

Behaviour Change: A Series of Practical Guides
for Policy-Makers and Practitioners

Number 8

Tackling the Waste Challenge

Summer 2006

Centre for Sustainable Development
University of Westminster



1. Introduction to the series	2
2. Project summary	3
3. Key findings	4
General lessons from the study	4
Specific findings relating to tackling the waste challenge	5
4. Policy implications	11
Step 1: Scoping the task	11
Step 2: Developing a more detailed understanding of the behaviours in question	11
Step 3: Developing a package of interventions to achieve change	13
Step 4: Engaging the target audience	14
Step 5: Identifying the tools and approaches available to influence change	15
Step 6: Tailoring approaches to specific circumstances	16
Step 7: Understanding your circle of influence and working with others	18
Step 8: Setting up a process to achieve change	19
Step 9: Putting the task in a wider context	19
5. Supplementary information	20

Defra has commissioned and funded this study, but the views expressed in this guide do not necessarily reflect Defra policy.

1. Introduction to the series

Defra's 5 year strategy (*Delivering the Essentials of Life*¹) coupled with the UK Government sustainable development strategy (*Securing the Future*²) set out an ambitious agenda for environmental leadership and sustainable development. Embedding these core principles relies on influencing change and making it easier for producers and consumers to behave more sustainably. This is a sizeable task, since changing behaviours is a complex matter and innovative solutions are required.

In July 2005, Defra initiated a programme of research that aimed to broaden understanding of how Government (and others) can most effectively promote pro-environmental behaviour amongst producers and consumers. Several studies were commissioned as part of this research programme, each with a remit to explore a unique aspect of pro-environmental behaviour change.

This practical guide forms part of a series of papers that aims to summarise the key findings and policy implications from these studies.

A full list of titles in this series is provided below:

- Number 1: Sustainable Resource Use in the Home
- Number 2: Targeting Specific Lifestyle Groups
- Number 3: Sustainable Development as a "Collective Choice" Problem
- Number 4: Triggering Widespread Adoption of Sustainable Practices
- Number 5: Understanding Choice
- Number 6: Sustainable Shopping and Sustainable Production
- Number 7: Enhancing Sustainability at Farm Level
- Number 8: Tackling the Waste Challenge
- Number 9: Encouraging Sustainability Amongst Small Businesses
- Number 10: Sustainable Resource Use in Business and Organisations

¹ Defra (2004) *Delivering the essentials of life: Defra's five year strategy*, London: HMSO.
See <http://www.defra.gov.uk/corporate/5year-strategy/index.htm>.

² Defra (2005) *Securing the Future: UK Government Sustainable Development Strategy*, London: HMSO.
See <http://www.sustainable-development.gov.uk/publications/uk-strategy/index.htm>.

2. Project summary

This guide is informed by the findings of a recent study, entitled 'Promoting pro-environmental behaviour: existing evidence to inform better policy-making'. The project, undertaken by a consortium led by the Centre for Sustainable Development at the University of Westminster, brought together evidence from theory, policy and practice to identify lessons for how policy-makers can influence pro-environmental behaviour change among different target audiences.

The study involved:

- a review of theory relating to pro-environmental behaviour change at the level of individuals, organisations and whole systems;
- an investigation of practical interventions used to influence pro-environmental behaviour, specifically:
 - a review of the different types of policy interventions available for influencing pro-environmental behaviour, with a detailed analysis of 14 examples of specific policy instruments that have influenced pro-environmental behaviour;
 - detailed analysis and comparison of 14 practical initiatives that have achieved changes in pro-environmental behaviour;
- a synthesis of the theoretical, policy and practical approaches to changing pro-environmental behaviour that aimed to identify any general lessons, lessons about how the three approaches interact and influence each other, and recommendations for future work.

Throughout the study individual behaviour change, organisational change within businesses and other institutions, and change across whole systems of delivery were considered under the seven key areas of activity, namely:

1. Helping businesses produce more sustainably (farmers, food industry and wider industry)
2. Encouraging sustainable consumer behaviour (purchasing)
3. Encouraging sustainable resource use within the home and by businesses (design, energy, water etc.)
4. Tackling the waste challenge (reduce, reuse, recycle by households and businesses)
5. Encouraging sustainable behaviour for different sections of society (e.g. the young)
6. Helping farmers (and fishers) become more sustainable land (marine) managers
7. Sustainable procurement – using Government purchasing to influence markets

The study principally used existing data sources, including reports, theoretical papers, and information available on the Internet. This was supplemented where necessary with primary data collected through telephone interviews and email correspondence (for example, interviews with people involved in the practical case study examples and with policy-makers involved in designing specific policy instruments). The theory review was then sent out to peers to identify any inaccuracies or important omissions.

3. Key findings

The main report from the study is available on the Defra website³ and presents detailed results from the study. Some of the overarching lessons about good practice in designing policies and supporting practical initiatives for influencing environmental behaviour are summarised below. This is followed by a summary of evidence from our study that is specifically relevant to tackling the waste challenge.

General lessons from the study

Behaviours are complex and non-linear. Each behaviour is determined by various (often inter-related) factors, many of which need addressing simultaneously to facilitate change. Thus interventions should combine multiple types of instrument in a 'package' of measures (e.g. infrastructure, fiscal measures, and information). It is suggested that interventions first address external factors (most notably infrastructure and pricing) and then internal factors (e.g. psychological or attitudinal). As well as working on multiple factors, interventions need to work on multiple levels – ultimately addressing society as a whole in order to achieve sustained change.

