

Vertical and horizontal integration in the governance of UK municipal waste policy

November 2004. Draft paper. Please do not quote without authors' permission.

Matt Watson,* Harriet Bulkeley,* Ray Hudson*

Abstract

Tackling environmental problems demands the development of new modes of integrating policy regimes and institutional structures. Putative moves from government to governance, characterised by the diffusion of state power and duties from hierarchical state structures into multi-level and cross-sectoral networks, promise to open up opportunities for the vertical and horizontal integration of environmental policy. However, the relationship between vertical and horizontal modes of policy integration in the context of changing modes of governance, and their effectiveness in promoting sustainability, is deeply complex and requires empirical interrogation.

Our research explores the relationship between governance and sustainability in the management of municipal waste in the North-east of England, through analysis of policy documents and interviews with government officers and other stakeholders in the region's waste policy networks. Recent years have seen something of a transformation of UK municipal waste policy, with performance in recycling and landfill diversion improving substantially, driven by a marked tightening of vertical integration, as national government has translated EU imposed demands into binding targets and other statutory requirements for local authorities. Associated policy statements promote, rhetorically at least, the cross-sectoral and inter-agency partnership characteristic of governance. However, the modes of vertical integration deployed have served to embed, rather than destabilise, existing axes of horizontal fragmentation. We argue that the modes of vertical integration used have failed to promote the horizontal integration required to move beyond the limits of institutional structures historically developed in response only to the needs of local waste disposal, to maintain long term performance improvements in sustainability by developing the policy and institutional structures to enable integrated resource management. Finally, we reflect on the implications of this case study for understanding the relationships between modes of integration and effective progress in moving towards sustainability.

* Corresponding author, matt.watson@durham.ac.uk Department of Geography, University of Durham, UK

* Department of Geography, University of Durham, UK

* Wolfson Institute, University of Durham, UK

Introduction

The principle of environmental policy integration has had rapidly increasing political salience across Europe since the late 1990s. In the face of slow progress in addressing environmental concerns within existing systems of environmental regulation and protection, the inadequacy of policy systems which disaggregate and isolate environmental concerns has become increasingly apparent (Jordan 2002; Lenschow 2002). Simultaneous with the rise of environmental policy integration (EPI), a range of authors have identified moves from government to governance, characterised by the diffusion of state power and duties from hierarchical state structures into multi-level and cross-sectoral networks (Hooghe and Marks 1996; Jordan 2001; Leach and Percy-Smith 2001; Rhodes 1996). The softening of previously rigid institutional and political structures implied by the emergence of governance should create opportunities for the horizontal and vertical integration of policies. However, EPI has proven easier to incorporate into rhetoric and intention than to operationalise in policy and practice. The relationship between changing structures of governance and the progress of EPI across vertical and horizontal axes involves complex dynamics. Understanding those dynamics requires empirical interrogation.

This paper explores municipal waste policy (MWP) in the UK as an empirical case study of the dynamics of governance and integration in environmental policy. It draws upon a current research project exploring the relationship between governance and sustainability in the management of municipal waste in the North-east of England, through analysis of policy documents and interviews with government officers and other stakeholders in the region's waste policy networks.¹ Recent years have seen something of a transformation of UK MWP. Performance in recycling, composting and landfill diversion has improved substantially, albeit from a very low baseline in the late 1990s when compared to many other European countries. Change has been substantially driven by the translation of policy objectives as European legislation has been passed on by national government into binding targets and statutory requirements for local authorities. Associated policy statements promote, rhetorically at least, policy integration and cross-sectoral and inter-agency partnership. At first glance, positive changes in UK MWP appear to be taking shape in a context of policy integration and new forms of governance.

However, the extent to which such changes are creating real changes in the structures and process of decision-making is less apparent. We begin by briefly reviewing how the governance literature can shed light on the institutional structures and policy processes influencing the progress of EPI, and can provide a means of exploring the dynamics of integration and disintegration at different spatial scales in the policy process. We then characterise the institutional shape of UK MWP and the drivers and processes of change in recent years, before analysing the extent and

¹ The project team acknowledges the support of Entrust, funders of the project, and wish to thank our many respondents in North-east England for the time and support they have given to the project to date. For more details on the project, visit the project web site, www.geography.dur.ac.uk/swm.

interaction of vertical and horizontal policy integration at different spatial scales. Through this analysis, we argue that progress in UK MWP has been pursued through a tightening of top-down vertical integration within existing institutional structures ill-suited to the emerging paradigm of sustainable resource management. Consequently, this vertical integration has served to embed, rather than destabilise, existing horizontal fragmentation. Essentially, advances in UK MWP have so far been won by the pursuit of targets formulated to be achievable within the institutional, governance and regulatory structures evolved to serve a now outdated paradigm of waste management. We conclude by identifying signs of improved policy integration around MWP on the horizon.

Governance and Environmental Policy Integration

Within EU policy, the development of EPI can be traced back to 1972, when the Stockholm Conference developed the notion of 'eco-development', recognising the interdependence of ecological and developmental objectives (Lenschow 2002). In 1986, The Brundtland Report (WCED 1987) effectively established the EPI principle as the basic policy implication of sustainable development, which served as a reference point in the subsequent development of EPI. Through the 1990s, successive declarations brought EPI closer to the heart of EU policy, arguably culminating in 1997 with the signing of the Amsterdam Treaty, and subsequent 1998 Cardiff Summit. The Amsterdam Treaty established sustainable development as one of the objectives of the EU, and Article 6 requires the 'environmental considerations should be integrated into other policies in order to deliver sustainable development'. The Cardiff Summit finally moved EPI substantively from declaratory statements at the level of the European Commission into increased sectoral activity (Lenschow 2002).

