

WASTE





Definition

The indicator presents municipal waste generation, expressed in kg per person. Municipal waste is non-hazardous waste generated by natural persons in households and commercial waste, collected by municipalities or on their behalf.

Units

- kilogramme per person per year, percentage.

Policy relevance of the indicator

List of relevant policy documents:

Second National Environmental Action Plan of the Republic of Macedonia (2006)

Strategy for Waste Management in the Republic of Macedonia (2008-2020)

National Waste Management Plan (2009-2015) of the Republic of Macedonia

Legal grounds

Law on Waste Management (2004)

Key question

Is the amount of generated municipal waste decreasing?

Key message

Important message contained in the relevant policy documents in the area of waste is to decouple waste generation from economic growth in the Republic of Macedonia. Estimates and data indicate that around 3% of the overall waste generated in the Republic of Macedonia is municipal waste. The observation of the period from 2003 to 2008 showed that the GDP real growth rate noted slight growth of 2.8% to 5%, to fall in 2009 by -0.9%. Then, in 2010 and 2011 there was growth by 2.9 and 2.8, respectively. In the same period, municipal waste recorded increase by more than 3% at annual level. In the period between 2008 and 2011, generated municipal waste first noted increase by 1.4%, then decrease by 0.85% and again slight increase by 1.7%. This leads to the conclusion that generation of municipal waste goes hand in hand with the economic growth, noting slight increase during the last year along with the economic growth, from which it has not decoupled yet.

The amount of generated municipal waste expressed in persons was 348 kg/person/year or 0.9 kg/person/day for 2008, for 2009 it was 354 kg/person/year, while for 2010 and 2011 it was 351 kg/ person/year and 357 kg/ person/year, respectively. These figures also indicate lower generation of municipal waste per person on annual level in the Republic of Macedonia compared to European Union Member States.

Figure 1. Generation of municipal waste in tones per year

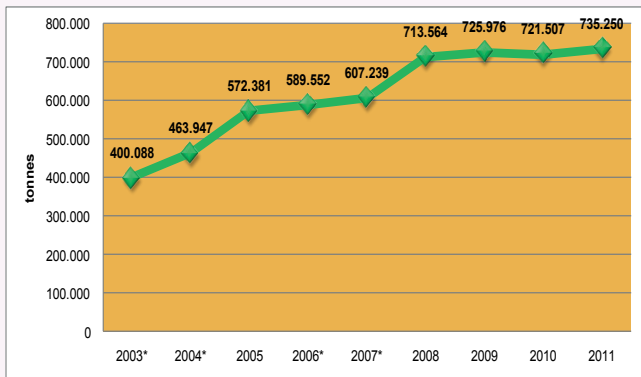
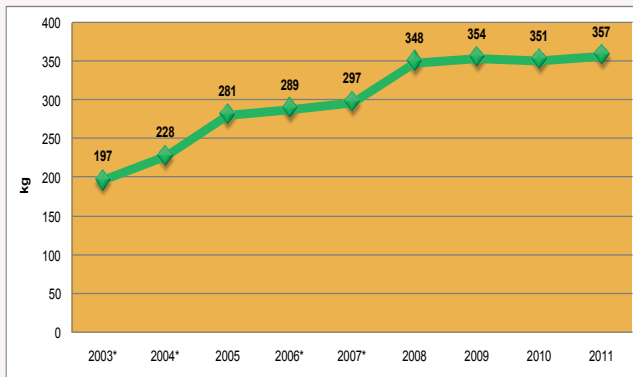


Figure 2. Generation of municipal waste in kg per person per year



Assessment

The amount of generated municipal waste as indicator can show the direction towards which the use and consumption of products and goods moves, and it indirectly reflects the environmental burden if municipal waste fails to be recognized as potential resource. Increased generation of municipal waste indicates increased use and consumption of products and goods. Taking into account that 100% of collected municipal waste is disposed of at landfills, increased generation of municipal waste will potentially increase

the negative impact on the environment.

Methodology

- Methodology for the indicator calculation

Estimates, Reports of the State Statistical Office (2009, 2010, 2011, 2012), and annual reports by municipalities.

Data specification

Title of the indicator	Source	Reporting obligation
Municipal waste generation	<ul style="list-style-type: none">– Reports of the State Statistical Office (2009, 2010, 2011, 2012) in the area of environment– Strategy for Waste Management in the Republic of Macedonia (2008-2020), MEPP– National Waste Management Plan (2009-2015) of the Republic of Macedonia, MEPP	EUROSTAT

Data coverage:

Table 1: Generation of municipal waste in tonnes and kg per person per year

	Amount (tonnes/year)	kg per person per year
2003*	400.088	197
2004*	463.947	228
2005	572.381	281
2006*	589.552	289
2007*	607.239	297
2008	713.564	348
2009	725.976	354
2010	721.507	351
2011	735.250	357

*Estimated values

General metadata:

Code	Title of the indicator	Compliance with CSI/ EEA or other indicators		Classification by DPSIR	Type	Linkage with area	Frequency of publication
MK NI 016	Municipal waste generation	CSI 016	Municipal waste generation	P	A	<ul style="list-style-type: none">- Households- economy- population- urbanization- waste	yearly