

SANITATION COUNTRY PROFILE

HUNGARY

Decision-Making

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Programmes and Projects

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Status

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Capacity-Building, Education, Training and Awareness-Raising

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Information

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Research and Technologies

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Financing

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Cooperation

- A. Basic Sanitation
- B. Solid Wastes
- C. Hazardous Wastes
- D. Radioactive Wastes

Decision-Making: Sustainable development: As a regular mechanism, integrated decision-making takes place at government level (inter-ministerial conciliation mechanism in course of preparation of all new pieces of regulation), however, the comprehensive principles, approaches and long-term objectives of sustainability are still rarely taken into account. The national Commission on Sustainable Development was established by government resolution in 1993 as an inter-ministerial body responsible for coordination of analysis, planning and implementation of various national programmes related to sustainable development and for preparation of national information and/or position in relation to international meetings such as the sessions of the UN CSD. The Commission included representatives from all relevant ministries and government authorities (Prime Minister's Office, Ministry for Environment and Water, Ministry for Agriculture and Rural Development, Ministry for Education, Ministry for National Cultural Heritage, Ministry of Finance, Ministry of Foreign Affairs, Ministry of Economic Affairs, Ministry of Justice, Ministry of Social and Family Affairs and Ministry of Health (Institute of Public Health) etc. The para-statal bodies, institutions and NGOs are associated with the Commission. In addition the National Environmental Council was established in 1996 as an advisory body to the government in accordance with the provisions of the 1995 Environmental Act. The main non-government constituencies are represented in the Council (environmental groups, academic institutes and business organizations).

A. Basic Sanitation: Coordination mechanisms, legislation: In Hungary the local municipalities are responsible for the provision of drinking water supply and basic sanitation services (Act LXV/1999 on the local municipalities). The built-in assets – the water works, pipes, treatment plants, machinery, operational buildings etc. – generally belong to municipalities, in the case of regional water works the assets are owned by the state. Contracted concession companies or operating firms run and maintain the existing assets, according to the water demand and sewage production of the settlements. The municipality, or in the case of regional water works, the state – represented by the Ministry of Environment and Water – has the right to set the prices to be paid for the drinking water and sewage services. The collected fees are supposed to cover at least the cost of operation and basic maintenance.

The owner of the assets is responsible for the proper reconstruction and development of them. It means that the development of services basically belongs to the local governments, and the municipal General Assemblies have to bring their own decisions on commencement of a water utility development project.

Nevertheless, the State and the Government, especially the Ministry for Environment and Water and the Ministry of Health, Social and Family Affairs have an important indirect role in the decision-making procedures of water supply and sanitation issues. On one hand, the State is responsible in general for the legislations and the regulatory frames, including the country-level planning, territorial development and sector policies. As the proprietor of common goods – like water resources –, it has the power to authorize any action or activity having influence on the status of water resources. The authorizing, licensing or permission procedures are the main tools of the state to enforce the rules and standards of common interests, like public health and safety, environment protection, conservation of natural resources and values, territorial regulations, proper educational background of the operational personal of the utility, etc. On the other hand, the state, through its financial regulations and budgetary subsidy system, exercises a decisive influence on the development intentions of the municipalities. The subsidy system reflects the country-level development objectives and priorities and helps to achieve them.

Parliamentary acts and government regulations declare the main lines and budgetary frames of the state support system. The detailed conditions and procedures of subsidy application, allocation and withdrawal of expenditures are generally regulated by arrangements of the sector minister or by common arrangements of the competent ministers.

In the field of water utilities the state subsidy generally means a refundable transfer of financial funds from the central budget to the municipality, to partly cover the investment expenses of priority projects. The same basic scheme of subsidy system is and shall be applied to the EU-grants and other international supports (PHARE, ISPA grants, co-financing sources of Structural Funds and Cohesion Fund, GEF grants etc.), as these external funds are available to the final beneficiaries through the central budget. Basically the subsidy system – i.e. the rules and requirements of successful applications for any kind of state- or EU-support – defines the practical coordination mechanism of the development of water utilities of settlements.

