

ANNEX 1:
Waste Management after Rio

Ten years after Rio, and the adoption of Agenda 21, came the World Summit in Johannesburg. Assessments have been made at all levels of society of the progress made in achieving the objectives and goals set in Agenda 21. ISWA and UNEP have participated in an assessment of the waste industry's progress towards sustainable development. The report of that assessment can be downloaded from (www.iswa.org). In this context, we give a short summary of the principles, objectives and goals established in Rio for waste management.

Agenda 21

In 1992, Agenda 21 stated that environmentally sound waste management should move towards more safe disposal or recovery of waste and that there was a need to change to more sustainable patterns of production and consumption by introducing integrated life cycle management concepts. Furthermore, it was stated that a preventive waste management approach which focused on changes in lifestyles and in production and consumption patterns offered the best chance for reversing current trends.

Furthermore, Agenda 21 also introduced the waste hierarchy. The waste hierarchy is a stepwise approach to waste management in order of environmental priority for different waste management options. The general principle of the waste hierarchy consists of the following steps:

- Minimising wastes.
- Maximizing environmentally sound waste reuse and recycling.
- Promoting environmentally sound waste disposal and treatment.
- Extending waste service coverage.

To reach these goals, Agenda 21 set the following objectives:

- To stabilise or reduce the production of wastes destined for final disposal.
- By the year 2000, ensure sufficient national, regional and international capacity to access, process and monitor waste trend information and implement waste minimisation policies.
- By the year 2000, have in place in all industrialised countries programmes to stabilise and reduce, if practicable, production of wastes destined for final disposal, including per capita wastes (where this concept applies), at the level prevailing at that date; developing countries as well should work towards that goal without jeopardizing their development prospects.

Agenda 21 also stressed that it is very important to extend waste service coverage, especially in the developing countries. A large number of people die each year from waste related diseases. It is therefore an overall objective to provide environmentally safe waste collection and disposal services to all people:

- By 2000, have the necessary technical, financial and human resource capacity to provide waste collection services commensurate with needs.
- By 2025, provide all urban populations with adequate waste services.
- By 2025, ensure that full urban waste service coverage is maintained and sanitation coverage achieved in all rural areas.

Agenda 21 also deals separately with objectives regarding hazardous waste. It sets objectives regarding prevention and minimisation of the generation of hazardous waste and it also deals with the ratification of the Basel Convention on the Control of Transboundary Movements of Hazardous

Waste. The need to introduce cleaner production and to promote the use of regulatory and market mechanisms were mentioned as solutions to the prevention and minimisation of hazardous wastes. Agenda 21 also stresses that one of the main priorities in ensuring environmentally sound management of hazardous wastes is to provide awareness, education and training programmes at all levels of society.

The Basel Convention is ratified by 135 member countries and the European Union (as of April 2000), to address the problems and challenges posed by hazardous waste. The Secretariat, in Geneva, Switzerland, facilitates implementation of the Convention and related agreements. It also provides assistance and guidelines on legal and technical issues, gathers statistical data, and conducts training on the proper management of hazardous waste. The Secretariat is administered by UNEP. The key objectives of the Convention are:

- to minimise the generation of hazardous wastes in terms of quantity and hazardousness;
 - to dispose of them as close to the source of generation as possible;
 - to reduce the movement of hazardous wastes.
- <http://www.basel.int>*

10 years after Rio

After Rio most countries have generally accepted the waste hierarchy as a strategy towards an environmentally sound waste management system. In the last ten years the concept of Integrated Waste Management has also evolved and is slowly becoming accepted by decision makers. In such a system, the technical solution of disposing of waste is not the only focal point. Instead, it relies on a number of different means to manage waste. It aims at a holistic approach to the chain of waste management from generation to disposal and all stages in between. All actors participating in and affected by the waste management system are considered as well as cultural, social and economic factors.

Most industrialised countries have adopted a waste policy. A long-term and well-prepared waste policies required throughout the world. Clear, concise and consistent policy is necessary to set up waste management systems and make the necessary investments.

The content and the quality of existing waste policies vary. Apart from environmental and health aspects waste policy must take into consideration socio-economic, political, institutional and cultural factors. A successful waste policy can be hindered by the lack of tradition and understanding in integrating all these factors. Some factors may change rapidly and will have effects on policy, others are contradictory. Nevertheless, a well-established and supported waste policy is of crucial importance for the state of waste management in any country. Another limiting factor is the financial resources required to ensure implementation.

Different countries have developed slightly differing waste hierarchies, while everyone recognises the main grouping of options. The issues for discussion are the flexibility with which the hierarchy is to be applied and the components of the various levels of the hierarchy. First, the hierarchy must be seen as providing general guidelines and as a good basis for development of a waste policy. The hierarchical 'ranking' is established with regard to environmental effects.

A waste hierarchy based on the above ranking must be applied in a manner that is flexible and that takes account of the fact that, for many developing countries, the first priorities are ensuring that a

collection service is available to as large a part of the population as possible, and raising the quality of landfills.

- The ISWA Working Group on Sanitary Landfill has published a manual on how to set up a sanitary landfill.
- The ISWA Working Group on Developing Country Issues has published Guidance for Landfilling in Economically Developing Countries

Both publications are for sale through the ISWA homepage: <http://www.iswa.org>.

Other important definitions, agreements and principles

When decision makers have to set up a waste management system it is very important to be aware of the following definitions, principles and agreements. ISWA is, at the moment, also working on an International Waste Convention.

OECD agreement

The OECD countries have agreed on the following definitions on waste prevention and waste minimisation:

Preventive Measures			Waste Management Measures			
Prevention	Reduction at source	Re-use of products	Quality improvements	Recycling	Energy recovery	Pre-treatment
Waste Minimisation						

The EU principles

Within the EU the following principles are in force:

- To secure the preservation of nature and resources, waste production must be minimised and avoided where possible (**prevention principle**).
- To secure a reduction of impacts from waste on human health and the environment, especially to reduce the hazardous substances in waste, through the **precautionary principle**.
- To make sure that those who produce waste or contaminate the environment pay the full costs of their actions, through the **polluter pays** and **producer responsibility** principles.
- To secure an adequate infrastructure by establishing an integrated and adequate network of disposal installations, based on the principle of **proximity** and **self-sufficiency**.

These principles mark the historical evolution of the waste management system, from giving the highest priority to aspects of infrastructure, then adding aspects of human health and the environment, and finally integrating concerns on preservation of nature and resources.