic and metals is limited to buying back of separate collected waste from the population or collection of waste generated by different manufactures. Organized separate collection will be gradually introduced by the implementation of the Regulation on packaging and packaging waste. The existing infrastructure for recycling of waste is relatively well developed. The total capacity for recovery of paper and cardboard waste is assessed to about 200 thousand tons per year. Because of the wide fluctuation in the activity of the recycling companies and in the output volume, the real quantity of the recovered paper and paperboard waste is within the limits of 50% of the capacity of all recycling enterprises.

The recovery of plastic waste in the country is concentrated in two major enterprises with total capacity of 12 000 tons per year. The number of the small recyclers of plastic is increased in the recent years. The real waste quantity recovered in the country is considerably low in comparison with the possibilities for plastic waste recovery. There are lot of existing producers of glass in the country with possibilities for recycling of waste glass but the annual quantity of the recycled glass waste does not exceed 15 000 tons. This is due to the lack of appropriate infrastructure for sorting, separation and treatment of glass waste in the country. The recycling of metal waste is relatively well developed due to the existence of market for metal waste within the country and abroad and because of the higher number of the companies authorized to carry out activities with such waste. Two production lines for recovery of used tires are put into operation in 2003 with total capacity of 4 tons per hour located in village of Gaber, municipality of Dragoman. The materials obtained after the recovery of the used tires are used for the production of end products – insulation materials and others. The landfilling of waste remains the main method for waste disposal in the country. By the end of 2002, the number of landfills serving the settlements with organized waste collection is 663 and 3199 thousand tons municipal waste was landfilled on these landfills. By the

implementation of the National Waste Management Programme for the period 1999 – 2002, 12 landfills that comply with the modern requirements were constructed, reconstructed, and put into operation. At the same time, the construction of 6 new regional landfills for municipal waste has started with the financial support of EU through program ISPA. The construction of another 10 regional landfills for waste is going on. At present 84 landfills for industrial non-hazardous waste are identified including 74 in operation and 10 closed. The main part of the landfills have been constructed in the 70s and 80s in accordance with the legislation in force in that period and do not meet the modern requirements. According to the National Waste Management Programme all landfills for non-hazardous waste that do not meet the existing legal requirements should be adapted into compliance or closed by 2009.

Incineration is not a wide spread practice in the country. Currently there are no installations in the country for incineration of municipal waste. Utilization of waste as alternative fuel in the cement industry was carried out in 2003 by putting into operation of installation for recovery of used tires after the obtaining of the necessary authorizations for this activity. The possibilities for reconstruction and equipment of the existing installations with a purpose of incineration of different types of waste are being examined by the rest of the enterprises from the cement industry.

C. Hazardous Wastes: The total quantity of the industrial and hazardous waste generated for the period is relatively constant but there are considerable variations in the waste quantities reported by the different waste groups. The main reason for that is the closure and liquidation of some industries. During the period 1999-2002 the hazardous waste from thermal processes takes the largest share (45%) generated mainly by the metallurgical enterprises, followed by the waste resulting from oil treatment (22%).
The collection of hazardous waste with a purpose of recycling is limited to buying back of lead-acid batteries, waste oils and oily products. There is a tendency towards permanent increase of the quantities recycled and recovered industrial and hazardous waste during the period 1999 – 2002. According to the data from the National Statistics Institute the enterprises accounted 452 thousand tons industrial waste delivered for recycling in 2002, which amounts to approximately 5,6% of the total generation (in comparison in 2000 this quantity was 349 thousand tons). The largest part of the waste delivered for recycling are the waste from mechanical and surface treatment of metals and waste from inorganic thermal processes.

