



## Country fact sheet: Republic of Macedonia

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# 1. General Facts

## 1.1. General Facts

Surface area	
Population (thousand inhabitants)	
Population density	
Average number of persons per private household *	
GDP per capita in Purchasing Power Standards (PPS) EU25=100	
GDP per capita (constant prices)	
Household characteristics by urbanisation degree, distribution of households % ****	
Gross value added (GVA) – At current basic prices and current exchange rates (% of all branches).	

*In order to guarantee harmonised data for all countries, this table will be filled in by the CRI/REC, using EU wide sources for harmonised data (such as Eurostat).*

## 2. National legislative framework

### 2.1. Overview of waste legislation

By way of signing the Stabilization and Association Agreement and European Partnership in 2001, the Republic of Macedonia has initiated the process of approximation of the national legislation with the EU (Second National Environmental Action Plan of the Republic of Macedonia, 2006). This process is conditioned and accompanied by implementation of internal reforms of economic and legal systems.

The primary goal of The Republic of Macedonia is to establish strong link between economic growth, use of natural resources and waste generation in order to minimize the environmental burden.

According to the waste legislation, the following are the priorities in waste management in the Republic of Macedonia:

- Avoidance of waste generation and reduction of harmful impacts of the waste on the environment and human life and health.
- Improvement of production technologies to reduce the waste generation and use of ecological products and reductions in packaging.
- Waste recycling and reuse either in another process for raw materials extraction or through energy recovery.

According to the Law on waste management, Ministry of Environment and Physical Planning is a central body responsible for preparation of waste management legislation, national waste management strategy and waste management plan, as well as coordination of co-operation among all involved institutions in waste management in Macedonia. The supervision in terms of



inspections over the enforcement of this Law and the regulations enacted on the basis of this law shall be carried out by the State Inspectorate for Environment.

The general policy directions on waste management were outlined in the First and Second National Environmental Action Plan (NEAP), in 1996 and 2006 respectively, as well as in the 2004 Law on Waste Management. It consists of two official national-level documents, the national Waste Management Strategy for the period 2008-2020 (Official Gazette of The Republic of Macedonia no.39/08) and the national Waste Management Plan for the period 2009-2015 (Official Gazette of The Republic of Macedonia no. 77/09). The former aims at defining the long-term needs in the area of waste management, as well as the necessary legislative measures for enforcement. The latter makes a frank assessment of current conditions and outlines, activities as well as resources and financial mechanisms in the waste management process for the period of its validity.

Furthermore, the policy making framework is complemented by local plans in line with the national plan. These plans are usually prepared for three year periods, proposed by municipalities and adopted by the Ministry of Environment and Physical Planning.

The National Waste Management Strategy is a key policy document which outlines the key objectives of waste management vis-à-vis public health and environmental protection and offers an assessment of the actual situation on the ground. Even more importantly, the Strategy offers a road map of the country's prioritised actions until 2020 in order to improve the situation. Priorities are identified both in terms of technical needs and the legal, policy and legal framework underlying waste management. Waste management, hazardous waste management and improvement of the status of landfills are among the key priorities of the strategy.

One of the key ideas developed in the Strategy is that of regional waste management systems and landfills, the invitation to the Ministry of Environment and Physical Planning and the government to support and facilitate municipalities in setting up regional bodies and boards, and in promoting plans and investments for the regional management of waste. Additionally, the Strategy calls for the creation of a central body for the management of hazardous waste. Among the key technical priorities are the establishment of the technical infrastructure for municipal and other non-hazardous waste management, as well as for the management of hazardous waste from industry, healthcare institutions, animal breeding farms and slaughterhouses.

According to the Waste Management Plan of The Republic of Macedonia, the Municipalities and the City of Skopje shall take care of the public hygiene and of the abandoned waste, issue acts in order to regulate the selection, collection and transportation of the municipal and other non-hazardous waste, cooperate with the other Municipalities and the City of Skopje with regard to the municipal and other non-hazardous waste management, implement projects and undertake investments for improvement of the general state of waste management and act in accordance with the general rules on municipal and other waste treatment. Two or more municipalities may enact a joint Waste Management Programme for municipal and other types of non-hazardous waste.

As for the competences of Municipalities and the City of Skopje stipulated by the Law on waste management, the inspection supervision over the implementation and enforcement of the Law on waste management, shall be carried out by authorized inspectors of environment of the Municipalities and authorized inspectors of environment of the City of Skopje.

Inspection supervision over the implementation of the Law on waste management, regarding the generation, selection and packaging of medical waste shall be carried out by the State Sanitary and Health Inspectorate in cooperation with the State Inspectorate for Environment.

Inspection supervision over the implementation of the Law on waste management, regarding the trade of products and packaging, labelling of products and packaging and informing the consumers shall be performed by the State Market Inspectorate.



