

Public Involvement in Local Waste Strategy Development and Facility Planning: exploring opinions from stakeholder groups

K. S. Garnett, MA, MSc (Eng.) B.Eng. (civil)

Centre for Sustainable Consumption
Sheffield Hallam University
Howard Street
Sheffield S1 1WB, UK
k.garnett@shu.ac.uk

T. H. Cooper, Ph.D

Centre for Sustainable Consumption
t.h.cooper@shu.ac.uk

M. J. Heath, Ph.D

Faculty of Development and Society
m.heath@shu.ac.uk

G. A. Cartwright, M Phil.

Faculty of Organisation and Management
g.cartwright@shu.ac.uk

Abstract

Stakeholders and communities need to be given an early opportunity to shape local waste policy in order to encourage the swift planning, development and acceptance of alternative technologies needed to meet imminent statutory targets to divert materials from landfill. Some local authorities in the UK are testing more participatory methods such as citizen juries and consensus panels but these one-off exercises have to date not been capitalized upon in building experiences and expertise. This paper presents preliminary findings from a qualitative study that explores the socio-technical nature of the municipal waste problem and establishes stakeholders' opinions on the mode or level of participation appropriate for decisions on the treatment and disposal of residual waste.

Keywords:

Public involvement, consultation, municipal waste management, energy from waste, incineration, decision making

Introduction

In local government, public involvement based on 'communicative partnerships' has been conceptualised as an approach for building public support of policy decisions (Defra 2005a). In relation to waste management, 'involvement' means more than simply local authorities providing information and inviting responses to consultation documents, although both still have a role to play. Stakeholders (those with an interest in the issue) and the wider community (those directly and indirectly affected by the issue) must be given the opportunity to participate in shaping policy – usually before, rather than after, the strategy document and facility application have been produced (Defra 2005a; ODPM 2004).

Current legislation and guidance for waste strategy and facility planning include statutory requirements for public involvement in the UK. Decision making policy based on relatively passive involvement through opinion polls, service satisfaction surveys, consultation documents and public meetings has had a long, on-going tradition in local government (ODPM 2002; Petts 2000). A few local authorities have responded to new regulatory requirements by testing participatory methods such as citizen juries, community advisory groups or committees and consensus panels as part of waste policy and strategy development (Petts 2004). The process of defining the problem, identifying the actors, determining the agenda, assessing risks, recommending solutions and taking part in the final decision has not been open to the public. The major challenges faced now are how to conceptualize unknowns, the limits of available scientific knowledge, the cognitive biases inherent in risk analysis, and thus the terms for wider involvement in such judgments (Levidow and Marris 2001).

The 'analytical-deliberative process' (an approach that balances analysis and deliberation with interested and affected parties in risk-based decision making) was developed in 1996 by the United States National Research Council (NRC) and has proven a viable approach to public involvement. It has been used to address challenges inherent in developing and implementing policies on a wide range of environmental issues. In the US, it was used to study energy policies, water quality standards and sludge disposal strategies (Stern & Fineberg 1996). In Western Europe (Germany and Switzerland), a modified approach has been applied to studies of waste disposal issues (Renn 1999). The approach is based on participatory decision making that explores the socio-technical nature of risk decisions and involves appropriate policy makers and specialists in risk analysis along with a wider group of stakeholders to provide good representation of the relevant range of interests, values and outlooks to complement technical expertise.

The main focus of past research has been on risk communication and, more recently, mechanisms for involving the public at higher levels in decision making. Studies have been conducted on the best way to present information (Krimsky and Plough 1992), the best medium for transmitting information to a target audience (Chipman et al. 1996) and the relevant people to whom to impart such information (Frewer et al. 1996 cited in Rowe and Frewer 2000). Other studies have focused on the requirements for deliberative democracy (based on two-way communication between decision makers and the public) (Tuler and Webler 1999; Cohen 1997; Stern and Fineberg 1996). Less research, however, has been conducted to evaluate what mode or level of participation is appropriate and can easily be integrated into relevant decision systems (Petts 2004).

Several issues need to be addressed; they include weakness in evaluative frameworks to assess participatory processes; stakeholder 'fatigue' (especially interest groups and

middle-level staff from public and private sector institutions who either feel obliged to be, or are required to be, involved), and fragmentation of expertise and experience as one-off exercises, not capitalized upon in building new participatory policy institutions across government (Joss and Bellucci 2002). One mechanism for addressing these challenges is to recognize the need to design and implement participatory processes which are 'fit-for-purpose' (i.e. relevant to the decision situation and context, easily integrated within decision making structures, and negotiated within existing constraints such as time and resources, information requirements etc.).