Different audiences behave differently, and require targeted and/or tailored interventions. To be effective, policy measures usually need to be highly context specific. Devolving responsibility for policy development and delivery to local bodies (Local Authorities, business and industry groups, the voluntary sector and community groups) can help to ensure their suitability and can also help to build their legitimacy. Care should be taken to ensure that the relevant skills and resources are available within these organisations to take on these additional duties.

The audience for a change intervention should not be regarded as a passive target. Policy-makers need to view target audiences and other key stakeholders as 'actors' at the heart of the change process. Ideally, a total partnership working approach should be adopted in which change partners (including members of the public) are involved from the start in defining and redefining the problem through a continuous cycle of action and reflection, from which learning and innovation will result.

Feedback is vital to driving and sustaining change. Instead of understanding changing behaviour as a single event, it should be viewed as an ongoing process. Policy-makers should ensure that interventions incorporate opportunities to learn from policy audiences – learning captured and fed back from the change process should influence subsequent policy. In order to facilitate this important reflective process, more effective and consistent data collection and collation is required. In future, the appropriate formal evaluation structures should be put in place at the stage of policy development.

Government policy needs to convey a consistent message and visibly pull in one direction. The suite of policies emerging from government needs to avoid contradictions and inconsistencies in order to convey clear messages to target audiences and the public in general. This requirement for harmony needs to apply to all Defra policies and to those coming from the EU, and (possibly more importantly) to those being developed by other government departments. There needs to be greater collaboration and interdepartmental working to achieve this.

³ Visit http://www2.defra.gov.uk/research/project_data/More.asp?l=SD14002&M=KWS&V=behaviour+change&SCOPE=0

Individuals have the potential to act as 'change champions'. Individuals are vital to delivering pro-environmental change, not just for themselves (on the level of individuals) but also within organisations and networks as 'agents for change' (both as managers and 'change champions'). Engaging, and nurturing, key individuals may be more effective in bringing about system-wide change than targeting the behaviour of all individuals.

Policy design should incorporate considerations of equity and fairness. It is clearly important that policy-makers ensure that policies at least avoid disproportionate negative financial and environmental impacts for the most vulnerable in society and at best reduce inequalities of outcome. Equity concerns are particularly associated with environmental taxes and charges, which can negatively impact on the competitiveness of small businesses, as well as on disadvantaged individuals. Compliance is likely to prove most problematic where policies are perceived as unfair, or poorly targeted, and where alternative options do not appear to be available.

Action needs to be taken now to address the pressing environmental problems we face today and in the future. The appropriateness and relevance of policies to encourage pro-environmental behaviour should be viewed in light of these massive and important global challenges. More far-reaching, targeted and effective policy action is needed than is currently evident. Change takes time, and measures need to be put into place now to influence societal change and respond to environmental pressures.

Specific findings relating to tackling the waste challenge

Many behaviour change theories are generic. However, a number of models and theories have been applied to, or developed for, specific pro-environmental behaviours. Here we present a summary of findings that relate specifically to tackling the waste challenge.

a) Evidence about individual waste behaviour

Our study reviews the following theories and models that have been applied specifically to individuals' waste behaviour.

- Stuart Barr and colleagues have collected data from households in order to model recycling and re-use behaviours (Barr, 2003; Barr et. al., 2005). They identified factors that had a statistically significant effect on household recycling and re-use behaviours. Their approach also allowed them to identify the relative importance of each factor in determining the behaviours.
 - **In the case of recycling, having a kerbside collection service outweighs all other factors in terms of importance for determining recycling behaviour.** Another important determinant is 'acceptance of the norm to recycle'. It is important to note that although these are important factors, they may not be sufficient on their own to drive recycling behaviour (i.e. just providing a kerbside collection will not result in everyone recycling).
 - **With re-use behaviours, there are more factors that influence the end behaviour, and none has as clearly strong a role in determining the behaviour.**

3. Key findings

- When behaviours were re-examined in a second study, the picture became still more complex. **The factors influencing recycling behaviour are very different for different types of people, and even where infrastructure provision is important, it is not as simple as providing a kerbside recycling service:**
 - for one group, labelled ‘committed environmentalists’, who are habitual recyclers, their recycling behaviour is driven by conviction (mainly based on environmental concern), along with the belief that they personally have the power to make a difference (i.e. self-efficacy);
 - for ‘mainstream’ and ‘occasional’ environmentalists (for whom recycling is commonplace) convenience is a key factor, although simple provision of kerbside services is not the whole answer, as perception of convenience is also important; and
 - for ‘non-environmentalists’, who tend not to recycle except for the occasional newspaper, a lack of trust in information, and negative experiences in undertaking other pro-environmental behaviours are key factors in their low levels of recycling.

These findings provide some useful, detailed information about how individual recycling behaviour works. **The key finding for practice is that a single approach will not work across the board – you need to tailor interventions to different audiences.** This finding may be relevant to the practical case study of the London Borough of Barnet. This local authority found that even with kerbside recycling collection, combined with leafleting and school programmes, they were not getting high enough numbers of people to recycle; as a result the Borough have introduced a compulsory recycling scheme. It would be interesting to discover if they could have achieved a similar increase in recycling rates without compulsion by using targeted interventions for different sectors of the population.

b) Evidence about changing the behaviour of businesses and other organisations

Theory about behaviour in organisations and businesses focuses principally on the generic process of change, and only a minority of it deals specifically with pro-environmental behaviour change. However, the following points could cast light on the challenge of changing waste behaviour by businesses and other organisations.