Jordan (2002) traces an uneasy but consistently low level of pursuit of EPI in the UK through the 1980s, with EPI only coming to have any noticeable policy presence with the 1990 White Paper, *This Common Inheritance*. However, whilst the UK was relatively vigorous in promoting EPI in the EU, there was little evidence of progress in the UK through the 1990s. With the New Labour government in 1997, substantive changes were made to the ineffective EPI framework set up by the 1990 White Paper, as a 'greening government' initiative. Perhaps more profound was the strength of government intentions to promote 'joined-up' policy thinking as the basis of modernising government. This applied to the intended integration of national policy structures, but has perhaps been most visible in central government's 'local government modernisation agenda' (LGMA). Whilst the UK modernisation agenda has been driven by generic concerns for 'joining up' policy, the needs for integration for progress on environmental concerns has been a significant component of modernisation rhetoric (Jordan 2002).

EPI is therefore established as a policy principle both in EU and UK fora. However, the slow progress of EPI from declarations of principle towards substantive implementation is indicative of the complexity of realising meaningful integration. At the most basic level, it requires that embedded institutional boundaries are overcome, both within and between different levels of government, and an opening out of individual government institutions to involve other actors. Even at this

superficial level, it is clear that any notion that EPI can be imposed upon established structures of government is clearly naïve in the face of embedded institutional cultures and carefully defended boundaries of responsibility and power between levels of government, and even between closely related departments within a single level of government. However, a range of authors have identified processes taking place within the ways in which societies are governed which may open up new possibilities for EPI, arguing that a transition between modes or systems of governing has taken place from ‘government’ (as nation–state centred system of governing typifying post–war western democracies) to governance, as the roles of the public, private and voluntary sector are restructured (Hooghe and Marks 1996, 2001; Jessop 1997; Jordan 2001; Jordan et al. 2003; Lowndes 2001; MacLeod and Goodwin 1999; Leach and Percy–Smith 2001; Pierre and Peters 2000; Rhodes 1994,1996). Table 1 characterises the dimensions of this shift.

Table 1: From Government to Governance²

	Old Government	New Governance
Location of power	The State	The state and civil society
Exercise of power	Hierarchy and authority	Networks and partnerships
Actors	The public sector	Public, private and voluntary sectors
Role of the state	Providing, commanding, controlling	Steering, enabling, facilitating, collaborating, bargaining

For some, the putative move from government to governance has conjured up the possibility of ‘governing without government’ (Davies 2000; 2002; Rhodes 1996), where governing is conducted through autonomous ‘self–organizing, inter–organizational networks’ (Rhodes 1996: 660). Accompanying this move to ‘governance’ is the shifting role and nature of the nation state, as traditional functions are distributed upwards to international and transnational organisations and institutions, and downwards, to regional and local structures; and finally outwards, to non–state actors. The apparently increasing distribution of state roles across scales of governance has been described as the emergence of multilevel governance, characterised by three key features: the sharing of decision–making competencies between actors and institutions operating at different levels of government; new forms of partnerships and networks which govern within, between, and across these levels; and a blurring of divides between different levels of government (Aalberts 2002; Hooghe and Marks 1996; Jordan 2001).

² From Bulkeley and Betsill (2003): 17; adapted from Leach and Percy–Smith (2001): 5

While the dynamics characterising claims of the emergence of a distinctive new form of governance are potentially those needed to enable EPI, and despite the steadily growing policy salience of EPI, progress in realising integration in substantive rather than declatory policy has been halting and patchy at European (Lenschow 2002) national (Jordan 2002) and local (Cowell and Martin 2003) levels. Embedded institutional cultures seem less tractable than claims for the emergence of governance might lead us to expect. Indeed, claims for such an emergence are contested, not least by highlighting contexts where 'old government' appears still to be strong and questioning the extent to which the specific system of governing termed 'governance' is replacing that of 'government' as a means of organising society (Cowell and Murdoch 1999; J. Davies 2002; Pierre and Peters 2000).

Furthermore, whilst the emergence of governance is seen as a positive thing in many accounts, not least through signalling the softening of institutional boundaries apparently needed for EPI, there are undoubtedly negative aspects. On the one hand, policy processes are opened to a wider range of stakeholders and participants, creating opportunities for more efficient, effective, equitable and legitimate forms of governance. On the other hand, moves to implement more integrated environmental policies have to contend with multiple and fragmented institutional arrangements, numerous agencies operating over different scales, competing agendas, and conflicting policy goals. The EU itself has been identified as suffering from 'joint decision traps' as a result of its multi-level structure (Lenschow 2002; Scharpf 1988).

The relationship between governance and EPI is therefore far from simple. Whilst governance may open up spaces for improving horizontal and vertical integration, it can also weaken decision making and policy implementation structures. Moreover, the very empirical existence of a shift towards governance is contested. Ultimately, the relationship between governance and EPI cannot be resolved in the abstract, and a polarised debate as to whether government has been replaced by governance is unhelpful in exploring that relationship. Rather than looking for a seismic shift from a fixed entity of 'government' to that of 'governance', it is possible to construct an analytical spectrum of *modes of governing* (Bulkeley et al. 2004). Such a spectrum enables recognition of the plurality of relations and arrangements which take shape around particular objects of governing (Cowell and Murdoch 1999: 655; Jessop 1997; Pierre and Peters 2000). The debate on governance informs the analysis of modes of governing by highlighting the dynamism of structures and processes of governing, and recognising the diverse relationships and institutional actors which can be involved in policy making and implementation, potentially extending well beyond institutions of the state. Informed by governance perspectives, a modes of governing approach presents a powerful means of critically analysing the integration of policy in a particular arena. The next section presents municipal waste policy in the UK as one such arena, lending itself to empirical evaluation of the progress of EPI in specific context.