Strategies, plans: The Drinking Water Quality Improvement Program, in parallel with the National Development Program of Urban Wastewater Management might be considered as strategic plans of basic sanitation issues of Hungary.

Both specific programs are in harmony with the related targets and actions of Agenda 21, the Johannesburg Plan of Implementation and Millennium Development Goals, as adapted to the conditions and present situation of water utility services in Hungary. Simultaneously, both the Drinking Water Quality Improvement Program and the National Development Program of Urban Waste Water Management are closely connected to the EU-accession progress of Hungary, as the specific objectives of these programmes reflect the requirements of the related European Community legislation. These are: the directives of the Council on the quality of drinking water (98/83/EC), and on the urban waste water collection and treatment (91/271/EEC). The Hungarian Government has approved the national programmes of implementation of the Community regulations, as declared inclusively in the government regulations on the quality of drinking water (201/2001), and on the national implementation programme of urban wastewater collection and treatment (25/2002)

Information on the wastewater program is summarized in the “Programmes and projects” chapter. The main lines of the drinking water program are drafted in the “Status” chapter of this country profile. See also the “Freshwater” and “Human settlements” parts of the country profile for further information on the drinking water quality improvement program.

B. Solid and Hazardous Wastes: From 1st January 2001 the Act XLIII of 2000 on waste management is in force. The content of this Act complies with the basic Directive 75/442/EEC of the Council of the European Community on wastes. The Act specifies the priority ranking for waste management, contains waste management principles and definitions, responsibilities of the producer and owner and importer and exporter of waste. The Act lays down the general conditions of performing various waste management procedures and activities (collection, transportation, export-import, pre-treatment, storage, recycling, neutralization), special rules for the management of municipal and hazardous wastes, and waste management planning tasks. The Act specifies the organizations of waste management administration and their powers, and the general, legal and financial responsibility conditions of players in waste management. The Act deals with the availability of waste management information to the public domain, registration and reporting obligations concerning data, sanctions for defaults, and finally it lays down governmental and ministry tasks relating to its enforcement, and completion deadlines for various concrete measures.

Detailed regulations are provided for the assessment and management of risk from chemicals and for operation of the prior informed consent (PIC) procedure, based on the Rotterdam Convention, which was ratified by Hungary.

C. Radioactive Wastes: No information available.

Programmes and Projects:

A. Basic Sanitation: National wastewater program: The Hungarian national programme for the implementation of 91/271/EEC community directive on urban waste water collection and treatment has been finalized by 2001, in parallel with the process of negotiations on EU-accession. The key points of negotiation were the postponement of deadlines of compliance with the requirements of 91/271/EEC directive, as the magnitude of needed sewerage and sewage treatment developments is enormous, and the original deadline of the directive for the member states was the year 2000. The 25/2002.(II.25.) government decree contains the national implementation programme of the community wastewater directive, in harmony with the agreed derogation periods of EU-compliance, and taking into consideration the specific Hungarian requirements to protect the underground resources of drinking water supply. The main objectives and deadlines are the followings:

- in wastewater agglomerations above 10000 PE load in sensitive areas and in any (small) settlement endangering vulnerable drinking water resources: sewage collection and proper treatment of wastewater (including chemical treatment phase) should be provided until the end of 2008,
- in wastewater agglomerations above 15000 PE load: sewage collection and biological treatment should be provided until the end of 2010,
- in wastewater agglomerations above 2000 PE load: sewage collection and biological treatment should be provided until the end of 2015.

The catchment area of the lakes Balaton, Velencei and Ferto are declared as 'sensitive areas' in relation to the wastewater directive.

The 25/2002 government decree contains the categorized list of identified agglomerations and the applied deadlines of sewage collection and treatment developments of the settlements. The progress on the fulfilment of the programme and the agglomeration list should be evaluated and revised biannually.

B. Solid and Hazardous Wastes: According to the Act on Waste Management, a national framework programme has been prepared and adopted by the Parliament as part of the National Environmental Programme. In particular, a registration programme covering the quantity and treatment of hazardous wastes is being prepared. Various projects on waste management, especially on waste minimization (for reuse, recycle etc. methods, technologies, systems, investments) and waste disposal investments (under the new rigid regulations) are launched and at least partially financed from the central budget environmental fund and/or co-financed from international financial sources (EU's pre-accession funds). A special eco-labeling system has been introduced.