## 2.2. National Acts/Laws on Waste Management

### Framework legislation

Reference	Main features
<ol style="list-style-type: none"> <li>1. Law on Waste Management (Official Gazette of The Republic of Macedonia no. 68/2004, 71/2004, 107/07, 102/08, 143/08, 124/10, 09/11; 51/11);</li> <li>2. List of waste types (Official Gazette of The Republic of Macedonia no. 100/05);</li> </ol>	<p>The Law on Waste Management (1) is a cover regulation act and provides general rules applying to main issues on waste and on hazardous waste and on special waste streams; it also represents the legal basis for variety of secondary legislation as rulebooks or guidelines. It is structured in several chapters:</p> <ul style="list-style-type: none"> <li>- General provisions,</li> <li>- Strategies, plans and programs for waste management,</li> <li>- Handlings with hazardous and non-hazardous waste,</li> <li>- Landfills,</li> <li>- Burning and incineration of waste,</li> <li>- Transboundary shipment of waste,</li> <li>- Monitoring and information system</li> <li>- Financing,</li> <li>- Supervision, Authorities and punitive provisions</li> </ul> <p>List of waste types (2) define the types and classification of waste depending on its properties and place of origin.</p>



Reference	Main features
<ol style="list-style-type: none"> <li data-bbox="209 286 793 689">3. Rulebook on the format and the content of the Journal for records keeping on waste handling, the format and the content of the forms for waste identification and transport, the format and the content of the form for the annual report on waste handling by legal entities and natural persons and the format and the content of the form for the annual report on waste handling by the mayor. (Official Gazette of The Republic of Macedonia no. 07/2006);</li> <li data-bbox="209 701 793 846">4. Rulebook on the content and the manner of keeping records in the register for waste (Official Gazette of The Republic of Macedonia no.39/2009);</li> <li data-bbox="209 857 793 1182">5. Rulebook on form and the contents of the application for obtaining a license for processing, treatment and/or storing of waste, the form and the content of the license for waste processing, as well as the minimum technical conditions to perform the activity for processing, treatment and/or storing of waste (Official Gazette of The Republic of Macedonia no. 23/07, 122/08);</li> <li data-bbox="209 1193 793 1518">6. Rulebook on the form and content of the permit for collecting and transporting urban and other types of non-hazardous waste, as well as the minimum technical requirements for performing the activity of collecting and transporting urban and other types of non-hazardous waste. (Official Gazette of The Republic of Macedonia no. 08/2006, 76/07 133/07);</li> <li data-bbox="209 1529 793 1675">7. Rulebook on the form and content of license for transporting of hazardous waste (Official Gazette of The Republic of Macedonia no. 118/10)</li> <li data-bbox="209 1686 793 1989">8. Rulebook on the form and content of the permit, requirement and register for issued permits for non-hazard waste trade, the manner and procedure for issuing the permit,maneer of keeping records, as well as the conditions for non-hazard waste trade (Official Gazette of The Republic of Macedonia no. 115/07);</li> </ol>	<p data-bbox="809 338 1441 521">Rights and obligations of the legal entities and individuals related to waste management and the manner and conditions for waste collection, transportation, treatment, processing, storage and disposal are defined in Rulebooks from no. (3) to no. (14).</p>



Reference	Main features
<p>9. Rulebook on the hazardous waste handling conditions, manner of packaging and labelling (Official Gazette of The Republic of Macedonia no. 15/2008);</p> <p>10. Rulebook on the manner of handling municipal and other type of non-hazard waste (Official Gazette of The Republic of Macedonia no. 147/07);</p> <p>11. Rulebook on the programme and ways to take the expert exam for Waste Manager, forms and certificate, as well as the amount and ways to cover the compensation for taking the expert exam (Official Gazette of The Republic of Macedonia no.133/07, 39/09, 137/09);</p> <p>12. Rulebook on the way and conditions for the operation of an integrated waste removal network (Official Gazette of The Republic of Macedonia no.7/06);</p> <p>13. Rulebook on minimum technical conditions which transfer stations have to meet in terms of environmental protection, as well as locations and waste deposit deadlines depending on different types of waste (Official Gazette of The Republic of Macedonia no.39/07);</p> <p>14. Rulebook on the ways and conditions for waste storage, as well as conditions needed to be fulfilled by the locations at which there is waste storage (Official Gazette of The Republic of Macedonia no.29/07).</p>	
<p>Law on mineral resources (Official Gazette of The Republic of Macedonia no 24/2007).</p>	<p>This law among other issues regulates the management of waste generated by exploration, extraction and physical and chemical procession of minerals resources.</p>
<p>Law on the Environment (Official Gazette of The Republic of Macedonia no. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11)</p>	<p>The Law on Waste Management has important links to other Laws related to tasks and responsibilities regarding administrative, organisational and operational issues in waste management, in particular to Law on the Environment (2), which includes basic stipulations on environmental permitting, EIA procedure and greenhouse gas emissions.</p>



