

Trans-national movement of waste:

local social responsibility
and global sustainability

**Royal
Geographical
Society**
with IBG

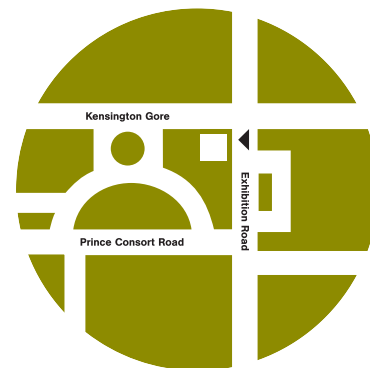
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**Environment &
Society Forum**
Summary Statement 20

Royal Geographical Society
with IBG
1 Kensington Gore
London SW7 2AR

T +44 (0)20 7591 3100
F +44 (0)20 7591 3001
E env&soc@rgs.org
W www.rgs.org/events



Summary Statement

Executive Summary

This one day meeting focused on the current challenges facing today's waste industry. *Trans-national movement of waste: local social responsibility and global sustainability*, was held on 11 April 2006. It was convened and chaired by Professor Chris Coggins, WAMTECH and sponsored by Biffa.

Seven key points emerged from the conference:

1 The current definitions of waste provided by the government and its enforcing agencies are poorly specified and need redefining if waste management companies are to be able to manage effectively the current level of UK waste. The definitions need to clearly differentiate what is considered waste and what is considered a useful resource.

2 There is a need for greater clarification surrounding what is classified as an acceptable 'resource' (Green List) for export and unacceptable 'waste' (Amber or Red List); and what level of contamination is 'allowed'. Current UK legislation allows for up to 1% contamination for a shipment of waste to still be considered as acceptable or Green List. Some other EU countries,

Germany for example, allow up to 10% contamination. Is zero tolerance realistic?

3 If the new targets for recycling, landfill and incineration in the UK (and other EU Member States) are to be met, exports of waste from the UK to developing countries will need to double. This raises concerns about the quality of waste that is sent abroad. Approximately 5% of exported waste is contaminated with other forms of unsorted waste, and is in contravention of EU Shipments Regulations. Contaminated, unsorted waste is of limited value to the overseas market, and is often dumped in landfill sites, simply transferring the problem of disposal from the UK to abroad. However, the lack of current infrastructure and need for hand sorting could result in increased levels of mixed contaminated waste.

4 UK households are being pressured into recycling and this is leading to a rise in unwanted materials owing to the poor quality of the household sorting process. Local authorities are encouraging kerbside recycling but a lack of public education is leading to mixed waste being placed in kerbside boxes. Such mixed waste does not have established reprocessing markets and therefore ends up being landfilled. This problem

could be tackled in the short term by introducing kerbside sorting by the collecting agencies (at some expense and disruption) and in the long term through public education.

5 The UK does not have the capacity or infrastructure to process the additional volume of recyclates that will be present in the UK if we are to meet the EU recycling targets. Current recycling targets are at 25%, and these are set to rise to 40% by 2010, and 50% by 2020.

6 If the EU targets are to be met there is a need for more Material Recovery Facilities (MRF) in the UK in order to sort co-mingled materials, and achieve an energy resource through residual waste recovery. This leads to the problem of siting the facilities as the UK population is reluctant for waste management sites to be located in densely populated areas where they are needed most.

7 There is a need for new appropriate standards to be introduced, which apply to all countries through which waste is being transported. The issues of sustainability, protecting the environment and ensuring human health are not at risk, all need to be taken in to account when setting standards for waste exports.

Background

In 2003 the UK produced 330 million tonnes of waste (Source: Municipal Waste Management Survey 2003/04 Defra). EU Directives, such as the Landfill Directive 1999 and Waste Electrical and Electronic Equipment (WEEE) are putting increased pressures on a waste management infrastructure that has not grown at the same rate as the amount of waste being produced.

There is clearly a demand for exporting paper, plastic and other household waste from the UK, with prices reaching £250 per tonne, but at what other cost? 15 million tonnes of waste paper and 3 million tonnes of waste plastic (a third of the waste collected for recycling) are currently imported into China each year.