Municipal Waste Policy in the UK

The UK generates around 400 million tonnes of waste each year. Municipal waste³ represents only around 7% of this total, but it receives significant attention in the UK. Municipal waste is a highly visible waste stream and also amongst the most difficult to handle sustainably. It is also the responsibility of local authorities, making the influence of national government more direct than in relation to other waste streams. Moreover, household waste, which comprises most of the municipal waste stream, has been the focus of EU legislation. These factors have all contributed to making municipal waste a significant focus of waste policy. This has produced definite changes, most visible in statistics for recycling and composting, from 6% in the mid-90s (DoE 1995) to around 17% in 2003/04.⁴ The UK appears to be on track to meet its first binding target, under *Waste Strategy 2000*, of 25% recycling and composting by 2005. Whilst these figures remain poor compared to international best practice, they represent a substantial transformation of UK MWP over recent years.

The responsibility of local authorities for the delivery of UK MWP was first established in UK law by the 1875 Public Health Act. Different local authorities are designated as one or more of a: waste collection authority (WCA); waste disposal authority (WDA); and waste planning authority (WPA). Whilst a unitary authority will carry out all three functions, in two-tier (county/district) structures, the Districts are designated WCAs, whilst the County is designated WDA and WPA. At national level, waste management is accountable to the Department of Environment, Food and Rural Affairs (DEFRA), whilst land use planning, including for waste infrastructure and facilities, is under the Office of the Deputy Prime Minister (ODPM). A small constellation of regional governing bodies, particularly Regional Assemblies and the Government Offices for the regions, intervenes unevenly in the relationship between local and central government. The Environment Agency regulates waste management and disposal facilities.

A range of concerns has driven waste management up the political agenda (Bulkeley et al. 2004). Volumes of waste continue to rise inexorably, with municipal waste increasing by around 3% a year, with very significant cost implications (COSU 2002). At the same time, the UK's dominant disposal method, to landfill, has come under pressure through increasingly scarcity of landfill void space, primarily due to tightening environmental regulation. More generally, the growing policy salience of environmental concern has influenced change in MWP. However, in interviews with waste professionals at all levels of government and industry, a single driver has been identified repeatedly as most significant. European legislation, in particular the 1999

³ Municipal waste includes all waste for which local authorities have designated responsibility. Approximately 89% of it is household waste, the remainder including street litter, waste taken to council recycling or disposal facilities, and from municipal sites.

⁴ Personal comment, DEFRA official, July 2004, based on preliminary analysis of 2003/04 local authority data returns.

Landfill Directive,⁵ has been the primary motive force behind the transformation of UK MWP.

The 1990s saw a succession of UK policy statements setting aspirational goals for waste management, but such goals were repeatedly missed, with little evidence of substantial progress.⁶ Under the terms of the Landfill Directive, the UK could be subject to fines of up to £180 million per year from 2020 (COSU 2002). The key targets the UK must reach to avoid international sanction under the directive are to reduce the volume of biodegradable municipal waste sent to landfill to 75% of the 1995 level produced by 2010; 50% by 2013; and 35% by 2020. The Directive provided the impetus for the UK to introduce, for the first time, statutorily binding targets for local authority waste management. *Waste Strategy 2000* (DEFRA 2000), which sets out the 'vision' for UK waste management to 2020, includes national targets to recycle or compost at least 25% of municipal by 2005, at least 30% by 2010, and at least 33% of municipal by 2015. In 2001, these national targets were translated into statutory performance standards for local authorities in the form of Performance Standards under the existing Best Value framework.⁷ Different standards are set for local authorities according to existing performance, distributed such that, with each authority meeting its standards, national targets under *Waste Strategy 2000* will be met. Typically, the targets set for individual local authorities involve a doubling of 1998/99 recycling rates by 2003/4, with subsequent targets set for 2005/06 and anticipating further progressive targets to 2020 (Audit Commission 2001; COSU 2002). More directly tackling the key requirements of the *Landfill Directive*, the Landfill Allowance Trading Scheme will be introduced in 2005, enabling local authorities to trade permits to landfill biodegradable municipal waste, with the total number of permits reducing over time such that national obligations to divert biodegradable municipal waste from landfill under the Directive are met. In addition to imposing statutory targets on local authorities, the government has responded to the increasing costs of MWP by providing additional resources to local authorities, partly through increased core funding. However, many of the local authority initiatives which have enabled significant progress, especially against recycling and composting targets, have been funded by competitively allocated grants. Finally, government has recognised something of the need for increased strategic coordination at the local level imposed by the changing MWP agenda. This is most visible in *Waste Strategy 2000's* expectation that all local authorities would produce Municipal Waste Management Strategies, which were to "set out a strategic

⁵ Council Directive 99/31/EC on the Landfill of Waste

⁶ In 1990, the *Environment White Paper* (DoE 1990) set a target of 25% recycling by 2000. However, with the exception of the introduction of the Landfill Tax in 1996, few tangible changes were made to enable the target to be met. In 1995, *Making Waste Work* (DoE 1995) recognised that the recycling and composting rate stood at just 6%, and by 1999, *A Way With Waste* (DETR 1999) recognised that the 25% target would not be met.

⁷ Under The Local Government (Best Value) Performance Indicators and Performance Standards Order 2001.

framework for the management of municipal waste” (DETR 2001, p. 6). Guidance on preparation of the strategies envisaged them as the basis of partnerships between local authorities oriented to “moving to a fully integrated waste management system”, and that they would be “prepared within the context of the wider agenda for modernising local government” (DETR 2001, p.5).