Reference	Main features
<ol style="list-style-type: none"> <li>1. Law for packaging and packaging waste management (Official Gazette of The Republic of Macedonia no.161/09, 17/11, 47/11);</li> <li>2. Rulebook on the form and content of the forms for holding records on legal entities which are handling waste from package, producers or independent waste handlers for package, its forms for holding records as well as form and content of the registration form for independent waste handling (Official Gazette of The Republic of Macedonia no.41/10);</li> <li>3. Rulebook on the conditions for package with long expiry dates, and the types of packaging which serve as indicators that a package is with long expiry dates (Official Gazette of The Republic of Macedonia no.48/10);</li> <li>4. List of illustrative examples on packaging (Official Gazette of The Republic of Macedonia no.52/10);</li> <li>5. Rulebook on the numbering of abbreviations, on which the system for identification and marking of materials is based on, as well as the form and content on the label for package handling (Official Gazette of The Republic of Macedonia no.62/10);</li> <li>6. Rulebook on guidance, form and content of database and the information system for packaging and waste from package (Official Gazette of The Republic of Macedonia no.113/10).</li> <li>7. Rulebook on the form and the content of the form of the annual report on the type and the amount of packaging circulated on or imported in the market of the Republic of Macedonia and packaging waste handling, the form and the content of the form of production specification, the form and the content of the records of the overall packaging, as well as the manner in which records are kept (Official Gazette of The Republic of Macedonia no. 117/2010)</li> </ol>	<p>This law (1) and by laws no. (2) till (7) regulate the requirements for protection of the environment that have to be fulfilled by the packaging at its production, before its release on the market and put in use; and handling with packaging waste which comprises the obligations and responsibilities of the economic operators and other subjects that participate in the production process, release on the market and putting into use the packaging; rules for collection; reuse, processing and disposal; as well as other conditions for handling with packaging waste; notification and economic instruments for achievement of the national aims for collection and packaging waste processing.</p>

Reference	Main features
<ol style="list-style-type: none"> <li>1. Law on management with batteries and accumulators and waste batteries and accumulators (Official Gazette of The Republic of Macedonia no.140/10);</li> <li>2. Rulebook on the form and content of the forms in the reports for quantities of collected waste batteries and accumulators, and the quantities of received, treated or recycled waste batteries and accumulators, as well as the ways for their preparation and delivery (Official Gazette of The Republic of Macedonia no.167/10);</li> <li>3. Rulebook on the form, content and the way to submit the request form for registration of producers that put batteries and accumulators on the market in Republic of Macedonia (Official Gazette of The Republic of Macedonia no.36/11).</li> <li>4. Rulebook on the form and content of the forms in the yearly report on handling waste batteries and accumulators and the ways to submit the report, as well as the form and content of the forms for keeping records on quantities and types of batteries and accumulators released on the market in the Republic of Macedonia (Official Gazette of The Republic of Macedonia no.167/10).</li> </ol>	<p>This law (1) and by laws from no. (2) till no. (4) regulate the:</p> <ul style="list-style-type: none"> <li>- requirements for environmental protection that batteries and accumulators must meet in their production and release on the market,</li> <li>- the treatment of waste batteries and accumulators that cover the obligations and responsibilities of operators and other entities that participate in the process of production and marketing of batteries and accumulators,</li> <li>- limiting the use of batteries and accumulators containing hazardous substances,</li> <li>- the rules for collecting, processing, recycling and disposal of waste batteries and accumulators,</li> <li>- other requirements for handling waste batteries and accumulators,</li> <li>- reporting and economic instruments to achieve national targets for collection and processing of waste batteries and accumulators.</li> </ul>

## 2.2.2. National legislation

Transposition	Act/law/decree	Year of transposition
<b>Landfill Directive (1999/31)</b>	Rulebook on the form and contents of the request for licensing of landfill operator (Official gazette of The Republic of Macedonia no. 140/2007).	<b>2007</b>
<b>Landfill Directive (1999/31)</b>	Rulebook on the form and the content of the request for establishing landfill for non-hazard and inert waste (Official gazette of The Republic of Macedonia no. 133/07).	<b>2007</b>
<b>Landfill Directive (1999/31)</b>	Rulebook for the monitoring of the work of landfills etc. (Official Gazette of The Republic of Macedonia no. 156/07).	<b>2007</b>
<b>Landfill Directive (1999/31)</b>	Rulebook on the criteria for the acceptance of waste in landfills (Official gazette of The Republic of Macedonia no. 8/2008).	<b>2008</b>





