Effecting Behaviour Change Through Environmental Messaging
Abstract

This report identifies the key problems facing the environmental NGO sector and suggests possible solutions that will enhance not only the efficiency and effectiveness of the sector, but how it communicates with society and government to achieve its goals. A summary of theories of messaging and behaviour change provides an understanding of the key principles to allow effective delivery. The relevance of these theories to our objectives has been explored, supplemented with an evaluation of the lessons learned from the visioning conference, which has provided case study and workshop feedback to inform the project and basis of this paper. Proposed next steps and implications for the sector are outlined to conclude the first of this series of reports.
Understanding the Issues

The global financial crisis and government cuts have precipitated an urgent reassessment of how both government and eNGOs engage with the public and politicians to change environmental behaviour. The ‘perfect storm’ or ‘triple crunch’ of financial recession, urgent need for action on climate change and the need to improve energy and resource efficiency bring powerful drivers to changing behaviour for long term financial and environmental benefits for individuals and society as a whole.

Despite increasing severity of environmental problems, mounting scientific evidence of the importance of addressing these problems, and many years of hard work by government and the environmental sector, there is still limited success in raising awareness and stimulating appropriate action by both the public and politicians. The low level of action and priority for environmental outcomes by both society and government is almost certain to continue, with financial pressures taking precedence over environmental concerns, often neglecting the fact that investment could address both issues for a more cost effective approach. Climate change scepticism seems to be increasing, and there are many misconceptions; people are reluctant to accept the evidence as something that is their own personal problem and the apparently huge and intractable nature of global problems militates against individual action. Action is urgently needed to change how people perceive environmental issues, and make it widely known that environmental action can also help alleviate social and economic problems. Environmental protection is not antithetical to economic progress, it is essential for it. It is crucial that this is understood at all levels and the widely recognised model of sustainability must be applied pragmatically.

Context for Analysis & Sectoral Issues

It is necessary to consider the audience that we want to target, as meaningful behaviour change will not be achieved by spreading general messages that do not address specific audiences with particular concerns. A successful campaign must initiate effective grass-roots action, and much consideration must be given to who, what and where we choose to begin a targeted process.
Action on behaviour change can form part of a renewed relationship between government and the voluntary and community sector as social partners to build a participative, peaceful, equitable and inclusive community in Northern Ireland. This can be achieved by establishing new structures of engagement to help shape effective use of resources between the voluntary and sector and government as outlined in the Concordat.

An outcome-focused approach to funding is suggested as part of a commitment programme. This type of approach to funding could be geared towards behaviour change targets measured in social, environmental and economic terms. It may be worth investigating the possibility that messaging and behaviour change projects could leverage funding from sources that have previously been unavailable to eNGOS. The potential outcomes of wider societal benefits arising from behaviour change campaigns could qualify eNGOs for non-environmental funding streams. According to the 2005 DSD ‘Positive Steps’ report, government will actively promote longer term (7 -10 year) outcome-focused proposals for funding to programmes that significantly involve organisations across the sector. However, this objective has remained unachieved as government continue to promote short-term funding that does not focus on outcomes (Envision, 2010).

eNGOs must carefully consider their role in changing messaging and behaviour. Their role as messengers may not always be appropriate; they may not be the best messengers, and traditional campaigns could isolate many people in specific demographics. Rather than just promoting behaviour change, the need to enable it must be paramount in planning the process. Therefore, it is essential that other sections of civil society, such as localised community groups or the artistic community form a pivotal role in the process. The talents of the artistic community could be utilised cost-effectively by encouraging contributions from students, interns and volunteers from art, PR and creative design courses in higher education colleges.

A common perception of the sector is of a varied, disparate range of organisations, working for different objectives with no unified voice. If the eNGO sector is to
effectively fulfil its objectives, its methods of communication and engagement must change to become more cohesive, appealing to the general public and effective for promoting behaviour change. There are several factors that could make the collaboration process harder, particularly the varied nature of participating organisations, the sometimes competing needs of their members, large organisations requiring approval from their senior managers, and organisations with a specific brand identity that does not favour collaboration.