The transformation which these measures have effected have the characteristics of an emergent paradigm shift in waste management. In the 1990s, UK waste management was overwhelmingly a matter of achieving the disposal of waste at the lowest cost whilst staying within the limits set by pollution and environmental protection legislation. For municipal waste, this was a matter of local authorities arranging for the collection of waste from properties and transporting it a local disposal point, usually a landfill site. Waste management was the end of a linear flow of materials, from extraction through processing, manufacture, use and finally to disposal. This can be characterised as the ‘*disposal paradigm*’, under which a limited range of actors were involved – a local authority, a contractor or contractors for waste collection and disposal, and an environmental protection body (since the mid 1990s, the Environment Agency).

With the UK disposing of 75% of its municipal waste to landfill as recently as 2002/03⁸ (DEFRA 2004), it could be argued that this remains the dominant paradigm of MWP. However, the impetus of policy behind the current transformation of MWP can be seen as taking it in the direction of what might be termed the ‘*sustainable resource paradigm*’, under which wastes are increasingly seen as resources. Practically, this is visible in the policy prioritisation of recycling and composting. Recycling recognises as resource that which was previously waste, introducing a cyclical, instead of linear, flow for those materials which are recycled. More profoundly, policy statements such as *Waste Strategy 2000* recognise central principles of sustainable resource management as providing the basis for the development of UK MWP. Most fundamental is the *waste hierarchy*, introduced to the policy arena by the 1975 EC *Waste Framework Directive*,⁹ but which did not find its way into UK MWP until the 1990s.¹⁰ The hierarchy represents the desirability of different approaches to waste management. At the top as first option is to reduce waste; then to reuse resources; then to recover value from waste (a step later conventionally differentiated into recycling & composting, and then energy recovery) with disposal (burning without energy recovery or landfilling) as the last resort. Along with other principles of sustainable resource management, such as the Proximity and Self Sufficiency Principles, commitment to the waste hierarchy has been reproduced in policy statements at all levels of UK government. Most local authority Municipal Waste Management Strategies explicitly espouse the principles, reflecting the expectations of national guidance on the strategies (DETR 2001, p. 10).

⁸ Latest available national figures

⁹ Council Directive 75/442/EEC, subsequently amended by Council Directive 91/156/EEC and 91/962/EEC

¹⁰ See Davoudi (2000), DoE (1992; 1995).

Taken seriously, the waste hierarchy would enact the sustainable resource paradigm, ensuring that the very minimum of resources are disposed of as waste. In contrast to the institutional simplicity of the disposal paradigm, the cyclical nature of the sustainable resource paradigm demands much greater complexity: reduction demands engagement with systems of production and retail, and with the decisions of businesses and consumers; re-use requires the development of a wide range of community and commercial bodies to facilitate the transfer of products from those who have no further use for them to those who do, and that cultural prejudices against second hand products are challenged; recycling requires that materials follow diverse paths to find material-specific markets and uses, and as a consequence that householders have to be enrolled to sort wastes.

These practical needs have enormous implications for the institutional structures needed to govern, regulate and operationalise the sustainable resource paradigm. Rather than a matter of providing a removal and disposal service for residents within limits of environmental protection regulation, municipal waste management requires active engagement with the public to change attitudes and practices, the generation of markets for re-used and recycled products, and intervention into production processes. In addition to changing the network of actors involved in delivering MWP, the sustainable resource paradigm requires unprecedented policy integration at all levels of government, reaching out from the historical bounding of MWP as a discrete issue of public service and environmental regulation to become an integral part of economic policy and commercial regulation.

Apparently reflecting these implications of moving towards a new paradigm of waste management and adopting key principles of sustainable resource management, key government documents stress the desirability of cross-sectoral partnership for making progress in MWP. For example, in *Waste Strategy 2000* it is argued that:

To engineer this step change in the way we think about waste we must work in partnership – with businesses, local authorities, community groups and the public. (DETR 2000, p. 5)

Similarly, in published guidance on preparing Municipal Waste Management Strategies, the government states that:

Authorities also need to work in partnership with others concerned with waste management, for example waste planning authorities, community groups carrying out kerbside recycling and other projects, packaging compliance schemes on projects to expand kerbside collection of packaging waste, and reprocessors. (DETR 2001, p. 6)

These statements reflect the reality that the changing requirements of MWP rely on an expanding network of relationships with diverse partners. Clearly, this situation is resonant with the often described characteristics of ‘governance’, as state powers and responsibilities become distributed across new governing arrangements, over different levels and incorporating a range of different actors. Similarly it implies the sort of policy integration required by the sustainable resource paradigm. However, analysis of the current reality of UK MWP reveals profound limitations in the progress

of policy integration, together with limited evidence of the emergence of governance as a distinct mode of governing waste.

