WASTEWATER COUNTRY PROFILE

SERBIA AND MONTENEGRO

Decision-Making

Programmes and Projects

Status

Capacity-Building, Education, Training and Awareness-Raising

Information

Research and Technologies

Financing

Cooperation
**Decision-Making: Coordinating Bodies:** Activities related to wastewater management in Serbia fall under the jurisdictions of the Ministry of Agriculture, Forestry and Water Management of the Republic of Serbia/Republic Directorate for Water (licences and permits), Ministry of Public Administration and Local Self-government (operation and maintenance of waste water treatment plants and waste water infrastructure) and Ministry of Science and Environment Protection.

**Legislation and Regulations:** The most important laws that govern the waste water domain in Serbia are the Law on Waters (1991), Law on Environment Protection, Law on Communal Works, and Law on Public Utility Companies.

According to Law on Public Utility Companies, they perform: "treatment and disposal of stormwater and wastewater". Treatment and disposal of stormwater and wastewater means: "collection and disposal of sewage, stormwater, and surface water from public areas by means of sewers, drainage channels, or otherwise, treatment and release from the network, channels, drains, and other water disposal structures, sanitation of septic tanks, and collection of used waters from consumers' connections onto the street network and removal via sewers, treatment, and release from the network ".

Although certain clauses of the Law on Public Utilities and the Law on Waters address the same or similar issues, they are complementary in terms of jurisdiction. Namely, activities of public utilities are organized by the municipality (or several related municipalities or communities), which sets up public utility companies for the purpose at hand, while responsibility for general strategy of water protection resides with the ministry in charge of water management.

**Decision-Making: Strategies, Policies and Plans:** The concern of every public utility is to collect and evacuate sewage and stormwater from its urban territory. In doing so, public utilities are not required nor is it their responsibility to concern themselves with the general strategy of water supply and sanitation of wider regions or the state as a whole. This responsibility for strategy of water protection in wider regions or the entire state resides with the ministry in charge of water management.

The existing Law on Water (1991) requires development of the Plan for Protection of Water Quality, but such Plan was never introduced.

It is necessary that in new Law on Water instruments for creation of such plan would be introduced.

**Major Groups Involvement:** There is need for much broader involvement of all stakeholders in a process of planning and decision making in waste water management.

New Law on Waters pays particular attention to this matter, on principles introduced in Water Framework Directive, and other EU legislation.

**Programmes and Projects:** The following donor projects or initiatives are now underway:

- a public awareness programme to assist the water utility companies in reforming from themselves from technical departments into independent providers of public service which operate on a commercial basis. Under a Euro 16 million loan, the Cities of Belgrade, Kragujevac, Nis and Novi Sad are financing investment projects to upgrade their water supply and sanitation infrastructure. In connection with the loan finance, the Cities are also starting to reform their water utility companies from technical departments into independent providers of public service which operate on a commercial basis. In
addition, there is a Public Participation and Awareness Programme to assist customers to understand and accept the need for and benefits that will accrue to them from the restructuring, to improve the responsiveness of the water utilities to the needs of customers, to allow the general public to have an input on the design of the water sector reform, to improve the willingness to pay (WTP) increased user charges and to train staff in the Utilities.

- a knowledge transfer of the global waste water sector to water companies and a feasibility study for a selected waste water treatment plant in Belgrade. This two part study comprises a global review of the waste water sector in order to provide general knowledge to managers of current wastewater management practices including recommendations for the introduction of EU standards for wastewater collection and treatment system. The second part comprises a pre-feasibility study for a selected waste water treatment plant in Belgrade in line with these recommendations.

**Status:** It may be stated in general terms that development of sanitation systems lags significantly behind the water supply capacities.

Fecal systems are slightly more developed than other wastewater disposal systems, as shown in the following table.