It will be essential that a behaviour change and messaging project engages communities in order to achieve the maximum possible participation. The eNGO sector should seek to involve the public from the earliest possible stages of projects, including consultation with local communities, perhaps through the medium of trusted community groups that may not necessarily be part of the eNGO sector, but can be included as part of a wider community engagement programme. eNGOs must be able to adapt proposals subject to the outcome of consultations with communities in order to maximise participation and inclusion. While this may require more time, it will be an effective way of gaining the trust and support of the local community, which will be vital for fostering widespread behaviour change.

**Relevant Theories of Behavioural Change**

Communications and behaviour change are not exact sciences, and there remains a healthy debate around the nuances of each technique and their effectiveness for different audiences. Careful consideration must be given to each theory and suitability to potential target audiences. It is possible that some audiences will be suited to a hybrid of several techniques; therefore the following examples should not be viewed in isolation.

**Stage Theories** are based on evidence to suggest that behaviour change occurs in a cyclical movement through stages, involving a pattern of adoption, maintenance, relapse and readoption (TravelSmart, 2002). A consensus has emerged that behaviour change can only take place in an enabling or supportive environment. Prochaska and DiClemente (1986) have developed a theory of behaviour change at
community level, involving five distinct stages.

- **Precontemplation**: No intent to change behaviour by the individual
- **Contemplation**: The individual is aware of the problem and is considering taking action
- **Preparation**: There is an intention to change behaviour, with some limited success
- **Action**: Individuals modify their behaviour to meet their goals
- **Maintenance**: People work to prevent relapse

Prochaska and DiClemente suggest that this process involves periodic relapse, where individuals shift between the stages of change before reaching stage five. Intervention by eNGOs or partners will be needed to encourage people to continue the process along each step. The stage approach contrasts with a linear approach and ‘all or none’ outcome that characterised early research on exercise behaviours. Further study has also considered external factors and enabling influences which will be discussed later in the report.

Rogers (1983) developed a similar stage-based theory of behaviour change, arguing that his five-stage model of diffusion of ideas is enhanced when the innovation is perceived as superior to existing practice, and when there is a high perceived compatibility with the existing social system. His five steps are:

- **Knowledge**
- **Persuasion**
- **Decision**
- **Implementation**
- **Confirmation**

The complexity, triability and observability of new ideas are recognised as important influences on the adoption of innovative behaviour (TravelSmart, 2002).

**Nudging** highlights the idea that the shift towards more sustainable behaviour trends are non-conscious and non-compulsive, making it easier for people to behave in a more sustainable way whilst still giving them freedom of choice. Examples include the ‘carbon offset’ option in airline booking the default option for customers, or the requirement for driving licence applicants to state whether they want to be organ
donors. Nudge is particularly effective where an institution has a limited objective for behaviour change. Social marketing programmes can be advantageous in creating nudges, and a series of incremental changes achieved by relatively cheap nudges can lead to bigger changes for environmental behaviour.

However, nudge does not seek to engage or influence people’s values and attitudes, but can embed the sort of values that can prevent progress towards sustainability. Because of its paternalistic nature, it could be perceived as patronising and assuming what is good for people.

**Social Marketing** has been developed from basic principles of marketing with four key elements:

1. Development of a product
2. Promotion of a product
3. Place
4. Price

Rather than offering a theory of behaviour change, this is more of a framework in which participants are treated as consumers who can ‘buy in’ to an idea, provided the appropriate selling techniques are applied. This is applicable to our consumer society, where behaviour change could be marketed as a commodity. Social marketing offers a method of maximising the success of a specific behavioural goal, using an attitude of ‘what works’ rather than being a theoretical framework. However, this ‘what works’ stance means that it is not necessarily suitable as a longer term solution. Social marketing could be used in partnership with business, where incentives are used to change the purchasing behaviour of customers.