This paper draws from a programme of research established in response to these issues. The main objective is to develop a framework for designing appropriate strategies for combining methods of analysis and deliberation in delivering municipal waste management decisions. The research focuses on decisions related to the selection and installation of waste treatment and disposal facilities in the U.K., particularly controversial facilities such as energy from waste (EFW). There are three main elements to the research programme:

- 1) a qualitative study involving a series of 32 interviews with key stakeholders across the UK waste sector
- 2) a large-scale survey of opinions and attitudes on different strategies for public involvement, potential impacts and outcomes of decisions
- 3) two case studies to assess the implementation of the framework empirically and make recommendations on the appropriateness and practicality for local authorities

The overall aim is to explore the socio-technical nature of the municipal waste problem and identify opportunities for legitimizing decisions through improved dialogue and mutual understanding between policy makers, industry experts and the public. The research addresses the opinions and attitudes of stakeholders in relation to:

- waste policy and solutions (e.g. alternative technologies to landfill)
- priorities and judgments (e.g. in considering waste management options)
- political will, public concerns and experience with alternative technologies (e.g. EFW), and
- public involvement in waste management strategy and facility planning.

The paper presents preliminary findings from the qualitative study. It explores the socio-technical nature of the municipal waste problem and establishes opinions on higher levels of public involvement at different stages of the decision process. The following section clarifies the municipal waste problem within the UK, identifies institutional structures and responsibilities for establishing waste management policy and summarises government guidance for building public concerns and values directly into decision making structures.

Overview of Municipal Waste Management Policy

There have been significant changes to waste policy in the UK associated with European legislation. Under the terms of the 1999 Landfill Directive, local authorities must reduce the volume of biodegradable municipal waste sent to landfill. The UK Government extended the terms of the Directive and set statutory targets for the diversion of materials from the waste stream and recovery of waste from landfill. The *Waste Strategy 2007* has set higher national targets for recycling, composting and recovery of municipal waste (Defra 2007). A renovation of the waste management infrastructure is needed along with swift planning, development and acceptance of alternative technologies to meet landfill diversion targets. There has been growing interest in EFW as a feasible alternative to landfill. However, the perceived risks associated with the operation of combustion facilities (e.g. atmospheric pollution and health risks) prevent wide based implementation of EFW facilities. In general incineration has had a very poor image in the UK and has not taken off largely because perceived risks make it deeply unpopular among local communities (FOE 2005).

An earlier version of the Waste Strategy led to the suggestion that the number of waste incinerators in the UK would have to increase substantially to meet landfill diversion targets. Estimates from industry suggest that 130 (Davoudi and Evans 2003; pp.22) to 165

(POST 2000) new incinerator facilities would be required to deal with residual waste. The support for EFW was met with considerable opposition by the media and public and so the revised policy said incineration would have to be part of an integrated waste management strategy, where opportunities for recycling and composting would have to be explored first. However, concerns remain that there is no definitive guidance on how local authorities can prove that options higher in the hierarchy have been exhausted before adopting EFW.

EFW continues to play a limited role in local waste management policy. In 2000 there were approximately 13 facilities operating across England (POST 2000) which increased to 18 in 2006 (ESA 2006). This is largely associated with issues of public acceptance and political will. A large number of waste facilities were successfully 'fought off' by local communities during 2000–2005 (FOE 2005). For example, the Government refused plans for the extension to one incinerator (Edmonton, London) on the basis that it would act as a disincentive for recycling (Greenpeace 2002). In response to such public pressure, many local authorities are reluctant to commit to EFW and seek more acceptable technologies which retain operational flexibility over long term contracts, do not prejudice direct recycling and represent realistic value (Biffa 2004).

As most new waste management facilities require planning permission, guidance on strategic planning will be instrumental to the timely provision of facilities. However local authorities are running out of time to deliver against targets for diversion from landfill. They cannot afford to defer decisions on new infrastructure because of the time it can take to develop waste management facilities: energy from waste (10 years), gasification (7 years), mechanical biological treatment (3 years) and composting (2 years) (ESA 2004).

