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Thematic Report – Waste management Bosnia and Herzegovina



ENV.net Project: “ ENV.Net Factoring the Environmental Portfolio for WB and Turkey in The EU Policy Agenda ”



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1. Introduction

Each BiH resident generates an average of 0.96 kg of waste per day; in average being 354 kg of waste per capita is produced annually.

In the EU countries, the amount of waste has been significantly reduced over the past eight years, from 520 kg to 476 kg per capita, because of various activities undertaken to reduce waste. In Bosnia and Herzegovina, the amount of waste was reduced only in the period when the global economic crisis was most pronounced. Information of the BH Agency for Statistics: http://www.bhas.ba/tematskibilteni/NUM_00_2017_TB_0_BS.pdf

The best practice would be that since majority of the waste could be collected and recycled, therefore it is necessary to collect waste separately and dispose it on „recycling yards" or in separate collection containers. In this manner, there are more possibility for new jobs creation, reduced use of natural resources and reduced pollution of the environment.

Waste management requires complex procedures consisting of activities such as prevention, waste avoidance, waste reduction, waste collection, sorting, processing, treatment, reuse, utilization, and ultimately disposal, or proper and safe disposal. The average coverage of waste disposal services in BiH is 68%. One third of towns and villages have no capacity to dispose waste, nor do municipal utility companies come to collect their waste.

In BiH, the produced waste is disposed on 91 registered landfills, of which only 5 are eligible to be called sanitary landfills.

2. Waste

Waste represents any substance or object the owner disposes, intends to dispose or is required to dispose of in accordance with one of the categories of waste listed in the waste list.

The European waste list has specified 700 categories of waste. All waste is divided into communal, commercial and industrial. Communal waste is waste from households, shops, various enterprises and from public areas: streets, parks, stadiums, etc. One part of communal waste is also packaging waste, electronic, medical, and such waste must be treated with particular attention.

For some of these specific categories, special regulations have been adopted in order to manage it, while it is also required for other categories of waste to resent or improve legislation and policies.

In Bosnia and Herzegovina, the practice of improper waste disposal is widespread, and in most cases, the waste is thrown on river banks. Irresponsible individuals throw their waste into the rivers or lakes, expecting that water will carry the problem downstream. This attitude towards waste can have a very negative impact on the environment and even endanger human health through pollution of water, air and soil.

In rivers, toxic substances enter the food chain, first through the smallest species, and then in larger fish until they reach the human. Since there are organic waste in the landfills, through the process of rotting gas (CH₄ - Methane) is produced which released pollutes the air. Methane has a major impact on climate change and in relation to CO₂, is 21 times more powerful (1 ton of methane is equivalent to 21 tonnes of CO₂). Methane is also a highly flammable gas.

3. Waste management situation in BiH

Currently in BiH waste is collected by a municipal/city waste management system. Domestic waste is disposed in containers, bins or possibly in bags and by waste-trucks taken to local landfills. Waste collection companies generally have a problem with charging their disposal services, and on the other hand problem with old trucks - that raises maintenance costs and consequently waste collection costs.

The practice is to charge waste disposal per square metre of home, instead of method already accepted in EU countries, to charge per number of persons living in that home. Due to the outdated method of waste collection charges and poor collectability, there is no waste separation, recycling or reusing. Landfills are mostly without a regulated system and pose a significant threat to air pollution, groundwater and spread of infestation.

An estimated number of illegal landfills in BiH is over 10000, and almost 10-15% of illegal 'wild' dumpsites have been closed throughout BiH. Around 1100 dumpsites are still in use. The concept of regional waste management is primarily focused on the construction of regional landfills, instead of on the broad concept of waste handling (Federal Ministry of Environment and Tourism; Ministry of Spatial Planning, Construction and Ecology of RS).

Cost of waste prevention measures - recovery costs is a key issue in BiH: In FBiH, unpaid fees can amount to between 50% and 70% of the total costs; in RS, the unpaid fees of municipalities range from 30 % to 90%. Both FBiH and RS have environmental funds in place, but the revenues destined for waste management seem unlikely to be able to cover all needs.