**Deliberative Engagement/Think** is effective for building support and legitimacy for big, transformational changes in society. It should be noted that this approach has been relatively unproven within the field of sustainability. It involves deliberative engagement with people, with the objective of encouraging a shift towards intrinsic values that can compliment nudging. The theory suggests that people take
ownership of sustainability when engaged deliberatively, more so than with nudging. For example, unconscious nudging only alters a person’s behaviour for the duration of the intervention unless the new behaviour becomes habitual. Deliberative engagement goes further than nudging by making it more likely that a behaviour shift is long-lasting and pervasive by changing attitudes and values. The approach allows an open and honest discussion of the scale of change needed, while avoiding the perceived patronising nature of some social marketing campaigns.

Deliberative engagement can be a valuable compliment to nudging, but will face significant challenge around its cost and political feasibility. Involve recommend a concept of ‘distributed dialogue’ which proposes using existing networks to create opportunities for effective, low cost deliberative engagement. For the eNGO sector in Northern Ireland, this could involve working partnerships with existing community groups to target specific areas where environmental behaviour change would deliver tangible social and economic benefits. Successful engagement with visible benefits could provide a much-needed catalyst for wider change.

**Shove** involves more decisive action for behaviour change, generally in the form of legislation from government. Legislation to mandate behaviour change is not favoured by government. Despite this, some recent nudge initiatives have required underpinning regulation, such as energy efficiency ratings on consumer electrical goods.

Involve suggest an optimal mix of social marketing (nudge) deliberate engagement (think) and legislation (shove) to effectively change behaviour for sustainability. Nudge and wider social marketing offers effective and easy ways to take individual action. Deliberative action compliments individual actions by helping to bridge the gap between current actions and larger social change by putting individual actions in a collective context. Legislation can provide the impetus for ‘nudge’ to happen; deliberative engagement can build legitimacy and political capital for similar future legislation.

The three approaches depend on each other for effectiveness. Involve argue that
although relatively expensive, deliberative engagement can legitimise and enhance trust in both nudge and shove. A mix of the three must be found to have the most effective impact.

**Tipping Points**, made famous by Malcolm Gladwell, promotes the belief that social movements have tipping points, where specific types of behaviour rapidly move from being small, insignificant occurrences to major social ‘epidemics’. Gladwell cites examples such as drops in crime rates and teenage smoking, but argues that tipping points can be applied to all aspects of society. If there is to be a tipping point for changing environmental behaviour, eNGOs must be able to identify when this tipping point is likely to occur and the geographical locations where the behaviour is concentrated. Resources must be focused at the key point to maximise public engagement where and when it is most needed, thus ensuring that the change in behaviour does become a tipping point, and not just a short-lived trend.

Gladwell draws attention to two factors that underpin successful movements:

1. **The Stickiness Factor** refers to the characters of a message or campaign that allow it to ‘stick’ in the recipients’ mind. A message will have to be tweaked several times before it becomes ‘sticky’ enough to have the desired effect. This could involve a memorable slogan for an advertising campaign, or a message that clearly demonstrates the benefits of changing behaviour.

2. **Law of Context** – the correct context is required for a message to spread influence behaviour. Social movements or mass behaviour change can fail if, for example, the wrong geographical location is chosen for its introduction, or if the population is not prepared for the message. Malcolm Gladwell believes that smaller groups, preferable of less than 150 people, provide an ideal context because the groups are small enough for each member to know every other member, allowing messages to spread easily.

Gladwell also identifies three types of people who are essential to the success of any social epidemic; connectors (who have a gift for networking), mavens (trusted experts who can disseminate information to a wide audience) and salesmen. For a tipping point to occur, society must be ready to embrace a trend. This is most likely
to occur at disruptive moments in people’s lives. In a time of recession, many people’s lives are already disrupted to a greater degree than any other occasion in recent years. This could prove to be an ideal opportunity to change behaviour.

**Social Cognitive Theories** refers to the model that explains behaviour change in terms of interaction between personal and environmental influences, addressing the psychological dynamics underlying behaviour and their methods for promoting behaviour change. One of its key concepts is self-efficacy, referring to one’s confidences in the ability to take action. Bandura (1986) sees it as the single most important factor in promoting behaviour change. Expectations of self-efficacy have been found to be important determinants of the choice of activities in which people engage, how much energy they are willing to expend on such activities, and the degree of persistence they demonstrate in the face of failure or adversity. Higher levels of self-efficacy are associated with high participation in that activity.

