



postnote

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CLIMATE CHANGE: ENGAGEMENT AND BEHAVIOUR

Public engagement plays an important role in UK climate policy, and is often used to promote lower carbon lifestyles or build support for policies. It can also involve the public in the design and implementation of policy on climate change. This note provides an overview of UK attitudes and behaviour relating to climate change. It outlines current engagement approaches and lessons for future policy.

Background

The Climate Change Act 2008 sets a legally binding target to cut greenhouse gas (GHG) emissions by 80% by 2050, (based on 1990 levels). Around 42% of CO₂ emissions produced in the UK result directly from actions taken by individuals¹. If all emissions arising from UK consumption are considered, individuals² are directly responsible for around 76% of GHG emissions³. For this reason, individual behaviour change plays an important part in the Government's Low Carbon Transition Plan⁴.

What Does Engagement Mean?

Engagement measures can be classified by the level of interaction involved and the influence that participants have in the process. At one end of the spectrum are one-way communications. At the other are approaches using dialogue, where the public actively participate in decision-making. Between these extremes are approaches using consultation or knowledge-exchange⁵. Current government engagement approaches largely use one-way communications (Box 1). However, some two-way approaches are also used; such as the "Big Energy Shift" consultation conducted by the Department of Energy and Climate Change (DECC) in 2009. The public can also be involved in the implementation of measures, for instance, through community-owned wind farm projects such as that on the Scottish island of Gigha. However, as one-way engagement is particularly important in current policy, this is the focus of this note. More information on participatory

approaches can be found in POST Report 153 "Open Channels".

Box 1. Government communication campaigns

Some of the earliest mass communication campaigns to change environmental behaviour, such as "Are you doing your bit?" and "Going for Green", were largely information-based. Communications have since become more sophisticated, drawing lessons from psychology and social marketing. For example, in 2008 the Environment Agency used comedy as part of its "Stand Up to Climate Change" campaign. Since 2007 initiatives have been run by several departments under the "Act on CO₂" brand. These aim to combine provision of information (including personal feedback through an online carbon calculator) with persuasive advertising. From April 2008 to December 2008, the Department of Food, Farming and Rural Affairs (Defra) spent approximately £6.7m on the campaign.

However, concerns have been raised by communications experts over one advertisement used by DECC in autumn 2009 ("Bedtime Story"). They suggest that it contains potentially alienating fear and guilt messages. Some questions remain about the cost-effectiveness of mass communications campaigns and how best to assess their impact on behaviour beyond the campaign timeframe. They may have most impact on people already aware of the issue, and are most effective when combined with financial, infrastructural and regulatory measures. There is also increasing interest in participatory communication tools, and the use of influential individuals within communities as messengers. These strategies may help overcome problems around trust in government.

Current Uses of Engagement Mitigation and Adaptation

Engagement has been used across both strands of climate change policy: adaptation (learning to live with some aspects of climate change) and mitigation (minimising the extent of future change). Adaptive measures will require public understanding and co-operation, especially regarding controversial policies, such as "managed coastal retreat" (see POSTnote 342 "Coastal Management"). Most

current engagement measures, including the “Act on CO₂” campaign (Box 1), focus on mitigation. However, engagement for mitigation and adaptation can be combined, as they were in the “Stand Up to Climate Change” campaign (Box 1). While this note focuses on mitigation, much of the content applies equally to adaptation. Across both fields, engagement can have two related goals: policy support and behaviour change.

Support for Policy

Engagement to change attitudes can be used to build support for policies such as financial measures, regulation, or changes to infrastructure. Developments such as new energy infrastructure may generate public opposition in the near future, so designing appropriate engagement measures is a key challenge for policy.

Behaviour Change

Individual behaviour change is widely seen as one important tool for cutting emissions, alongside other strategies. Defra’s 2008 “Framework for Pro-environmental Behaviours”⁶ outlines “headline behaviours” to be addressed in the areas of: energy, water and waste in homes; transport; and eco-products. Examples are using more efficient vehicles or installing insulation. However, as the following sections show, achieving behaviour change through engagement is a complex challenge.

