Waste management has potential impacts on human health and ecosystems. There are also concerns about the treatment and disposal capacity of existing facilities, and on the location and social acceptance of new facilities. The economic, environmental and social impact of waste is relevant in regions also because waste disposal is usually managed at the local level. Many OECD member countries have strengthened measures for waste minimisation, recycling, product life cycle management and extended producer responsibility.

The amount of municipal waste generated gives an approximation of the potential pressure on the environment, and economic cost for management and treatment. Studies show that municipal waste can represent more than one-third of the public sector's financial efforts to abate and control pollution.

In 2005, OECD member countries municipal waste production varied from 760 kg per inhabitant in Norway to 250 in Poland (Figure 29.1). The different amount depends on the level and pattern of consumption, the rate of urbanization, lifestyle and also on national waste management practices. Between 1995 and 2005, OECD member countries increased the municipal waste generated by an average of 40 kilo per inhabitant. The increase was greatest in Ireland (230 kg per inhabitant), followed by Denmark (170), and Spain and Greece (140). Nevertheless, these data have to be interpreted with great caution since they may be biased by changes in the methodology for collecting the information.

Data indicate that Poland, the Slovak Republic, the Czech Republic and Korea reduced the municipal waste produced. Once again, caution in interpreting these data is necessary because countries may use different classification and data collection methods. Nevertheless, they give an indication of the level and trend of municipal waste production in these countries.

When looking at regional data, the volume of municipal waste per inhabitant varies significantly among regions within and across countries. In 2005, Mexico displayed the widest regional variation having the region of Distrito Federal with municipal waste per capita almost two times higher than the national average and the region of Oaxaca around half of the country average volume. Large regional disparities were also seen in Portugal and Turkey. Ireland, the United Kingdom and the Netherlands are the countries with the most balanced regional distribution of municipal waste per capita (Figure 29.2).

The production of municipal waste per capita is positively associated with the share of population living in urban regions in 12 out of the 20 countries considered. In Hungary, Spain and Austria the positive correlation is higher in intermediate than in urban regions (Figure 29.3).

# Definition

Municipal waste is generally defined as the total waste collected by or on behalf of municipalities. It includes waste from households, commerce, institutions and small business, yard and garden; the definition excludes municipal waste from construction and demolition and municipal sewage.

The Spearman correlation coefficient measures the strength and direction of the relationship between two variables, in this case the municipal waste per capita and the share of population in predominantly urban (PU), intermediate (IN) or predominantly rural (PR) regions. A value close to zero means no relationship (see Annex C for formula).

### **Source**

OECD Regional Database, http://dotstat/wbos/, theme: Regional Statistics.

See Annex B for data sources and country related metadata.

National data: OECD Environmental data: Compendium (2007).

The sum of collected regional data on waste does not always match the OECD national data.

### Reference years and territorial level

2005; TL2

Last available year for Australia 2003; Canada 2002; France, Japan, Turkey and the United Kingdom 2004; Germany 2007.

No regional data available for Belgium, Denmark, Finland, Iceland, Korea, New Zealand, Switzerland and the United States.

#### **Further information**

OECD Key Environmental Indicators (2008).

### **Figure notes**

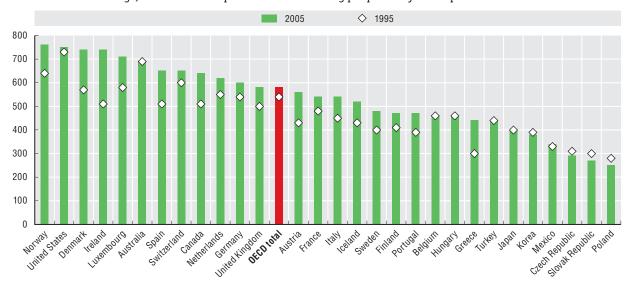
Figure 29.1: Source: Own elaborations from OECD Environmental Data Compendium (2007). Years for Canada 1980 and 1990; Australia 1990 and 2000.

Figure 29.2: As a percentage of the country average.

Figure 29.3: For each country three correlations are run between the regional municipal waste per capita and the share of regional population living in PU, IN and PR regions.

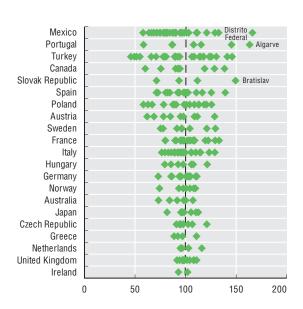
### 29.1 Municipal waste (kg per capita), 2005 and 1995

On average, OECD countries produced almost 600 kg per person of municipal waste in 2005.



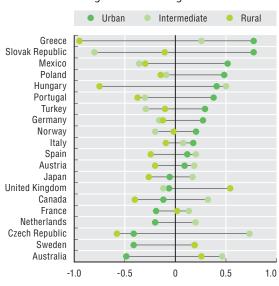
# 29.2 Range in TL2 regional municipal waste per capita, 2005

The volume of municipal waste per inhabitant varies greatly in Mexico and Portugal.

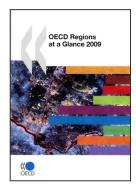


### 29.3 Spearman correlation coefficient between municipal waste and share of population by regional type, 2005 (TL2)

In 12 out of 20 countries, municipal waste per capita is higher in urban regions.



StatLink http://dx.doi.org/10.1787/524330511788



### From:

# **OECD Regions at a Glance 2009**

### Access the complete publication at:

https://doi.org/10.1787/reg\_glance-2009-en

# Please cite this chapter as:

OECD (2009), "Environment: Municipal waste", in *OECD Regions at a Glance 2009*, OECD Publishing, Paris.

DOI: https://doi.org/10.1787/reg\_glance-2009-33-en

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.