**Social Proofing** is developed from the theory that people assume the actions of others are appropriate and correct. Using social proofing to change behaviour would require creating the impression that many people within a community are engaged in a specific aspect of sustainable behaviour. In practical terms, this could be called ‘encouraging compliance’. A critical mass of participants is a prerequisite for social proofing to be effective; this correlates with other aforementioned theories, particularly the need for a Tipping Point. It is deemed more effective when the proofing comes from several sources; word of mouth and communications from trusted sources could therefore be vital tools in creating social proofing.

Encouraging people to commit to specific measures increases the probability that they will act on their commitment. This method can be seen health campaigns such as anti-smoking derives and weight loss challenges. Linking environmental behaviour change with other already familiar campaigns could prove effective. Providing a target for people to aspire to could provide one of the key motivators to encourage change.
Hannigan (1995) offers an interesting perspective on the successful construction of environmental risk by society on the basis of six requirements.

1. Scientific validation of risk claims.
2. Existence of ‘popularisers’.
3. Supportive media attention.
4. Dramatisation of the problem in symbolic or visual terms
5. Economic incentives for taking positive action.
6. Existence of institutional sponsors, such as the United Nations or NGOs.

This theory has stimulated further debate on the contested nature of environmental problems and offers some contribution to the power process and the parameters that can explain why people’s perception of environmental risk varies. Social constructivism is defined by Hannigan as ‘the social, political and cultural processes by which environmental conditions are defined as being unacceptably risky and therefore actionable (1995, p 30).’

Further research theorists have collectively identified the key factors that will account for a given behaviour to occur, with at least one of the following eight variables applicable for effective behavioural change to occur (TravelSmart, 2002):

- A strong positive intention or commitment to perform the behaviour
- Environmental constraints allow the behaviour to occur
- The person has the skill/ability necessary to perform the behaviour
- Attitude and anticipated outcomes of the behaviour are understood (and benefits will outweigh costs to the individual)
- Social norms will influence the individual to perform the behaviour
- Perception of behaviour is more consistent with his/her self image and its performance does not violate personal standards
- Emotional reaction to performing the behaviour is more positive than negative
- Self-efficacy to execute the behaviour.
Lessons from Public Health

The use of social science to achieve the goals of health promotion has had a long history in public health and a strong base in theory and practice. Kaplan’s (2004) model illustrates the complexities of multiple levels of influence on health and this could also provide a useful model for the environment sector to develop further. This provides a very important message in itself in terms of the interrelationship between health, well-being and the environment amongst other social and life-stage concepts. Reductions of tobacco use in the US have been attributed to legislative policy, education and changes within the physical and social environment. Taking this ecologic model of multiple level influence can help to understand influencing factors and shape behaviour change initiatives.

The National Institute for Health and Clinical Excellence (2004) have produced guidance on the generic principles that should form the basis of planning, delivery and evaluation of public health activities to change health-related behaviour. One of
the key factors identifies was the lack of strategic leadership across the government, NHS and other sectors with many activities running simultaneously in an uncoordinated way. In exploring the effectiveness of policy and legislation, it was noted that success was more likely through a combination of awareness-raising, compulsion and enforcement. Overall, the research concluded that legislation was a necessary and useful tool when used with other interventions to influence at various target levels.

It is important for the environment sector to look at good practice in other sectors and explore opportunities to use a combined approach to support policy, including education and social marketing as creative mechanisms to help bring about real behaviour change. There are also many links across sectors that should be advanced in order to promote a wider contextual message that can reach people from different perspectives and emphasise the importance of interdependence between sectors, such as health and transport or environment and well-being.