Current UK Attitudes and Behaviour

Attitudes to Climate Change

Findings from one survey on attitudes to climate change are shown in Box 2. Studies show that levels of reported concern are quite high, but the impacts are often seen as distant in time and space rather than personally relevant⁷, and there are still knowledge gaps, especially about the causes of climate change⁸. One study found people fall into 4 groups (denying, uninterested, doubting and engaging), based on whether they accept human-made climate change and see it as important⁹. Some data suggest a recent decline in knowledge and concern¹⁰, but the survey statistics shown in Box 2 have not changed greatly since 2007, so evidence is not conclusive.

Box 2. UK Attitudes to Climate Change in 2009¹¹

- 61% of respondents claim to know a lot or a fair amount about climate change
- 21% say the effects of climate change are too far ahead in the future to really worry them
- 48% believe their behaviour and everyday lifestyle contribute to climate change
- 85% agree that climate change is caused by energy use

It should be noted that surveys assessing understanding of climate change have limitations; for example, question wording may affect responses. Complementary qualitative approaches can enhance the value of surveys. Also, it should be noted that low understanding of climate change is just one of many potential barriers to behaviour change⁷.

Behaviour Relating to Climate Change

A recent survey found that most people in the UK say they are trying to curb their environmental impact, though there is variation across areas of behaviour (Box 3). Studies show that the actions people take to address

climate change are rarely those with the greatest impact on GHG emissions¹². Understanding and addressing this problem is a key challenge for future engagement policy.

Box 3. UK Environmental Behaviour in 2009¹¹

- 91% of respondents recycle, 88% avoid wasting food.
- 76% are cutting their use of gas and electricity at home.
- 62% of drivers have switched to walking or cycling for short, regular journeys; 18% have rejected this idea.
- 26% of drivers have switched to public transport for regular journeys; 47% have rejected this idea.
- 23% are taking fewer flights. Of those who have flown in the last 12 months, 36% have considered taking fewer flights but have rejected the idea.
- 58% agree that “if government did more to tackle climate change, I’d do more too”.

It should be noted that this survey, like most large-scale surveys, is based on self-reporting of behaviour, which may not accurately reflect the actual behaviour of all respondents.

Lessons for Effective Engagement

Research and evaluation of past interventions (including those in other fields, such as health promotion) suggest lessons for policy in three areas: understanding behaviour, whole system approaches and persuasive communication.

Understanding Behaviour

Experts agree that engagement to change attitudes and behaviours will be most effective if based on a detailed understanding of the factors shaping behaviour¹³ (Box 4).

Box 4. Factors Affecting Behaviour

Knowledge: Information plays a part, but does not always lead to concern or action; for example, if other priorities exist. People interpret information based on existing beliefs. So those who do not believe in human-made climate change may ignore or dispute contrary information, rather than alter their beliefs⁹.

Psychological factors: Behaviour is affected by beliefs, values, attitudes and emotions. Greater agency (belief that you can make a difference) and sense of responsibility promote pro-environmental behaviour. People rarely act if they believe others are not acting, or if they mistrust scientists or the Government. Changing attitudes does not always change behaviour; sometimes actions shape attitudes.

Social norms: A person’s behaviour is influenced by what they see others doing and how they think their behaviour will be perceived, so presenting a behaviour as “normal” may encourage people to adopt it. However, norms can create problems: messages can back-fire if they present unsustainable behaviour as common.

Habits: Much behaviour that contributes to GHG emissions is habitual, such as daily use of transport. If changes fit easily into existing routines they are more likely to endure over time.

Structural conditions: Institutions and society co-evolve with technology; for example, urban planning often assumes high level of car use. This can lead to “lock-in”, creating practical and financial obstacles to individual behaviour change.

Socio-demographic patterns: The influence of these factors varies with individual circumstances. Higher socio-economic groups may be more engaged with global environmental issues, but are also responsible for more GHG emissions¹⁴.