Policy and institutional integration in UK Municipal Waste Policy

As outlined above, recent changes in the practice of UK MWP have been driven primarily by EU legislation. The binding obligations imposed by the Landfill Directive finally galvanised the UK to take substantive action after a decade of ineffective policy aspirations. As described above, *Waste Strategy 2000* set out a new approach to MWP, and through the development of local statutory targets, national obligations under the Landfill Directive were passed on to local authorities. For the vast majority of UK local authorities, efforts at increasing recycling through the 1990s had been token at best. Recycling has been a relatively low political priority within many local authorities' environmental priorities, and environmental policy itself is generally overshadowed by other local authority priorities, such as education and social care. It therefore took the imposition of binding targets by central government to prompt significant action and investment on recycling and composting by local authorities. There has of course long been top-down statutory regulation of waste disposal operations, in terms of environmental protection. However, within the limits of environmental regulation, choices over disposal options were subject only to land use planning regulation and mild invocations to increase recycling. Within MWP, the Landfill Directive marked a tightening of vertical policy integration over choices of disposal options, seeking to promote a move away from landfill, which UK central government has passed on to local authorities through the range of policy tools outlined above including targets, allowance trading schemes and grants, reflecting policy principles and priorities,. The transformation of UK MWP has therefore been primarily a matter of reshaping the activities of local authorities through the application of statutory targets by central government in adherence to new policy principles, in turn motivated largely by the requirements of EU legislation.

This top-down vertical integration can be seen to have enabled positive advances in the sustainability of UK MWP, evidenced at least by rapidly improving figures for recycling and composting. Vertical integration is of course an important component of EPI, and the substantial role of the EU in driving environmental policy is one empirical basis for identifying the emergence of multi-level governance. However, this is a form of integration which shares few features with hopes for EPI, nor the positive attributes of multi-level governance outlined above. The policies comprising this vertical integration, particularly in the shape of demanding statutory performance targets, have narrowly constrained local strategic decisions, effectively removing local discretion. This has been exacerbated by central government preference for particular initiatives, notably kerbside recycling, in the distribution of competitively awarded grants to local authorities. Moreover, effective vertical integration should entail movement of knowledge and influence both up and down policy structures, enabling adaptive learning within the policy process. Whilst there is of course feedback from local authority officers and members to civil servants in DEFRA and ODPM, and to national politicians, it is primarily via formal means of communication set by the centre to get information the centre requires, and local

authority officers generally find access to national government departments difficult. The consequences of the modes of vertical integration enacted in UK MWP are partly visible through analysis of the policy field in terms of horizontal integration.

As discussed above, progress towards sustainable resource management requires substantial horizontal integration, both in coordinated policy making across fields of government and across state and non-state institutions. Such integration is espoused by government rhetoric directly, as well as being implied by the adoption of principles of sustainable resource management.

Even within local authorities, unhelpful horizontal divisions persist. Perhaps most foundational is a lack of coordination between the section of the authority responsible for waste management, and the section responsible for land-use planning, including planning for waste infrastructure. This split runs vertically through UK MWP, with land-use planning responsible to ODPM, a relationship largely mediated regionally by a regional Government Office, whilst waste management is responsible to DEFRA, a relationship in which the regional level has no real role. As the sustainable resource management agenda advances, it is likely that a greater number of smaller scale management facilities, such as Materials Recycling Facilities will be required, requiring increasing coordination with planning. Perhaps more radically, increasing source separation of wastes has implications for the micro-infrastructures of house and neighbourhood design, such as allowing the storage of separated materials in different housing types. Processes of granting planning consents are the most apparent way of ensuring developers take these requirements on board. There is rarely communication between waste management and economic development in local authorities, nor indeed at any level of government, there being little motivation for such exchanges under current frameworks of MWP. However, waste minimisation, reuse and recycling not only require the involvement of businesses, but potentially offer substantial economic opportunities, whether through cost saving from minimising waste, or through developing re-use and recycling industries.

Moving beyond the bounds of individual authorities, there are significant gains to be made for MWP through effective joint working between local authorities. In two tier authorities, coordination and cooperation between waste collection authorities and waste disposal authorities is clearly essential to effective MWP. However, relations between Counties and their Districts are often strained, as indicated by the increasing heavy handedness with which national government is demanding effective joint working within two tier authorities.¹¹ Beyond the necessary collaboration of WCAs and WDAs, joint working between authorities potentially offers economies of scale, whether in setting up materials collection schemes or generating viable local resource cycling businesses. However, a somewhat insular political culture in many local authorities seems to count against pursuing joint working, and there is also evidence that national government policy, through competitive grant funding and

¹¹ The 2004 Waste and Emissions Trading Act made the preparation of a Joint Municipal Waste Management Strategy a statutory requirement for two tier authorities, and strengthened the power of direction for Counties over their Districts' waste collection activities

moves towards authority specific performance based rewards and penalties are further discouraging collaboration.

The issue of economies of scale links to another issue of fragmentation, this time in the categorisation of waste streams, with associated disintegration of institutional responsibilities. Whilst certain waste streams, particularly hazardous wastes, clearly need special treatment, much of commercial and industrial waste could share local processes and infrastructures. If responsibility for the volumes across waste streams lay with a single local or regional authority, it is clear that economies of scale, together with the flexibility and stability of local resource economies, could potentially be enhanced (Wilson, McDougall et al. 2001).

Environmental regulation, for long the main means of governing the practices of waste disposal, necessarily continues to play a strong role, not least in regulating the environmental implications of new applications of technologies, such as pyrolysis and gasification. However, there are a number of ways in which environmental protection regulation is potentially hindering progress towards sustainable MWP. Authorities and companies attempting to implement such new applications of technology frequently find regulatory approaches over-cautious, at the cost of constructive partnership in developing new approaches. Further embedded in the regulatory framework, the very definitions of when a material is waste, and when it stops being waste, have significant implications for the development of new ways of handling wastes as resources. As currently formulated, once a material is classified as waste, it generally remains waste until the point at which its value as resource is realised. For example, if wood waste is used to fuel a community heat and power plant, the wood remains waste, regardless of the standards it meets, until it is burnt at the plant. This means that such a plant would be subject to the full weight of waste management regulation, representing a huge burden in comparison to what the use of virgin fuels would bring to bear. The definition of material as waste based on the stage of processing it is at, rather than the regulatory specifications the material meets, represents a significant obstacle to many new or small scale processes.

