

## Municipal waste management



# Bosnia and Herzegovina

September 2018

Photo: © MementoImage

<b>Country</b>	<b>Bosnia and Herzegovina</b>
<b>General facts</b>	
<ul style="list-style-type: none"> <li>• Surface area: total 51 209.2 km<sup>2</sup>; land 51 197 km<sup>2</sup>; sea 12.2 km<sup>2</sup>; estimated current population: 3 530 766; population density (inhabitants/square km) 75.4; total gross domestic product (GDP) USD 42.53 billion; GDP per capita USD 11 000; degree of urbanisation 39.8 % of total population, annual rate of urbanisation 0.14 %. Economy (% of GDP): agriculture 7.8 %, industry 26.8 %, services 65.4 %</li> </ul>	
<b>Status quo</b>	
<p>Bosnia and Herzegovina (BiH) is a democratic state with two largely autonomous entities — Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska (RS) — and Brčko District, which is a self-governing administrative unit under the sovereignty of Bosnia and Herzegovina and formally part of both entities.</p> <p>In Bosnia and Herzegovina, around 75 % of the population is covered by a waste collection service, with coverage more or less complete in larger cities but dropping to very low levels in rural areas. Of all landfills, only six meet the required EU standards, while at the same time several others are being planned.</p> <p>The National Assembly of the Republika Srpska approved the Waste Management Strategy of the Republic of Srpska for the period 2017-2026, but the draft of the Republic Waste Management Plan is in the process of preparation. Some EU waste directives have already been transposed (e.g. the Waste Incineration Directive), but by-laws governing the management of certain waste streams have not yet been approved, so their transposition is incomplete. Several strategic documents fostering approximation with the EU environmental standards have yet to be adopted.</p> <p>In general, the implementation of the waste hierarchy principle is not evident. Recycling rates remain at a low level and many of the other key targets remain to be established. In the absence of other measures, the low disposal costs are insufficient to drive activity further up the hierarchy.</p> <p>The basis for making projections or for understanding how performance is changing is weak. There are very few weighbridges in operation. All plants and facilities requiring a permit are required to report data, but the majority of public utility companies still have no permits.</p> <p>Also, the management of hazardous wastes is problematic. Neither FB&amp;H nor RS have suitable plans in place.</p>	
<b>Legal framework</b>	
<ul style="list-style-type: none"> <li>• 2002 Solid Waste Management Strategy</li> <li>• Law on Waste Management of FBiH Nos 33/03, 72/09 and 92/17</li> <li>• Law on Waste Management of Republika Srpska (Official Gazette of Republika Srpska, Nos 111/13, 106/15, 16/18)</li> <li>• Decision on approval of Waste Management Strategy of the Republic of Srpska for period 2017-2026 (Official Gazette of Republika Srpska, no 67/17)</li> <li>• Rules on special control regime of activities that endanger or may endanger the environment (Official Gazette of SR BiH, nos 2/76 and 23/76). Amendments to the law given in Official Gazette of SR BiH, nos 23/82 and 26/88</li> <li>• Regulation on financial guarantees for insurance of transboundary movement of waste (Official Gazette of the FBiH, no 41/05)</li> <li>• Regulation on obligation of reporting on the implementation of surveillance, monitoring and record keeping under the terms of the license for operators and waste producers (Official Gazette of the FBiH, no 31/06)</li> <li>• Regulation on selective collection, packaging and labeling of waste (Official Gazette of the FBiH, no 38/06)</li> </ul>	