The factors in Box 4 illustrate some of the reasons why individuals cannot be modelled as rational free agents

who simply require information. Some recent research suggests a shift in focus away from individuals as decision-makers, and towards the social and technological contexts that create and maintain habits¹⁵. In this view, it is society as a whole, not individuals, that needs to change. This is a complex and long-term goal, but could involve addressing the role of state services and institutions in creating conditions for behaviour change and setting examples.

This research, together with the psychological evidence outlined above, suggests the following points are important in designing engagement strategies:

- provide information that enables action. For example, the DfT's "Smarter Choices" approach includes improving information on public transport and creating personalised travel plans.
- make the impacts of behaviour visible; for example, using smart meters (see POSTnote 301 "Smart metering of electricity and gas").
- encourage people to "unfreeze" habitual behaviour. Fit new behaviours into existing habits, or target people at moments of change such as moving house.
- give feedback and rewards when people make changes; make the behaviour desirable and aspirational.
- target a whole community or neighbourhood, so people feel part of a collective change. Some approaches use a group-based approach (Box 5).
- take account of the "rebound effect", whereby behaviour changes can have secondary consequences; for example, if someone saves money through energy efficiency and spends it on new energy-using devices.

Box 5. Case Study - Ecoteams

The environmental charity Global Action Plan (GAP) has run "Ecoteams", since 1990. Groups of 6-8 people attend regular meetings over a 5 month period, guided by a trained facilitator. They discuss possible actions, share information, and monitor their progress on criteria such as energy use. GAP claims the scheme typically cuts household CO₂ emissions by 17%, and changes show remarkable longevity. In June 2009 funding from Defra's "Greener Living Fund" was allocated to two projects based on the Ecoteams approach. Groups will be established across England, aiming to engage 20,000 households¹⁶. Key strengths are the sharing of information between peers, the motivating effect of group support and comparisons, the monitoring of behaviour and the focus on small changes that fit into existing lifestyles. However, a limitation on group schemes of this kind is a tendency to attract those who are already engaged and active¹⁷. Different approaches may be appropriate for less-engaged audiences.

Whole System Approaches

Research overwhelmingly suggests that multiple forms of intervention are required to produce lasting behavioural change. Box 6 outlines the key forms of intervention that can be used alongside engagement to maximise impacts on behaviour. Defra uses a 4-part model to represent the process: Engage (get people involved; for example, through communications campaigns), Encourage (give the right signals; for example, through the tax system), Enable (make it easier; for example, by providing facilities) and Exemplify (for example, by showing consistency in

policies). This model illustrates the importance of addressing individual-scale, social and structural barriers to behavioural change. A whole system approach also takes into account the social impacts of interventions, especially for socio-economic exclusion.

Box 6. Components of a Whole System Approach

Alongside engagement, financial incentives may be necessary, especially if people are being encouraged to take up expensive measures such as electric cars. Including climate change communications in financial schemes helps to minimise rebound effects. If carefully planned, infrastructural measures such as improvements to public transport can promote behaviour change and bring other benefits such as reducing social exclusion. The Committee on Climate Change has advised that GHG impacts should be considered in land-use planning.

Regulation may be necessary to change the behaviour of certain groups and encourage wider uptake of sustainable behaviour. However, combining this with engagement may be important, as regulatory measures used alone may reinforce people's conviction that they are not responsible. More generally, it is important to work with the business sector, using voluntary or regulatory measures such as carbon labelling or "choice editing" (removing the least sustainable products from the market). Working with industries to create long-term plans allows them to prepare for changes. (See also POSTnote 318 "The Transition to a Low-Carbon economy").