With the current government review on waste management underway and the EU legislative changes forcing the UK away from land filling, the nature of how the UK monitors, treats and manages its waste will inevitably change. Will the UK move towards more and better recycling? Will it be possible to compost more waste and recover more energy? Or will we continue to see a rise in the amount of waste being exported?

Government reports such as *Waste not, want not* (2003 and revised 2005) outline how the waste strategy could be implemented. However, it was not until early 2006 that the Government actually launched its new strategy on waste.

Presentations at the meeting

Policy

Professor Chris Coggins began the day's proceedings by providing an overview of the policy that surrounds the waste industry. International policies such as the Kyoto protocol, reduction of CO2 emissions, the World Trade Organisation and the Basal Convention all refer to resources, energy and products. The Sixth Environment Action Programme 2002-2012 aims to 'better resource efficiency and waste management to bring about more sustainable production and consumption patterns, thereby de-coupling the use of resources and the generation of waste from the rate of economic growth and aiming to ensure that the consumption of renewable and non-renewable resources does not exceed the carrying capacity of the environment'. To achieve this, the EU has set standards such as the Waste Framework Directive (75/442/EEC); Product Directives such as End of Life

Vehicles (ELV), WEEE; and The Landfill Directive all focus on sustainability. Unfortunately, The Waste Framework Directive (75/442/EEC) which was amended (91/156/EEC) continued to focus more on the hierarchy of waste, with little emphasis on the definition of waste, recycling and recovery.

In February 2006, Defra published a consultation paper on the review of England's Waste Strategy stating that what we need is 'less waste sent to landfill and more of it recycled' (Ben Bradshaw MP). The strategy concentrated on three key aspects. The UK needs to produce less waste, it needs a more joined-up approach to waste – integrating the way in which we deal with waste treated by local authorities and waste which comes from business, and finally the UK needs to secure long-term sustainability by considering waste more clearly as a resource. The consultation called for an inclusive debate from all interest groups, and discussion of the policies using informed evidence. This one-day conference sought to act as a neutral platform to allow such discussions to take place amongst a variety of stakeholders.

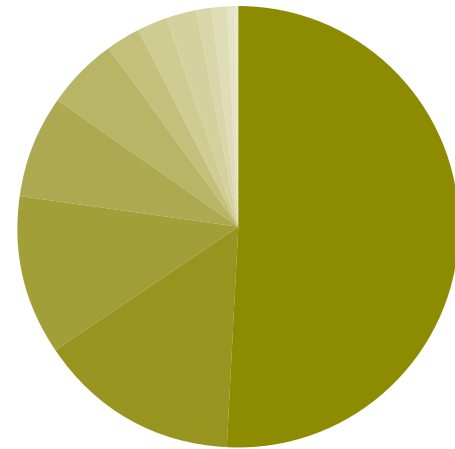
Practice

The second session of the day focused on the issues facing those working in the waste industry services. John Woodruff, Waste Services Manager for Bromley Council opened the session by discussing how councils can manage targets in light of new legislation. National household waste recycling and composting rates could reach 40% in 2010 and 45% by 2015, thereby comfortably exceeding the targets of 30% and 33%. Meeting the landfill directive diversion targets for municipal waste in 2010, 2013 and 2020 remains challenging, but achievable; but depends on investment in new facilities to increase material recovery and recovering energy from waste where there is no reasonable prospect that it can be recycled or composted. The main driver for Local Authorities to meet these targets is the Landfill Directive, as no financial penalties currently exist. Defra estimates that waste is growing at 1.5% per year, how can councils meet this? Do households need to be educated about what can be recycled? Does recycling need to be compulsory? Should all recyclables be collected in a co-mingled fashion and left to the collecting authority or its agent to sort?

The speaker reported that 40,000 tonnes per year of paper is currently available for recovery or recycling. Of this around 17,000 tonnes are recycled. The figures for glass are 7,000 tonnes per year available and 4,000 tonnes per year recycled and for plastics the figures are 12,500 tonnes per year and 1,000 tonnes per year.

What makes up Britain's recyclate? The graph, right, reveals that the highest proportion comes from paper, at 50.91% and the lowest proportion is from tyres at 0.01%. Is resource separation the key to meeting the targets?