Such developments need to be understood in the context of significant changes in the conduct of public affairs at international, national and local levels. The Aarhus Convention (1998) establishes a principle of open communication between government and citizens, and seeks to engage greater involvement at all stages of environmental decision making. The European Union (EU) Directive providing for public involvement in the development of plans and programmes¹ implements this objective and seeks meaningful and continuous engagement on issues relating to Municipal Waste Management Strategies and Local Development Documents. Mechanisms such as Strategic Environmental Assessments², Statements of Community Involvement³ and Sustainability Appraisals⁴ have driven local authorities to pursue more and better engagement and helped to structure the way that people are involved (Defra 2005b).

Public Involvement

Having summarised the UK context, this section compares philosophical concepts, assumptions and expectations inherent in participatory and non-participatory methods for stakeholder and community involvement.

Philosophical Positions on Public Involvement

Two different perspectives on how risks should be defined, communicated and managed in environmental matters have fuelled the debate on whether stakeholders and ordinary citizens should be involved in decision making (Rowan 1994 cited in Gurabardhi et al. 2005). The technocratic perspective, used traditionally in waste management, is that decisions regarding technological and social hazards should be made by experts and

¹ Directive 2003/35/EC is being implemented in part through amendment of the Environmental Impact Assessment (EIA) Directive, the Integrated Pollution Prevention and Control (IPPC) Directive and principles already embedded in the Strategic Environmental Assessment (SEA) Directive.

² The EU Directive 2001/42/EC (the SEA Directive) promotes innovative and active involvement of stakeholders from the early stages of the MWMS development and throughout its development thereafter.

³ The Planning and Compulsory Purchase Act 2004 introduced the requirement for each local planning authority to produce a SCI to set out how communities will be engaged in the preparation of LDD and consideration of planning applications.

⁴ The regional planning system has also placed increasing emphasis on community involvement in the development of planning documents, and in making planning decisions. Ideally, where the MWMS and the LDD are concerned, the process of community involvement should be an integrated one (Defra 2005b).

scientists with relevant knowledge (Rowe & Frewer 2000 cited in Gurabardhi et al. 2005). Habermas (1966) introduced a more 'democratic' model based on a reiterative communication process between politicians, experts and the public. He envisaged that the development of policies would be directed by interpreted value systems, and at the same time, the interests reflected in these value systems would be controlled by examining them in light of technical possibilities and the strategic means of their satisfaction. His model captures the iterative process of the definition of problems, their translation into policy issues, re-definition in the light of available new knowledge, and the translation of knowledge into decisions (Weingart 1999). The democratic perspective, based on a form of consensus decision making, embraces issues such as fairness and the claim that ordinary citizens should be able to co-determine decisions that affect their livelihood, security, safety and health (Fiorino 1990; Renn et al. 1995 cited in Gurabardhi et al. 2005). Jasanoff (1990) concluded that some balance in the use of expert and local knowledge is required to legitimise policy decisions.

Participatory and Non-participatory Approaches

According to Arnstein's multi-level hierarchical ladder of participation (Arnstein 1969), the degree of influence or level of power that citizens have in decision making distinguishes participatory methods from non-participatory methods. For instance, consultation documents and public meetings, if used as the total extent of participation, tend to give citizens little say and decision making is left entirely in the hands of the authorities. The use of questionnaires or surveys tends to avoid such conflicts but limit contact and dialogue with the public (Booth and Richardson 2001; Arnstein's 1969). Participatory methods that adopt the use of citizen panels and juries increase the degree of influence for citizens, in that they can enter into communicative partnerships to negotiate and engage in trade-offs with decision makers (Arnstein's 1969). Weidemann and Femers (1993) progressed Arnstein's concept of increasing levels of citizen power to classify participation in terms of public rights, adapting it to their analysis of decisions needed for the purpose of hazardous waste management. According to their analysis, public participation increases with the level of access to information as well as the level of influence citizens have in decision making.

More advanced approaches to participation often imply direct democracy, where there is an expectation that citizens will have 'real' influence on decisions. Some contend that participatory decision making does not contradict the rules of representative democracy and should be used as a complement to, not replacement of, traditional methods of participation (Gurabardhi et al. 2005; Petts 2004; Woltjer 2000). Others warn that early involvement of the public in decision processes can compromise the objectives of efficient and effective policy implementation or violate the principle of fairness, where some interests are likely to override others in steering policy (Rowe & Frewer 2000 cited in Gurabardhi et al. 2005; Okrent 1998 cited in Renn 1999). Imposing some structure or developing a systematic procedure to reach consensus on values and preferences is necessary to make the public position clear and maintain fairness throughout the process (Renn 1999; Bullen & Sacks 2003).