4. Legal background for Waste management

Environment	Date
Environmental Approximation Strategy of BiH adopted	May 2017
Secretariat gave a positive assessment on Bosnia and Herzegovina's National Emission Reduction Plan.	October 2016
Bosnia and Herzegovina submitted its National Emission Reduction Plan to the Secretariat	December 2015

Water quality	Date
Federation of BiH: Urban Waste Water Treatment directive 91/271/EEC have been transposed by the Order on conditions for wastewater discharge to natural recipient or to public sewage (Official Gazette of FBiH 4/12) Republika Srpska: Transposition of the Urban Waste Water Directive 91/271/EEC is considered fairly advanced	2012 and 2001
Transposition of the Water Quality Standards Directive 2008/105/EC is at an early stage	N/A

Waste management	Date
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Law on packaging waste	2018
Federal Waste Management Plan	2012-2017
Waste Management Strategy of the Republika Srpska	2017-2026
Decision on requirements for transboundary transport of hazardous waste.	September 2016
Law on nuclear waste	2009
Law on waste management	2002/2003

Bosnia and Herzegovina is a democratic state with two largely autonomous entities: Federation of Bosnia and Herzegovina (FBiH) and Republika Srpska (RS). Brčko District is a self-governing administrative unit under the sovereignty of Bosnia and Herzegovina, formally part of both entities. Waste management is the responsibility of each entity.

4.1 Legal framework on WM of Federation of Bosnia and Herzegovina (FBiH)

- Law on Waste Management (OG F BiH, No 33/03 and No 72/09)
- Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (and the new directive, Directive 2004/12/EC)
- Rules on the form, content and procedure of informing about important characteristics of the product and packaging by the manufacturer (SN F BiH, No 06/08)
- Rules on packaging and packaging waste (OG F BiH, no. 88/11).
- Overview of regulations governing waste management:
 - Environmental Protection Strategy of FBiH (2008-2018)
 - Decision on the ratification of the Convention on the Control of Transboundary Movements of Hazardous Waste and its Disposal (Official Gazette of BiH, No 31/00)
 - 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 of FBiH, No 9/05)
 - Ordinance determining the treatment of hazardous waste that is not on the waste list or its contents unknown (Official Gazette of FBiH, No 9/05)
 - Ordinance 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)
 - Ordinance on the conditions for the operation of the waste incineration plant (Official Gazette of the FBiH, No 12/05)
 - Regulation 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)
 - Regulation regulating the obligation of reporting operators and waste producers on the implementation of the programme monitoring, monitoring and keeping records according to the conditions of the license (Official Gazette of FBiH, No 31/06)
 - Rules 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)
- Ordinance on the management of medical waste (Official Gazette of the FBiH, No 77/08)
- Rulebook on packaging and packaging waste (Official Gazette of FBiH, No 83/10)
- Rulebook on transboundary waste transport (Official Gazette of FBiH, No 07/11).