<b>Landfill Directive (1999/31)</b>	Rulebook on the conditions for technical means and equipment for disposal of waste and the conditions and the manners for training for the employments. (Official gazette of The Republic of Macedonia no. 108/09).	<b>2009</b>
<b>Landfill Directive (1999/31)</b>	Rulebook for the conditions that need to be fulfilled by landfills. (Official gazette of The Republic of Macedonia no. 78/09).	<b>2009</b>
<b>Landfill Directive (1999/31)</b>	Rulebook of the quantity of the bio degradable waste that is allowed to be land filled (Official gazette of The Republic of Macedonia 108/09,142/09).	<b>2009</b>
<b>Incineration Directive (2000/76)</b>	Rulebook on the limit values of emissions during burning and incineration of waste and the conditions and manner of work of the installations for burning and incineration. (Official gazette of The Republic of Macedonia no. 123/09).	<b>2009</b>
<b>Incineration Directive (2000/76)</b>	Rules on form and content of the application for a permit and the form and content of the license for performing operator in the installation for incineration of waste. (Official gazette of The Republic of Macedonia no. 108/09).	<b>2009</b>
<b>Transboundary movements of waste</b>	Act on ratification of the Basel convention on the Control of transboundary movements of hazardous wastes and their disposal, and the amendment of Basel convention (Official gazette of The Republic of Macedonia no. 47/97, 49/04).	<b>1997</b>
<b>Transboundary movements of waste</b>	Rulebook on the format and content of the forms for transboundary movements of waste (Official gazette of The Republic of Macedonia no. 37/03, 38/03).	<b>2003</b>

### 2.2.3 Selected legislation

<b>Selected National Regulations</b>	<b>Reference (if available)</b>
BMW (Biodegradable municipal waste)	Rulebook of the quantity of the bio degradable waste that is allowed to be land filled (Official Gazette of The Republic of Macedonia 108/09, 142/09).
Packaging	Law for packaging and packaging waste management (Official Gazette of The Republic of Macedonia no.161/09, 17/11, 47/11).
Waste batteries and accumulators	Law on management with batteries and accumulators and waste batteries and accumulators (Official Gazette of The Republic of Macedonia no.140/10).
Asbestos	Rulebook on the manner of handling asbestos waste and waste products that contain asbestos (Official Gazette of The Republic of Macedonia no. 89/06).
PCBs	Rulebook on the manner and the conditions to be fulfilled by installations and facilities for disposal and decontamination of PCBs, used PCBs, as well as the manner of labelling the equipment containing PCBs (Official Gazette of The Republic of Macedonia no. 48/07, 130/09).
Medical waste	Rulebook on the manner of handling medical waste, the labelling and forms



Selected National Regulations	Reference (if available)
	related to medical waste handling (Official Gazette of The Republic of Macedonia no 146/07).
Waste from the titanium dioxide industry	Rulebook on the manner of handling the waste from titanium dioxide as well as the form, content and manner of data submission (Official Gazette of The Republic of Macedonia no.108/09).
End-of-life vehicles	Rulebook on environmental protection measures that shall be undertaken by producers, owners and entities handling for end of life vehicles, their components and materials, the targets and the time limits for their achievement and manner and contents of the notification form as well as the manner of records keeping (Official Gazette of The Republic of Macedonia No.108/2009, 164/09).
Waste tiers	Rulebook on the form for management of waste tiers and conditions that have to be fulfil by legal entities and natural persons which import waste tiers (Official Gazette of The Republic of Macedonia no.108/09).
Waste oils	Rulebook on the procedures and manner of collection, transportation, processing, storage and disposal of waste oils, the manner of keeping records and submission of data. (Official Gazette of The Republic of Macedonia no.156/07).

### 3. Waste management plan

#### 3.1. National Plan

The Law on Waste Management as the basic legal act among other things regulates and defines the preparation of waste management plans and programs at different levels.

Latest National Waste Management Plan for the period 2009-2015 has been prepared at 2009.

The National Waste Management Plan (NWMP) is a six-year plan, which identifies interim priorities for the accomplishment of the national strategy on waste management. Priority areas include the policy and legislative framework; human resources and capacity building; technical infrastructure; economic financial issues; and stakeholder and public awareness.

In terms of the legal aspects addressed in the NWMP significant progress has been made. Implementation remains the key area that will determine the success of the plan in the period until 2015.

The NWMP also includes financial estimates for two key areas, namely legislative development and infrastructure financing. Infrastructure investments to cover approximately 60% of the required landfill capacities are estimated at EUR 51 million. Investments under these estimates cover the construction of two regional landfills and the upgrading of the main landfill Drisla in the capital city Skopje.