The existing installations for recovery of lead-acid battery waste in the country have capacity at the rate of 23 000 tons per year and are able to provide for the recovery of the whole waste quantity collected in the country. The existing capacity of the only enterprise authorized for regeneration of waste oils "Lubrika" (5 000 tons) does not allows the whole waste quantity generated in the country to be recovered. At present 18 landfills for hazardous are in operation but no one of these landfills meets the environmental protection requirements currently in force. These landfills should be adapted into compliance or closed by 2007. Two installations for disposal of hazardous waste by incineration are currently in operation. They are constructed in the end of 80s and need reconstruction in order to be adapted into compliance with the environmental legislation. Installations for incineration are constructed in some of the bigger hospitals in the country as well as at the main airports in Sofia, Burgas and Varna and at the ports of the later two towns. Only two of the hospital incinerators comply with the legal requirements. The other facilities as a whole do not fulfil the current standards for environmental protection and the adaptation into compliance is either impossible or it will entail high costs. These incinerators should be set into compliance or closed by 2007.

D. Radioactive Wastes: The main producers of radioactive waste in Bulgaria are as follow:
- Kozloduy NPP;
- Research nuclear reactor IRT-2000 of the Institute for Nuclear Research and Nuclear Energy (INRNE) of the Bulgarian Academy of Science (BAS), stopped from operation in 1989;

- Users of radioactive materials in medicine, agriculture and scientific research as well as uranium mining and processing, which was terminated in 1994 after a decision of the Government of the Republic of Bulgaria.

Kozloduy NPP is responsible for the safe management of the radioactive waste generated in the NPP. The prevailing part of RAW generated there is Low and Intermediate Short-Lived according to IAEA classification. The first four units of the plant are designed in accordance with the concept for collection and storage of RAW on site until the decommissioning stage. In mid 1990s, at Kozloduy NPP started the construction of a Plant for treatment, conditioning and storage of RAW on the NPP site, which includes a solid RAW treatment line, liquid RAW treatment line, RAW conditioning, and storage facility for temporary storage of conditioned of conditioned RAW. At present RAW management activities in Kozloduy NPP include preliminary treatment, processing and storage of liquid and solid RAW and are carried out at the plant site.

Liquid RAW, generated at Kozloduy NPP, is mainly aqueous waste and comparatively small volume of organic waste. Technological radioactive by contaminated waste water is collected via special systems and reprocessed. Distillate and concentrate are obtained as a result. The distillate passes through ion-exchange filters and is controlled according to chemical and radiochemical indicators. If compliance is recognized with the requirements of the technological specifications in terms of specific and total activity, the so-called discharge water is released into the environment, as effluents, permitted by the Nuclear Regulatory Agency. The concentrate is stored in stainless steel tanks, situated in the Auxiliary buildings of Kozloduy NPP units. The liquid RAW storage facilities are constructed along with the relevant units.
The organic liquid RAW (spent sorbents) are collected and stored separately in auxiliary buildings in Kozloduy NPP.

The solid RAW are sorted at the place of their generation according to their radiometric characteristics and by the type of their material. At this stage the separation of radioactive waste from the Very Low Level Waste, as well as the separate collection or RAW by categories and types, is carried out.
The solid RAW, which are contaminated materials with high activity, are stored in special protective facilities "shaft storage facilities", situated in the central reactor halls of Units 1-4 and the specialised building of Units 5-6. Compactible solid RAW is treated in order to reduce the volume and ensure structural stability. Processing is carried out in the RAW treatment, conditioning and storage plant, via solid RAW treatment line. The RAW is compacted and in 200 l drums at two stages – precompaction of RAW in drums by 50 ton precompactor, supercompaction of RAW in drums by 910 ton supercompactor. Solid noncompactible waste is of relatively small volume and is collected 200 l drums without any further processing. RAW transportation at the plant site is carried out in transport containers, by container-trucks, a special transport trailer and a tank truck.