- Regulation on financial and other guarantees for covering the risk of possible damage, remediation and closure procedures for landfill (Official Gazette of the FBiH, no 39/06)
- Rules on conditions for transfer of liabilities from producers and sellers to operators of the waste collection system (Official Gazette of the FBiH, no 9/0)
- Rules on handling of hazardous waste that is not in the waste catalogue or whose content is unknown (Official Gazette of the FBiH, no 09/05)
- Rules on the content of the conformance waste management plan for existing plants for waste treatment or disposal and activities undertaken by the competent authority (Official Gazette of the FBiH, no 09/05)
- Rules on working conditions for waste incineration plants (Official Gazette of the FBiH, no 12/05)
- Rules on Issuance of permits for the activities of small business in the waste management (Official Gazette of the FBiH, NO 09/05)
- Rules on medical waste management (Official Gazette of the FBiH, no 77/05)
- Rules on animal waste and other non-hazardous materials of natural origin that can be used in agriculture (Official Gazette of the FBiH, no 8/08)
- Rules on form, content and procedure of informing about important characteristics of products and packaging by the manufacturer (Official Gazette of the FBiH, no 8/08)
- Decree on waste disposal (Official Gazette of Republika Srpska, no 36/15)
- Decree on management of packaging and packaging waste (Official Gazette of Republika Srpska, no 58/18)
- Decree on lists of wastes and documents for transboundary movements of waste (Official Gazette of Republika Srpska, no 86/15)
- Decree on thermal treatment of waste (Official Gazette of Republika Srpska, no 54/17)
- Rulebook on management of waste tires (Official Gazette of Republika Srpska, no 20/12)
- Rulebook on form of request for issuing the permit for storage, treatment and disposal of waste permit (Official Gazette of Republika Srpska, no 18/15)
- Rulebook on the categories, testing and classification of waste (Official Gazette of Republika Srpska, nos 19/15, 79/18)
- Rulebook on form of document on waste movement and instructions for its completing (Official Gazette of Republika Srpska, no 21/15)
- Rulebook on form of document on hazardous waste movement and instructions for its completing (Official Gazette of Republika Srpska, no 21/15)
- Rulebook on content of measures programme with adjustment dynamics for existing landfills operation (Official Gazette of Republika Srpska, no 41/15)
- Rulebook on content, form and manner of keeping the registry of issued waste management permits (Official Gazette of Republika Srpska, nos 43/15, 14/18)
- Rulebook on the content and layout of waste management permit (Official Gazette of Republika Srpska, no 43/15)
- Rulebook on storage, packaging and labelling of hazardous waste (Official Gazette of Republika Srpska, no 49/15)
- Rulebook on conditions and way of collection, transportation, storage and treatment of waste, which is used as secondary raw material or energy source (Official Gazette of Republika Srpska, no 61/15)
- Rulebook on methodology and records of data collection on waste (Official Gazette of Republika Srpska, no 71/15)
- Rulebook on general and specific documentation required for issuing the permit on import, export and transit of waste (Official Gazette of Republika Srpska, no 5/16)
- Rulebook on management of waste containing asbestos (Official Gazette of Republika Srpska, no 47/18)

- Rules on financial guarantees for insurance of transboundary movement of wastes (Official Gazette of Republika Srpska, no 86/05)
- Rules on medical waste management (Official Gazette of Republika Srpska, no 90/06)
- Rulebook on packaging and packaging waste management (Official Gazette of FBiH, nos 88/11, 28/13, 8/16, 54/16, 103/16 and 84/17)
- Rulebook on waste electrical and electronical equipment management (Official Gazette of FBiH, nos 87/12, 107/14, 8/16, 79/16 and 12/18)
- Rulebook on categories of wastes with lists (Official Gazette of FBiH, no 9/05)
- Rulebook on issuing a license for small business activities in waste management (Official Gazette of FBiH, no 9/05)
- Rulebook on the necessary conditions for the transfer of obligations from the manufacturer and the seller to the system operator for the collection of waste (Official Gazette FBiH, no 9/05)
- Rulebook determining the treatment of hazardous waste that is not on the waste list or its contents unknown (Official Gazette of FBiH, no 9/05)
- Rulebook on the content of a waste management adjustment plan for existing treatment plants or waste disposal and activities undertaken by the competent authority (Official Gazette of FBiH, no 9/05)
- Rulebook on the form, content and procedure of informing about important characteristics of the product and packaging by the manufacturer (Official Gazette of FBiH, no 06/08)
- Rulebook on the conditions for the operation of the waste incineration plant (Official Gazette of the FBiH, no 12/05)
- Decree on financial and other guarantees to cover the cost of the risk of possible damage, cleaning and procedures after the closure of the landfill (Official Gazette of FBiH, no 39/06)
- Decree on selective collection, packaging and labelling of waste (Official Gazette of FBiH, no. 38/06)
- Decree on types of financial guarantees to ensure the transboundary movement of hazardous waste (Official Gazette of FBiH, no 41/05)
- Rulebook regulating the obligation of reporting operators and waste producers on the implementation of the program monitoring, monitoring and keeping records according to the conditions of the license (Official Gazette of FBiH, no 31/06)
- Rulebook on animal waste and other non-hazardous materials of natural origin that may be used for agricultural purposes (Official Gazette of FBiH, no 8/08)
- Rulebook on the form, content and procedure of notification of important characteristics of the product and packaging by the manufacturer (Official Gazette of FBiH, no 6/08)
- Rulebook on the management of medical waste (Official Gazette of FBiH, no 77/08)
- Rulebook on transboundary waste movement (Official Gazette of FBiH, nos 07/11, 39/15)
- Decree on fees for plastic bags (Official Gazette of FbiH, no 09/14)

### Objectives

- Encourage and provide the basic conditions for reducing waste production
- Increase reuse and recycling
- Extraction of secondary materials
- Possibility of energy recovery
- Safe disposal
- Reduce the risk to the environment and human health and establish priority infrastructure for integrated waste management
- Reduce waste for final disposal management with more efficient use of resources