- The literature on change within organisations (including businesses) identifies three main drivers for change (which can work from within or from outside an organisation), namely: learning, leadership and adaptation.
 - **Learning** is closely tied to change. An ideal theoretical approach proposes that organisations should be constantly engaged in cycles of learning and change (for example Argyris and Schon, 1996). Action networks – facilitated interdisciplinary groups working on a common problem - can be a useful tool to help support learning and change in organisations through an ongoing process of action and reflection.
 - **Leaders** within organisations are often key to driving change and so developing and supporting these people can be a productive way of supporting change (for example Ballard & Ballard, 2005). Involvement in action learning networks, and experiences outside the organisation, are both key ways of helping develop leadership skills. In this context, pro-environmental leadership can come from formal managers or less formal ‘change champions’.

- **Organisational adaptation** to external and internal pressures is the third key driver of change within organisations. This mechanism has been widely observed to drive pro-environmental change in organisations. Two key pressures that drive businesses to adapt are changes in markets and regulation.
- Morton, chair of the Sustainable Procurement Task Force, has identified a similar set of trigger factors that could drive change in environmental purchasing by businesses (Morton et. al., 2002).
 - External pressures included fiscal measures; regulation and legislation; market pressures (both of supply and demand); indicators and benchmarks; and stakeholder pressure (including from investors).
 - Internally, environmental purchasing needs to be justified with a business case. Some key potential benefits for a business that could support such a case include: minimising waste and improving resource efficiency; securing the supply of goods and services; providing cost savings; and enhancing corporate image.

c) Evidence about the wider context for tackling waste

Some important factors as outlined below.

- **For recycling, provision of services and infrastructure are key.** As we have seen, convenience plays a large part in recycling for individuals. Businesses and other organisations will also struggle to recycle, even if they want to do so, without good, and economical, service provision. Even when recycling rates are high and collection services are good, recycling will not work if the infrastructure does not exist to recycle the waste being collected. This can be a serious problem and stories of waste not actually being recycled can undermine people's commitment to action (as discussed above, negative experiences of environmental action, and mistrust, are key factors for that sector of the population who do not recycle much).
- **Innovation and regulation may be important in helping determine the waste produced by businesses, as well as how inherently wasteful products are** (for example, how much packaging is used).
- **Factors relating to the socio-economic context.** For example, in the UK consumers now often expect 'perfect' looking fruit and vegetables, which has led to a situation where a lot of food is discarded simply on aesthetic grounds before reaching shops. Social attitudes to waste have changed – for example, people who lived through the Second World War tend to be careful not to waste food or other resources ('waste not want not'), whereas 'modern' behaviours tend to be much more wasteful.

Theory commonly refers to external or infrastructural factors but rarely shows how to address these in practice, except to suggest that **it may be most productive to tackle physical barriers before trying to influence individual behaviour**. A practice-based approach can also be recommended in which different combinations of measures are tried and varied until the most effective combination is found.

Practical case studies may be useful here – for example, illustrating how policy approaches can help influence the types of appliances available and people's choice of appliance, or how more energy efficient housing can be developed (see section 4 below).

3. Key findings

Theory can help with understanding the mechanisms involved in changing the social context.

- Gatersleben and Vlek's 'Needs, Opportunities and Abilities' (NOA) model (see Figure 1) shows how individual behaviours are ultimately informed by macro-level 'societal drivers' (for example, technology, economy or culture). In turn, individuals' behaviours feed back and shape these societal drivers (Gatersleben and Vlek, 1998).
- Veronica Sharp shows how consumers, retailers and producers all influence each other (see Figure 2. **All three of these audiences, and the relationships between them need to be targeted to achieve change (Sharp, 2005).**

Figure 1: 'The Needs-Opportunities-Abilities model of consumer behaviour', reproduced from Gatersleben & Vlek (1998)