The Waste Strategy Review offers an opportunity to consider what roles experts can play in meeting UK recycling targets and how to ensure exports of waste for recycling and other forms of recovery, are in accordance with the relevant export controls. Compliance failings mean that tighter measures need to be introduced and responsibility needs to be strengthened. Responsibility lies with local authorities for the export of household recyclables, producers for non-household waste; and regulators including the custom authorities. We therefore need to build on progress to ensure that Councils meet the Landfill



Composition of Recyclate (%)
Source: Bromley Council

Directive targets and other European commitments, but also need to shift the emphasis for the future. The one main obstacle to establishing markets for recyclates is that while a material is still legally a 'waste' it is subject to regulatory controls that non-waste materials are not. The EU Thematic Strategy 2005 recognises the importance of

stimulating demand for recycled materials and that establishing common quality standards can help their acceptability. Materials conforming to such standards would then cease to be treated as waste for regulatory purposes. In order to achieve targets in a socially and economically sustainable way Local Authorities need a regulatory system.

Mary Corin, Director of Recycling Development at Grosvenor Waste followed by agreeing that kerbside separation would never deliver the targets and the cost would inevitably drive the waste industry towards co-mingled collections.

4% of Directive waste is exported and is considered hazardous, but one of the grey areas is determining what constitutes amber or green list waste. The table, above right, shows how green list exports of paper have risen since 1999, but how does this impact on the export of material.

The message from the regulators is zero-tolerance, however countries such as Germany allow up to 10% contamination. Is zero tolerance realistic? The mixing of newspapers and magazines is therefore considered amber list, but how is mixed paper classified? Kerbside sorting

Green List Waste Exports of paper

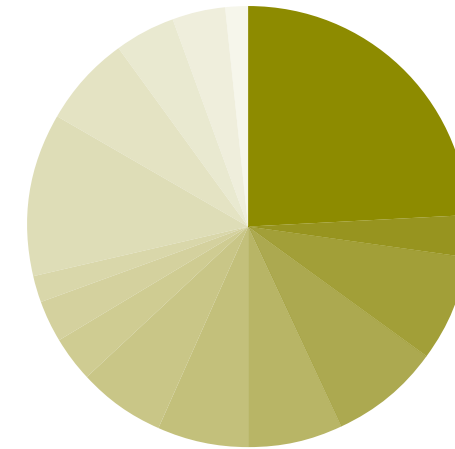
1999	6,812
2000	13,468
2001	694,355
2002	1.23m
2003	1.99m
2004	2.56m
2005	3.28m

Sources: Environment Agency, Confederation of Paper Industries

cannot expect to achieve this, so it will therefore be left to industry. However, if there is a market for exporting mixed waste, why not export it?

Waste can therefore be thought of in terms of value chain management, as shown in the diagram overleaf. Waste has a value, which if managed properly provides a valuable resource.

Interpretations of green list waste include for example, segregated paper, plastic, glass and cans. However, a 1 tonne bale of paper and one plastic bag is considered as amber list waste and unsorted household waste is considered toxic. The 2005 industry green list is still unresolved. Guidance notes are unclear and need clarification and new guidelines are needed to determine what is acceptable and what is not.