Qualitative Study

Qualitative information was gathered from a series of 32 in-depth interviews, using open ended questions, to generate a typology of perceptions of the municipal waste problem. This was created by modelling how waste management decisions are framed by local authority officials, waste industry experts, government officials and regulators, environmental campaigners and other community groups. A modified problem-structuring technique (based on the soft system methodology devised by Checkland [1981]) was used to enable several alternative positions to be brought into conjunction with each other so as to accommodate different views. This 'negotiated' view was based on an analysis of participants' interests and vision for change, the socio-technical context (the relevant expertise, assumptions and judgment) and politics (i.e. disposition of power) in the decision

situation. The process illustrates the desirability and feasibility of using more participatory approaches in strategy development and facility planning.

A Modified Approach based on SSM

In the light of this analysis, a pragmatic interpretation of SSM⁵ was adopted for the qualitative study. The philosophical foundation is based on intersubjective reasoning which presents the idea of 'critical realism' (Robson 2002; Johnson & Duberley 2000), a model of scientific explanation which avoids both positivism and relativism. The philosophical view of this tradition is that there is no unquestionable foundation for science (i.e. no 'facts' that are beyond dispute), knowledge is a social and historical product, and 'facts' are theory-laden. The real world is viewed as complex and stratified into different layers, while social reality incorporates individual, groups and institutional, and society levels (House 1991 cited in Robson 2002). Decision making is based on a 'negotiated view' of the problem. The premise for success lies with the degree of 'fit or match' between underlying theoretical predictions and information collected. The presumption is that the decision maker is better able to function as a result of the theory plus the deeper insight and greater confidence obtained from witnessing many different views of the problem (Mitroff and Tiroff 2002). The analysis is problem-oriented, where the focus is on exploring the issues fully before identifying a solution (Figure 1).

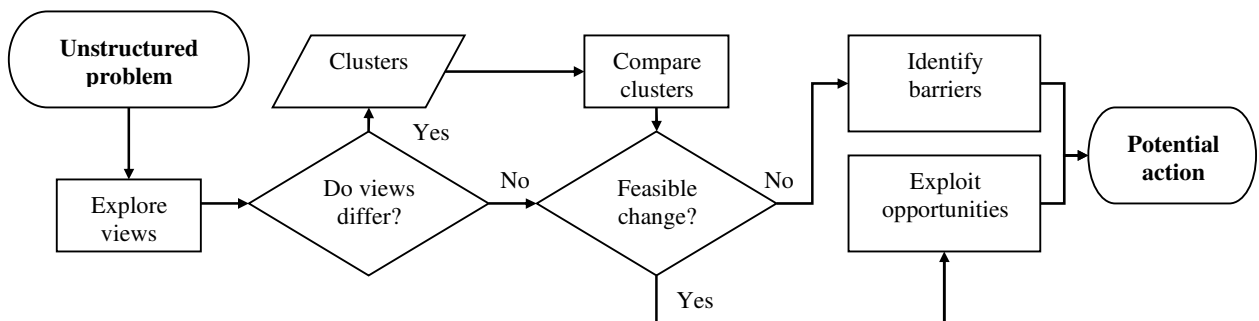


Figure 1: A problem-oriented approach.
Based on Checkland's Soft System Methodology

Form of Analysis

The analysis of interviews was systematic. It captured in a contextualised form (i.e. political, social, technical etc.) the main entities, structures and viewpoints in the situation, the processes going on and the main issues. Throughout the process, new points to emerge, particularly local examples, were brought into the analysis to provide evidence of participants' judgement, interest or positions on waste management.

Sample Representation

Participants were drawn from a range of backgrounds and interest in waste management. The interview sample was stratified into three categories according to common interest (key stakeholders, local authorities and citizen groups) so as to ensure a wide range of interested and affected parties was represented. Most participants in the citizen group were selected from the same local authority districts in the sample to compare information gathered and assess issues related to misrepresentation, bias and reliability of evidence. Time and resource constraints meant that the sample was limited to a minimum of 10 participants from each sample group, which consisted of institutional and non-institutional organisations (Table 1).