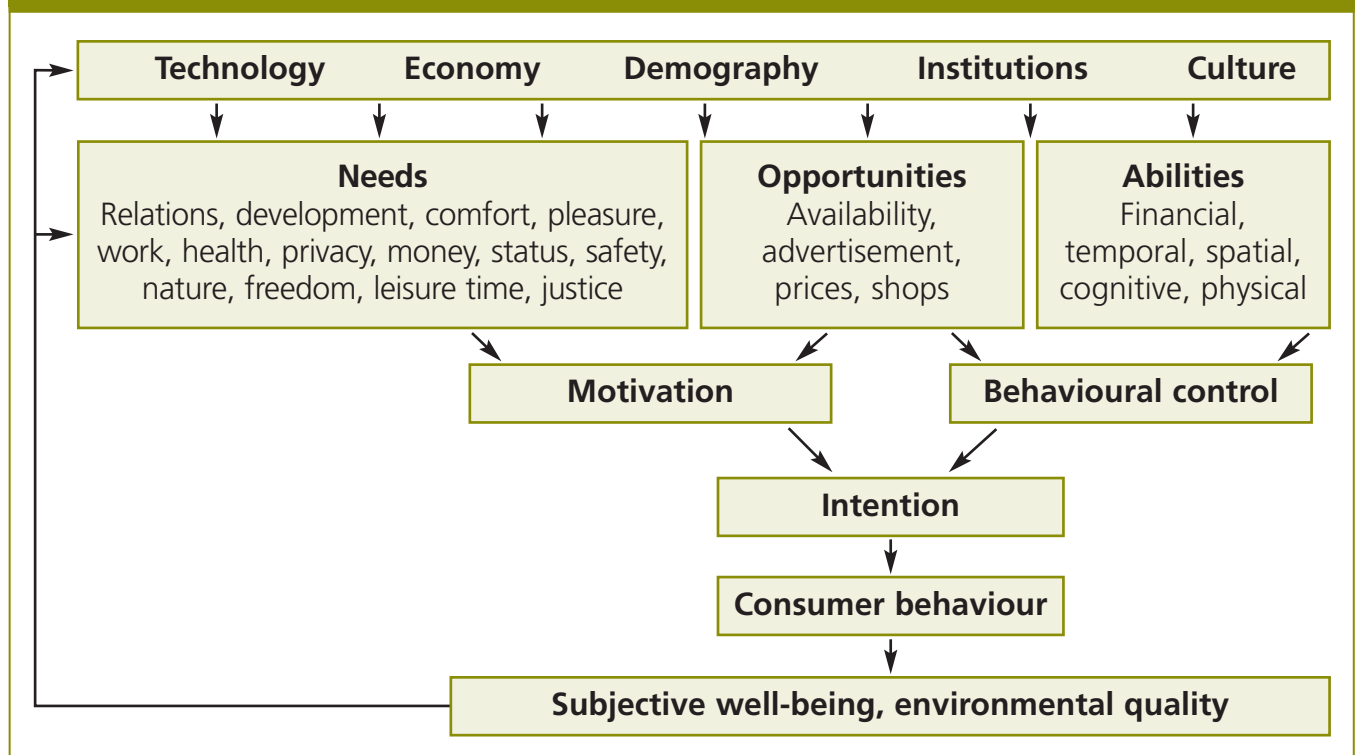
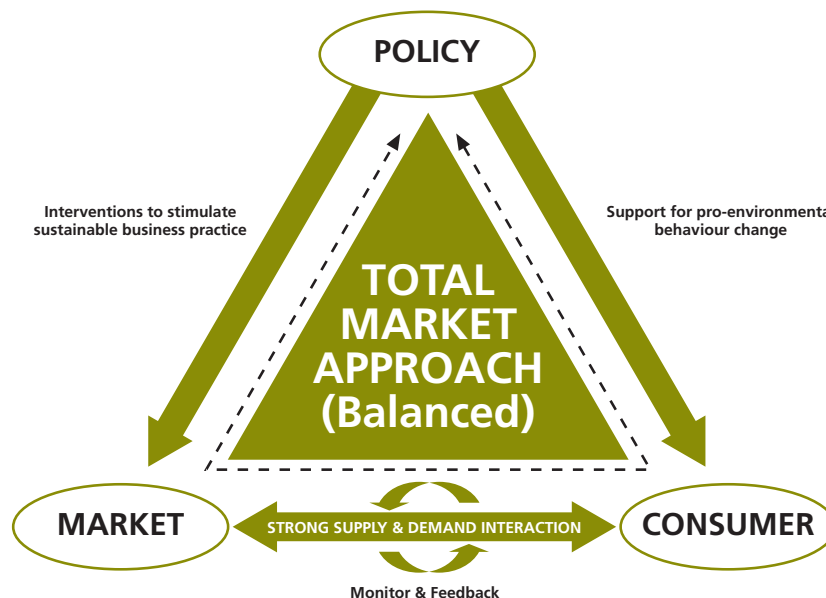


Figure 2: 'Interdependence of policy, market and consumer relationships - Balanced Approach', reproduced from Sharp (2005b)



Both of these examples reinforce the conclusion that **interventions need to work on more than one level (i.e. on the individual level, organisational level and wider societal level), and take into account the dynamics between the different levels in a system.**

A note on using behaviour change theories and models

There are many models and theories that attempt to describe environmental behaviour. Most relate to generic behaviours – for example, all pro-environmental behaviours rather than just, say, recycling glass. They also tend to average out the behaviour of many individuals to describe an average person's behaviour. Theory and practical experience show that policy changes will not affect all individuals equally and so policy-makers using these models will need to refine them in the relevant context prior to implementation.

3. Key findings

A note on using policy tools

Policy tools can provide a powerful and effective way of influencing pro-environmental behaviour (such as, economic incentives, pricing of resources, and regulation). However, they need to be used with caution and care.

- **Complexity.** The impact of policy tools can often be complex and unpredictable, and may not have the intended effect. For example: businesses may choose to absorb the cost of environmental taxes and charges, reducing their impact on consumer behaviour (e.g. airlines could compensate for carbon tax on aviation fuel through price reductions in tourist packages); species-based quotas on fishing fleets have led to the discarding of catches, contributing to an increase in the proportion of 'at risk' species.
- **Distribution and equality of outcomes.** Policy interventions can have negative impacts on equity, for example increasing the price of a resource can impact disproportionately on people living on a low income. Interventions can also impact negatively on business competitiveness, which can impact particularly on Small and Medium Sized Enterprises.
- **Value for money.** It is important to recognise the full administrative cost of policies, both to the Government and/or third parties when enforcing compliance.
- **Additionality.** Policy-makers should consider whether beneficiaries of subsidies and/or grants would have behaved in a similar way over time without the intervention.
- **Public response.** Be aware that lack of public acceptance of an intervention may serve to undermine the intervention (e.g. the Fuel Tax Escalator).
- **Scope.** Single interventions are likely to have limited impact. For example, regulation alone is unlikely to encourage longer-term change or establish new social norms. Multiple interventions are needed with, for example, regulation supported by information, fiscal and other incentives, supporting infrastructure and incentives for technical innovation.