- Ensure the implementation of the system through legal, institutional and economic frameworks
- Ensure systematic monitoring of the parameters for environmental assessment
- Increase the population covered by organised waste collection
- Create conditions for sanitary waste disposal capacity for at least 5 years delay in all regions
- Remove illegal dumps and rehabilitate the areas where they are located
- Remediate and close existing municipal landfills
- Rehabilitate existing surfaces under inadequately disposed waste (hazardous and non-hazardous wastes)
- Establish the capacity for adequate disposal of hazardous waste
- Establish an inert waste landfill (for construction waste, etc.)
- Increase the overall percentage of adequate waste disposal and the percentage of adequate disposal of hazardous waste
- Coverage of efficient waste management system in agricultural production and forestry
- Establish the capacity for adequate disposal of waste of animal origin
- Remediate and close the existing landfills, pits and tombs used for the disposal of waste of animal origin
- Increase the percentage of properly disposed of waste from health facilities
- Increase the percentage of properly disposed of waste from veterinary facilities
- Establish a system of separate collections of waste in all municipalities in FBiH
- Collect and recycle packaging waste
- Collect biowaste separately from gardens and parks
- Establish a regional centre for waste management in all regions with all the necessary contents
- Take preventive measures to prevent/reduce the increase in the total amount of waste from increased volumes of industrial production (minimal reduction compared with growth)
- Increase the proportion of waste that is recycled or is subject to the recovery of materials and energy (recycling and recovery, R&R), while reducing the quantity of residual waste for disposal
- Increase the overall percentage of adequate waste recycling and recovery of materials or energy (R&R)
- Use biodegradable waste to produce compost and biofuels
- Reduce the quantity of biodegradable and other waste in agriculture and forestry
- Reduce the amount of waste from hazardous substances in agriculture and forestry
- Prevent and reduce waste for final disposal
- Reduce the amount of hazardous medical waste from medical institutions
- Ensure strict implementation of adopted legislation and accepted international obligations
- Harmonise domestic legislation with the environmental legislation of the EU
- Integrate European sectoral policies with regard to the environment into sectoral policies of FBiH

### Specific targets

- In RS, the Law on Waste Management (Official Gazette of Republika Srpska, nos 111/13, 106/15 and 16/18) defines the targets for packaging wastes:
  - packaging waste: 35 %
  - glass: 10 %
  - metal and wood: 12 %
  - paper: 34 %
- Plastics: 20 % FBiH recycling targets:

<ul style="list-style-type: none"> <li>– packaging waste: 2011: 8 %, 2014: 20 %, 2018: 30 %</li> <li>– paper and cardboard: 2011: 35 %, 2014: 45 %, 2018: 55 %</li> <li>– glass: 2011: 1 %, 2014: 10 %, 2018: 40 %</li> <li>– metal: 2011: 55 %, 2014: 60 %, 2018: 65 %</li> <li>– plastics: 2011: 3 %, 2014: 6 %, 2018: 15 %</li> </ul>
<b>Waste management</b>
<ul style="list-style-type: none"> <li>• In 2016, the Agency for Statistics estimated the nationwide average municipal waste to be 354 kg/person/year (total 1 243 889 tonnes) <sup>(1)</sup></li> <li>• Official data provide the amount of waste collected by communal services in 2016: 920 478 tonnes (collection rate of 74 %)</li> <li>• Amount of disposed waste in 2016: 952 975 tonnes</li> <li>• Waste generated from companies or parts of companies with 10 and more employees, which are classified by NACE Rev. 2. into the following activity sectors — B Mining and quarrying; C Manufacturing industry; and D Electricity, gas, steam and air conditioning supply production activities — for reference year 2014: total 4 057 058 tonnes, of which hazardous waste is 8 408 tonnes <sup>(2)</sup></li> </ul>
<b>Recycling</b>
<ul style="list-style-type: none"> <li>• Limited number of initiatives for the separation of waste</li> <li>• Few pioneering recycling projects, e.g. small-scale paper collection</li> <li>• Limited amounts of industrial and hazardous waste are recovered or reused; it is estimated that only 10 % or less of the total volume of industrial waste is used as secondary raw material</li> </ul>
<b>Landfill</b>
<ul style="list-style-type: none"> <li>• Collected waste is transported to regional landfills</li> <li>• Only limited transport capacity</li> <li>• Households in rural areas with no available waste collection service organise their own collection and transport and dispose of the collected waste in illegal dumpsites</li> <li>• No separate collection system for hazardous materials, so everything ends up in landfills or dumpsites</li> <li>• 43 registered landfills in RS and 44 in FBiH, and one landfill in Brčko District, with only few landfills being categorised as controlled landfills</li> <li>• 10-15 % of illegal dumpsites have recently been closed (there are almost 590 inventoried illegal landfills in BiH) <sup>(3)</sup></li> </ul>
<b>Incineration</b>
<ul style="list-style-type: none"> <li>• Only very limited treatment facilities, i.e. safe incinerators, leading to improper handling of industrial waste</li> </ul>
<b>Other problems</b>
<ul style="list-style-type: none"> <li>• No statistical information on the generation of medical waste</li> <li>• Cost recovery: unpaid fees can amount to between 50-70 % (FBiH) and 30-90 % (RS)</li> <li>• Although both regions have environmental funds, the revenues destined for waste management cannot cover all needs</li> </ul>
<b>Initiatives taken to improve municipal waste management</b>
No information