There are therefore multiple dimensions of horizontal fragmentation in UK MWP, undermining any impression of effective or significant policy integration in the pursuit of the sustainable resource paradigm. In identifying such evidence of lack of integration, it is important to not ignore the substantial progress being made by many local authorities on integration within themselves, and in partnership with other actors. In particular, the changes imposed by government on local delivery of MWP have necessitated the expansion of networks of delivery, as greater numbers of contractors, local businesses and community and voluntary groups are enrolled as partners in extending recycling, re-use and reduction initiatives. Nevertheless, the overall picture of UK MWP is of continuing horizontal fragmentation. In the next section, we consider how the above analyses of vertical and horizontal fragmentation relate to each other.

Integrating Municipal Waste Policy?

The transformation of UK MWP away from landfill and apparently in the direction of sustainable resource management has been driven by vertical integration. After a recent history of ineffective national policy aspirations, substantial progress has only been made under the impetus of legislative requirements imposed on the UK by the EU, passed in turn by UK national government to local authorities, primarily in the form of statutory targets and allowances. This vertical integration has not been complemented by the broader desirable aspects of vertical integration, such as processes of feedback enabling adaptive learning. Nor has it been complemented with much evidence of the horizontal integration required for progress towards sustainable resource management, given that such progress would require intervention into the whole resources cycle. The practical implications of this overall lack of integration can be seen in the shape and location of improving MWP performance. The most visible advances are in increasing rates of recycling and composting. However, in relation to the waste hierarchy espoused as a basic principle of UK MWP, recycling and composting are only the third option after reduction and reuse. Why, then, have recycling and composting been so prioritised? The answer lies in the existing institutional shape of UK MWP. Essentially, the progress driven by top down integration has been overwhelmingly pursued by objectives and targets formulated to fit best within existing institutional frameworks, competencies and powers.

The most basic characteristic of this failure to confront the institutional limits of progress lies in the continuing weight of responsibility for MWP upon local authorities. Under the disposal paradigm, no level of government was better suited than local authorities to delivering waste management, consisting as it did largely of efficient vehicle movement and the management of a limited number of local disposal sites under a relatively stable regulatory framework. Under the disposal paradigm, WMP was institutionalised as a technical 'end of pipe' operation, oriented towards providing a service to residents whose responsibility for waste ended when they put it in their (single) bin. Recycling and composting are the levels of the waste hierarchy most amenable to institutional structures and competences inherited from the disposal paradigm. Whilst involving greater complexity than simple disposal operations, recycling and composting still involves intervention only at the points in the materials cycle between disposal by the householder and the next point of the cycle. Indeed, the limited overall powers of local authorities mean they are essentially impotent in making anything more than token efforts towards re-use and recycling. The interventions in manufacturing processes, materials markets and pervasive cultural attitudes necessary to make significant progress on the upper levels of the hierarchy are simply beyond the powers of UK local government.

The institutional inertia visible at the local level continues vertically. Movement towards the new paradigm is essentially being pursued through the pre-existing regulatory framework, developed to control pollution from waste disposal operations and extended to positive targets such as those for recycling. Ultimately, the continuation of this top down regulatory framework for governing waste

management can be traced back to the EU Landfill Directive itself. Although the directive can be identified as the motive force behind UK progress towards the sustainable resource paradigm, the directive was itself essentially concerned with preventing the pollution effects of landfill. It extended a well established emphasis in landfill pollution regulation on local leachate pollution to a more global concern about the release of greenhouse gases, particularly methane, from landfill sites. The UK's response to the Landfill Directive, measured in practical terms, has so far focused on the diversion of municipal waste to recycling and composting. This is not the most direct means to meet the directive obligations, and can be seen as a manifestation of an independent commitment on the part of the UK government to the waste hierarchy. There is indeed a tension in claiming that there is a substantive move towards a sustainable resource paradigm, whilst also claiming that this move has been powered by the Landfill Directive. The Directive is largely consistent with the disposal paradigm, representing the continued tightening of environmental protection regulation of waste disposal. It is therefore not tenable to claim that the Landfill Directive shaped the UK's apparent moves towards a new paradigm. Rather, the directive gave the impetus for the government to impose the measures needed to make progress in waste management at all. The emphasis on recycling and composting in the targets it derived, rather than more immediate means of diverting biodegradable waste such as through incineration, can be seen as evidence of the UK government's preparedness to make some moves towards a new paradigm of waste management.

However, *Waste Strategy 2000* always envisaged that the emphasis on recycling and composting would be complemented with an allowance trading scheme to ensure local authorities collectively reach directive obligations for the diversion of biodegradable municipal waste. The trading scheme, to be implemented in 2005, promises to change the landscape of MWP. The financial implications of the scheme on local authorities, compelling diversion of biodegradable municipal waste from landfill, seems likely to lead to centralised technical solutions, such as incineration, digestion, gasification or pyrolysis. This will further embed reliance on existing institutional competencies, rather than encouraging local reflectivity about the sustainability of waste management alternatives.

The significant progress made in UK MWP has resulted primarily from pursuing objectives and setting targets consistent with maximising positive movement towards more sustainable resource management without confronting the limitations of existing institutional structures. New responsibilities are being imposed upon institutional actors which are not equipped with the competencies or powers to fulfil them adequately. The emphasis on recycling and composting has enabled visible progress to be made within this context. However, as progress towards sustainable resource management continues, increasing policy emphasis on the re-use of materials and the reduction of waste will necessitate a re-evaluation of institutional structures and the appropriate distribution of responsibilities and power in relation to MWP.