4. Policy implications

It is widely recognised that influencing human and organisational behaviour is difficult whatever the policy arena. Our study has identified some basic principles that appear to underlie much behaviour change theory and practice, and some practical lessons that could help policy-makers wishing to encourage pro-environmental behaviours. This section presents a set of practical 'steps' that show how policy-makers and practitioners can apply these principles and lessons when trying to influence pro-environmental behaviours.

The 'steps' overlap to some extent and do not follow in strict chronological order, often needing to be applied in parallel. They do not represent a simple 'how to' or 'step by step' guide. The 'steps' are generic, being applicable regardless of the behaviour in question. In this guide we illustrate them in relation to tackling the waste challenge.

Step 1: Scoping the task

Pro-environmental behaviours are **complex, influenced by multiple factors acting on multiple levels within the context of wider systems**. An early important step is to 'unpick' the specific behaviour you want to change and identify the scope of the task. What different elements make up the behaviour you are interested in? What factors could be involved in influencing it? How does the behaviour relate to its wider context?

Policy example: tackling the waste challenge

Tackling the waste challenge will involve addressing the following interlinked aspects:

- waste behaviour by individuals;
- waste behaviour by businesses and other organisations;
- waste services, infrastructure and processes; and
- the wider social context.

Each of these will be influenced by a variety of factors, for example: individual attitudes, access to recycling services, social norms and legislation. The different aspects will also be closely linked. For example, individual waste behaviour will be linked to the behaviour of producers (for example the amount of packaging goods have and whether it is recyclable, biodegradable, etc).

Step 2: Developing a more detailed understanding of the behaviours in question

Once we have identified the different factors involved in a behaviour, and its wider context, we can turn to theory and lessons from practice to better understand the behaviour and how to influence it, including:

- models that have been developed or applied specifically for the behaviour in question, and any generic models that can help;
- research findings may, for example, help identify what factors are seen as significant, and at what levels, for different audience groups; and
- relevant practical case studies may help build up a more detailed understanding of the behaviours and what is likely to influence them.

4. Policy implications

Policy example: tackling the waste challenge

Drawing from the summary of relevant theory in section 3 above, we can see that the following lessons could help us understand how to influence waste behaviour.

- Theory about individual waste behaviour tells us that it is possible to identify key factors that determine these behaviours. However, the key finding for practice is that a single approach will not work across the board – you need to tailor interventions to different audiences. For example, those who recycle fairly regularly are likely to be most influenced by their perception of how easy it is to recycle (providing convenient services will therefore be important, but getting people to believe that recycling is convenient will also be key). For infrequent recyclers, the most significant barriers are likely to be previous poor experiences of environmental action, and mistrust. In this case, an intermediate organisation may be able to induce more trust. Tackling negative stories about recycling (such as materials being collected but not recycled) will also be important.
- The following findings should be borne in mind when attempting to change the behaviour of businesses and organisations.
 - **Businesses and organisations need to be encouraged to constantly learn and adapt.**
 - **Leaders are key to driving change in businesses and other organisations, and so need to be nurtured, won over and supported.** Involvement in action learning groups, and experiences outside the business can both help develop leaders.
 - **Changes in markets and regulation can force businesses to adapt and will play a key role in driving environmental change.** Evidence suggests that market pressures may often not yet be enough to force many businesses to adopt more pro-environmental behaviours (Revell & Blackburn 2004).
 - **Targeted regulation can have unexpected results and so needs to be carefully designed,** and preferably tested, so that it has the intended effect on environmental behaviours overall (Chapman, 2004).
- The wider context will be important in determining waste behaviours of individuals and businesses.
 - Theory suggests that **it may be most productive to tackle physical barriers before trying to influence individual behaviour.**
 - Models exist to help understand the mechanisms involved in changing the social context for environmental behaviours. **Interventions need to work on more than one level (i.e. on the individual level, organisational level and wider societal level), and take into account the dynamics between the different levels in a system.**

Step 3: Developing a package of interventions to achieve change

It is important to **take a whole system, outward-looking, approach to influencing an environmental behaviour. 'Single sphere' interventions are unlikely to be effective,** especially in achieving significant lasting change. However, you will be unable to undertake all possible measures, and any policy intervention will be practically limited.

The most effective approach is to **develop a package of focused interventions that influence enough key factors for a behaviour to achieve change.** Fundamental to this is a good understanding of the behaviour, its wider context and the factors that influence it. The other 'steps' discussed below will also be important.

Policy example: tackling the waste challenge

In the case of waste, we have established that we need to look at changing:

- waste behaviour by individuals;
- waste behaviour by businesses and other organisations;
- waste services, infrastructure and processes; and
- the wider social context.

