



### Waste Management in Cities - Contrasting Policies

The amount of waste produced by the global population is steadily increasing resulting in a continual problem over how and where to dispose of this waste. This Factsheet looks at the issues involved with municipal waste disposal.

#### Issues involved in municipal waste disposal

- The UK population currently produces approximately 28 million tonnes of municipal (household) waste per year.
- This is almost 500kg/person/year.
- The figure is growing by about 3% per year.
- The disposal of this waste has local, natural and global consequences for the environment

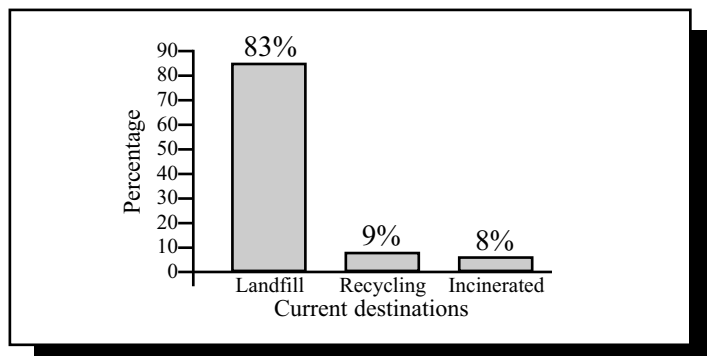
(Waste strategy 2000)

At the Rio Earth Summit in 1992 Agenda 21, the United Nations Action Plan for the twenty first century, was initiated. One of the aims of Agenda 21 was to encourage a move away from the unsustainable development of recent decades which took little account of the finite nature of resources or the damage being done to our environment. Sustainable development was essential.

The European Union has had to formulate plans and strategies for sustainable development. In turn, the UK government has been obliged to formulate national plans and strategies, and to think about ways in which Local Authorities can help to implement these strategies. Local Agenda 21 focuses on the Local Authority part of these strategies.

One aspect of this is to consider ways in which waste can be better managed. Currently, most domestic waste ends up in landfill sites (Fig. 1).

Fig. 1 Municipal waste: the current UK situation.



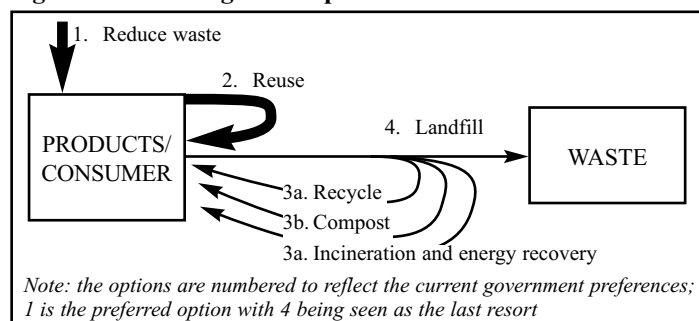
This reliance on landfill is, however, unsustainable for the following reasons:

- There are already parts of England and Wales struggling to find suitable landfill sites. This shortage of space will become more acute if the amount of waste continues to grow. Communities are often violently opposed to the creation of any new sites (NIMBY principle).
- When biodegradable waste, such as food, decomposes it releases methane which, as a greenhouse gas, contributes to global warming. It is also explosive.
- Chemicals and heavy metals can pollute the soil and groundwater. Leachate, produced from organic waste, breaks down causing the same problem.

#### What are the options available for waste management?

Figure 2 below shows the main ways in which municipal waste could be managed in the future. Table 1 summarises the options.

Fig. 2 Waste management options



Note: the options are numbered to reflect the current government preferences; 1 is the preferred option with 4 being seen as the last resort

Table 1 Waste management options explained

Waste management options	How it works
1. Reduce the amount of waste	<ul style="list-style-type: none"> <li>• <b>Producers</b> could think more carefully about the lifespan of goods and about how much packaging is essential.</li> <li>• <b>Consumers</b> could consider the issues of packaging and lifespan when making purchasing decisions.</li> </ul>
2. Reuse goods to extend their lifespan	<ul style="list-style-type: none"> <li>• <b>Bring-back schemes</b> where containers are refilled - such as milk bottles.</li> <li>• <b>Refurbishing/reconditioning</b> goods to extend their useful life.</li> <li>• <b>Used goods being put to another use rather than being thrown out</b> - e.g. plastic bags being used as bin liners and old clothes being used as cleaning cloths.</li> <li>• <b>Charity shops</b> providing a place for goods to be passed on to new owners.</li> </ul>
3. Recover value	<ul style="list-style-type: none"> <li>• <b>Recycling</b> goods such as glass bottles and paper.</li> <li>• <b>Composting</b> biodegradable waste for use as fertiliser.</li> <li>• <b>Incineration</b> (burning) of waste and collecting electricity and sometimes heat from it.</li> </ul>
4. Dispose of waste in landfill sites	<ul style="list-style-type: none"> <li>• <b>Waste</b> is put into a hole, which can be natural or the result of quarrying, or used to make artificial hills.</li> </ul>

#### National initiatives

The Department of the Environment, Transport and the Regions (DETR) has overall responsibility for waste management in the UK. They have responded to the issues raised by Agenda 21 and the targets that the European Union has set its member countries, setting out their aims for a move towards sustainable waste management in a document published in May 2000 - *Waste Strategy 2000 for England and Wales*.

**Exam Hint: The strongest candidates understand the context in which their case studies fit. This is why it is important to know what has led up to the recent developments in waste management in the UK.**

The DETR have made it clear that they want to:

- Reduce the amount of waste produced.
- Encourage greater reuse of, and recovery of value from, waste. The government is aiming to be recovering value from 67% of the municipal waste produced by 2015.