⁵ SSM is an approach to organisational process modelling and it is used for both general problem solving and in the management of change. The methodology was developed from earlier systems engineering approaches, primarily by Peter Checkland (1981). The primary use of SSM is in the analysis of complex situations where there are divergent views about the definition of problems usually within a social context. In such situations even the actual problem to be addressed may not be easy to agree upon. (e.g. the improvement of health care services). To intervene in such situations the soft systems approach uses the notion of a 'system' as an interrogative device that will enable debate amongst concerned parties. See Checkland (1981) for more information on the approach.

Table 1: Sample Representation

Sample groups	Sub groups	Institutional and non-institutional actors
Key stakeholders	Government and government related	Government departments
		Government agencies
	Non-governmental	Non-governmental organisations
		Private sector organisations
		Waste academic associations
		Waste management companies
Waste industry	Waste management consultants	
	Local government	Unitary authorities
		Waste disposal authorities
Waste collection authorities		
Citizen Groups	Environmental	Community networks/organisations on waste
		Environmental campaign groups
		Community action groups
	Citizens	Members of Citizen Advisory Panels on Waste
		Convenors / facilitators of stakeholder engagement processes

Preliminary Findings

The analysis revealed complex relationships between different groups and how stakeholders perceive, act on and negotiate their interests in relation to waste policy. The intellectual and emotional energy of participants is focused on conflicts between political, social, economic and philosophical values, particularly as they relate to siting controversial waste facilities such as EFW.

Exploring Views of the Problem

Some of the key findings to emerge from the interviews are described below, and grouped under the main themes of the research.

1) *Waste policy*

There was a feeling among participants that there ought to be more clarity in the approach to waste management in national policy. For instance, participants from the waste industry felt government ought to make its wishes more clear in terms of the broad mix of technologies that can be adopted. One proposed that it should “set a national framework for every authority to follow” while leaving the choice as to what blend of technologies to use in a particular locality to private sector operators. One environmental campaign group felt that the private sector operator should not be allowed to “dictate the waste policy to local authorities” since waste has become a lucrative business and private companies are more interested in financial gains than finding the best solution for local communities. Local authorities, on the other hand, felt that the government needs to take a lead role in addressing the perceived health risk associated with waste incineration facilities.

Participants debated whether national or local government should be responsible for educating the public on the need for waste facilities. One participant from academia felt that central government should take responsibility for encouraging the 'ownership' of waste: “householders don’t feel any responsibility for their waste and therefore they don’t feel any ownership of waste facilities...it will only happen when financial incentives force people to take notice”. Some local authorities felt they do not have the capacity to drive “real change” in terms of correcting perceptions of waste facilities or encouraging householders to be responsible and reduce or recycle waste.

2) *Waste solutions*

Participants raised a range of issues surrounding technological solutions to waste management problems. In terms of the choice of technology, a participant from a government agency felt that for the first time there are visible links between waste and climate change which should now drive forward renewable technologies such as EFW: “we need to move away from our dependence on biodegradable waste going to landfill. Now if authorities feel

they can do that purely by recycling at kerbside then that's good, but a lot of them are looking at whether there is an energy component that they can extract". Other participants from government agencies and the waste industry were unclear about the future role of landfill. One felt that this will ultimately determine the extent to which other options are taken on because the real driver to find alternative waste solutions is the cost of landfill. Participants across the waste industry felt a large number (and range) of waste facilities (i.e. "500 across England"; "2000 across the UK" in the next 3-5 years) will be required to replace landfill. Some felt that the solution would be to establish a widely distributed range of treatment facilities.

In terms of the deliverability of waste targets, one participant from a citizen panel said local authorities are aiming to meet their statutory minimum targets and are not being ambitious. A participant from the private sector said "you won't achieve a 33% target if you aim for 33% - presumably you have got to aim a bit higher". Some participants from the private sector and environmental groups felt that many local authorities are overspecifying capacity for dealing with residual waste because they are basing it on unrealistic growth rates. A participant from the waste industry felt that EFW incineration is proven but there is much less experience with other emerging technologies like gasification and pyrolysis in the UK: "mechanical biological treatment (MBT) has an increasing role to play as long as there is something sensible to do with the outputs because at the moment there is no capacity to recover energy from refuse derived fuel (RDF)". Some participants felt funding from central government is a problem for local authorities because it ultimately affects if they are able to deliver the strategy. A participant from industry felt that achieving a correct balance between EFW and MBT is difficult for local authorities because it is affected by the availability of markets for recyclables.