In order to achieve significant change you should consider influencing all of these different aspects together, and each one is likely to require more than one intervention. Overall, therefore, you are likely to need a programme of interventions designed to work with specific groups of 'actors', for example, individuals, producers, local authorities, private waste companies and wider society. Each one of these audiences is likely to need a package of measures (see Box 1). For example, you may want to: encourage the provision of economical recycling services for small businesses by local authorities and private waste companies; provide information, advice and hands-on support to help small businesses identify potential ways of increasing efficiency and reducing waste and make the necessary changes to their operations; try and stimulate demand for less wasteful products (for example using labelling and awareness raising for consumers).

4. Policy implications

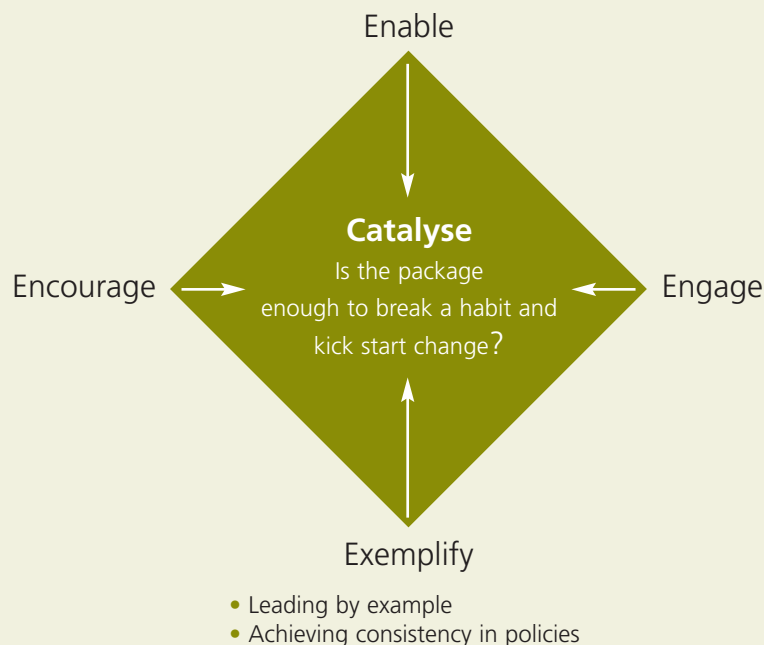
Box 1 – The UK Government Sustainable Development ‘Diamond Model’: helping you develop a package of measures

The ‘Diamond Model’ (also known as the ‘4 E’s’ model) is a model that provides a framework for thinking about the different approaches policy-makers can take to influence a behaviour, and how to balance these to produce an effective package of interventions which “catalyse” change. The model suggests using a mix of interventions to Enable, Engage, Exemplify and Encourage (HM Government, 2005).

Approach evolves as attitudes and behaviours change over time

- Remove barriers
- Give information
- Provide facilities
- Provide variable alternatives
- Educate/train/provide/skills
- Provide capacity

- Tax system
- Expenditure – grants
- Reward scheme
- Recognition/social pressure – league tables
- Penalties, fines & enforcement action



- Community action
- Co-production
- Deliberative fora
- Personal contacts /enthusiasts
- Media campaigns /opinion formers
- Use networks

Step 4: Engaging the target audience

A key early stage in any attempt to influence environmental behaviour is to **engage the audience that you are trying to influence**. Working with actors and stakeholders in a particular area of change is seen as essential in theory at all levels, and emerged as a strong theme in our review of policy tools and practice case studies. In short, your target audience understands the factors that influence their own behaviour, the constraints they face and the practical context within which they are acting better than anyone. Engaging people or organisations early in the policy development process also helps give them ownership of the challenge and means they are less likely to feel threatened by, or hostile to, change.

Policy example: tackling the waste challenge

You may want to engage individuals in order to better understand the factors that influence their waste behaviours, and draw on their expertise about their own circumstances to co-design appropriate interventions. Interventions to reduce waste in small business' operations, and influence the products they produce, are likely to be most effective if developed together with the small businesses to be targeted. This will help us better understand the factors that influence their ability to change (for example high cost of innovation or investment in new processes), and the types of support that would be most likely to help them change.

Step 5: Identifying the tools and approaches available to influence change

Consideration should be given to the tools and approaches that could be effective for the behaviour(s) and audience you are targeting. You should consider:

- the range of policy tools available and whether any have been applied in similar circumstances – the UK Government Sustainable Development 'Diamond Model' may also help here (see Box 1 above);
- the strengths, weaknesses and pitfalls of policy interventions, as discussed in section 3 above;
- what has worked in similar situations – practical case studies may prove helpful; and
- whether relevant theories can be applied.

Policy example: tackling the waste challenge

Our study includes the following examples relevant to influencing the key factors we identified above (see Boxes 2, 3 and 4).

Box 2: The West Sussex real nappy initiative – changing individual waste behaviour

The initiative has successfully increased the use of non-disposable real cotton nappies by new parents, using a combination of complementary interventions:

- an incentive payment of £30 for parents using real cotton nappies for their children over the first 18 months of their lives;
- all nappies used in the county's maternity hospitals are cotton so that parents' and babies' first experience is with non-disposable nappies – research has shown that parents tend to carry on using the first nappy that their baby wears, and endorsement by trusted professionals also helps;
- a communications campaign - new mothers are targeted at pre- and post-natal classes, and through Sure Start. Fathers and grandparents are targeted through local press, radio and bus to create a supportive context.

