Waste management - the facts

Packaging protects

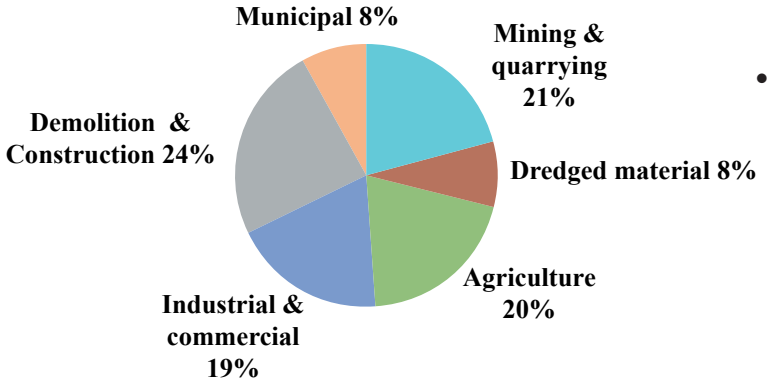
Waste comes from all types of activity and is more than just household rubbish. Used packaging is between 15% and 25% by weight of household dustbin waste. Household waste is 88% of municipal waste, which in turn is 8% of the total solid waste produced in the UK.

Good waste management should aim to achieve two things:

1. All waste should be handled to high environmental standards.
2. Waste management techniques should be chosen where possible to deliver overall environmental benefit. There is no point using energy and resources transporting materials hundreds of miles to recycle them if this uses more resources than can be recovered.

What makes up waste?

Total waste in the UK is estimated to be about 434 million tonnes[1]:



This gives a total of 221 million tonnes of waste from households, commerce and industry and construction and demolition sources, but the waste management sector's association quotes a lower amount of between 170 and 210 million tonnes of which nearly 60% is sent to landfill sites.[2]

Roughly 5 million tonnes of annual household waste is used packaging. A similar amount of used packaging is generated by commerce and industry. Just over 50% of all used packaging is recovered. This means that used packaging sent to landfill (from all sources) is less than 5 million tonnes and therefore less than 5% of total waste sent to landfill, whether measured by weight or volume.

In England in 2002/03, 74% of municipal waste was sent to landfill, 17% was recycled and/or composted and 9% incinerated with energy recovery. Over 65% of households now have "kerbside" recycling collection schemes and this is increasing.[3]

How best to manage waste?

There are many different ways to treat and manage waste. No one method is intrinsically 'better' than another. Different methods work for different materials, in different contexts. The notion of a universally applicable 'waste hierarchy' is unhelpful and can be misleading.

Three main methods of waste management are used in the UK:

1. Landfill

Modern controlled landfill techniques ensure that it is a safe and efficient way to dispose of waste. Landfill will always be needed because all other waste treatments leave residues of unusable material.

2. Recovery of value by recycling and composting – i.e. making something new out of waste materials

- The Government has set targets to increase the proportion of waste that is recycled or composted from the current 17% to 25% by 2005-6 (under EU law, composting is classified with materials recycling as a means of 'recycling').
- While recycling has its place, it is not a panacea. Recycling is an industrial process. It involves cleaning, collection, transportation and reprocessing – all of which consume energy and resources. Technically most materials can be recycled. Some small, thin, lightweight types of packaging that are heavily soiled when discarded are not worth recycling because this requires a disproportionate amount of energy – and energy use results in greenhouse gas emissions, which in turn cause global climate change, which is generally accepted to be the most serious environmental threat.

3. Recovery of value by incineration – ie making electricity and/or heat from waste materials

- Incineration is a useful way to recover some of the energy from waste and significantly reduce its weight and volume. The energy recovered from incinerating a single plastic carrier bag will power a 60 watt light-bulb for one hour.
- Only 9% of municipal waste is incinerated in the UK compared with 25% in the EU as a whole. In fact, most countries that have a high rate of recycling also have a high rate of incineration: Denmark recycles 19% and incinerates 58% (2002-03); Germany recycles 27% and incinerates 22% (2001-02); The Netherlands recycles 21% and incinerates 32% (2002-03) – the UK is the odd man out.
- Contrary to popular misconception, incineration is a safe and efficient way to dispose of waste. Residues left by the incineration process can be sent safely to landfill.