C. Radioactive Wastes: See under the section on Status.

Status: *Socio-economic aspects:* The population living below the poverty level in Hungary is about 15%. This high rate is mainly due to the deep recession that has characterized the first stage of the transition process. Although the nearly 15% of unemployment prevailing prior to the economic upswing is now significantly lower at 6%, yet the chances of employment of the group of elderly unskilled persons with low education have not improved. The groups being most affected by poverty are the long term unemployed; those with low salary; those who suffer from chronic sickness; Roma population (a significant minority with higher than average rates of unemployment due to low education and lack of professional skills); those living in small settlements.

By 2020, the population is expected to be 7.1 percent less than in 1999, and 12.5 percent less than in 1980 when the decline started. In addition, the aging process is projected to continue further. A specific characteristic of the Hungarian population is that mortality is unusually high for a country of its socioeconomic and cultural level. The mortality level had been gradually improving until the mid-1960s but, since then, has significantly deteriorated. However in the 90's the mortality level is rather stagnating and since the beginning of 2000 a definite improvement has been detected.

Low life expectancy both in men (66.3 years) and women (74.2), high mortality, relatively short disease-free, healthy life years are the main indicators of the bad health status. Cardiovascular diseases, cancer, violent causes of death and disability further diseases of the digestive systems are the main causes the high mortality. Water-related diseases are relatively low but pollution of surface waters, further arsenic of geological origin pose hazards to health. The past ten years, with all political and socio-economic changes were unfavourable to economic and social status (poverty, high unemployment, homelessness, etc) and although improvement can be recorded in the past few years, these facts remain the principal causes of ill-health. For the past three years, favorable changes have been observed. Increasing birth rate, decreasing mortality, especially as the cardiovascular diseases are concerned, indicate the positive changes. Economic situation is improving, relatively low rate of unemployment and increasing social security contribute the improving health of the nation.

A Basic Sanitation: The level of drinking water services in Hungary could be evaluated as satisfactory considering quantitative aspects. The state of sewerage and sewage treatment is much worse than that for water supply. Recently each of the Hungarian cities and villages is provided with piped drinking water, and 98 % of the inhabitants have easy access to piped water: 92 % with house connections, 6 % to public taps. (The non-provided 2 % live in external territories, where the piped water service can not be solved at a rational level of costs, or the living place is out of the service-obligation area of the municipality.) The quality of served drinking water fails to fulfill the quality requirements of the 98/83/EC directive in one or more parameters. This relates to about 40 % of the served drinking water, but the objectionable parameters do not refer to pathogenic microorganisms or materials of direct dangers to public health. The main sources of quality-problems are the arsenic, fluoride, bromine, nitrite, nitrogen, ammonium, iron and manganese content of the piped waters, because of hydro-geological conditions. The basic objective of the drinking water quality improvement programme is to eliminate these materials in the served water according to the community standards by 2009. The selection of applicable solutions – treatment technology or change of the water resource – needs careful case-by-case investigations.

At the end of year 2002, 56 % of the flats supplied with drinking water had connection to sewer system. This ratio was 90 % in Budapest, 72-44 % in other towns, and far worse in villages. 65 % of the collected wastewater was treated, 4 % only mechanically and 61 % was treated biologically or by advanced treatment technology. The proportion of chemical treatment takes 20 % out of the biologically treated sewage. The lack of proper sewerage and sewage treatment causes deterioration of the quality of the recipient watercourses, and the not properly isolated sewage storage tanks as permanent pollution sources threaten the upper groundwater layers. In many locations the lack of sewers potentially endangers the deeper groundwater resources which are used now or considered as future drinking water bases.

The evaluation of the present situation gives a solid base to the recognition of the importance and urgency of the national wastewater programme. The European and the Hungarian subsidy policy give high priority to the reduction of the backwardness of the waste water collection and treatment utilities in Hungary.