Period of implementation	Main features
Waste Management Plan of The Republic of Macedonia (2009-2015)	<ul style="list-style-type: none"> <li>Improved waste management infrastructure and constructed Integrated and financially self-sustainable waste management system.</li> <li>Completion of policy framework and legislative grounds in</li> </ul>



Period of implementation	Main features
	<p>waste management (harmonization with the <i>acquis communautaire</i>).</p> <ul style="list-style-type: none"> <li>• Efficient institutional and organizational setup with appropriate staff and administrative capacities at all levels of waste management.</li> </ul>

## 4. Waste prevention

### 4.1. Objectives:

The implementation of the activities for waste prevention include the enforcement of several strategic principles, namely:

- The principle of solving the waste problem at the source of its generation, which means direct or joint responsibility of the waste holder/generator throughout its life cycle with regard to individual waste streams control and collection, registration of their quantities and characteristics and provision of such waste treatment and removal operations that are compliant with the regulations, acceptable from both environmental and economic points of view.
- Separation of hazardous from non-hazardous waste streams at the source and separate further treatment or deposition of such streams.
- Recovery of valuable ingredients of the waste to be organized by producers, importers, distributors, and retail traders, as well as specialized service companies. Such fractions of waste that can be recycled in a cost-effective manner in the Republic of Macedonia include particularly the waste wood, secondary and tertiary packaging, used tires, waste oils and lubricants; scrap metal, waste electric and electronic equipment. The waste, as substitute for non-renewable natural resources, should contribute to GHG emission reduction, taking into account economic, environmental and social aspects. Examples include the recovery of used tires as fuel, substituting (20-40%) primary fuel in the two furnaces (2x 60 MW) of the cement producing factory in Skopje. Further on, estimates of the overall energy potential of biological transformation of existing animal by-products in the country into biogas amount approximately 70 MW. Biogas production and recovery could contribute to annual GHG emission reduction in the country of 200.000-250.000 t CO<sub>2</sub> eq. Biological transformation of animal by-products could generate around 50.000 t residues that could be used in agricultural production.
- Establishment of rationale network of waste treatment and disposal facilities licensed for waste management activities performance in order to provide safe treatment/safe final landfilling of hazardous waste from industry, health institutions and livestock breeding farms and slaughter houses. Construction of new waste management infrastructure, including waste collection, treatment and final landfilling of solid municipal waste at regional level, covering more than 200.000 inhabitants per region in order to reach the required economic threshold for the investments and operation of the facilities for management of municipal waste at affordable price of the services provided. Deposition of waste at landfill only as stabilized, unreactive material subjected to pre-treatment prior to its disposal at the landfill in order to stabilize it, minimization of waste intended for landfilling and reduction of mobility of harmful and hazardous substances and their emissions in the air and out of the waste disposal facility through leakage.



## 4.2. Targets:

### Targets for specific identified activities

Activity / waste stream	Target	To be achieved by
<b>Improvement of collection and source segregation efficiency:</b>		
- mixed municipal waste	collection efficiency 90%	2014
- segregation of hazardous and non-hazardous waste fraction (manufacturing/service sector)	segregation efficiency 100%	2010
<b>Landfill of waste:</b>		
- landfill of MSW on temporary facilities (after conditioning)	100 % of collected MSW	2014
- landfill of MSW on facility compliant with EU standards	50% of the total MSW	2014
- reduction of biodegradable waste disposed on landfills (transition period needed)	reduction of 65%	2027
- reduction of the greenhouse gas emissions (landfills only)	reduction for app 25% of CO <sub>2</sub> eq.	2014
- diversion of industrial hazardous waste streams from non-hazardous landfills	100 % effect	2010

### Targets for specific waste streams

Activity / waste stream	Target	To be achieved by
<b>Special waste streams</b>		
- packaging waste of all 3 categories (transition period needed)	processing 60% recycling minimum.55%	2020 2020
- used import tyres	collection efficiency 100% processing 70%	2010 2010
- batteries /accumulators	ban on import and sale of the Hg& Cd batteries collection minimum of 25%	2011 2016
- end of life vehicles	collection 90% recovery or reuse 70%	2014 2018
- waste electric & electronic equipment	collection 90%	2014
- PCB/PCT waste	Inventory complete destruction	2010 2018
- C&D waste collection / recovery/ recycling facilities & landfill	collected 30 % recovered/recycled 10% disposal 90%	2014



### 4.3. Political strategy

Regarding waste prevention, several legal documents have been adopted. They are listed under 4.4. Policy instruments.

Waste management is a priority issue under IPA planning activities. Preparations of major projects in this field have to ensure sustainability of this process. The Ministry of Environment and Physical Planning acknowledged the need to speed up the efforts for this initiative, in particular, in the financial and institutional area. The Ministry of Environment and Physical Planning noted that a dialogue between municipalities and various stakeholders is essential to make these efforts successful.