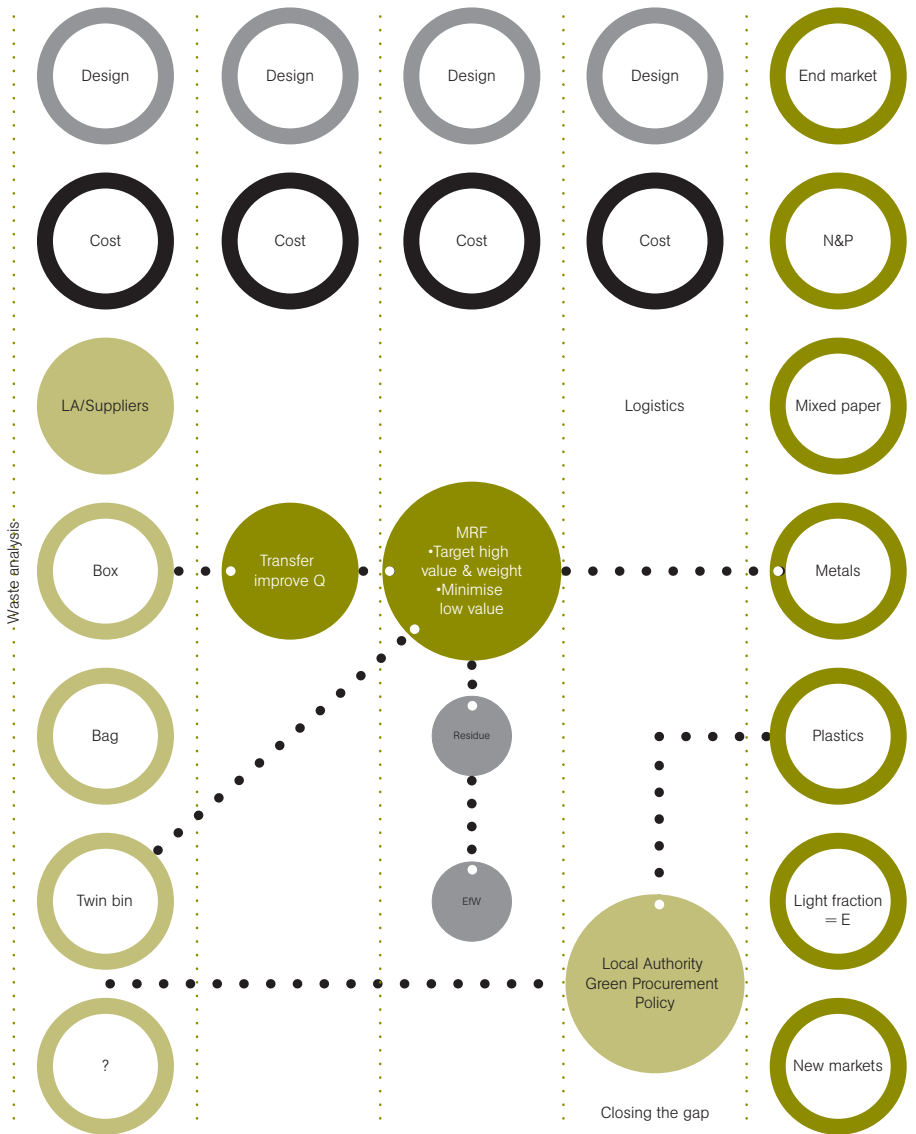


Household waste accounts for a quarter of 'controlled' wastes

Source: UK breakdown of waste DETR, Waste Strategy 2000

'Controlled' wastes (tonnes)

- Household waste **25 million**
- Other municipal waste **25 million**
- Commercial & industrial wastes (detailed below) **78 million**
- Chemicals, rubber & mineral products
- Food, drink & tobacco
- Metals, metal products
- Textiles, wood & paper
- Other manufacturing
- Transport, storage, communications
- Coke, oil, gas, electricity, water
- Miscellaneous
- Other business & public administration
- Retail
- Wholesale
- Hotels & catering
- Education



Acceptable?



Unacceptable?

Does this mean we are all exporting illegally? If the UK did not export any materials, it would need to landfill 4.6 million tonnes. Recyclable collections would have to cease, UK paper mills and processors would charge gate fees to take material in and the EU would issue fines for not meeting targets. Is this sustainable for either the environment or the tax payer? The UK competes with other countries, so is this ethical or sustainable? Where will the 4.6 million tonnes come from if we do not supply recycled paper products? Should the UK have done more to prevent the demise

Value chain management – Commodity trading
Source: Mary Corin, Grosvenor Waste

of its own industry? Why are paper mills in the UK closing whilst we continue to export paper?

Responsibility

Professor Nicky Gregson from Sheffield University introduced an area that had been largely excluded. The presentation focused on ship breaking, with particular reference to the Hartlepool ghost ships. The ease with which policies can be circumvented can be clearly seen in this case study. Ships are regularly caught in the regulatory system as they pass through several countries, all of which have different systems in place. Once ships have been broken down the issues become about handling and managing waste and therefore the issue of the spatial division of labour in waste management arises. Ships also break the mould as it is not simple to classify parts, some are considered hazardous (red waste), whilst other parts green waste under the Basel Convention. The issues surrounding ship breaking are not included in the current Defra strategic review.