4. Policy implications

Box 3: Envirowise – reducing waste and improving resource efficiency in businesses

Envirowise is a Government programme that provides practical support for UK businesses to improve their environmental performance and resource efficiency. The programme attempts to engage businesses by demonstrating how resource efficiency can improve competitiveness. The programme provides tailored information, advice and hands-on support to help businesses reduce all aspects of their environmental impact. This support is delivered through: a helpline giving confidential advice on resource efficiency; free on-site visits to help businesses identify areas where they can improve resource efficiency, and suggest actions; events, including workshops, seminars and major exhibitions to help businesses tackle their environmental impact, comply with legislation and save money; and a website with practical advice and information, including case studies, best practice guides and benchmarking tools.

Box 4: The Waste Minimisation and Recycling Fund – supporting local authorities to improve recycling infrastructure

This is a Government fund, managed by Defra, to combat the lack of local recycling infrastructure and help local authorities to meet their recycling targets. The aim is to provide recycling facilities, leading to a long-term increase in levels of household recycling. Local authorities are invited to bid for a capital grant to fund a project proposal. Some revenue funding and extra resources to assist local authorities with communication tools to accompany their project were also provided in the first year of the Fund.

See our main report for other relevant examples from our study.

Step 6: Tailoring approaches to specific circumstances

A key finding from the study was that **even seemingly closely related behaviours are likely to work in different ways** – pro-environmental behaviours are extremely context and audience specific. Therefore, for each specific intervention it will be necessary to specify exactly which behaviours, or aspects of a behaviour, you want to target, who an intervention will be aimed at, and the context in which this is to be done. Each intervention will need adapting and refining in practice, if possible with input from the target audience. Even where you are applying models that have been developed for specific behaviours, or interventions that have been successfully used before, the different context and audience need to be taken into account each time (see Box 5).

Policy example: tackling the waste challenge

If, for instance, we decided to provide support to businesses to help them develop less wasteful products, we would need to think about: the type of business (for example small enterprises or large businesses); the sector we want to target: the changes we want to achieve. We would also want to engage the specific types of business we decided on to find out more about what kinds of interventions are most likely to be appropriate for them.

Relevant findings from our study include the following.

- **Social marketing principles could provide a useful framework for targeting specific audiences and behaviours.** For example, they offer a staged approach to developing change interventions, and a technique of subdividing target audiences (French and Blair Stevens, 2005).
- A number of our practical case studies illustrate how it is important to **tailor interventions to specific audiences and situations**, with substantial investment often being needed to engage different audiences and develop approaches appropriate to the specific context – a single model cannot be successfully ‘parachuted in’ each time. Whilst not focused specifically on the home, Box 5 details a practice example from our study demonstrating that a systematic approach at different levels may be required.
- **some individuals or organisations are more important than others in spreading change.** For instance, on the individual level, formal and informal ‘champions’ encourage other people, and the organisations in which they work, to adopt more environmentally-friendly behaviours. Engaging, and nurturing, key individuals or organisations may be more effective in bringing about system-wide change than targeting the behaviour of all individuals or organisations.

Box 5 – The Sustainable Hospital Food project: tailoring an approach to different situations

The Sustainable Hospital Food Project demonstrates a tailored approach to delivering a behaviour change intervention in different situations. The project was designed to increase the amount of local, seasonal and organic food used in four London hospitals. The project was delivered by dedicated project staff who carried out intensive hands-on work to develop a suitable, tailored, approach with each hospital, working closely with hospital caterers and procurement managers as well as producers, suppliers, wholesalers, patients and staff. After detailed research into how food was procured in the four hospitals, the main focus for the project workers was to act as ‘go-betweens’ to identify potential suppliers who could meet the hospitals’ needs for produce and then work to get their produce to the hospitals. In addition, the project staff carried out other tailored work in each hospital such as: work with hospital dieticians to redesign the hospital menus; training for hospital caterers and small suppliers; promotional events; and monitoring progress and impact.

4. Policy implications

Step 7: Understanding your circle of influence and working with others

As discussed above, it is necessary to recognise that you will be unable to do everything. As part of developing a package of interventions that you feel will deliver change, you need to consider what is within your power (or resources – including time, money and manpower) to influence.

Key tools for extending your influence are likely to include partnership and devolving responsibility. Policy-makers may be well placed to take an overview role. Even if you are unable to exert an influence at all the points that may be desirable to influence a pro-environmental behaviour, if you understand the full picture, you may be able to work with or support others who can help fill in the gaps.

For example:

- our review of policy tools revealed the value of devolving delivery of behaviour change initiatives to local organisations that may have a better understanding of local audiences and contexts, and represent a more accessible point of engagement than central Government;
- our investigation of practical case studies included a review of the ways in which policy-makers can support others to develop behaviour change initiatives; and
- if you have worked collaboratively with the change ‘actors’ and other interested parties throughout the process of designing the interventions, you will be well placed to identify delivery partners.

Policy example: tackling the waste challenge

Defra will not be able to directly deliver initiatives to influence individuals, businesses, other organisations, waste services, infrastructure and the social context all on its own. **A successful package of interventions will inevitably involve influencing practitioners indirectly and devolving delivery.** A clear overview of what is needed, combined with clever use of policy tools, could mobilise change without the need for extensive direct intervention.