3) *Stakeholders' priorities and judgement*

Participants had different views of priorities for developing deliverable waste strategies. One local authority participant felt that the deliverability of a waste strategy is not limited to meeting targets and wider environmental and economic factors. It also had to be a strategy that will encourage the public to "own, buy into and participate in". He felt "a waste solution which would technically allow you to meet to meet your targets and reduce cost might be one that would be difficult to deliver because of public opposition, getting planning permission for facilities and also for the public to buy into and participate in terms of collection service".

Most local authorities prioritize landfill diversion targets, statutory recycling targets and costs of solutions over local environmental benefits and public satisfaction. Some participants felt that with potentially contentious technologies like EFW, local authorities need to be honest and candid with the public in terms of their motives, priorities and how and what they base their judgement on. For instance, "if the priority is CO₂ reductions, then the net benefit of EFW in comparison with higher levels of recycling is a more attractive option".

Some participants felt that the main priority for residents is an efficient and cost effective service and that some citizens prioritize health and environmental impacts only if they live near waste facilities. One participant felt that by building EFW plants within local communities, government is prioritising national benefits (from avoided CO₂ emissions) over local benefits (avoiding local emissions which potentially could have negative implications for human health).

EFW very rarely does very well when we appraise it against criteria that are developed by the community...you have to ask "how is it that the government and the Environment Agency think this is such a fantastic facility". One of the reasons is the expert view, which is not the community view, that you take into account the avoided emissions from a power station 200 miles away.

Local communities, unsurprisingly in my view, are not desperately concerned with that.

- Principal, Waste Management Consultant

Another participant felt that the use of objective methods such as life cycle analysis (LCA) and cost benefit analysis (CBA) to address questions of technological risks and

environmental and other impacts provides a basis for making decisions for the interest of communities instead of individual fractions of the community. Transport is relevant here.

One of the most effective ways of appealing against a facility proposal appears to be dealing with the increase in transport. If you personalise the risk then I think you are sort of pandering to the NIMBYs so I think there has to be an element of independence...for the good of the community.

- Manager, Waste Academic Association / Waste Consultant

4) *Political will*

Participants felt politicians, like local authorities, do not want to be unpopular and so are driven to adopt waste solutions that are acceptable to the local populous but do not necessarily provide a solution to the waste management problem. A local authority situated in the South East explained the basis upon which their policy of 'no incineration' was adopted.

...a planning application was put in to build... if I remember right, a plant feeding a 330,000 tonnes fluidised bed incinerator - a huge scale. As you can imagine that got a lot of ferocious opposition from the public generally but specifically in the area where it was proposed.

- Chief Waste Management Engineer, Unitary Authority

One participant from the waste industry felt the imminent pressure of landfill diversion targets is driving politicians to be less "dogmatic" in their approach. A participant from a citizen panel felt politicians need to make long term strategic decisions that last over the lifetime of several local authority administrations to ensure solutions are sustainable. A local authority in London felt they needed to be more transparent and clear.

Our Waste Policy Statement states that the County Council will be adopting EFW as part of the waste solution. I think it is quite a bold thing for the County to do but it does show leadership in terms of what our stance is even if everyone doesn't like it. It doesn't commit the County to EFW but it does make it clear it can be an option...it is about transparency

- Waste Planning Officer, Waste Disposal Authority

A member of a citizen panel had a different view; he felt that tax levels restrict local authority funding and impose difficulties for resolving the waste management problem. A participant from a local authority explained that mainstream society is not willing to pay higher taxes for advancement in solutions to waste management problems.

Cheapness and simplicity, that is what the public wants - we went out to ask the public... whether or not they would like us to reduce the number of times we collected their waste in order to put more money into recycling. And 65%...said no. Now we didn't need to ask them "how much more you would be prepared to pay to have a range of services" because you know if you put their rates up more than they would like, then they will vote the party out

- Head of Waste Management, Unitary Authority

5) *Public concern and experience*

Participants generally felt that the public's stance on waste issues is related to experience or concerns associated with perceived risks and social impacts. Participants (mainly local authorities) tend to put the public into various categories according to their interests and positions on waste management. Some are seen as uncompromising and radical in the position they take on incineration.