### 4.4. Policy instruments

<b>Scope:</b>	Reduction of the greenhouse gas emissions
<b>Year of introduction:</b>	2008
<b>Transition period:</b>	
<b>Objectives:</b>	Reduction of the greenhouse gas emissions from landfills
<b>Targets:</b>	Reduction for app 25% of CO <sub>2</sub> eq. till 2014
<b>Description of the instrument:</b>	Introduction of criteria for acceptance of waste at landfills in every class and the use of appropriate measures for accumulation and gas emissions control. Appropriate collection, treatment and utilization of the gas potential at landfills. Introduction of specific values for greenhouse gas emission ceilings; emissions released through waste burning and incineration.
<b>Implementation:</b>	
<b>Result</b>	Reduction of greenhouse gas emissions from landfills, foremost through reduction in the creation of waste, efficient collection, treatment and usage of emissions.

<b>Scope:</b>	Reduction usage of bags made of plastics, in shops, stores, warehouses, green markets for retail trades and personal use.
<b>Year of introduction:</b>	2011
<b>Transition period:</b>	
<b>Objectives:</b>	Reduction in usage of plastic bags.
<b>Targets:</b>	
<b>Description of the instrument:</b>	Introduction of measures such as ban on use of plastic bags on the market, in shops and warehouses.
<b>Implementation:</b>	
<b>Result</b>	Reducing the pressures on the natural environment by reduction and ban for the use of plastic bags.

<b>Scope:</b>	Treatment and recycling of packaging waste of all 3 categories
<b>Year of introduction:</b>	2009



<b>Transition period:</b>	2009-2012
<b>Objectives:</b>	Reduction of packaging waste of all 3 categories
<b>Targets:</b>	By the end of 2020 minimum 60% of the weight from waste package created, should be processed and minimum 55% should be recycled.
<b>Description of the instrument:</b>	Reproduction, energy processing and recycling of waste packaging.
<b>Implementation:</b>	
<b>Result</b>	Waste package processing, with operations for reproduction, energy processing and recycling, for achieving the national goals and reducing the waste package.

<b>Scope:</b>	Reduction and introduction of measures for obligation for waste tire importers.
<b>Year of introduction:</b>	2009
<b>Transition period:</b>	2009-2010
<b>Objectives:</b>	Reduction and processing of imported waste tires.
<b>Targets:</b>	Utilization and processing of 70% of imported used tire quantities.
<b>Description of the instrument:</b>	Application of specific procedures in waste tire handling.
<b>Implementation:</b>	
<b>Result</b>	Reduction of quantities of landfilled tires.

<b>Scope:</b>	Reduction of quantities for waste batteries and accumulators, as well as achieving high level of recycled quantities, and other forms of utilization.
<b>Year of introduction:</b>	2010
<b>Transition period:</b>	2010-2011
<b>Objectives:</b>	Reduction and processing of waste batteries and accumulator quantities
<b>Targets:</b>	<ul style="list-style-type: none"> <li>- Recycling of 65% of weight from lead-acid batteries and accumulators,</li> <li>- Recycling of 75% of weight from Nickel-Cadmium batteries and accumulators,</li> <li>- Recycling of 50% of weight from other waste batteries.</li> </ul>
<b>Description of the instrument:</b>	Application of specific measures for waste tire handling.
<b>Implementation:</b>	
<b>Result</b>	Collection of at least 25% of the weight from portable batteries and accumulators, released on the market until 2016.

## Regulatory instruments

1. Rulebook on the criteria for the acceptance of waste in landfills (Official gazette of The Republic of Macedonia no. 8/2008),
2. Rulebook for the conditions that need to be fulfilled by landfills. (Official gazette of The Republic of Macedonia no. 78/09),



3. Prohibition for the use of bags for transport of goods made of plastics, in shops, stores, warehouses, green markets for retail trades and personal use. (Official Gazette of The Republic of Macedonia 29/11),
4. Rulebook on the limit values of emissions during burning and incineration of waste and the conditions and manner of work of the installations for burning and incineration. (Official gazette of The Republic of Macedonia no. 123/09).
5. Law for packaging and packaging waste management (Official Gazette of The Republic of Macedonia no.161/09, 17/11, 47/11),
6. Rulebook on the form for management of waste tires and conditions that have to be fulfilled by legal entities and natural persons which import waste tires (Official Gazette of The Republic of Macedonia no.108/09),
7. Law on management with batteries and accumulators and waste batteries and accumulators (Official Gazette of The Republic of Macedonia no.140/10).