All RAW generated as a result of use of sources of ionising radiation in medicine, industry, research and education (nuclear applications) are Low and Intermediate according to IAEA terminology.
Radioactive waste at Kozloduy NPP (30 June 2002):

- Special Building-1: 534 m^3 solid waste, 1920 m^3 liquid waste, 340 m^3 spent sorbents;
- Special Building-2: 220 m^3 solid waste, 1980 m^3 liquid waste, 192 m^3 spent sorbents;
- Special Building-3: 1140 m^3 solid waste, 2700 m^3 liquid waste, 152 m^3 spent resins;
- Reactor Hall-1: 48 m^3 solid waste;
- Reactor Hall-2: 19 m^3 solid waste;
- Trench: 3590 m^3 solid waste;
- Storage Facility: 467 m^3 solid waste;
- Site for reinforced concrete containers: 260 m^3 solid waste;
- Site for large containers: 269 m^3 solid waste;

Management of RAW, transferred to the state for long-term storage, is carried out by the IRNE at BAS via the PRRAW – Novi Han. In PRRAW – Novi Han there are facilities for storage of disused sealed sources, solid untreated RAW and conditioned biological RAW. In 1994-2000 PRRAW – Novi Han operation was stopped in order to undertake maintenance measures and modernization of facilities and infrastructure. RAW generated in this period was stored in a temporary Central Isotope Storage at the site of IRNE in Sofia. As a result of the maintenance and restoration works between 1998 and 2000, PRRAW – Novi Han received permit for RAW storage in surface facilities for temporary storage. At the end of 2000 all RAW from Central Isotope Storage at IRNE was transported to the PRRAW – Novi Han site and placed in the surface facilities for temporary storage. At present, the operator of the storage facility performs transport activities, pre-treatment and RAW storage.

In PRRAW – Novi Han the received RAW is placed for temporary storage in special receivers. The solid RAW and spent Low-level sources, which do not require additional protection against radiation, are stored in standard railroad containers. Used sources in transport packages, including High-level, requiring additional protection against radiation, are stored in waterproof reinforced concrete receivers. If necessary, the waste is sorted and repacked. The Low activity RAW obtained from the uranium industry are disposed in tailing ponds, and the metal RAW – in trenches near the villages of Eleshnitsa and Buhovo. Radioactive waste at PRRAW-Novi Han (1 January 2003):
120 m^3 disposed of solid low and intermediate level short lived waste in vault with total activity of 7, 3 E + 12 Bq;
100 m^3 disposed of solid low and intermediate level short lived waste in trench with total activity of 1, 2 E + 12 Bq;
30 m^3 disposed of conditioned low and intermediate level short lived biological waste with total activity of 1,2 E + 12 Bq;
0, 65 m^3 disposed of non-conditioned low and intermediate level spent sources with total activity of 6, 8 E + 13 Bq;
12 m^3 stored liquid waste;
350 m^3 stored non-conditioned low and intermediate level short and long lived waste with total activity of 1, 5 E + 14 Bq.

Capacity-Building, Education, Training and Awareness-Raising: Among the actions taken to integrate environment and sustainable development curricula into education at all levels are the Governmental decree N 241 of 26.09.1996, and the Higher Education Act which provide the information about subject “Ecology and environmental protection” with a professional qualification “Ecologist”.
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 recognising the importance of intersectoral cooperation for the improvement of the efficiency of the integrated approach to the education for environmental protection and sustainable development the Ministry of the Environment and Water signed a Memorandum with The Ministry of Education and Science in January 2004.
One of the educational projects of MoEW and the MES is Educational Sets “Green Pack”. Every Pack includes:

- Handbook for teachers (with 34 lesson plans);
- CD-ROM (includes comprehensive information on 22 topics related to the environment and development;
- Interactive game “Dilemmas” (includes 22 case studies, related to the sustainable development);
- Videocassette (includes 32 educational films and video-clips with total timing of 3 hours);
- Certificate;
- Stamp, and
- Information leaflet.

