

# Construction and Demolition Waste management in

## Lithuania

V2 – September 2015



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# Screening factsheet

Some incompleteness can be noted within this factsheet: important effort has been put to gather as much information as possible. However, based on our stakeholders consultation and bibliographic research, few information were available

## 1. Summary

In 2012, 564 286 tonnes of construction and demolition waste (CDW) were generated in Lithuania. It represents a 45% increase compared to 2010 (388 100 tonnes).

The amount of non-hazardous CDW excluding naturally occurring materials (soil) is unknown in the data, although stakeholders confirm following the WFD recommendations.

### Lithuanian CDW generation data

Year	2010	2012
Non-hazardous waste (kt) <sup>1</sup>	388.1	564.286
Hazardous waste (kt)	<0.1	0.56
Total (kt)	388.1	564.8

Waste management legal framework in Lithuania has been strengthened since the 2000's and in 2006, the order by the Minister of Environment No. D1-637 "For the rules of construction waste management" set requirements for construction and demolition waste management<sup>2</sup>.

### CDW management practices

CDW management seems to be a very emerging issue and there is no more detailed reporting of how waste is treated than the one available in Eurostat database.

CDW destination (2012)	Waste total quantity (kt)	Material recovery		Incineration	Landfill	Other	Total (%)
		Re-use, recycling, recovering on another site, including by another company	Backfilling				
Non-hazardous waste	<b>457,036</b>	74%	14,5%	0%	11,5%	0%	100%
Hazardous waste	<b>0,227</b>	0%	0%	100%	0%	0%	100%
<b>Total</b>	<b>457,263</b>	<b>74%</b>	<b>14,5%</b>	<b>0%</b>	<b>11,5%</b>	<b>0%</b>	<b>100%</b>

<sup>1</sup> Data received by Audrius Naktinis, Waste Management Division, Ministry of Environment of the Republic of Lithuania

<sup>2</sup> [http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc\\_l?p\\_id=291562&p\\_query=&p\\_tr2=2](http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=291562&p_query=&p_tr2=2)

## **Main obstacles to sustainable CDW management**

Two main obstacles were highlighted by the stakeholders:

- Collection: there is inefficient sorting of CDW on site which does not allow a proper recovery process.
- Recycling: insufficient processing capacity throughout the country.
- There are no possibilities for further use of recycled of CDW.
- Currently there are some problems with disposal in the wider Vilnius region, because in January 2015 the regional landfill for CDW was closed due to permit violation.

## 2. Definitions concerning construction and demolition waste (CDW) and management

In this section the definitions of waste used in Lithuania are presented.

### 2.1. Definition of waste

Definition of “Waste” according to art. 2 point 6 of Law of Waste management: Waste - any substance or object which the holder of waste discards or intends or is required to discard The definition of waste according to stakeholders is a direct transposition of the Waste Framework Directive 2008/98/EC.

### 2.2. Definition of construction and demolition waste (CDW)

Definition of “Construction waste” according to rules of construction waste management: Construction waste - are waste generated during construction, reconstruction, repair or demolition processes. The European Waste Catalogue has been transposed directly into the Lithuanian law and there is no other national classification.

Naturally occurring materials excavated in the course of construction activities and other uncontaminated soils are included in the definition of CDW.

### 2.3. End of Waste (EoW) status

There is no EoW criteria established in Lithuania for CDW stream. There is a direct use regulation for metals, scraps, glass and copper.

### 2.4. Definitions of waste treatment operations

According to stakeholders, the definitions for re-use, recycling and recovery used in Lithuania follow the categorisation in Annex II of the WFD.

Definitions of re-use, recycling and recovery are transposed from WFD to paragraph 2 of Law of Waste management.

List of operations from Annex I and Annex II of the WFD is transposed to Annex IV of Order of minister of Environment No. 217 “For the rules of waste management”.<sup>3</sup>

Enterprises that hold the Permit of the Integrated Pollution Prevention and Control according to Order of minister of Environment No. D1-528 “For the Pollution Permit” or according to Order of minister of Environment No. D1-259 shall sort the waste indicated in the Permit and transfer relative waste to waste treatment companies (Rules of waste management, point 15).

## 3. Legal Framework – Waste Management Plans and Strategies

In this section the legal framework governing CDW management in Lithuania is presented.

### 3.1. Legislation concerning CDW in Lithuania

The legislation concerning CDW in Lithuania is composed of:

- The Law on Waste Management of the Republic of Lithuania (art.1; art.30) which establishes general requirements for waste prevention, accounting, collection, storage, transportation, utilisation,

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<sup>3</sup> <https://www.e-tar.lt/portal/lt/legalAct/TAR.38E37AB6E8E6/kLVaFLCaUw>

and disposal to avoid negative effects on human health and the environment, as well as the main guideline of organisation and planning of waste management systems.