Persuasive Communication

Communication can play an important role within a whole system approach, if well-designed. Social marketing research suggests the following lessons for the design of communications on climate change:

- *Audience segmentation*: Effective interventions require an understanding of their various audiences. Defra's environmental segmentation model⁶ divides the UK population into 7 groups according to their beliefs and values. For example, "Waste watchers" are driven by an urge to avoid waste rather than a desire to reduce their environmental impact. Segmentation helps identify effective strategies, communication channels and messages for each group.
- *Communication channels*: People are more likely to trust their peers than the Government, and Defra is researching the potential of influential people within communities as agents of change. Trusted brands and popular media such as soap operas can also be used.
- *Positive messages*: Messages arousing guilt and fear can lead people to "switch off" mentally. It may be more effective to emphasise the benefits of action. If fear messages are used, they should be combined with suggestions for appropriate actions people can take. If these are too radical they will be rejected, but if they are too small people will not be convinced that they can make a difference.
- *Non-environmental messages*: Changing environmental attitudes has advantages, including less risk of rebound effects. However, some audiences may find non-environmental messages (such as saving money or health benefits) more engaging.
- *Consistency*: Messages are most effective if sustained over time, and refined through ongoing evaluation.

The Role of the Government

If the UK is to achieve 80% cuts in emissions by 2050, and move towards a low-carbon economy, the Government has a key role in promoting engagement.

Leadership

In October 2009 the Committee on Climate Change called for “significant policy strengthening” to bring about a step change in the pace of emissions cuts. Studies show that the public want the Government to take a lead; for example, by creating a clear financial, infrastructural and regulatory framework for emissions cuts¹⁸. As well as helping to gauge public opinion, engagement measures can be used to build support for any necessary changes.

Participatory Engagement

More participatory approaches could increase the impact of engagement policies in several ways. Engagement may be more effective if it involves dialogue, as this often aids learning. Consultation can be used to widen the set of options, and to ensure that developments meet people’s needs, and public knowledge can be a resource, especially for adaptation plans. Participatory methods such as citizen panels, especially when combined with devolution of decision-making to local scales, may increase the quality, legitimacy and capacity of policy.

Public involvement in the implementation of low-carbon measures also has benefits; for example, community ownership of wind farms could reduce local opposition to new sites. However, the costs of participatory programmes are an issue, and involvement may appeal mainly to those already engaged and relatively privileged. Some of Defra’s current action-based research explores the potential of participatory approaches.

Consistency

There is a risk that the public may see individual behaviour change as an “easy option” for the Government. This is exacerbated when people perceive inconsistencies in government policy; promoting aviation expansion and new coal-fired power stations are commonly cited examples. Engagement policies are most effective when they are part of a consistent effort that covers all sectors of the economy and involves departments not traditionally concerned with the environment.

Evidence-Based Policy

Sociologists and psychologists agree that measures should be based on an in-depth understanding of the personal and structural factors that affect behaviour, including social context, habits and norms. Defra is building an extensive research-base, which includes action-based work that evaluates innovative interventions. Continued development of this evidence-base, and enhancement of its impact on policy (including sharing this knowledge more widely between departments) would result in more effective engagement policies in the future. The following research priorities may warrant particular attention:

- Energy policy could benefit from a deeper understanding of attitudes to technology, including the trade-offs and compromises involved¹⁹.

- It is widely agreed that there is a need for better information on how to evaluate interventions and develop the most effective package, including assessing the impact of mass communications on behaviour.
- Researchers suggest that it is important to continue to promote both qualitative and quantitative work in this area, including action-based research to test measures.
- Experts from all fields suggest building on existing research council collaborations and furthering interdisciplinary research in this area.

Overview

- High public awareness of climate change often does not translate into cuts in individuals’ GHG emissions, because behaviour is shaped by many psychological, social and structural factors.
- Engagement to change individual behaviour is an important tool for cutting UK emissions, but is only effective when combined with other interventions.
- Effective communications use persuasive messages that are tailored to different audiences.
- Community-based and participatory approaches can add value to top-down campaigns in changing habits and building support for policy.
- The Government can promote engagement by setting a good example and basing policy on sound evidence.

Endnotes

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The Parliamentary Office of Science and Technology, 7 Millbank, London, SW1P 3JA; Tel: 020 7219 2840; email: post@parliament.uk

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