Another project is "Environmental Education in Initial Stage of the Bulgarian Formal School System" of program MATRA, which is coordinated by the Ministry of Foreign Affairs of the Netherlands. The project "Support of Environmental and Natural Education in Bulgaria" which is financed by the Britain government – the initiative "Darvin" is the third project between the Ministry of Education and Science and the Ministry of Environment and Water of Bulgaria.

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 Science 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 and Science 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.

The access to information is a priority for the Ministry of Environment and Water. In the Environment Protection Act 2002 there is a chapter "Access to information", which is harmonized with the Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters (Aarhus convention), as well as with the EU legislation (Directive 2003/4/EC on access to information). Bulgaria has been one of the first countries to sign the Aarhus Convention, however it has been ratified by the National Assembly on 2 October 2003. On these grounds, the Minister of Environment and Water has issued several regulations, regarding the organization of access to information. In MoEW, as well as in the Regional Inspectorates of Environment and Water Information centres have been established, providing environmental information. MoEW is trying to develop the electronic tools of information and its web-page (www.moew.government.bg) has become an important source of information, having 50000 visitors per year. The Executive Environmental Agency and the regional structures also maintain their own web-pages. The information campaigns which the MoEW, together with its partners (NGOs, local authorities and others) organizes each year are another important awareness-raising tool.

A. Basic Sanitation: No information is available.

B&C.Solid and Hazardous Wastes: Considerable efforts were put forth for the strengthening of the capacity of the competent authorities as regards planning, development of the legislation and control over waste management activities. To this end the number of the personnel in the institutions was increased, the necessary technical equipment was provided for and the development of the necessary specialized software for maintenance of the waste information system and register of waste management companies was ensured. With a view of popularization and increasing of the public awareness a set of information materials was issued and disseminated including:

National Waste Management Programme (in Bulgarian);

Summary of the National Waste Management Programme (in English);

Collection of legal acts on waste management in Bulgarian and in English;

Brochure for information of the public for the problems with the paste waste damages;

Report for the implementation of the National Waste Management Programme and proposals for short term measures for improvement of the cleanness of the settlements; Brochures "Let's clean Bulgaria".

D. Radioactive Wastes: The NRA organizational structure and administrative units consists of 102 staff members. The NRA list of positions includes 29 nuclear safety inspectors, 9 of them are inspectors in the area of spent fuel and radioactive waste management and physical protection. There are 19 inspectors in the area of safety assessment of documentation presented by applicants, respectively by the licensee or holder of permit for issuance of a license or a permit for activities connected with nuclear facilities. 18 inspectors exercise regulatory control of activities with sources of ionizing radiation and generated RAW, 6 of them work in the area of emergency planning and preparedness. 6 of the inspectors work full time at Kozloduy NPP site. 95 % of the inspectors have higher education and more than 60 % of them have above 15-year experience in the nuclear power industry. By a Decree of March 2000, the Council of Ministers grants the NRA administration Category A2, which makes it equal in rank to a ministry. This is one of the administrative measures to increase the payment and motivate the personnel and to help the attracting and maintaining of competent and experienced specialists. In March 2003, the NRA was accepted as a member of the Western European Nuclear Regulator's Association. The NRA was reinforced with the recruitment of 20 new staff and introduced a more dynamic salary policy, financed from the fees collected through the licensing of nuclear energy activities.

Two advisory bodies are established to the NRA – Advisory Council on Nuclear Safety and Advisory Council on Radiation Protection. The Advisory Councils support the NRA Chairman by statements on the scientific aspects of nuclear safety and radiation protection issues. Prominent Bulgarian scientists and specialists in the area of nuclear energy and ionizing radiation, management of radioactive waste and spent fuel participate in the Advisory Councils. The members of the Advisory councils have large academic, research and operating national and international experience in different areas of nuclear safety and radiation protection areas. Bulgaria has established bilateral co-operation agreement with the Government of Japan for a 10 year programme for the training of specialists, including in the field of RAW management. Project 9/018 for strengthening the capacity of the NRA has been implemented under the IAEA technical co-operation programme for Bulgaria. In 2002 were conducted several international expert missions of the IAEA related to the establishment and equipment of a Training and Seminar Centre at the NRA headquarters, safety analysis of the facilities for storage of RAW, etc.