## Ban of hazardous substances in certain products

### Bans, based on EU legislation

Banned substances	Waste stream	Year of introduction (amendment)	Legal document
mercury and cadmium	Batteries, Accumulators	2010	Law on management with batteries and accumulators and waste batteries and accumulators (Official Gazette of The Republic of Macedonia no.140/10)
lead, mercury, cadmium	ELV	2009	Rulebook on environmental protection measures that shall be undertaken by producers, owners and entities handling for end of life vehicles, their components and materials, the targets and the time limits for their achievement and manner and contents of the notification form as well as the manner of records keeping (Official Gazette of the Republic of Macedonia no.108/2009, 164/09).
lead, mercury, cadmium,	Packaging	2009	Law for packaging and



hexavalent chromium	waste		packaging waste management (Official Gazette of The Republic of Macedonia no.161/09, 17/11, 47/11)
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## Other instruments

### Ecodesign instruments, based on EU legislation

Ecodesign	Waste stream	Year of introduction (amendm.)	Legal document
<ul style="list-style-type: none"> <li>- Volume and weight of packaging has to be reduced to the minimum</li> <li>- Packaging has to be designed, produced and distributed in a way that reuse and recovery are possible</li> </ul>	Packaging waste	2009	Law for packaging and packaging waste management (Official Gazette of The Republic of Macedonia no.161/09, 17/11, 47/11)
<ul style="list-style-type: none"> <li>- Limit use of hazardous substances in cars,</li> <li>- Consider recovery of materials when designing and producing cars</li> </ul>	ELV	2009	Rulebook on environmental protection measures that shall be undertaken by producers, owners and entities handling for end of life vehicles, their components and materials, the targets and the time limits for their achievement and manner and contents of the notification form as well as the manner of records keeping (Official Gazette of the Republic of Macedonia no.108/2009, 164/09).

### 4.4.2 Market based instruments

Payment of compensation/fees for importers and traders of batteries and accumulators and waste batteries and accumulators.



The manufacturer who imports and introduces goods on the market, through which use there is waste package creation will pay compensation fees for handling of waste package according to weight and volume from such waste package.

### 4.4.3 Information based instruments

#### Information based instruments, based on EU legislation

Information	Target group	Waste stream	Year of introduction (amendm.)	Legal document
<ul style="list-style-type: none"> <li>- Capacity (life span of products)</li> <li>- Higher content of heavy metals</li> <li>- The potential effects on the environment and human health of the substances used in batteries and accumulators</li> </ul>	Final consumer	Batteries, Accumulators	2010	Law on management with batteries and accumulators and waste batteries and accumulators (Official Gazette of The Republic of Macedonia no.140/10)
<ul style="list-style-type: none"> <li>- Identification and labelling on materials for packaging</li> <li>- Information for hazardous substances and materials in packaging</li> <li>- Ways for handling of used packaging</li> </ul>	Final consumer	Packaging waste	2009	Law for packaging and packaging waste management (Official Gazette of The Republic of Macedonia no.161/09, 17/11, 47/11)
Waste prevention and waste management aspects (e.g. ecodesign)	Final consumer	ELV	2009	Rulebook on environmental protection measures that shall be undertaken by producers, owners and entities handling for end of life vehicles, their components and materials, the targets and the time limits for their achievement and manner and contents of the notification form as well as the manner



				of records keeping (Official Gazette of the Republic of Macedonia no.108/2009, 164/09).
Use of component and material coding standards, in particular to facilitate the identification of those components and materials, suitable for reuse and recovery	Disassembling companies	ELV	2009	Rulebook on environmental protection measures that shall be undertaken by producers, owners and entities handling for end of life vehicles, their components and materials, the targets and the time limits for their achievement and manner and contents of the notification form as well as the manner of records keeping (Official Gazette of the Republic of Macedonia no.108/2009, 164/09).

## 5. Construction and Demolition Waste

### 5.1. Objectives:

Regulation of the ways for labelling, treatment, processing, storage and removal of waste from Asbestos and waste from products containing asbestos.

### 5.2. Targets:

Minimizing the negative impact on natural environment and human health by effective treatment and handling of waste from Asbestos and products containing asbestos.

### 5.3. Political strategy

Appropriate management of waste from asbestos and waste from products containing asbestos and its removal at appropriate landfills.

### 5.4. Policy instruments



Rulebook on the manner of handling asbestos waste and waste products that contain asbestos  
(Official Gazette of The Republic of Macedonia no. 89/06).

<b>Scope:</b>	Asbestos waste and waste products that contain asbestos
<b>Year of introduction:</b>	2006
<b>Transition period:</b>	2006-2007
<b>Objectives:</b>	Regulation for the ways on handling, labelling, treatment, processing, storage and removal of waste from asbestos and waste from products containing asbestos.
<b>Targets:</b>	Minimizing the negative impacts on the natural environment and human health in the process of handling waste from asbestos and waste from products containing asbestos.
<b>Description of the instrument:</b>	Regulation on the ways for handling, labelling, treatment, processing, storage and removal of waste from asbestos and waste from products containing asbestos.
<b>Implementation:</b>	
<b>Result</b>	Appropriate asbestos waste management and management of waste from products containing asbestos, as well appropriate landfilling.

## 6. Biodegradable Municipal Waste

### 6.1. Objectives:

The intention of the general waste management policy is to overcome the current problems and to establish a sustainable waste management system.

There is a need for better knowledge on the waste generated: amounts/volume and composition.