*Population vs. sanitation users (urban and suburban) – 1991.*

<table>
<thead>
<tr>
<th>Region</th>
<th>Urban and suburban population</th>
<th>Percentage with access to fecal sanitation</th>
<th>Sanitation system</th>
<th>Amount of wastewater (mil. m³/a)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(million)</td>
<td>(%)</td>
<td>Integrated Fecal Stormwater Sewers Total</td>
<td></td>
</tr>
<tr>
<td>Vojvodina</td>
<td>1.26</td>
<td>45</td>
<td>994 613 152 324 2082 129</td>
<td></td>
</tr>
<tr>
<td>Belgrade</td>
<td>1.39</td>
<td>85</td>
<td>255 705 353 197 1510 153</td>
<td></td>
</tr>
<tr>
<td>Central Serbia (without Belgrade)</td>
<td>2.00</td>
<td>55</td>
<td>577 2046 345 553 3521 173</td>
<td></td>
</tr>
<tr>
<td>Kosovo and Metohia</td>
<td>0.68</td>
<td>35</td>
<td>189 263 109 161 723 59</td>
<td></td>
</tr>
<tr>
<td>Total Serbia</td>
<td>5.33</td>
<td>60</td>
<td>2015 3627 959 1235 7836 515</td>
<td></td>
</tr>
</tbody>
</table>

The table also shows that about 60% of the urban and suburban population of Serbia has access to public sanitation. As the population of Serbia is almost ten million, organized sewage disposal is available to only about 30% of the overall population, and this may be considered low in comparison with developed countries. Looking at the regions, the availability of sanitation is non-uniform: it is most extensive in Belgrade, and the least in Kosovo and Metohia.

An additional adversity in this domain is the fact that the degree of sewage treatment is very low. Thus far, only a very small number of Serbian communities have sewage treatment plants, less than 10%, and mostly of them are not functioning properly.

The installed capacity of these plants is about 1,000,000 PE. Sewage treatment plants are also available in certain parts of cities, tourist resorts, and weekend zones, but there is no reliable information on most of these with regard to operation and effectiveness.
The development of industrial wastewater disposal is closely linked with production processes, locations of plants relative to the city proper, characteristics of water recipients, rational integrated treatment, etc. The share of wastewater of industrial origin in public sanitation depends on the rate of production (the previous 45% dropped to 25% in 1991).

**Challenges:** Since the protection of water quality is the most neglected segment of the water sector, and in the light of up-to-date global trends, the highest investment volume in the immediate future would be related to sewage collection, disposal, and treatment. During the transition period it is necessary to:

- Revitalize on a priority basis and resume normal operation of existing sewage treatment plants and industrial wastewater pre-treatment facilities;
- Construct new sewage collection, disposal, and treatment systems, first in communities with organized water supply or where construction of such systems is planned, in order to increase coverage of the population (and other users) and provide a full service of communal water supply and sewage disposal;
- Perform appropriate works and implement protective measures on existing and future water sources;
- Establish control mechanisms for the implementation of protective measures.

**Capacity-building, Education, Training and Awareness-raising:** Republic State Water Directorate and Public Companies "Serbian Waters" and "Vojvodina Waters" continuously work on capacity building, education, and training of stuff. There is a need to increase this activity on the national level.

**Information:** Information related to waste water in Serbia are available at the Republic Water Directorate and Municipal Public Water Works Companies.

**Research and Technologies:** The Republic Water Directorate continuously work on research and technologies projects and these projects are financed mainly from the state budget. The available funds are inadequate.

National Water Resources Research Program, that would be cofinanced with Ministry of Science and Environment Protection, will start in 2004, and will cover also waste water treatment technologies improvement.

**Financing:** Funds for waste water management are provided from the water funds and fees paid by the beneficiaries of the waste water systems, budget of local units of self-government, and other sources (state budget, donations, loans by local and foreign banks such as the World Bank and EBRD).

Price of waste water and related services is social and political issue at present. However, the conclusion is that with a gradual price increase and an adequate social policy (assistance to the needy from other sources, etc.), economic price of waste water should be established.

In order to carry out necessary tasks in the transitional period, investment volume of 100-120 million € per annum would be required.

**Cooperation:** Republic of Serbia place the highest importance on the establishment of a new framework for multilateral cooperation, which would be closely linked to and synchronized with bilateral cooperation along the lines of the major international conventions approved during the
1990's, at the time when this country was isolated. This particularly relates to the implementation of the European Water Framework Directive (WFD/2000).

The following conventions significant to wastewater management were ratified: the Convention on Co-operation in the Protection and Sustainable Use of the Danube River Basin (2003), The Budapest Declaration/Tisza Water Forum (2001), etc.

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