Information: During the current privatization process, a Law for information is being developed. It has to guarantee access to appropriate information by the different enterprises and branches. The main goals are: to ensure monitoring and control for the planning process and decision-making process; and to provide relevant access to information for new regulations, standards and laws. The Ministry has established a National Technological Information Centre by the project BG 95.06-03 PHARE program. A World Wide Web Site for the “Structure and technology policy” fund is presently being created.

A. Basic Sanitation: No information available.

B. Solid Wastes: The Ministry of Environment and Water (www.moew.government.bg) plays a leading role in collection, publishing and dissemination of the information for the state of the environment and in particular the information related with the waste management. The Ministry performs these functions through the Executive Environmental Agency (www.nfp-bg.eionet.eu.int) and through the system of Regional Inspectorates of Environment and Water (RIEW). The collection, the processing and the management of the information related with the municipal, construction, industrial and hazardous waste on national level is regulated by Regulation on the order for filing in of waste related reporting and waste management activities information. The companies that produce or treat waste are obliged to keep report books and to present annual reports to the RIEW.
According to the National plan for statistic surveys, the National Statistics Institute (NSI) carries out annual statistic surveys for the expenditures for environmental protection and the generation of industrial non-hazardous and municipal waste. The sources of the data for the expenditures for environmental protection are the companies, municipalities and other institutions that have spent funds for

environmental protection during the current year. The questionnaires for the industrial waste are filled in by the companies that generate waste and the data for municipal waste are presented by the municipal administrations.

Executive Agency "Sea Administration" of the Ministry of Transport and Communications collects data for ship waste delivered and the generalized information is submitted to the respective RIEWs with the purpose of subsequent control over the generators of ship waste. Software programme is installed within the system of MEW by which national register for the permits issued for waste management activities is maintained. The foundation of the monitoring network for waste was laid in 1999 and the objects and the monitored parameters were specified. Up to now the network includes 59 landfills for municipal waste serving population above 20 thousand inhabitants. National digital database for municipal and construction waste is established in EEA and a software product was developed and installed for processing of the information. Local databases and software products for their processing on regional level are under operation in several RIEW. Register of landfills and past waste damages is maintained through the National System for Environmental Monitoring (NSEM). Every year EEA develops and issues so called "Green book" containing information for the production and treatment of municipal, construction, industrial and hazardous waste in the country.

C. Hazardous Wastes: Information for the generation and treatment of the hazardous waste is collected by the EEA. The collection, the processing and the management of the information related with the hazardous waste on national level is regulated by Regulation on the order for filing in of waste related reporting and waste management activity information. The companies that produce or treat hazardous waste are obliged to keep report books and to present annual reports to the RIEW.
Database is created and software product is developed for processing of the information for industrial waste in the EEA. Software application for processing of the information for hazardous waste is under development.

D. Radioactive Wastes: In order to ensure the provision of objective information to the public on nuclear safety and radiation protection the NRA has appointed a PR/media person as part of its permanent staff. This enables the NRA to disseminate information on its activities to the public through the media and publication of its annual and periodic reports including the National Report on Fulfillment of the Obligations of the Republic of Bulgaria on the Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radiological Waste Management. The main principle is to report on all events concerning safety and on other affairs of general interest to the public. Direct contacts with journalists, press releases, interviews and press conferences are arranged through the NRA public relations division. The NRA has an extensive website (www.bnsa.bas.bg) where the public and interested parties can receive topical and general information on nuclear safety matters. The NRA places notification and details of recent enforcement actions for infractions by licensees on its website. This is a good practice and a demonstration to the public of the regulatory body applying its powers to enhance safety. Website information is updated regularly and is maintained in Bulgarian and English. The Bulgarian INIS Centre performs the activities on the fulfillment of the responsibilities following from the Bulgarian participation in the International Nuclear Information System (INIS) obliging the National Centres to maintain the system for nuclear information. This is realized through input of information about the documents published in Bulgaria as well as providing access to nuclear information for Bulgarian users. Information about INIS and services provided at the Bulgarian INIS Centre is available on the website of the National INIS Centre, which is a part of the NRA website.