The European Union is working on minimisation of the environmental impacts from waste management and decrease the waste sent to landfill. In order to achieve this, strict criteria for landfill management has been set up. However, landfills can provide a basis for waste management, with the appropriate development of more sustainable treatment options.

According to Macedonian national policies, developing a program for decreasing the quantities of biodegradable waste on the landfills should be achieved.

### 6.2. Targets:

Pursuant to Article 87 paragraph 487, from the Law on waste management, the minister of environment has adopted the Rulebook on the quantities of the biodegradable components in the waste that are allowed to be disposed in the landfill. This rulebook is into effect from 01.2011 year.

### 6.3. Political strategy

year	Quantity of bio-waste that are allowed to be disposed on Landfill on the whole territory of RM (1000 t)	Quantity of bio-waste in mass percentage	Decreasing of the quantity of bio-waste in percentage (%)



Referent year 1995	305	62	
2011-2017			25
2011-2020			50
2011-2027			65

#### 6.4. Policy instruments

<b>Scope:</b>	Reduction of biodegradable waste disposed on landfills
<b>Year of introduction:</b>	2009
<b>Transition period:</b>	2009-2011
<b>Objectives:</b>	Reduction of biodegradable waste disposed on landfills
<b>Targets:</b>	Reduction of biodegradable waste disposed on landfills : from 2011-2017 reduction of 25%, from 2011-2020 reduction of 50%, From 2011-2027 reduction of 65%.
<b>Description of the instrument:</b>	<p>The project proposal “Preparation of program and feasibility study for decreasing the biodegradable waste on landfills” was submitted by the Macedonian Ministry of Environment and Physical Planning in cooperation with the Environmental Administration.</p> <p>Through approval of plans and programs by the municipalities and the city of Skopje, as well as through the programs and plans of the Ministry of Environment and Physical Planning, which should result in the decrease of landfilled biodegradable waste.</p>
<b>Implementation:</b>	<p>The following Macedonian institutions will be involved in the development, planning and execution of project activities:</p> <ul style="list-style-type: none"> <li>- Environmental Administration, Waste Management department (principal beneficiary, see below)</li> <li>- Macedonian Ministry of Environment and Physical Planning</li> <li>- Units of Local Self-government and municipalities</li> <li>- NGO's</li> <li>- Association of public enterprises for waste management</li> <li>- Chamber of commerce (clusters for food processing and breweries).</li> </ul>
<b>Result</b>	Application of prevention, recycling, composting, production of biogas or other ways for utilization of materials and energy from biodegradable waste.



## Regulatory instruments

- Rulebook on the quantity of the bio degradable waste that is allowed to be land filled (Official Gazette of The Republic of Macedonia no. 108/09, 142/09).

## 7. Bibliography

## 8. Links

Web page of Ministry of Environment and Physical Planning of The Republic of Macedonia

<http://www.moep.gov.mk/default-en.asp>

Waste management strategy (2008)

<http://www.moep.gov.mk/WBStorage/Files/Waste%20Management%20Strategy%20of%20the%20ORM%202008-2020.pdf>

Waste management plan (2009)

[http://www.moep.gov.mk/WBStorage/Files/NWMP\\_2009-2015\\_%20of%20RM\\_finaL.pdf](http://www.moep.gov.mk/WBStorage/Files/NWMP_2009-2015_%20of%20RM_finaL.pdf)

Waste- generation, management, monitoring, import-export and laws

<http://www.moep.gov.mk/default-mk.asp?ItemID=DBB37E25735A3347AA8978EFA9A6A6F7>

Annual environmental reports (macedonian language)

<http://www.moep.gov.mk/default-mk.asp?ItemID=84F1C8FBC7AC644E9546F523C7B81FBC>

Indicator reports (macedonian language)

<http://www.moep.gov.mk/WBStorage/Files/Indikatori%202008%20-%20Waste.pdf>

Environmental statistic 2009

<http://www.moep.gov.mk/WBStorage/Files/Statistika%20na%20Zivotnata%20Sredina%202009.pdf>

Environmental statistic 2007

[http://www.moep.gov.mk/WBStorage/Files/Zivotna%20sredina\\_Environmental%20statistics.pdf](http://www.moep.gov.mk/WBStorage/Files/Zivotna%20sredina_Environmental%20statistics.pdf)

Waste management-laws (macedonian language)

<http://www.moep.gov.mk/default-mk.asp?ItemID=CDE248186C8CAB4DABD7358B5B18B162>

Packing and packing waste management-law (macedonian language)

<http://www.moep.gov.mk/default-mk.asp?ItemID=DD05E61ACA831947B42569410B4AC7CD>

Management with batteries and accumulators-law (macedonian language)

<http://www.moep.gov.mk/default-mk.asp?ItemID=AF4161C0BF7D0C41894CB0B221A8A85D>