4.2 Legal framework on WM of Entity Republika Srpska (RS)

- Law on Waste Management (Official Gazette of the Republika Srpska, No 111/13, No 106/15, No 16/18)
- Law on Environmental Protection (Official Gazette of the Republika Srpska, No 71/12, No 79/15)
- Law on Communal Activities (Official Gazette of the Republika Srpska, No 124/11)
- Law on Communal Police (Official Gazette of the Republika Srpska, No 28/13)
- Decree on waste disposal (Official Gazette of the Republika Srpska, No 36/15)
- Decree on management of packaging and packaging waste (Official Gazette of the Republika Srpska, No 58/18)
- Decree on lists of wastes and documents for transboundary movements of waste (Official Gazette of the Republika Srpska, No 86/15)
- Decree on Thermal Treatment of Waste (Official Gazette of the Republika Srpska, No 54/17)
- Rulebook on management of waste tires (Official Gazette of the 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 the Republika Srpska, No 18/15)
- Rulebook on the categories, testing and classification of waste (Official Gazette of the Republika Srpska, No 19/15, No 79/18)
- Rulebook on form of document on waste movement and instructions for its completing (Official Gazette of the Republika Srpska, No 21/15)
- Rulebook on form of document on hazardous waste movement and instructions for its completing (Official Gazette of the Republika Srpska, No 21/15)
- Rulebook on content of measures programme with adjustment dynamics for existing landfill operation (Official Gazette of the Republika Srpska, No 41/15)
- Rulebook on content, form and manner of keeping the registry of issued waste management permits (Official Gazette of the Republika Srpska, No 43/15, No 14/18)
- Rulebook on the content and layout of waste management permit (Official Gazette of the Republika Srpska, No 43/15)
- Rulebook on storage, packaging and labelling of hazardous waste (Official Gazette of the 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 the Republika Srpska, No 61/15)
- Rulebook on methodology and records of data collection on waste (Official Gazette of the 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 the Republika Srpska, No 5/16)
- Rulebook on management of waste containing asbestos (Official Gazette of the Republika Srpska, No 47/18)
- Rules on financial guarantees for insurance of transboundary movement of wastes (Official Gazette of the Republika Srpska, No 86/05)

- Rules on medical waste management (Official Gazette of the Republika Srpska, No 90/06)

4.3 Legal framework on WM of Brčko District

- Law on Waste Management (Official Gazette of the Brčko District, No 25/04, No 1/05, No 19/07, No 2/08 and No 9/09)
- Development Strategy, Brčko District, 2016-2026
- Overview of regulations governing waste management:
 - Rulebook on disposal of waste that is not on the list of hazardous waste and whose content is unknown (Official Gazette of the Brčko District, No 32/06)
 - Rulebook on the content of the reconciliation plan for existing facilities and waste management facilities and activities carried out by authorised institutions (Official Gazette of the Brčko District, No 32/06)
 - Rulebook on the conditions of transfer of responsibility for waste management from producers and sellers to waste management operators (Official Gazette of the Brčko District, No 32/06)
 - Rulebook on issuing licenses for small businesses within waste management (Official Gazette of the Brčko District, No 32/06)
 - Rulebook on lists of waste categories (Official Gazette of the Brčko District, No 32/06)
 - Rulebook on financial guarantees for the provision of cross-border transport of waste (Official Gazette of the Brčko District, No 32/06)

5. Waste prevention objectives

In FBiH waste prevention objectives and challenges related to packaging and packaging waste: Harmonising the entity's legislation with the European directive; Reducing the impact of packaging waste on the environment; Ensuring the functioning of the internal market; Eliminating trade barriers and preventing illegitimate competition. FBiH: national targets: The obligation of the taxpayer or the operator is to ensure recycling and recovery of packaging waste generated by consumption of their products. Law on Waste Management of FBiH Encourages and provides the basic conditions for the prevention of production, recycling and processing of waste for reuse; the extraction of secondary raw materials and possibly of energy thereof; and safe disposal. In FBiH, the Decree on fees for plastic bags (Official Gazette of FBiH, No 9/14) is likely to have an impact on waste prevention, as it has done in many other European countries. The measures envisaged aim to prevent the creation of packaging waste, promote the reuse of packaging, recycling and other forms of reutilisation and reduce the final disposal of waste.

The Waste Management Strategy of the Republic of Srpska for the period 2017-2026 encourages the development of a sustainable waste management system based on the prevention of waste as a primary principle in the waste management hierarchy. The Law on Waste Management (Official Gazette of the Republika Srpska, No 111/13, No 106/15, No 16/18), Article 3, stipulates, in particular, that the aim is to provide and ensure the conditions for the prevention of waste generation, in particular by developing clean technologies and efficient use of natural resources, as well as eliminating the risk of its harmful effects on human health and the environment. The law also establishes the legal basis for approval of the Republic Waste Management Plan, the content of which includes a waste prevention programme in accordance with Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives. In Republika Srpska, the Decree on management of packaging and

packaging waste (Official Gazette of the Republika Srpska, No 58/18) encourages the prevention of packaging waste through conditions for packaging design.