Research and Technologies: The National Fund "Science Research" is one of the institutions, facilitating the 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.

A. Basic Sanitation: According to the National legislation all wastewater treatment should be built according to the most recent technologies. The sensitive areas are already been determined in reference with Directive 91/271/EEC concerning urban waste water treatment and all treatment plant that discharge wastewaters into sensitive areas should have a nutrients removal stage.

B. Solid Wastes: See under Basic Sanitation.

C. Hazardous Wastes: The Centre for Hazardous Materials Research (CHMR) is in function.

D. Radioactive Wastes: See under Programmes and Projects, Status and Co-operation.

Financing: In order to determine the appropriate behaviour for all stakeholders, various economic instruments such as: taxes; fines; additional import duties; subsidies; etc. have been developed and implemented. These form the basic revenue of the National and many Municipal Environmental Protection Funds. Main funding sources include the state budget, municipal budgets, the Enterprise for Management of Environmental Protection Activities, external funding. The total expenditure on acquisition of tangible and intangible fixed assets with ecological destination is as follows: 433,3 millions levs in 2000, 608,4 millions levs in 2001, 473,5 millions levs in 2002. The expenditure on protection and restoration of the water is as follows: 121,6 millions levs in 2000, 150,8 millions levs in 2001, 123,3 millions levs in 2002. The expenditure on waste utilization and disposal is as follows: 96,6 millions levs in 2000, 118,6 millions levs in 2001, 113,0 millions levs in 2002. The subsidy from the state budget for municipal environmental investment projects was 16,6 millions levs in 2000, 17,7 millions levs in 2001, 29.2 millions levs in 2002, 30,0 millions levs in 2003. The subsidy for building of waste water treatment plants and sewerage was 8,8 millions levs in 2000, 8,6 millions levs in 2001, 14.6 millions levs in 2002, 16,2 millions levs in 2003. The subsidy for construction of landfills was 7,8 millions levs in 2000, 9,1 millions levs in 2001, 14.7 millions levs in 2002, 13,8 millions levs in 2003.

The Enterprise for Management of Environmental Protection Activities is a successor of the National Environmental Protection Fund. The Enterprise for Management of Environmental Protection Activities is a juristic person established with the Environmental Protection Act (State Gazette No 91/25.09.2002). The core activity of the Enterprise is the implementation of environmental projects and activities in pursuance of environmental strategies and programmes at national and municipal level. The financing of environmental investment projects from the Enterprise for Management of Environmental Protection Activities was 33,269 millions levs in 2003. The expenditure on preservation and improvement of the water quality from the Enterprise for Management of Environmental Protection Activities was 17,5 millions levs. The expenditure on building of integrated system of facilities for waste treatment was 8,7 millions levs. The Government is doing its best through available mechanisms, including privatization, to mobilize new and additional local resources to implement a range of actions for ensuring sustainability in the national economy.

A. Basic Sanitation: The State Budget subsidizes the municipalities for environmentally sound projects including waste water treatment plants. The expenditure on protection and restoration of the water is as follows: 121,6 millions levs in 2000, 150,8 millions levs in 2001, 123,3 millions levs in 2002. The expenditure on preservation and improvement of the water quality from the Enterprise for Management of Environmental Protection Activities was 17,5 millions levs in 2003.