I think for the hard-line environmental lobby group who are dead set against EFW and don't have the responsibility of delivering anything I don't think there is room for debate with them.

- Head of Waste Management, Unitary Authority

Some participants are more optimistic about the ability to debate with environment lobby groups. One participant suggests the position of 'middle ground' groups can be further stratified according to whether they are directly or indirectly affected by waste facilities. A participant from a local action group against incineration felt that citizens are justified in opposing waste facilities when "in their backyard". He implied citizens would take more of an interest in waste strategy if sites are identified during strategy development.

Of course nobody local was particularly interested in the strategy - it was just what the County and City were talking about doing. If they were saying "we are thinking of doing this and it will be done here", then - believe you me - we would have been involved in that process. ...We were accused of being NIMBYs and we admit "yes, definitely" we don't want this thing in our backyard - nobody would want this thing in their backyard. We don't want it anywhere at all.

- Chairman, Local Action Group Against Incineration

There are different views about public concern. Those that featured frequently across all groups include traffic movements and emissions from landfill and EFW facilities, visual and socio-economic impacts (e.g. devalued property prices) and pollution from poorly operated waste facilities.

Most participants from environmental groups prioritized waste reduction and recycling and some felt public education to encourage responsible behaviour should have greater priority for local authorities. Some participants felt that local authorities need to be more open in giving a balanced reflection of the choice of technologies to engage the public and avoid opposition to waste facilities. One of the 'hard-line' environmental groups supported this position.

Education is the key...they didn't do that here, the information that they gave was basically taken off the waste company's website and they said "there is no choice – we either incinerate or we face huge fines". To educate is not to give an opinion, it is giving a balanced reflection of the real choice. They did this in Cambridgeshire and they had no objections to the EFW plant because...they went in and engaged with the public.

- Management Campaigner on Waste and Resources, Environmental Lobby Organisation

6) *Public involvement*

Participants discussed the benefits of what the waste industry participants referred to as "up front consultation". There are different views about the level and form of public involvement implied. Though much current guidance indicates a need for early public involvement, there still appears to be some debate on whether the public should be involved in decision making at all.

I think that some of the discussion that takes place on waste with some community groups can be unhelpful because it is actually raising it into public awareness where perhaps it shouldn't. This is probably a radical thing to say, but in some ways you do need national campaigns to raise the importance of things like recycling, but you don't want people to input into other decisions because it doesn't work – it polarises opinions and is an excuse for inaction.

- CEO, Private Sector Organisation

Generally participants (mainly from the waste industry and government) felt that participatory approaches improve upon the traditional technocratic approach. There was a feeling that the right level of public involvement depends on the type of facility, and that traditional and deliberative methods have both advantages and disadvantages. Some participants felt that a more structured approach to consultation, in terms of a careful selection of consultees, ensures that input from stakeholders is relevant and taken seriously by authorities. Other participants felt that while public opinion is usually considered in decision processes, it is unlikely that citizens could ever influence final decisions because ultimately the type of facility, its location and the general benefit to society need to be debated by experts and politicians. An environmental campaigner felt any approach to selecting stakeholders and community groups should not limit representation from the range of people interested in waste and willing to participate, even though those in authority may feel their participation is not helpful to the process.

Other participants (mainly from local authorities) felt that 'up front' consultation on the waste strategy is not always practical because to get a good public representation is not cost-effective. One suggested that consultation with a small group very early on and with the general public after the strategy has been developed might be a better approach.

It is probably a good idea to involve stakeholders at the very early stages because you then get ownership down the line. But it depends on how widespread you do it. ...when you are talking about involving the general public at the very early stages, then it gets quite costly. I would be more inclined to have a small group of stakeholders at the earliest stage, defining roughly where you are going, then open it up

- Waste Development Manager, Unitary Authority

A participant from a local action group gave her view of poor consultation.

...we thought the way the questionnaire was put together was flawed – there weren't many options for people to choose from. We were asked whether we would like incineration with MBT or just incineration – that was the extent of treatment options offered. It just was not proper consultation and most residents were disappointed.

