

I-3: Waste reuse and recycling

General description

a) Brief definition: Waste reused or recycled as a share of the total waste in a country – in total, by sector (industrial and municipal waste) and by negative impact (hazardous waste).

b) Unit of measurement: Percentage.

Context – Relation to other indicators from the Guidelines

This indicator relates to indicators “I-1: Waste generation”, “I-2: Transboundary movements of hazardous waste” and “I-4: Final waste disposal”.

Relevance for environmental policy

a) Purpose: Waste reuse and recycling represents a response type indicator and shows the proportion of total waste, or of the specific category of waste, that is reused or recycled.

b) Issue: Waste reuse and recycling is an important component of sustainable use of resources in general and sustainable municipal and non-hazardous waste management in particular. As the population continues to grow, the amount of land available for waste disposal is reduced, and waste has to be transported longer distances. When waste reuse and recycling are stimulated, landfill capacity is conserved and municipal and non-hazardous waste management expenditures are reduced. Increased reuse and recycling leads to a reduction in the environmental impacts of waste final disposal, such as methane and carbon dioxide gas emissions from landfill sites, and preserves natural resources and the environment. Reuse and recycling also tend to increase the population’s income through employment in the waste reuse and recycling sector.

c) International agreements and targets:

Subregional level: The EECCA Environment Strategy calls for the development of inter-sector waste management action plans and government support for waste treatment facilities. In the EU, the Waste Framework Directive 2008/98/EC provides for increased efforts to prevent and reduce waste generation, recover wastes and develop new techniques for final disposal of waste. The Directive on packaging and packaging waste required member countries to reuse and recycle a minimum of 55% and a maximum of 80% of packaging waste by 2008. EU targets for recycling and re-use also cover end-of-life vehicles, waste batteries and accumulators and waste from electrical and electronic equipment.

Methodology and guidelines

a) Data collection and calculations: “Reuse and recycling” is defined as any reprocessing of waste material in a production process that diverts it from the waste stream, except reuse as fuel (energy recovery). Reprocessing (whether into the same type of product or for different purposes) should be included. Reuse and recycling in industrial plants (i.e. at the place of generation) should be excluded. Assessment of reused and recycled waste requires precise assessment of total waste and the specific category of waste (industrial, municipal or hazardous). The indicator of waste reuse and recycling is derived by dividing the quantity of total and specific-category waste reused and recycled by the total quantity of waste and specific-category waste generated and expressing the result as a percentage. In addition, for municipal waste the proportion of reused and recycled waste may be presented as a percentage of reused and recycled components, such as metals, plastic, paper, glass, textiles or organic materials.

b) Internationally agreed methodology and standards: The UNSD/UNEP Questionnaire on Environment Statistics (tables R2 and R3) provides a methodology for calculating waste reuse and recycling. In the EU, waste statistics, including waste generation and waste disposal, are covered by a specialized regulation (2150/2002).

Data sources and reporting

In EECCA, data on reuse and recycling of waste are collected by ministries responsible for urban affairs and the environment and by state statistical agencies.

References at the international level

- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste;
- Regulation (EC) No 2150/2002 of the European Parliament and of the Council of 25 November 2005 on waste statistics;
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Waste Framework Directive);
- Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles;
- Directive 2006/66/EC of the European Parliament and of the Council of 6 December 2006 on batteries and accumulators and waste batteries and accumulators;
- Directive 2012/19/EU of the European Parliament and of the Council of 4 July 2012 on waste electrical and electronic equipment (WEEE);
- UNSD: <http://unstats.un.org/unsd/environment/datacollect.htm>;
- European Commission – Waste policy: <http://ec.europa.eu/environment/waste/index.htm>;
- EUROSTAT: <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home>;
- EIONET: <http://dd.eionet.europa.eu/datasets.jsp>;
- EEA: <http://www.eea.europa.eu/data-and-maps/indicators/>.