B. Solid Wastes: In accordance with the 'polluter pays' principle, the cost of disposing of waste is borne by the waste holders or the producers of the product from which the waste came. The industrial

enterprises that generate hazardous waste are obliged to construct their own disposal facilities or to deliver the waste to authorized treatment facility. The Waste Management Act gives two possibilities to the producers and importers - to pay product charges for placing on the market of products, which after use generate wide spread waste, or to collect and recover the waste generated by these products by themselves.

Currently charges for placing on the market of batteries and accumulators, tyres, motor vehicles were introduced. The funds collected are spent for separate collection, recovery and/or disposal of spent batteries, used tyres and end-of-life vehicles. On a annual basis with the State Budget Act by proposal of the Minister of Environment and Water purposive funds are allocated for construction of facilities and installations for treatment of municipal, wide spread and hazardous waste as well as for cleaning and rehabilitation of sites polluted with waste. The population is obliged to pay municipal waste fees for the collection, transportation and disposal of municipal waste in landfills or other facilities as well as for the cleaning of the territories for public use in the settlements. The Municipal Council determines the amount of the fees in observance of the following principles:
1. Reimbursement of the full expenditures of the municipality for the service;
2. Ensuring of proper conditions for expansion of the services and improvement of their quality;
3. Achievement of higher equity in determination and payment of the local fees.
At the moment the financing of the investments for new landfills is covered fully by the state (through the State Budget or the Enterprise for Management of Environmental Protection Activities) or the pre-accession instruments of EU and other foreign sources.

C. Hazardous Wastes: See section B.

D. Radioactive Wastes: NRA is funded from state budgetary allocations and fees collected for regulatory services.The Radioactive Waste Fund is established for the purpose of financing activities relating to RAW management. Funds collected from licensees come into the Fund. It provides the financing for implementation of appropriate institutional control and monitoring of the RAW management. Expenses for maintenance of safety of radioactive waste management facilities are financed by external assistance. Under the PHARE program, continues the granting of resources for development of projects, related to radioactive waste management. The financial resources for radioactive waste management in Kozloduy NPP are coming from the realization of production, of credits and from financial assistance. Financial resources for safety maintenance of the shaft repository of the Nuclear Research Centre at the Bulgarian Academy of Science are provided annually from the State budget. The financial resources for the Permanent Repository for Radioactive Waste situated near the village of Novi Han (PRRAW-Novi Han) come from the Radioactive Waste Fund. Bulgaria has taken the appropriate steps to ensure that every licensee/licence holder possesses the necessary financial resources, in compliance with the requirements of Article 22 of the Joint Convention on Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management.

Cooperation:
A. Basic Sanitation: See under Programmes and Projects.

B. Solid Wastes: In the field of waste management the Ministry of Environment and Water works in close co-operation with the following international organizations and programmes:
- pre-accession instruments of EU – programs ISPA, PHARE and REAP;
- World Bank;
- Danish Environmental Protection Agency;
- GTZ – Federal Republic of Germany;
- Flemish Programme for co-operation with Central and Eastern Europe

C. Hazardous Wastes: The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal was signed by Bulgaria in 1989 and ratified in 1996.

D. Radioactive Wastes: (See also under Programmes and Projects and Capacity-Building, Education, Training and Awareness-Raising). In the field of radioactive waste management, the NRA works in close co-operation with the International Atomic Energy Agency – Vienna, the Joint Institute for Nuclear Research – Dubna, and the European Commission. Bulgaria is a contracting party to the major international conventions with regard to nuclear safety and notifications, among which Vienna Convention on Civil Liability for Nuclear Damage, Convention on Physical Protection of Nuclear material, Convention on Nuclear Safety, Joint Convention on the Safety of Spent Fuel Management and on the Safety of Radioactive Waste Management, etc. In the field of RAW, Bulgaria has established bilateral co-operation agreements with:
The Government of Japan for a 10 year programme for the training of specialists;
The Government of Germany for scientific and technical co-operation;
The Government of Ukraine in the field of nuclear and radiation safety; and
The Government of Norway on nuclear energy technology.

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