- General Assistant, Local Action Group Against Incineration

One participant explained how consultation at the strategic level in the South East of England contributed to a more informed waste strategy. After the strategy was adopted, three EFW facilities were established. At the facility planning stage several community liaison groups were established and input from residents changed some aspects of the architectural design of facilities and the routing of waste vehicles to the facility. After the facilities were granted planning permission, the local liaison groups were reformed and continued to function during the construction phase to minimise impacts on the local community.

Some participants felt that a fundamental problem with deliberative methods is finding the right techniques to deliver technical understanding without being patronising to citizens. One participant was sceptical about whether the public could overcome their mistrust of experts to fully engage on waste issues. Other participants felt that involving citizens or "non-experts" in complex decisions could create misunderstandings and misrepresentation of issues.

On the other hand one participant saw the idea of deliberation as a means to negotiate a workable, relatively fair solution that the vast majority of stakeholders could accept. However, they indicated that the public must be given direction on the aims of the waste policy, the types of technologies and associated environmental impacts, so that they are informed and better able to make decisions: "you can't have consultation that just gets the public view on what they want which could be quite unrealistic. Some direction must be given on what you hope to achieve and what can be delivered".

Vision for Change

Preliminary findings are summarised in Table 2, to illustrate participants' vision for change. Participants' interests, along with knowledge and understanding of waste issues, are taken into account alongside technical considerations in exploring the nature of the waste problem and establishing opinions on public involvement in decision making. Potential action, opportunities and barriers are based on a negotiated view of the issues.

Table 2: Participants' vision for change

Potential action (negotiated view)	Feasible change	
	Opportunities	Barriers
Identify a broad mix of alternative technologies for residual waste treatment (outlining the future role of landfill)	More clarity and transparency for national policy	Private sector operator dictates local policy (prioritizes profit over community benefit)
Develop the energy recovery potential for MBT	Achieve correct balance between EFW and MBT	Availability of markets for recyclables; uncertainty of technology
Produce independent assessment of local capacities to manage residual waste	More precise estimates of EFW capacity (e.g. plant size)	Uncertainty of population and consumption growth rates
Introduce variable charging; increased tax levels	Householders encouraged to take ownership of waste problem	Public willingness to pay; political support
Government statement on the health effects of incineration facilities	Address perceived health effects from combustion facilities	Public's longstanding opposition to incineration
Use of objective methods (e.g. LCA, CBA) as the basis for judgements on waste management options	Depersonalize risks and prioritize the interests of communities	National priorities take precedence over local priorities
Prioritize public education and awareness	Encourage householders to reduce waste and increase recycling	Local authorities have limited ability to achieve behavioural change among citizens
Adopt a more structured approach to consultation – i.e. careful selection of consultees	Representative sample; information gathered is relevant; cost effective method	Limits citizens' influence on decisions; potentially restrict participation from wider public; distrust of experts; public misunderstanding and misrepresentation
Provide guidance at inception of waste strategy consultation; include sites for waste facilities	Practical solutions; effective and efficient decisions; engage communities at strategic level	
Set up community liaison groups during facility planning and construction	Minimise impacts on local communities	

Conclusion / Key Messages

This paper has demonstrated that deliberative methods are desirable to complement, not replace, traditional methods of public participation. There appears to be increasing support in society for the use of deliberative methods for involving the public at the waste facility planning level. There is scepticism, however, concerning the level of public involvement achievable during strategic planning, where traditionally citizens have had less influence or power in decision making.

One of the key findings was a perceived need for government to clarify the role of EFW as part of an integrated waste management strategy. Some participants' felt this could be achieved by establishing a broad mix of technologies for residual waste treatment and identifying the future role of landfill, so that local authorities are more clear and transparent in their approach to waste management. They felt that clarity on the role of EFW at the local level and careful consideration of technology choices was required to engage the public and avoid opposition to waste facilities. Others felt that involving the public in strategic planning is only practical when there is good representation of the population, which requires additional resources (e.g. funding). A few questioned whether citizens should influence decisions on the type of facility or its location on the grounds that these decisions are properly debated by experts and politicians, who tend to have different risk priorities to local communities.

Some environmental groups objected to EFW facilities as a matter of principle, some did not want them "in their backyard", and others were critical because of past experience with poorly operated EFW facilities. Other participants felt that involving communities during facility planning increases the potential for citizens to influence decisions constructively and minimise negative impacts.

A large-scale survey of opinions and attitudes on different strategies for public involvement at strategic and facility planning level will enable these findings to be extrapolated to the wider population.

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