Professor Adam Read, Head of Waste Management at Hyder Consulting, Birmingham, described the following

as being the main drivers of sustainable development:

- Ethos of Sustainable Development
- EU Waste Management Policy
- Climate Change Agenda
- Reduction of our Natural Resource Base
- Landfill Directive
- UK Statutory Recycling Targets
- Public Interest & Demand
- Dwindling Natural Resources
- International Commodities Markets
- Our 'inherent' need to 'do the right thing'
- Our concern about 'our children's children'

The issues we face in the UK are 'nothing' compared to the problems being faced in Africa, Asia, Latin America for example. As with war, famine and poverty we have an international requirement to safeguard society and the environment. We need to consider the sustainability agenda in these countries. As a developed country, do we need to do the right thing?

The Environment Agency has 'discovered' potentially substantial amounts of waste being sent overseas for recovery that do not conform with the requirements of the EU Waste

Shipments Regulation (259/93/EEC). According to the EA much of this waste is municipal in origin and is exported as 'mixed waste'. The waste has most likely been collected, possibly for sorting in the UK, before being sent for recovery, but this initial sorting has not taken place and as a result contaminated waste is being sent abroad in contravention of the Waste Shipment Regulation.

Continuing to export waste is vital for the UK to meet its statutory recycling targets. The alternatives are to build new UK recyclate markets, build new UK reprocessing capacity/ infrastructure, change collection systems, build new MRF's, build new Energy from Waste (EfW) plants and change of Government policy on 'resources'.

The Green Lobby suggests preventing waste by changing consumption patterns? It also suggests recycling more. Exporting waste is seen as an example of the UK dumping its problem on the Developing World. However, many of the plants in the countries where waste is exported to are state of the art, they are just as concerned about their environment but they do not have a throwaway society and do not have an over-abundance of 'waste materials'.

What is more important, the proximity principle or the workings of the global economy? Recyclables should be considered as a 'resource'. If the UK can compete with cheaper and larger export markets then we should work within these. For example WRAP (Waste Resources Action Programme) are looking to build up UK capacity and invest in the sector, but it will take time to deliver and it will not meet demand alone. Surely, it is better to use UK recyclate as a resource for developing economies than their own virgin materials? But perhaps we need to question the health and safety and environmental regulations of these markets first to determine whether this is environmentally sound.

Recycling is seen as the solution. A large proportion of the UK actively recycle, but why? If the reason is to save resources then we should re-process locally. But who wants a 'plant' near to where they live. Reprocessing 'somewhere else' is better than using virgin materials, wherever the capacity. But we need to make informed decisions and for that we need informed data to work with.

Delivering a sustainable future is possible, but the UK is part of the global problem as well as part of the solution. In order to achieve a sustainable future we all must play an active part. We must make consultative decisions. We must take ownership of the problem. We must act with integrity. We must encourage sustainable development.

Summary

Peter Jones, Chief Executive at Biffa summed up the day. As an economy we are producing over 400 million tonnes of waste. The planet is capable of managing this, but the population is not. New Scientist recently described the current era as the Homocene – we are the first generation of man most likely to impact on the planet. The problems rest with humans, not the planet. There is no environmental cost built into the economic cost of items. Why pour £600 million into subsidies for recovery when you don't know how to handle it? Is this the fault of the government or the waste industries?

Building new processors would require an extra £20/tonne to cover the cost. Land filling is therefore the cheaper

option. Debates such as this one taking place today are crucial to accelerate the debate but it is the six major UK waste management companies that will ultimately be responsible for ensuring that the UK meets its EU targets.

Overseas exports are crucial but they are part of the mesh. There is a complex interplay between value and quality and the ethical valuation. One solution is to reduce production of consumables eg produce efficient washing machines.

The international trade of resources is acceptable, but we need to think about the mechanisms and create a united waste world in order to ensure that we are acting in a locally responsible way whilst achieving global sustainability.

Sponsors

The day was accredited by the Chartered Institute for Waste Management and sponsored by Biffa. Our thanks are extended to both for their contribution to the day.



A delegate list is available upon request.

Front cover image Map © Ordnance Survey

Environment & Society Forum

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