Country fact sheet

Municipal waste management

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Serbia

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European Topic Centre on Waste and
Materials in a Green Economy

Country	Serbia
General facts	
• Surface area: 77 474 km$^{2;}$ population 7 143 921; population density (inhabitants/square km) 92.2; total gross domestic product (GDP) USD 101.8 billion; GDP per capita: USD 14 200; degree of urbanisation 55.6 % of total population, annual rate -0.34 %. Economy (% of GDP): agriculture 9.7 %; industry 42.7 %; services 47.6 %	
Status quo	
In Serbia, there is a trend towards regionalisation of waste management services, which is providing opportunities for private sector involvement. Nevertheless, the development of the necessary infrastructure lags behind expectations, as there are only limited sources of local financing. This leads to a strong dependence on funding by foreign donors.	
Legal framework	
• Law on Waste Management • Law on Packaging and Packaging Waste • 2010 National Waste Management Strategy 2010-2019	
Objectives	
• Harmonise national regulations in the sphere of waste management with the EU legislation —ongoing • Adopt national plans for certain waste flows — ongoing. The National Plan is finished and prepared for adoption • Develop regional and local waste management plans by 2015 — ongoing • Develop the system of primary selection of waste in local self-management authorities — ongoing • Establish 12 regional centres for waste management by 2013 (regional waste areas, plants for the selection of recyclable waste, plants for separation of recyclable waste, plants for a biological treatment of waste and transfer stations in every region) — ongoing • Establish a system for hazardous waste management (establish central regional warehouses/storage points for hazardous waste and start the construction of the plant for physical chemical treatment of hazardous waste by 2013) — ongoing • Separate hazardous waste management activities from municipal, industrial and commercial non-hazardous waste management activities • Continue establishing regional waste management centres • Provide capacity for the incineration of organic industrial waste and infectious medical waste • Enhance professional and institutional capacities for hazardous waste management • Establish a system for managing construction and demolition waste and for waste containing asbestos • The strategy describes in detail a number of measures for hazardous waste management, which cover the whole spectrum of waste technologies, namely – establish adequate collection and transport schemes for hazardous waste – establish five regional temporary storage sites for hazardous waste	

- establish physical-chemical treatment facilities within the anticipated hazardous waste management centre
- establish two incinerators for thermal treatment of hazardous waste
- realise one landfill for hazardous waste

Specific targets

- Increase the proportion of the public included in the system for waste collection to 75 % by 2013 — ongoing
- Increase the level of reuse and recycling of packaging waste (glass, paper, cardboard, metal and plastic) up to 25 % of generated quantities

Waste management

- Large amounts of industrial waste are generated by the mining industry ([5])
- Utilisation of industrial waste as a source of material or energy is increasing
- Data on municipal solid waste (MSW) have been collected systematically since 2006
- 2010: introduction of a new reporting methodology for public utility companies
- 2012: 360 kg of MSW/capita (2.62 million tonnes of total generated waste, around 70 % collected)
- 2013: 340 kg of MSW/capita (2.41 million tonnes of total generated waste; 1.92 million tonnes of waste collected and disposed of by municipal companies → about 80 %)
- 2014: 300 kg of MSW/capita (2.13 million tonnes of total generated waste; 1.67 million tonnes of waste collected and disposed of by municipal companies → about 80 %)
- 2015: 260 kg of MSW/capita (1.84 million tonnes of total generated waste; 1.36 million tonnes of waste collected and disposed of by municipal companies → about 82 %)
- 2016: 270 kg of MSW/capita (1.89 million tonnes of total generated waste; 1.49 million tonnes of waste collected and disposed of by municipal companies → about 82 %)
- The decline in quantities of generated and collected utility waste continues, with a slight increase in the scope of its collection. This shows, above all, the success of the system for collection of certain utility waste fractions in local communities, such as waste paper and cardboard, packaging waste and other types of waste that usually ended up in waste disposal containers, as well as the reduction in the public's purchasing power as a consequence of economic crisis
- Stronger presence of the private sector through public-private-partnerships with municipalities
- MSW composition: 42.9 % food waste/biodegradables, 15.1 % plastics, 14.8 % paper and cardboard, 5.3 % glass, 5.0 % textiles, 4.0 % nappies, 1.9 % metals, 8.7 % fines, 2.3 % other
- 2012: 54 430 686 tonnes of industrial waste generated, mainly from mining and quarrying activities (3 % hazardous waste); high levels of transboundary movement of waste (2013 export 416 839 tonnes, import 221 797 tonnes; 2014 export 502 826 tonnes, import 243 111 tonnes; 2015

([5]) It needs to be noted, that for the years 2010-2014 data include wastes from mining and quarrying, which as of the reference year 2015 are not any more included in the Serbian Environmental Protection Agency statistics on hazardous waste generation, since these wastes are not covered by the Waste Framework Directive (2008/98/EC) but by the Mining Waste Directive (2006/21/EC).

export 305 029 tonnes, import 216 878 tonnes; 2016 export 307 446 tonnes, import 221064 tonnes)

Recycling

- Recycling of waste is meeting national targets
- Separate collection is a local activity undertaken by individual municipalities
- Collection is organised mainly in urban areas; rural areas are less well covered
- Currently about 14 % of the collected MSW is recycled, mainly glass, wood, paper, plastic and metal
- Recycling activities are located in larger towns
- Pilot composting facility in Čacak (capacity 500 tonnes/year)
- Recycling of packaging waste is supported by six operators: in 2012 739 259 tonnes of industrial waste recycled
- Procedures R4 and R5: based on the data submitted operators with a licence for waste treatment. This is for all kind of waste (municipal and industrial): 2013 1 196 801 tonnes; 2014 1 299 523 tonnes; 2015 933 298 tonnes; 2016 999 596 tonnes

Landfilling

- 25 % of MSW is disposed of to sanitary landfills; 10 sanitary landfills have been built so far
- 45 % is delivered to registered municipal dumpsites
- 30 % ends up in uncontrolled dumpsites
- 164 registered landfills and dumpsites
- 4 481 illegal dumpsites according to the National Waste Management Strategy; the Serbian Environmental Protection Agency states that there are 3 300 illegal dumpsites
- About 70 % of all active dumpsites do not meet basic operational standards and are not stipulated through spatial planning documents
- Modern sanitary landfills are emerging as a result of international projects and private investment
- 2012: 54 150 048 tonnes of industrial waste landfilled
- 2016: 1.27 million tonnes of waste was disposed of, out of which 474 000 tonnes of waste was disposed of on sanitary landfills.

Incineration

- 2012: 29 tonnes of industrial waste incinerated
- There are no licensed waste incineration facilities. Only some kinds of waste can be thermally treated in cement kilns. Serbia reflected that its priorities are to ensure capacity for the incineration of organic industrial and medical waste, to build regional storage centres for hazardous waste and to start constructing a strategic plant for physical-chemical treatment of waste

Other problems

- 43.5 % of localised soil pollution is related to municipal waste
- Increased concentration of particulates in the air and littering by waste from landfills near unregulated dumps and landfills
- Possible negative impacts on surface water quality at disposal sites located close to watercourses
- Historical hazardous waste

Initiatives taken to improve municipal waste management

- System of collecting individual fractions of municipal waste in local communities, such as. paper and cardboard waste, packaging waste

Possible future trends

- It is expected that, with enforcement of the regional approach to waste management and support to develop waste management centres, recycling capacity will grow and will have a positive impact on the amount of MSW disposed of on landfills

Sources

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