B. Solid Wastes: Around 100-110 million tons of waste are generated annually, with industry and agriculture producing 40% and 60% of that amount, respectively. The quantity of waste generated dropped by about 20% due to a reduction in output and consumption between 1985 and 1994. The introduction of waste-effective technologies and products, the restructuring of industry, and planned development and reconstruction projects brought modest changes in 1993 and 1994. Only about half the production waste is reused, which represents 3% of total material use. 85% of municipal solid waste is collected and treated in an organized way. In order to improve this situation, new programmes and financial means were introduced from the mid-1990s, in particular, to meet the requirements of the EU-accession. The volume of household wastes increased.

According to the estimates of the Hungarian Central Statistical Office (KSH), 22.5 million m³ (4.6 million tons) of municipal waste is generated in Hungary. About 66% (15.5 million m³) is household waste, whereas the rest is composed of waste generated by institutions, service providing facilities and businesses, which can be managed together with household waste (7.0 million m³). In terms of mass, the amount of municipal solid waste is expected to increase slightly, although the volume of waste is expected to increase by an annual rate of 2-3% due to the increase in the volume of packaging materials and the increasing use of the light fraction.

In 2001, 86.5% of the households were involved in regular, organised waste collection. About 5.5 million tons of municipal fluid waste and 0.7 million tons of wastewater sludge is collected and treated in Hungary.

Today, the typical manner of disposal is landfilling (83%). In the framework of public services, 665 landfills operate with permission, of which only 15% meet the requirements of a modern landfill site. In addition to the approximately 620 municipal landfill sites operating without proper insulation, the estimated number of abandoned, closed down or illegal waste dumps is 2000 in Hungary. The only municipal waste incinerator is the Waste-to-Energy Plant of Budapest recovering 360,000 tons of municipal waste annually. Only 3% of the collected municipal solid waste and about 40% of the municipal fluid waste is recovered.

According to the Phare HU9911.01 study on the existing landfills there are at present 1300 landfills not in operation in Hungary, 1367 landfills operate (with or without any permission), while 136 will be closed down by 2009, and following 2009, 42 landfills remain in operation.

The National Environmental Program and the National Waste Management Plan (NWMP) adopted by the Parliament in 2002 describes the current situation as follows: (a) organised waste collection is not all-inclusive, the volume of selective waste collection is low, the technical level and the conditions of the facilities are extremely bad; (b) there is a considerable number of illegal and legal dump sites which are potential sources of environmental pollution; (c) free disposal capacity is low; (d) the technological and technical level of waste collection and management systems fails to meet the requirements of modern waste management, up-to-date waste management methods are not widespread; (e) the rate of separated waste is low.

There are some local initiatives for separated waste collection but the results are rarely satisfactory.

C. Hazardous Wastes: Hazardous wastes and their management is a substantial problem in Hungary. A programme to build a network of regional hazardous waste landfills and incinerator plants was elaborated in the mid-1980s, but has not been completed due to limited financial resources. One modern incinerator plant, one chemically secure landfill and four interim storage sites have been constructed and put into operation. This is less than half of what was planned. The establishment of new regional incinerators is planned in the near future. In addition, many large and small factories have their own storage facilities.

D. Radioactive Wastes: The issue of radioactive waste arose when the first nuclear power plant was launched in Hungary (Paks). This nuclear power plant generates most of the radioactive waste in Hungary. To promote the safe and sustainable management of radioactive wastes, a special national project has been introduced. The first phase of the project outlined the complex strategy necessary for the management and disposal of all types of radioactive wastes. The project also elaborated criteria for site selection, select disposal technologies, suggest potential regions for high and low level waste disposal, establishing the financial basis for waste management, and address public acceptance.

Capacity-Building, Education, Training and Awareness-Raising: The National Core Curriculum has a separate chapter on environmental education. It became an integral part of teaching and a compulsory subject in public education. Approximately 92% of the students in the compulsory education are taught the concept of sustainable development in formal education.