The story of the UK's recent moves towards sustainability in MWP is therefore largely one of the failure of policy integration. So far, waste policy has stayed largely within

the traditional institutional divisions and relationships. The top down tightening of vertical integration in the sector has if anything served to further embed, rather than begin to destabilise, existing institutional fragmentations. As so often, the rhetoric of policy integration proves difficult to follow through to operationalisation. Progress has been sought against immediate practical outcomes, rather than through the strategic pursuit of a normative vision for which waste management should be heading. In the progress of MWP described, there is also little evidence of governance. Whilst the story has been decidedly multi-level, from the European to local levels of governing, there are limited indications of vertical reciprocity, or of growing influence of networks of actors out with conventional processes of policy making.

However, as described above, the delivery of changing waste policy at the local level has engendered new partnerships between local government institutions and non-state actors. This phenomenon in MWP is consistent with the transformation of UK local government since the 1980s, from 'providers' of services to 'enablers' (Wilson and Game 1998: 18) as they work with and through a range of appointed bodies, private and civil society actors, a process of change given fresh impetus by the Blair administration's Local Government Modernisation Agenda. The relationship of such networks to discourses of governance is a problematic one. As Davies (2002) argues in relation to local partnerships, the new structures of local governance have essentially been orchestrated by national government for the delivery of the state's agenda. Being constructed essentially to deliver national government policy, such networks are consequently outwith conventional bounds of policy networks. However, for Leach and Percy-Smith (2001), shifts in local governance are seen to enable more constructive working with partners and citizens in the design as well as delivery of local policy, creating additional resources and capabilities for change. As stressed above, in UK MWP the range of options available for local decisions have been limited by the imposition of specific challenging targets and structures of funding and the influence of local actors on national policy is limited. Nevertheless, the extension of local MWP networks to new actors undoubtedly builds local resources and capabilities. Through the sharing of best practice from such partnerships, they can have significant influence on local policy making elsewhere.

Certainly, the existence of such local partnerships, in contrast to the overall picture of traditional top down governing of MWP, demonstrates the coexistence of different modes of governing within a single policy sector. Indeed, in a paper which paints a very negative overall picture of the prospects for progress in UK MWP, the acceptance that multiple modes of governing can co-exist enables recognition of evidence of the beginnings of more meaningful policy integration and positive developments consonant with descriptions of governance. An example here is the Waste and Resources Action Programme (WRAP), a not-for-profit company supported by DEFRA, the Department of Trade and Industry (DTI) and the devolved administrations of Scotland and Wales. WRAP was set up to promote the generation of markets for recyclable materials, more recently adding activities on minimisation and reuse to its purposes. In addition to illustrating horizontal integration through being supported by government departments with a limited history of collaboration

on waste and resource issues, WRAP's work extends across, and to an extent seeks to bring together, commercial and public bodies, as well as seeking to engage with the public through awareness campaigns. Examples of established practical measures representing creative integration, like WRAP, are few and far between. However, at the level of national government there are signs of growing policy commitment to a sustainable resource agenda. For example, a sustainable consumption and production agenda has been established (DEFRA 2003), with a dedicated unit situated in DEFRA. Also, a recent research strategy launched under DEFRA's Waste Implementation Programme, whilst formulated reactively to future external drivers rather than an independent normative model of future waste management, nevertheless shows evidence of moving towards a sustainable resource agenda through emphasis on themes such as understanding resource flows and sustainable product design (DEFRA 2004). At the regional level, some Regional Development Agencies are beginning to recognise that creative solutions to the problems of sustainable waste management represent potential economic and industrial opportunities.

As the recent history of EPI demonstrates, in waste as elsewhere, such policy aspirations come more easily than meaningful implementation. However, motive force for further progress may once again come from the EU. The Sixth Environmental Action Programme is to include a Framework Directive on the recycling and prevention of waste. In providing the basis for the first legislative force behind waste minimisation, the directive promises to force new levels of policy integration at all levels of government to enable the necessary governing interventions to be made.

Conclusion

The recent history of UK MWP illuminates important aspects of the relationships between environmental policy integration, modes of governing, and the pursuit of sustainability. There are multiple potential planes and directions of integration, and integration along one plane and in one direction does not necessarily entail positive integration in other planes. In UK MWP, top down vertical integration of policy on waste management decisions has achieved significant gains, with a variety of policy instruments, especially statutory targets, operating as strong drivers of change. However, they are potentially driving waste management down something of a blind alley. The objectives and targets being pursued are oriented towards immediate practical achievements, without confronting the limitations imposed by inherited and essentially anachronistic institutional structures, and associated distributions of competence and power. The significant advances made have been won at the cost of embedding, rather than overcoming, deep lines of institutional fragmentation.

However, a 'modes of governing' approach enables the recognition of a plurality of governing styles and structures co-existing within UK MWP. Whilst the overall picture of the policy field is one of top-down policy imposition and profoundly limited policy integration, at all levels of government it is possible to identify evidence of

improving institutional and policy intervention reflecting a more open mode of governing consonant with accounts of governance. Whether in the local policy delivery partnerships gathering around the new objectives of the changing waste agenda, or improving coordination and collaboration between government departments on issues central to pursuing an integrated approach to resource management, there are signs of improving policy integration, necessarily co-occurring with changing institutional structures and relationships. It seems likely that European legislation will again be the motive force behind the next step change in UK waste policy, but the increasing diversity of modes of governing gathering around issues of waste and resource management can only help the UK in grappling with the deep challenges the sustainable resource paradigm represents. This analysis of a single policy sector in a single country can nevertheless highlight some general issues illuminated by bringing governance perspectives to bear on EPI. First, that without critical reflection on existing institutional structures and modes of governing, EPI can proceed down paths of change which are inherently limited and counter-productive to longer term processes of extending EPI, especially where progress is driven by targets for immediate practical outcomes rather than by a strategic vision. Second, however, even in the absence of strategic vision comprehensively reshaping institutional relationships, multiple modes of governing can emerge and co-exist, providing a stronger base for future change.