INCPEN - Industry Council for Packaging & the Environment, Soane Point, 6-8 Market Place, Reading, Berkshire RG1 2EG

Tel: +44 (0) 118 925 5991 Fax +44 (0) 118 925 5993 Email: info@incpen.org Website: www.incpen.org

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Packaging protects

Packaging and Waste

Packaging prevents far more waste than it generates and is a small amount of total waste.

INCPEN supports the objective of increasing recycling and promoting good waste management but current European policy on packaging is based far too narrowly on the mistaken view that packaging is the "waste problem".

Current policy seriously overestimates the contribution that recycling can make to diverting waste from final disposal and underestimates the need for other waste management methods. The recycling and recovery targets for packaging are the result of political negotiation and have no scientific basis – and no guarantee that they will deliver real environmental benefits.

Current policy also places far too much emphasis on packaging per se, instead of appreciating that the number of goods on the market drives the amount of packaging. The number of goods, in turn, is driven by a host of factors that are not under industry's control, such as the demographic trend to living alone, the economic climate and even fashion.

Setting arbitrary targets for the whole of Europe ignores the fact that the environmentally best level of recycling is based on local conditions, such as availability of reprocessing capacity and that it will fluctuate over time, in the same way that demand for primary materials fluctuates.

It also ignores the basic economic reality that the amount of packaging recovered from household waste, the capacity to reprocess that recovered material, and the demand for such reprocessed material must grow in unison, to avoid unwanted consequences.

Footnotes

[1] Estimates per year for years between 1999 and 2002, Department for Environment, Food & Rural Affairs (DEFRA), Environment Agency, Water UK.
[2] Environmental Services Association website.
[3] DEFRA.

Common myths

- **"Packaging is a major contributor to landfill."** Not true. Packaging from household, commercial and industrial sources is less than 5% of waste sent to landfill which means that packaging from household waste, at roughly half this, is less than 3%
- **"We should recycle everything."** Just because we can recycle most materials doesn't mean we should. Some packaging is simply not worth recycling because it takes a disproportionate amount of energy to collect, clean and transport the materials, especially if they are contaminated and present in very small quantities
- **"Household recycling is the most valuable thing individuals can do for the environment."** It isn't. While it is great that recycling encourages people to take personal responsibility for their environmental impact, there are many other things we can do which have a much greater environmental benefit. For instance, by trading in its four-wheel drive car for a family saloon, a family can save in one year the equivalent energy to that saved by recycling 400 years' worth of the household's bottles.
- **"Recycling ends at the kerbside or at the bottle bank."** Far from it. This is just the beginning of an energy-intensive process of transporting waste, sorting, cleaning and reprocessing it into new products.
- **"Incineration is environmentally unsound."** Not so. Incineration is a safe way to dispose of waste and recover some of its energy content. Modern EfW plants are far cleaner than fossil fuel power stations – by law!
- **"Biodegradable packaging is better for landfill."** Not at all. The waste materials best suited for landfilling are inert and stable. Degradable materials produce methane - a greenhouse gas that has 33 times more negative environmental impact than carbon dioxide. The European Landfill Directive sets targets for reducing biodegradable municipal waste sent to landfill.
- **"Waste management policy is based on sound science."** It isn't. Government needs to fund better collection of data on the weight and composition of all waste streams to enable better planning. INCPEN part-funded the government's National Household Waste Analysis Programme until it was discontinued in the early 1990s. This provided valuable information such as showing that household waste is not a neat pile of materials but a heterogeneous mixture of broken toys, light bulbs, cotton wool, cigarette ends, used tissues, pet litter, sanitary products, carpet sweeper dustbags, syringes, condoms - much of which cannot be re-used or recycled.

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