One of the positive signs of the socio-economic transition in Hungary was the increased environmental awareness within the industrial sector. Most big enterprises and an increasing number of small and medium sized enterprises have themselves adopted integrated environmental programmes, reached relevant ISO-qualifications and some of them formulated more comprehensive sustainable development policies (unfortunately, the latter approach mainly means a focus on “sustainable growth” concept with supplementing social and environmental targets, but there are already business representatives who properly understand and tend to apply the sustainability concept and strategy). The policy-makers and government authorities support this trend through policies and financial instruments. These include support to encourage increasing efficiency of resource use, reuse and recycling technologies, waste reduction or more broadly to introduce complex environmental management systems.

A. Basic Sanitation: The minister of the water sector is authorized to define the educational requirements to the key personnel of water and sewage utility operational companies, according to the Act LVII of 1995 on the water management. The 21/2002 decree of the minister for transport and water management on the operation of water utilities contains the educational conditions to be fulfilled by the executive and key professional staff members of the operational companies. The Act LVIII of 1996 on the professional chambers of designers, consulting engineers and architects, and the government decree 157/1997 on the general rules of licensing of architects and technical designers regulate the licensing conditions of engineering activities. The educational conditions of fulfilment of relevant posts in the municipal, regional or national public administration are also legally ruled (Act XXIII of 1992 on the legal status of public administrators and further government regulations). These measurements form the main legal frames for professional and educational requirements of operation and development of water utility services.

In general, the Hungarian system of vocational training and technical schools, colleges, technical and other universities and post-graduate engineering courses forms a proper base to cover the professional staff demands of the water utility services. The environmental aspects and the informatics have increasing emphasis within the curriculum of all level studies. However, some lack of knowledge is recognizable in the field of economic and management issues. Experts of special fields, like freshwater resources management and hydrology, drinking water and wastewater technologies, environment protection, are trained in post-graduate engineering courses of four or five semesters, attended by graduated professionals. Nevertheless, in the lack of nation-wide evaluation on this subject, we can't state that all the requirements are fully met in every cases and positions. An overall survey of the educational and training needs of the utility companies is under preparation by the Hungarian Professional Association of Water Utilities.

The new water or wastewater development projects always include a training component, reflecting the special requirements of the project.

B. Solid and Hazardous Wastes: In Hungary in the early 1990s, all state owned specialized companies organized Frame curriculum regulates the information on waste in the Hungarian public education, especially in the subjects of chemistry, physics and history. For further information on these issues, see under Status. For aspects related to awareness-raising through economic incentives, see under Programmes and Projects.

C. Radioactive Wastes: No information available.

Information:

A. Basic Sanitation: In order to demonstrate the changes during the transition period and the results of new developments, we use the indicator set adopted by the European Union. This set is derived to assess the progress in terms of sustainable development and monitor the effects of the relevant policies and measures. The indicators are classified in four groups which correspond to the social, environmental, economic and institutional dimensions of sustainability, including water resources management. The reports and database of the Hungarian Central Statistical Office (HCSO) are the main sources of evaluation of the status, trends and progresses of series of years. In some cases, annual data were not available for earlier time periods, or the regular data collection system has changed over the period considered. As a matter of fact, the Hungarian statistical system has also changed in light of harmonization requirements of the EU accession. In spite of certain data problems, the indicators presented in this report give a reliable picture of the status of water utility services.

Monitoring network is operated by the environment and water sector to follow the quantity and quality status of water resources.

For HCSO publications see the <http://www.ksh.hu/pls/ksh/docs/> web address. Further water management information is available from the web-site of the National Directorate of Environment Protection, Nature Conservation and Water: <http://www.ovf.hu/>, <http://www.vizugy.hu/> .)

B. Solid Wastes: See under Basic Sanitation and also under the section on Financing.

C. Hazardous Wastes: See under Basic Sanitation.

D. Radioactive Wastes: No information available.

Research and Technologies: The National Programme for Environmental Research and Development is being formulated jointly by the Ministry for Environment and the NCTD. The programmes place special emphasis on improving the technical and technological conditions for environmental protection. Elements of these programmes include, among others, technologies for healthy drinking water supply; environmentally-sound technologies integrated into production, and environmental sanitation.