Bibliography

- Aalberts, T. (2002). Multilevel Governance and the Future of Sovereignty: a constructivist perspective. Amsterdam, Free University of Amsterdam.
- Audit Commission (2001). Waste management : guidance for improving services. London, Audit Commission.
- Bulkeley, H. and M. Betsill (2003). Cities and climate change: urban sustainability and global environmental governance. New York, Routledge.
- Bulkeley, H., M. Watson, et al. (2004). The governance of municipal waste management. Working paper. Durham, Department of Geography, University of Durham. Available www.geography.dur.ac.uk/swm
- COSU (2002). Waste not want not: a strategy for tackling the waste problem in England. London, Cabinet Office Strategy Unit.
- Cowell, R. and J. Martin (2003). "The joys of joining up: modes of integrating the local government modernization agenda." Environment and Planning C- Government and Policy 21: 159-179.
- Cowell, R. and J. Murdoch (1999). "Land use and the limits to (regional) governance: Some lessons from planning for housing and minerals in England." International Journal of Urban and Regional Research 23(4): 654-669.

- Davies, A. R. (2002). "Power, politics and networks: shaping partnerships for sustainable communities." Area 34(2).
- Davies, J. (2000). "The hollowing out of local democracy and the 'fatal conceit' of governing without government." British Journal of Politics and International Relations 2(3): 414–428.
- Davies, J. (2002). "The governance of urban regeneration: a critique of the 'governing without government' thesis." Public Administration 80(2): 301–322.
- Davoudi, S. (2000). "Planning for Waste Management: changing discourses and institutional relationships." Progress in Planning 53: 165–216.
- DEFRA (2000). Waste Strategy 2000 for England and Wales. London, Department for Environment, Food and Rural Affairs.
- DEFRA (2003). Changing Patterns. UK Government Framework for Sustainable Consumption and Production. London, Department for Environment Food and Rural Affairs.
- DEFRA (2004). Municipal Waste Management Survey 2002–03. London, Department of the Environment, Food and Rural Affairs.
- DEFRA (2004). Waste and Resources R & D Strategy. London, Department for Environment Food and Rural Affairs.
- DETR (1999). A Way With Waste. London, Department of the Environment Transport and the Regions.
- DETR (2000). Waste Strategy 2000 for England and Wales. Norwich, The Stationery Office.
- DETR (2001). Guidance on Municipal Waste Management Strategies. London, Department for Environment, Transport and the Regions.
- DoE (1990). This Common Inheritance: Britain's Environmental Strategy. London, Department of the Environment.
- DoE (1992). Waste Management Paper No 1: A review of options. London, Department of the Environment.
- DoE (1995). Making Waste Work: The UK strategy for England and Wales. London, Department of the Environment.
- Hooghe, L. and G. Marks (1996). Contending models of governance in the European Union. Europe's Ambiguous Unity: conflict and consensus in the post-Maastricht eras. A. Cafruny and C. Lankowski. Boulder, Colorado, Lynne Rienner Publishers.
- Jessop, B. (1997). The governance of complexity and the complexity of governance: preliminary remarks on some problems and limits of economic guidance. Beyond Market and Hierarchy: interactive governance and social complexity. A. Amin and J. Hausner (eds): 95–128.
- Jordan, A. (2001). "The European Union: an evolving system of multi-level governance ... or government?" Policy and Politics 29(2): 193–208.

- Jordan, A. (2002). Efficient Hardware and Light Green Software: Environmental Policy Integration in the UK. Environmental Policy Integration: Greening Sectoral Policies in Europe. A. Lenschow. London, Earthscan: 35–56.
- Jordan, A. (2003). "The Europeanization of national government and policy: A departmental perspective." British Journal of Political Science **33**: 261–282.
- Leach, R. and J. Percy-Smith (2001). Local governance in Britain. Basingstoke, Palgrave.
- Lenschow, A. (2002). Greening the European Union: An Introduction. Environmental Policy Integration: Greening Sectoral Policies in Europe. A. Lenschow. London, Earthscan: 3–21.
- Lowndes, V. (2001). "Rescuing Aunt Sally: taking institutional theory seriously in urban politics." Urban Studies **38**(11): 1953–1971.
- Macleod, G. and M. Goodwin (1999). "Space, scale and state strategy: rethinking urban and regional governance." Progress in Human Geography **23**(4): 503–527.
- Pierre, J. and G. Peters (2000). Governance, Politics and the State. Basingstoke, Macmillan.
- Rhodes, R. (1994). "The Hollowing out of the State." Political Quarterly **65**(138–51).
- Rhodes, R. (1996). "The new governance: governing without government." Political Studies(XLIV): 652–667.
- Scharpf, F. W. (1988). "The Joint-Decision Trap: Lessons from German Federalism and European Integration." Public Administration **66**(3): 239–278.
- WCED (1987). Our Common Future. Oxford, Oxford University Press.
- Wilson, D. and C. Game (1998). Local Government in the United Kingdom. London, Macmillan.
- Wilson, E. J., F. R. McDougall, et al. (2001). "Euro-trash: searching Europe for a more sustainable approach to waste management." Resources Conservation and Recycling **31**(4): 327–346.