- The Market Transformation Programme, that supports policy-making by Government to increase the sustainability of products, is delivered by a consortium of contractors that provide the necessary specialist expertise (for example the Building Research Establishment).
- Envirowise is a Government programme delivering support to help businesses reduce waste and make more efficient use of resources. It is delivered on behalf of Defra, DTI, the Scottish Executive, the Welsh Assembly and Invest Northern Ireland, by private contractors.
- Local authorities develop their own recycling services, driven by obligations to central Government. In the three London local authorities that we looked at, their recycling schemes are managed by the councils but on-street collections are delivered by independent contractors (a private company, a community enterprise and a Waste Authority).

Step 8: Setting up a process to achieve change

Change is better understood as an ongoing looped process rather than a linear one with a clear end-point. Any changes that are achieved, or naturally changing circumstances, will themselves change the behaviour in question. In a simple example, promoting energy issues could change social attitudes to energy saving. In turn this may lead to legislation or changes in fuel costs which will then further change household energy behaviours.

Interventions need to take these dynamic aspects of behaviour into account and should aim to achieve change on an ongoing basis, not at a concrete end point. A flexible approach with monitoring, evaluation and feedback that can influence an initiative is likely to be most successful.

Monitoring, evaluation and feedback should be built in from the start, and involve delivery partners and the target audience who we are trying to influence.

Step 9: Put the task in a wider context

Ultimately we are concerned with influencing pro-environmental behaviours in order to address pressing, massive global environmental threats such as global warming. Given this wider picture, it is essential that interventions and policies as a whole work in the same direction – think beyond the specific behaviour and intervention you are working on. Are there any other policy areas where clashes or synergies may occur? Look beyond the UK to include European and global environmental policy.

Policy example: tackling the waste challenge

For example, what other policies from different areas might impact on waste behaviour by individuals or businesses, or influence the provision of services and infrastructure? Key factors could include: planning decisions relating to new recycling facilities; funding for local authority waste services; waste regulation such as the Landfill Tax; support for new technologies. What are the implications of proposed interventions for business competitiveness, or liveability in local neighbourhoods?

In summary:

- **Unpick and Understand** the behaviour(s) you want to influence: what different elements are involved?, how do the behaviours work?, and what could influence them?;
- **Pick and Mix** interventions that can interact to achieve change (taking care to avoid common pitfalls);
- **Talk and Listen** to the people or organisations you want to change;
- **Tailor** each intervention to the specific audience, behaviour and circumstances;
- **Know your strengths and involve others** – your direct impact will be limited, but you can influence and engage others to help out;
- **Keep it up, and keep learning** – design an ongoing process to change behaviours over time, with constant feedback;
- **Bigger picture** – remember why you are doing it and make sure everything pulls in the same direction.

5. Supplementary information

References:

- Argyris, C and D Schon 1996. *Organizational Learning II*. Reading, Massachusetts: Addison Wesley.
- Ballard, D and S Ballard 2005. *Warm Hearts and Cool Heads: The Leadership Potential for Climate Change Champions*. Alexander, Ballard & Associates for Hampshire County Council.
- Barr, S 2003. *Strategies for Sustainability: citizens and responsible environmental behaviour*. Area 35 (3), 227-240.
- Barr, S and A Gilg and G Shaw 2005. Promoting Sustainable Lifestyles: A Social Marketing Approach – Technical Paper. A report for Defra.
- Chapman, J 2004. *System Failure*, 2nd edition. Demos.
- French, J and C Blair Stevens 2005. *The Social Marketing Pocket Guide*. For the National Social Marketing Centre and the Department of Health.
- Gatersleben, B and C Vlek 1998. Household consumption, quality of life and environmental impacts, in Noorman and Schoot-Uiterkamp (eds.) *Green Households*.
- HM Government 2005. *Securing the Future - UK Government sustainable development strategy*. London: TSO.
- Morton, B. with McInnes, M. and Foster, R. (2002) *Environmental Purchasing in Practice – Guidance for Organisations*. For the Institute of Environmental Management and Assessment (IEMA), the Chartered Institute of Purchasing and Supply (CIPS), and the NHS Purchasing and Supply Agency (PASA).
- Revell, A and R Blackburn 2004. *SMEs and Their Response to Environmental Issues in the UK*. The Small Business Research Centre at Kingston University for the Economic and Social Research Council (ESRC) Environment and Human Behaviour (EHB) Programme.
- Sharp, V 2005. *Behaviour Change – Scoping the Way Forward*. A report for Defra.

Further Information:

- Envirowise – www.envirowise.gov.uk
- The Landfill Directive – <http://www.defra.gov.uk/environment/waste/topics/landfill-dir/>
- The London Borough of Barnet – <http://www.barnet.gov.uk/index/environment-planning/rubbish-waste-and-recycling.htm>
- The Market Transformation Programme (MTP) – www.mtprog.com/
- Sustainable Hospital Food Project – The Sustainable Hospital Food project - http://www.sustainweb.org/hospital_index.asp
- The Waste Minimisation and Recycling Fund – <http://www.defra.gov.uk/ENVIRONMENT/waste/localauth/wastefund/index.htm>
- The West Sussex Real Nappy Initiative – www.westsussex.gov.uk/ccm/content/environment/rubbish-waste-and-recycling/waste-prevention/real-nappy-initiative.en;jsessionid=aCqHQHZ__ZLc

Contact details:

For further information on this project please contact:

Dr Karen Lucas
Senior Research Fellow
University of Westminster
35 Marylebone Road
London
NW1 5LS

Tel: 020 7911 5000, Ext. 3090
Email: lucask1@westminster.ac.uk