This would have the knock on effect of reducing the amount of waste that had to be disposed of in landfill sites. The Government, along with the other European Union members, has agreed targets for the reduction of waste going to landfill sites; set out in the Landfill Directive (Table 2).

**Table 2. The main aims of the Landfill Directive**

Aim	Detail
Reduce the amount of biodegradable waste going to landfill	• By 2020 the biodegradable waste landfilled should be 35% of that landfilled in 1995
Banning landfill of: <ul style="list-style-type: none"> <li>• Tyres</li> <li>• Mixed disposal</li> <li>• Other</li> </ul>	<ul style="list-style-type: none"> <li>• Whole tyres will be banned by 2003 and shredded tyres by 2006</li> <li>• Separate landfills will be required for hazardous, non-hazardous and inert waste.</li> <li>• Liquid wastes, infectious clinical waste and certain types of hazardous waste such as explosives will be banned from landfill sites.</li> </ul>
Tighter controls	• Standard strategies for control, monitoring, reporting and closure of landfill sites.

One strategy being used by the government to try and achieve these changes in waste management is their **Use It Again** campaign. This campaign encourages people to think before they throw things out and to consider whether they could use the items in a new way, or whether someone else might be able to make good use of them. The Government also launched the **Waste and Resources Action Programme (WRAP)** at the end of last year with the aim of ensuring a significant increase in the recycling of wastes and an increase in the current markets for recycled materials. The Further Research section at the end has sources of additional information on these campaigns.

### Local initiatives

Those areas that have made the most progress are those that realise that community involvement is essential if strategies are to work and targets are to be met. Case Study 1 below demonstrates this point.

**Exam Hint: Being able to use case studies to support your answers is essential to gaining a good grade. Often it is easier to remember a case study if it is about an area you know well such as your own town or city. Do you know how waste is being managed in your area?**

### Case Study 1: West Sussex County Council

West Sussex County Council, UK, provides an example of the way in which the community can be involved in the **decision-making** processes.

They won a Local Initiative Award in 2000, which gave them international recognition for their work in co-operation with the community to safeguard the environment whilst continuing to manage their waste.

In 1997 West Sussex County Council established **Community Involvement Groups (CIG)** with the aim of allowing people from the community to take part in putting together a new waste strategy for West Sussex. The minutes of the groups' meetings were published in a Newsletter that was widely distributed. Public consultations and surveys were carried out before the final strategy "A Way with Waste" was published. The result was that the council believe they have a good understanding of public attitudes and perceptions and that they now have a strategy based on public consensus.

The County has set **challenging** targets for waste reduction, recycling and the recovery of value from waste. They have already initiated a number of projects aimed at achieving these targets, including the following:

### Some different ideas happening in the UK

There are a number of other schemes in the UK to reduce waste produced:

- Many supermarkets offer a **bag for life** scheme where customers purchase a more durable bag that they can use many times instead of using new plastic bags each time they go shopping.
- Some local areas offer a service whereby they will come and take away old furniture, refurbish it and then pass it on to low income families.
- Other areas are offering to revamp old computers that would ordinarily be thrown away.

### Case Study2: Belo Horizonte, Brazil

It is often useful to be able to contrast developments in MEDCs with those in LEDCs. This case study gives an example of improvements in waste management in an LEDC city. The programme has been praised because it has improved recycling and the quality of life of the homeless.

In 1993 the municipal administration joined forces with the homeless to formalise the work that they were already doing in an attempt to recycle more of the waste produced by Belo Horizonte. Prior to this the homeless were collecting recyclable goods by cart and sorting it on the streets.

An organised selective handling and treatment system is now in place. Drop off points around the city encourage public participation in the scheme which has expanded rapidly - collection of recyclable material growing from 15 to 500 tonnes per month. There are now three permanent sorting warehouses.

### Sources

Waste Management Strategy 2000:

<http://www.environment.detr.gov.uk/waste/strategy>

West Sussex County Council: <http://www.westsussex.gov.uk/home.htm>

### Further Research

<http://www.doingyourbit.org.uk>

<http://www.letsrecycle.com>

<http://www.useitagain.org.uk>

<http://www.wastewatch.org.uk>

### Exam Questions

- Explain why waste management has become an important issue in recent years.
- Evaluate the options available for making waste management more sustainable.

### Hint

All the information needed to answer these questions is contained in this Factsheet but visit your local council's website to see what is happening in your area.

**Acknowledgements:** This Factsheet was researched by Nicky Wheeler.

### • Real nappy initiative

Approximately 47 million disposable nappies, accounting for at least 5% of the waste in West Sussex, are disposed of per year. They take about 500 years to decompose, releasing methane in the process. To try and reduce the number of disposable nappies going into landfill, the council set up the **Real Nappy Initiative** where they will pay up to £30 for each child in real nappies.

### • Home composting

The county **and districts** introduced a **joint** home composting initiative in 1999-2000 where households could buy a home composting unit at a subsidised price. There are already 12,000 in operation, cutting the amount of waste needing to be disposed of by almost 3,000 tonnes. They are aiming to have a further 10,000 bins in operation by 2001.

### • Recycling & the 'buy recycled' campaign

The Council has already introduced a recycling scheme as part of the ordinary kerbside collection of rubbish - this is working well with 220,000 households taking part. The Council has recognised that for this to have greater success they needed to promote the use of recycled goods through the 'buy recycled' campaigns promoted through schools, newsletters and on the County Council's website.