5.1 Measures on qualitative prevention

Manufacturer responsibility

The manufacturer shall design the product and also the packaging in a way that leads to the most efficient use of materials and energy and promotes the reuse and recycling of products, and, in the case of end-of-life products, shall promote environmentally sustainable treatment, utilisation and disposal. The manufacturer shall promote the use of materials and packaging that have the lowest material and energy demand in terms of the production process, the use of which produces the least waste. The manufacturer shall take back and/or refund used products or certain types of product waste from the holder according to the provisions of implementing regulations in order to recover them or dispose of them in an environmentally sound way. The manufacturer may also take back or refund used products or certain types of product waste from the holder voluntarily and may also enter into voluntary agreements with the retailer for managing this service.

The Action Plan activities:

- Creating and implementing a public awareness-raising campaign on waste treatment issues
- Collecting and recycling packaging waste
- Improving existing and establishing new capacities for recovery of energy or materials
- Introducing efficient measures for reduction and prevention of disposal of WEEE as unsorted waste, through introduction of schemes of return of used techniques to the original waste producer
- Preparation of an entity plan of biodegradable waste management (which will foresee the model of establishing collection centres for composting biodegradable waste, as a possibility to use this type of waste as biofuel)
- Preparation of standards of best practices for biodegradable waste use
- Stimulating development of market for reusing and recycling organic waste
- Regulating disposal of waste pesticides and other hazardous substances through the principle of responsibility
- Purchasing equipment and training employees (Federal Ministry of Environment and Tourism)

In Republika Srpska, the Decree on management of packaging and packaging waste (Official Gazette of the Republika Srpska, No 58/18) encourages prevention of packaging waste through conditions for packaging production and usage Solid Waste Management Programme.

5.2 Quantitative targets set:

Recycling targets (FBiH) (% of total generation)

Collect and recycle packaging waste		Paper and cardboard	
<ul style="list-style-type: none"> • Until 2011: 8% • Until 2014: 20% • Until 2018: 30% 		<ul style="list-style-type: none"> • Until 2011: 35% • Until 2014: 45% • Until 2018: 55% 	
Glass	Metal	Plastics	
<ul style="list-style-type: none"> • Until 2011: 1% • Until 2014: 10% • Until 2018: 40% 	<ul style="list-style-type: none"> • Until 2011: 55% • Until 2014: 60% • Until 2018: 65% 	<ul style="list-style-type: none"> • Until 2011: 3% • Until 2014: 6% • Until 2018: 15% 	

Packaging waste in RS, the Law on Waste Management (Official Gazette of the Republika Srpska, No 111/13, No 106/15, No 16/18) defines the targets for packaging waste: packaging waste: 35%; glass: 10 %; metal and wood: 12%; paper: 34%; plastics: 20%.

5.3 Best practices examples

In Bosnia and Herzegovina, there are recycling facilities for almost all types of waste, except glass, but they need to be separately collected and have separate treatment. Collected and separated paper and cardboard are sent for recycling to company Natron in Maglaj. Company recycles paper and produces paper and pulp. In this factory in 2001, 25,000 tons of old paper was processed, 50% of which was imported from abroad, while in 2006, 52,500 tonnes were processed, of which 40% was imported from abroad. Therefore, there is an evident increase in the amount of collected paper within the country, which did not end up in landfill but was recycled into a usable product. Plastic PET bottles are recycled and produced in company Omorika PET in Doboj, while nylon films are recycled in company Welplast in Široki Brijeg. Company Eko-Servis, Tešanj from the waste emulsion produces distilled water, while company SGI, Sarajevo recycles car tires.

6. References

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