(1) Agency for Statistics of Bosnia and Herzegovina, *Public transportation and disposal of municipal waste, 2016* (<https://goo.gl/hWc7od>).

(2) Agency for Statistics of Bosnia and Herzegovina, *Waste from production activities, 2014* (<https://goo.gl/155SLv>).

(3) Bosnia and Herzegovina Ministry of Foreign Trade and Economic Relations, *State of the Environment Report of Bosnia and Herzegovina 2012*, Number of illegal municipal waste landfills, p. 103 (<https://goo.gl/X5yZn9>)

## Possible future trends

No information

### Sources

Agency for Statistics of Bosnia and Herzegovina, 2014, *Waste from production activities* (<https://goo.gl/155SLv>) accessed 15 November 2017.

Agency for Statistics of Bosnia and Herzegovina, 2016, Public transportation and disposal of municipal waste (<https://goo.gl/hWc7od>). accessed 15 November 2017.

CIA, 2017, 'The World Factbook — Bosnia and Herzegovina', Central Intelligence Agency (<https://www.cia.gov/library/publications/the-world-factbook/geos/bk.html>) accessed 27 September 2017.

EEA (2015) *Bosnia and Herzegovina country briefing — The European environment — state and outlook 2015*, European Environment Agency (<https://www.eea.europa.eu/soer-2015/countries/bosnia-and-herzegovina>). accessed 15 November 2017.

Eionet, 2011, *Factsheet for Bosnia and Herzegovina*, European Environment Information and Observation Network ([http://scp.eionet.europa.eu/facts/factsheets\\_waste/2011\\_edition/factsheet?country=BAe](http://scp.eionet.europa.eu/facts/factsheets_waste/2011_edition/factsheet?country=BAe)). accessed 15 November 2017.

Eionet Workshop on Waste Prevention and Management for the West Balkan Countries, 21-22 September 2016, Novi Sad, Serbia ([https://forum.eionet.europa.eu/nrc-scp-waste/library/eionet-workshops/2016-eionet-workshop-waste-western-balkan-countries/2016-eionet-workshop-waste-western-balkan-countries/presentations/eionet-waste-prevention-and-management-workshop\\_serbia\\_2016\\_master-slide-deck/download/en/1/Eionet%20waste%20prevention%20and%20management%20workshop\\_Serbia\\_2016\\_master%20lide%20deck.pdf?action=view](https://forum.eionet.europa.eu/nrc-scp-waste/library/eionet-workshops/2016-eionet-workshop-waste-western-balkan-countries/2016-eionet-workshop-waste-western-balkan-countries/presentations/eionet-waste-prevention-and-management-workshop_serbia_2016_master-slide-deck/download/en/1/Eionet%20waste%20prevention%20and%20management%20workshop_Serbia_2016_master%20lide%20deck.pdf?action=view)). accessed 15 November 2017.

European Commission, 2014, *Enlargement strategy and main challenges 2014-15. Bosnia and Herzegovina progress report* ([http://ec.europa.eu/enlargement/pdf/key\\_documents/2014/20141008-bosnia-and-herzegovina-progress-report\\_en.pdf](http://ec.europa.eu/enlargement/pdf/key_documents/2014/20141008-bosnia-and-herzegovina-progress-report_en.pdf)). accessed 15 November 2017.

Ministry of Foreign Trade and Economic Relations, 2012, *State of the environment report of Bosnia and Herzegovina*, 2.5.1.5 Number of illegal municipal waste landfills p.103 (<https://goo.gl/X5yZn9>) accessed 15 November 2017.

UNECE, 2011, *Environmental performance reviews — Bosnia and Herzegovina. Second review*, United Nations Economic Commission for Europe ([http://www.unece.org/fileadmin/DAM/env/epr/epr\\_studies/bosnia\\_and\\_herzegovina%20II.pdf](http://www.unece.org/fileadmin/DAM/env/epr/epr_studies/bosnia_and_herzegovina%20II.pdf)) accessed 15 November 2017.