A. Basic Sanitation: In the field of sewage treatment both the well known traditional practices and the new advanced technologies are used. In the implementation of new projects the Hungary is ready to apply the best available and affordable technological solutions accepted in Europe. The market of construction materials and equipment is in general offer-driven and open for EU-member States without any restriction. For the sewage treatment of small-scale settlements, the application of environment-friendly solutions like filtering fields is grown.

B. Solid and Hazardous Wastes: Biotechnologies are used in industrial production and recycling processes. See also under Basic Sanitation.

C. Radioactive Wastes: No information available.

Financing:

A. Basic Sanitation: As mentioned in the Decision-making part of this report, the municipalities are responsible for provision and proper development of water services, and the state, using the subsidy system, takes part in the financing of projects. The scheme is roughly the same with the EU-granted developments. The different sources of subsidies can be available on application requests. If the application is acceptable, the rate of central subsidy is not less than 40 % in the case of sewage treatment

development, and not less than 30 % in the case of sewage collection projects – as regulated in details by the Act LXXXVII of 1992 on the titled and targeted subsidy system of local municipalities –, but the aggregate proportion of subsidies (local and EU subsidies together) of high priority EU-projects can amount to 95 % of the eligible expenses.

The preliminary estimated total investment cost at price level of 2001 of the National Sewage Treatment Program (as drafted in the Projects and programmes part of this report) approaches 1000 billion HUF (3,5 billion USD) to afford until the end of 2015. The implementation phase of the programme has been started. The experiences of the first completed projects will offer more information to evaluate the financing background of the decided programme, and to revise and adjust, if necessary, the stimulating and financial tools.

B. Solid and Hazardous Wastes: A special fund has been established for technical development purposes to increase waste treatment capacities. According to the database of the Hungarian Central Statistical Office (HCSO), the expenditures on waste management in ratio of the total environment expenditures - industrial investment by environment domains are as follows: 27.7% in 1997; 17.3 in 1998; 10.6% in 1999; and 7.8% in 2000.

Municipalities receive standardized support from the government budget based on the annual budget in order to solve the tasks related to solid waste management. The size of the support is determined according to the number of residents. These disbursements are debited from the budget allocation to general responsibilities of local governments or from the allocations for settlement operation. The treatment and disposal of municipal liquid waste may also be supported from central government allocations. The provisions of the Act on Targeted Subsidies also allow disbursements to support waste management tasks, for example, establishing regional landfills. Municipalities may set aside 30% of the income generated by environmental fines to create municipal funds to support the implementation of their responsibilities. They may also apply through tender for subsidies from government funds set aside for capital investment and development projects. These include: Earmarked Estimates for Regional Development, the Central Environmental Protection Fund, and Earmarked Estimates for Economic Development. The Central Environmental Protection Fund may be used to extend interest-free or concessionary loans, or to issue financial guarantees for credit purposes to applicants from the business sector. See also under Programmes and Projects.

C. Radioactive Wastes: No information available.

Cooperation:

A. Basic Sanitation: The cooperation with the institutions and Member States of the European Union has recently been the highest priority, in harmony with the accession process of Hungary to the EU. The hydro-geographical conditions of Hungary give special importance to our cooperation with the neighboring countries and other countries of the Danube watershed. The sanitation developments contribute to the reduction of pollution load of the Danube River and the Black-sea; Hungary participates in the relevant programs of the UN and the GEF. Beside the highlighted cooperative connections, Hungary is an active partner in many international organizations, environment and water related programmes and actions, concerning the issues of basic sanitation.

B. Solid Wastes: Hungary takes part in international cooperation on waste management policies and regulation; in this regard, the most significant collaboration has been developed with the European Union as Hungary has prepared for accession to the EU and had to fully transpose the relevant standards and rules.

C. Hazardous Wastes: International cooperation is important particularly in improving the management of hazardous wastes. The Basel Convention on the Control of Transboundary Movements of Hazardous

Wastes and their Disposal was ratified in 1990. Hungary is an active participant to the Basel Convention and supports collaboration through bilateral agreements with several countries. In addition, an EU's Phare project was carried out to create a strategy on hazardous waste management for the northwest region of Hungary.

D. Radioactive Wastes: No information available.

* * *