

# Defining and quantifying waste: a tricky undertaking

A multitude of approaches exists to classify the various categories of waste. Waste can be sorted either by its origin (what activity has created it?), by its composition (what is it made of?), by the level of danger it poses to humans and the environment, or by the way it is managed and treated. Each of these approaches will lead to a list of wastes, and often those definitions are overlapping – yet another fact that complicates the collection and interpretation of data about waste.

## Examples of Definitions: Waste according to

### – the Basel Convention:

Wastes are substances or objects that have been disposed of, that are intended for disposal, or whose disposal is required by the provisions of national laws.

### – the United Nations Statistics Division (UNSD):

Wastes are materials that are not primary products (produced for the market) and for which the generator has no further use in terms of production, transformation or consumption and therefore wants to dispose of. Wastes may be generated during the extraction of raw materials, the processing of raw materials into intermediate and final products, the consumption of final products, and other human activities. Residuals recycled or reused at the place of generation are excluded from this definition.

### – the Organization for Economic Cooperation and Development (OECD):

Municipal waste is collected and treated by, or for, municipalities. It covers waste from households, including bulky waste, similar waste from commerce and trade, office buildings, institutions and small businesses, yards and gardens, street sweepings, the contents of litter containers, and market cleansing. Waste from municipal sewage networks and treatment and from municipal construction and demolition is excluded.

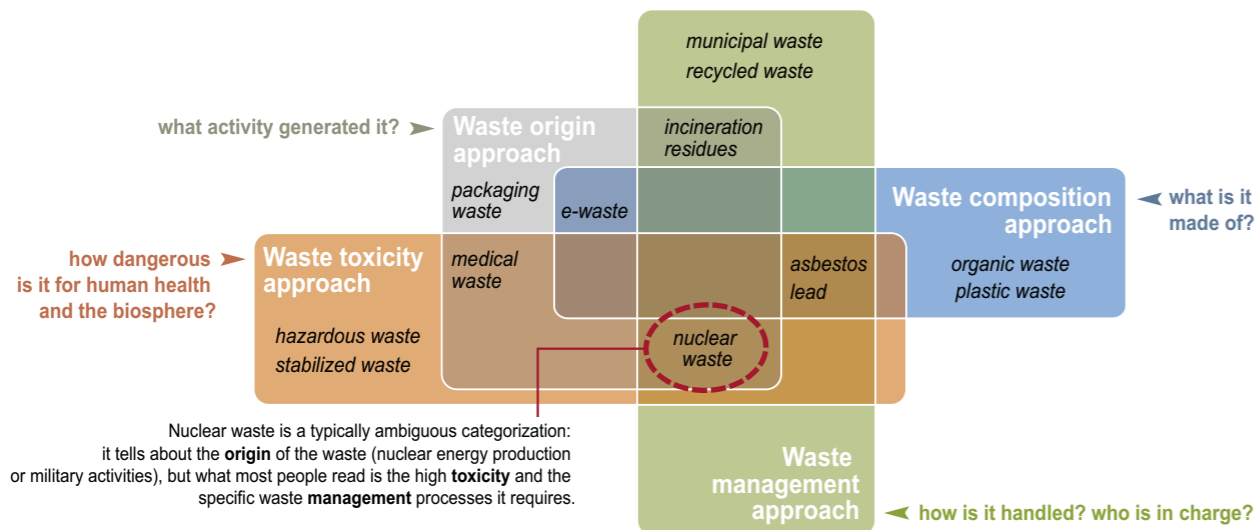
Hazardous waste is mostly generated by industrial activities based on specific patterns of production. It represents a major concern as it entails serious environmental risks if poorly managed. Environmental impacts mainly involve the toxic contamination of soil, water and air.

Nuclear (radioactive) waste is generated at various stages of the nuclear fuel cycle (uranium mining and milling, fuel enrichment, reactor operation, spent-fuel reprocessing). It also arises from decontamination and decommissioning of nuclear facilities and from other activities using isotopes, such as scientific research and medical activities.

## About the difficulties of classifying waste (and counting it)

Different approaches and overlapping definitions

Statistical institutes of the world use various waste classifications, based on different approaches. This diversity is the major obstacle to data globalization and comparison.



# Some international chemicals and hazardous waste legislation

The London Convention 1972 is an international treaty that limits the discharge of wastes that are generated on land and disposed of at sea. A so-called "black- and grey-list" approach is applied for wastes, which can be considered for disposal at sea according to the hazard they present to the environment. The 1996 Protocol is a separate agreement that modernised and updated the London Convention, following a detailed review that began in 1993. A "reverse list" approach is adopted, which implies that all dumping is prohibited unless explicitly permitted. The 1996 Protocol will eventually replace the London Convention.

The Bamako Convention on the Ban of Import into Africa and the Control of Transboundary Movement of Hazardous Wastes within Africa includes radioactive waste in its definition and bans all import into Africa.

The Waigani Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region bans the "Importation into Forum Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes".

The Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade is designed to promote shared responsibility and cooperative efforts among Parties on managing hazardous chemicals. The Parties have agreed to facilitate information exchange about the characteristics of hazardous chemicals and about their national decisions on importing and exporting hazardous chemicals. The Convention entered into force in 2004.

The Stockholm Convention on Persistent Organic Pollutants (POPs) targets 12 major POPs for reduction and eventual elimination. The initial list includes PCBs, dioxins and furans, and DDT and other pesticides. The Convention also sets up a system for tackling additional chemicals that may be identified in the future as unacceptably hazardous. It recognizes that a special effort may sometimes be needed to phase out certain chemicals for certain uses. The Convention channels resources into cleaning up the existing stockpiles of POPs that litter the world's landscape. The Convention entered into force in 2004.

Protocols to several UNEP Regional Seas Conventions aim at protecting the marine environment from land-based sources of pollution, hazardous wastes and radioactive contamination.

The Organization for Economic Cooperation and Development (OECD) has developed regulations for wastes intended for final disposal and recycling for further use. In 1992 it established a specific control system for recyclables. The constituents of these lists have been amended several times.

In 1993, the European Community (EC) adopted its Directive 259/93 on the supervision and control of shipments of waste within, into and out of the EC. It implements the Basel Convention. Through its regulation 120/97 the EU implements the Ban Amendment of the Basel Convention. It also adopted several decisions on hazardous waste incineration and a waste framework directive.

### The Basel Convention

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal is the most comprehensive global environmental agreement on hazardous and other wastes. It aims to protect human health and the environment against the adverse effects resulting from the generation, management, transboundary movements and disposal of hazardous and other wastes.

The Basel Convention regulates the transboundary movements of hazardous and other wastes and obliges its Parties to ensure that such wastes are managed and disposed of in an environmentally sound manner. The Convention covers toxic, poison-

ous, explosive, corrosive, flammable, ecotoxic and infectious wastes. Parties are also expected to minimize the quantities that are moved across borders, to treat and dispose of wastes as close as possible to their place of generation and to prevent or minimize the generation of wastes at source.

The Basel Convention has 14 Regional and Coordinating Centres (see page 38–39). The Centres develop and undertake regional projects, and deliver training and technical assistance for the implementation of the Convention under the direction of the Conference of the Parties and of the Secretariat of the Convention. The Basel Convention, adopted in 1989, came into force in 1992.