- Law on pollution tax which sets out the rules of application of pollution charge in order to encourage pollution reduction and waste management actions implementation.
- The Rules of Waste Management (part 125) defines that additional requirements of CDW sorting, collection, transportation and treatment are set in Rules of construction waste management. Other methods for utilisation and disposal of waste not defined in this document are prohibited.
- National waste prevention programme (part 15; part 20; part 22.1; parts 29.1.7-29.1.9)
- Rules of construction waste management
- Rules of Landfill construction, operation, closure and post-closure (2000, No. 444)

### **3.2. Waste management plans (WMP) and Strategies**

A National Waste Management Plan for the period of 2014-2020 was approved by the Resolution of the Government of the Republic of Lithuania No 519 and adopted on 12/04/2002 with the last amendments on 16/04/2014; (parts52-55); (parts263-264). The main objectives of the plan are:

- to prevent the effects of waste pollution by the recovery of material and energy;
- to ensure a waste management framework that would address the issues of the general population, guarantee environmental quality and agree to the standards of market economy;
- to set waste management targets, action plans and evaluation measures in order to implement WFD in the required time frame.

Major municipalities have created their WMP. So far, 8 regional Waste Management Plans are approved and 2 others are finished but not yet approved.

### **3.3. Legal framework for sustainable management of CDW**

The order of the Minister of Environment No D1-637 sets rules for planning CDW generation and management during the process of building construction project and entire construction process as such. Waste quantities, waste codes and waste treatment activities shall be indicated. Rules clearly indicate requirements for the records on CDW on site. It is also indicated the strict obligation to establish separate collection of municipal solid waste, inert waste (concrete, bricks, ceramic and others), recyclable waste (packaging, paper, glass, plastic and others), hazardous waste and non-recyclable waste. Non-hazardous waste can be temporarily stored on site for one year, and hazardous waste - for 6 months. The builder must provide the documents of waste transportation to an appropriate waste treatment facility for the commission which evaluates the quality of building at the time of works have been finished. Requirements of waste shredding, reuse of waste on site, waste transportation, recovery and disposal are also set in the rules as well as specific requirements for management of asbestos waste.

### **3.4. Targets**

According to the stakeholders, the targets of recovery in Lithuanian legal framework follow those defined by the WFD. The National Waste Management Plan states:

CDW management system should be organized by the way to ensure that by 2020, the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition waste excluding naturally occurring material defined in category 17 05 04 in the list of waste shall be increased to a minimum of 70 % by weight.

## **4. Non legislative instruments**

In this section, any other instruments that may specify how the country is addressing the question of CDW management maybe highlighted, especially as a preliminary overview for task 3, as these instruments might be creating conditions for a sustainable management of CDW.

Description	Level of occurrence (Yes/No) Key Scope/Exemptions	Year established and policy reference	Further detail, information source, related web-site
<i>Sustainability standards that cover CDW (e.g. BREEAM)</i>	Yes	unknown	<a href="http://www.breeam.org/index.jsp">http://www.breeam.org/index.jsp</a>
<i>Extended producer responsibility scheme in operation?</i>	No		

No other non-legislative instruments, guidelines, standards, tools were identified or suggested by stakeholders.

## 5. CDW management performance –CDW data

In this section the performance of CDW management in Lithuania is explored. This section particularly seeks to gather all available data and information about CDW generation and treatment, exports/imports, and treatment facilities in Lithuania.

The Environmental Protection Agency receives data through the waste generation and management accounting data electronic reporting system (e-ASTA) from companies, following the waste generation and management accounting and reporting rules, approved by the Minister of the Environment in 2011. Enterprises are required to report data each year (latest by 10 February) for their previous year activities.

### 5.1. CDW generation data

Generated CDW data for 2010 and 2012 is the following:

Year	2010	2012
Non-hazardous waste (kt) <sup>4</sup>	388.1	564.286
Hazardous waste (kt)	<0.1	0.56
Total (kt)	388.1	564.8

### 5.2. CDW treatment data

Generated CDW data for 2010 and 2012 is the following:

CDW destination (2012)	Waste total quantity (kt)	Material recovery		Incineration	Landfill	Other	Total (%)
		Re-use, recycling, recovering on another site, including by another company	Backfilling				

<sup>4</sup> Data received by Audrius Naktinis, Waste Management Division, Ministry of Environment of the Republic of Lithuania

Non-hazardous waste	<b>457,036</b>	74%	14,5%	0%	11,5%	0%	100%
Hazardous waste	<b>0,227</b>	0%	0%	100%	0%	0%	100%
<b>Total</b>	<b>457,263</b>	<b>74%</b>	14,5%	<b>0%</b>	<b>11,5%</b>	<b>0%</b>	<b>100%</b>

### 5.3. CDW exports/imports data

No data is available.

### 5.4. CDW treatment facilities data

No data is available.

### 5.5. Future projections of CDW generation and treatment

Future projections of CDW generation and treatment were not identified.

### 5.6. Methodology for CDW statistics

The preparation of Lithuanian official statistics of waste is done according Eurostat methodologies. A specific "Manual on waste statistics" for data collection on waste generation and treatment has been established accordingly.

Eurostat guidance on backfilling when reporting on recovery operations is also followed and backfilling is excluded from the definition of recycling in CDW reporting.