A report by the University of Nebraska details the steps that could be taken by health promotion agencies to change behaviour for public health. Many of the recommendations can be tailored to suit environmental messaging for the eNGO sector. The model recommends three main approaches to behaviour change:

1. **Educational** – aims to increase knowledge and skills, expert led, focusing on making initial progress in small groups
2. **Empowerment** – using facilitators to work with communities, utilizing networking skills, skills training and advocacy
3. **Social Change** – recommends addressing inequalities to maximise social inclusion.

The report claims that this is a top-down approach that requires regulation, but in the eNGO context, social change must will evolve from a bottom-up movement, with regulation and legislation considered a support mechanism to help provide the strength of a central message.
Implications for Effective Environmental Messaging

Moving on to consider some of the practical application of behaviour change theories, it is worth thinking about campaigns that have or have not worked whilst we seek to identify some of the explanations as to why they haven’t been entirely successful. Anti-smoking campaigns are perhaps the best known of all behaviour change and messaging efforts, but despite over 40 years of anti-smoking campaigns of almost every conceivable variety, approximately 20% of adults in the UK still smoke, demonstrating that shock tactics, high taxes and wide-ranging legislation have not been very successful. eNGOs cannot afford to wait the duration of 40 years to mount semi-successful campaigns.

The five-a-day public health campaign is arguably the most successful behaviour change campaign of the last decade. However, even this has a rebound effect; while this has massively changed purchasing habits, many consumers do not actually eat the extra fruit or vegetables they buy, they simply throw it away. Rebound effects must be considered carefully in the assessment and delivery of effective messaging. Messaging should focus on the positives and benefits of changing behaviour and bridging the gap between contemporary lifestyles and sustainable living.

The relatively clear impact on food purchasing habits compared to actual behavioural change serves to highlight an important consideration – consumer society has created a society of individualism, meaning that contemporary societal problems are at least partially problems of individualism. There is a risk that participants who adopt some sustainable behaviours subsequently act less altruistically, implying that there is a ‘moral offset’ for some sustainable behaviours. McKay (2008) has suggested that slogans such as ‘every little helps’ don’t promote the correct message and we need to be explicit in saying ‘if everyone helps a little, we’ll only achieve a little’. The message should be clear that behaviour changes are the beginning of a more ambitious programme and from this perspective lifestyle changes are perhaps a more accurate description of what we want to achieve.

Many environmental issues, particularly climate change, are perceived as ‘psychologically distant’, whereby the severity of the threat to local issues and the
individual is perceived to be low. A major challenge will be to create messages to reverse the psychological distance of environmental issues, while tailoring these messages for different audiences and avoiding extreme and frightful messages, that will most likely have adverse impact. A first step to reversing psychological distance is to highlight a specific environmental issue and make the problem obvious; littering campaigns are an example of this, where awareness campaigns isolated the issue, successfully increased awareness and encouraged behaviour change. Fear is likely to trigger barriers to engagement, such as denial. Early messaging should focus on achievable goals to demonstrate that there can be tangible returns from behaviour change, while challenging the perception that sustainability is ‘someone else’s responsibility’. Studies have shown that guilt can play a role in motivating people to take action, but can activate defensive mechanisms if the challenge poses a perceived threat to a sense of identity.

Some groups in society will be difficult to engage, such as older men with low educational attainment. Due to the reality of constrained funds, there will be additional pressure to become more selective on specific groups to target, at least until more funding becomes available and it becomes cost-effective to do so. Despite this, the effect of peer pressure should not be underestimated in changing the behaviour of hard-to-reach demographics. eNGOs should be careful not to assume that target audiences necessarily relate to information in the same way in general terms or in the same way they do; the audience may not have the same interests, goals or passions.