## 6. C&D waste management in practice

In this section the CDW management "on ground" in Lithuania is presented.

### 6.1. CDW management initiatives

According to the stakeholders interviewed there are no projects or specific initiatives that show how the legal and non-legal framework in terms of CDW management is applied in Lithuania.

### 6.2. Stakeholders' engagement

No stakeholder's engagement initiatives for CDW management in Lithuania were suggested by stakeholders.

### 6.3. Waste legislation enforcement

The competent authorities in terms of waste management are as follows:

- On a national level, the Ministry of Environment of Lithuania is the main institution which initiates legal acts for the regulation of waste management and compliance with the current recommendations. It is responsible for the waste management planning overall and controls the waste treatment facilities.
- Regional environmental protection departments of the Ministry of Environment inspects facilities periodically on their reported results. Requirements of environmental monitoring are part of the



permit. The State Environmental Protection Inspectorate coordinates the activities of the Regional Environmental Protection Departments.

- The Environmental Protection Agency (EPA) delivers permits to waste treatment enterprises, provides decisions on environmental impact assessment, collects and assesses data of waste generation and treatment, registers waste treatment enterprises.
- Enforcement is carried by imputing fines to polluters, to compensate the environmental damage.
- On the Regional level County Governors are responsible for organization of preparation of regional waste management plans and co-ordination of activities of the municipalities in the field of municipal waste management.
- Locally, the municipalities must develop and implement Waste Management Plans which cover activities such as collection, transportation, recovery and disposal of all kind of waste, including construction waste.

#### **6.4. Drivers / barriers to increase CDW recycling**

The consulted stakeholders communicated the two following main barriers:

- Collection: inefficient sorting waste on site
- Recycling: insufficient processing capacity
- Recycled products: No market for recycled CDW

### **7. CDW sector characterisation**

In this section some specific characteristics of the CDW management sector in Lithuania are explored.

#### **7.1. Sector characteristics**

The Ministry of Environment of Lithuania is the main institution whose responsibilities include initiation of legislation on waste and organization of waste management control. The Ministry has established 8 regional environment protection departments that are responsible for the supervision of certain facilities established in their territories. Supervision includes registration of undertakings, issuing of permits, inspections, etc.

Additionally, Environmental Protection Agency also exercises control by coordinating and assisting the activities of the regional departments.

Lithuania as 60 municipalities which aside from the municipal waste management, must ensure proper functioning of the sites for disposal of waste (including construction and demolition waste).

All enterprises engaged in waste collection, transportation, recovery and disposal activities shall be registered in the waste managers register by the Environmental Protection Agency in the Ministry of Environment.

No more information on the sector stakeholders and their characteristics is available.

#### **7.2. Exports/imports of CDW**

No information was found on the subject.

#### **7.3. CDW as landfill cover**

No information was found on the subject.

## 7.4. Market conditions / costs and benefits

A Landfill Tax is applied to inert waste that contains no biodegradable material<sup>5</sup> which applies to CDW waste:

- for 2016 – 7.14 EUR/tonne;
- for 2017 – 13.03 EUR/tonne;
- for 2018 – 18.83 EUR/tonne;
- for 2019 – 24.62 EUR/tonne;
- for 2020 – 30.41 EUR/tonne.

## 7.5. Recycled materials from CDW

No information was found on market conditions of recycled material from CDW.

## 7.6. Construction sector make up

Construction sector in Lithuania counts around 5000 enterprises, mostly SMEs, of which 1950 companies are specialised in building construction. The sector of construction is mostly centralised around the capital.

In rapid growth in the early 2000s with mostly residential and non-residential buildings, the market has suffered during 2008 crisis, as it can be seen in the following table<sup>6</sup>:

**Table 1.** Annual growth, index of production for total construction in Lithuania 2006-2010.

Year	% growth – comparison with the previous year
2006	21.7
2007	22.2
2008	4
2009	-48.5
2010	-7.7

The number of employees of the sector follows the same trend<sup>7</sup>:

Years	Occupied posts   units
2008	119,675
2009	86,852
2010	74,156
2011	81,534
2012	82,778
2013	83,989

The construction sector will face several challenges and opportunities in the future such as:

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<sup>5</sup>Law on pollution tax

<sup>6</sup>Analysis of Lithuanian Construction Market

<sup>7</sup> Official Statistics of Lithuania

- The renovation of residential buildings built before the 1990s and do not comply with sanitation or energy efficiency recommendations.
- Projects such as offices, shopping centers and other non-residential buildings have been postponed during the crisis and may be rescheduled.
- Tourism increases and hotels construction projects are increasing.

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## Interviews

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- Interview with Živilė Pliuškaitė, Ministry of Environment of Republic of Lithuania, 11/06/2015 (National statistics related questions)
- Interview with Aurelija Ložytė, Ministry of Environment of Republic of Lithuania, 11/06/2015
- Interview with Juozas Jezukevičius, Ministry of Environment of Republic of Lithuania, 01/09/2015

## Other contacted stakeholders:

No other stakeholders were suggested by the interviewees.

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