While targeting individualism is an essential part of the behaviour change process, engaging the individual en masse should be a key focus of attention. Bigger players than the individual must be part of the process in order to create collective action. There are a range of stakeholders and groups that should be targeted, including local business and community groups that could have valuable impact. Links between intention and behaviour are much more difficult to address at this community/population level as dynamics become more complex; however it could become extremely useful to apply Kaplan’s model in this context to develop a wider strategy.
Conclusion

In order to have a successful behaviour change campaign, no one channel will work. The experience of public health campaigns shows that numerous channels must be utilised, from traditional methods such as education and advertising, to innovative public engagement. The public health experience demonstrates that although new technologies provide a new front for mass-messaging, they are no substitute for direct engagement. Innovative online communications, while useful, must convey messages instantly, as users will only spend a few seconds on a website or application before moving on or deciding to engage further. One of the themes to be addressed should be demonstrating that health/well-being and environment are not separate entities but are interconnected. NGOs should not always look for the obvious solutions to messaging challenges, as public health campaigns have shown.

In a consumer-based society, the power of the individual becomes paramount. Behaviour change campaigns must reflect this. Changing behaviour will be exceptionally difficult, if not impossible without the involvement of influential individuals; the eNGO sector must seek out influential individuals who can communicate essential messages to many people. Connecting with existing community groups should be a priority to maximise the chances of find existing influential people with the necessary contacts in target communities. By engaging with key individuals and encouraging them to consider behaviour change, NGOs can take advantage of valuable social networks; these networks form the basis of a ‘bottom-up’ strategy for engagement.

Throughout the process, it will be essential that eNGOs are respectful in their approach, ensuring that discourse takes place with relevance to the audience and remains respectful of the individuals or groups involved. Ultimately, people will choose the best options available, provided there is no extra cost to themselves, but this requires provision of a full set of information, including alternative options and understanding the full benefits of these. In this context it is useful to be mindful of the complexities of perception to environmental problems and the social context that surround them (Hannigan, 1995). Reference to the ineffective nature of public
meetings that provide the public with huge amounts of information in a non-engaging manner only prompted confrontative reactions from the audience. Engagement and provision of relevant information must be central to the delivery of an effective message or communication strategy.

There is a need to recognise that behavioural change on a small scale will have limited impacts. The Climate Change Communication Advisory Group (CCCAG) argue that simple and painless behaviour changes should not form the emphasis for effective change. Despite some opinions that the adoption of small intrinsic measure will be more likely to ‘spillover’ into other sustainable behaviour changes (deYoung, 2000) the CCCAG believe that this approach will weaken the message that greater lifestyle change is necessary to make a real difference. The CCCAG have also noted the risk of overemphasis of economic gain from environmental behavioural change; there is again need for honesty in terms of economic costs and benefits. Empirical research has demonstrated that this type of focus on ‘extrinsic’ goals is not consistent with the emergence of pro-social and pro-environmental attitudes (CCCAG, 2010).

Because of the specific, targeted nature of behaviour change interventions, the eNGO sector must decide exactly what aspects of sustainability they wish to target, whether it be waste, travel choices, food, energy, biodiversity, or a range of other choices. Financial realities must make some of these choice issues irrelevant to many people, especially people in lower income groups. In addition to financial considerations, the wider societal benefits of each behaviour change should be evaluated, such as health, income, education, employability skills etc. Perhaps there is merit in exploring what groups or areas are most in need of behaviour change and focusing on a suitable strategy to target this. Regulation is an important tool which requires effective policy implementation, however it works upon a limited range of behavioural ‘triggers’. It is also argued that more effective sustainable policies could be achieved using strategies that integrate regulation with community-based social marketing (Kennedy, 2010).

There is much discussion about the role of social networks as a factor in encouraging behaviour change. Participants in pro-environmental projects consistently advocate
the sense of mutual learning and support as a reason for making and maintaining
behaviour change. Social networks are instrumental in providing social support and
identity. Encouraging and supporting pre-existing social networks to take ownership
of sustainable behaviour change will be a vital step in the process. There is also a
need to promote greater understanding; people seem to be aware of the problems
but are not making the necessary changes to tackle them. Further clarity and
provision of a stage by stage relationship can only help to inform people of the
relationships between behaviour change and the impact they can have on the
problems that they are already aware of.

The main theories on behaviour change and construction of environmental perception
has provided an insight into more detailed thinking on the approach that the sector
should be developing to make effective change on influencing attitudes and long term
behavioural change. In using examples of past campaigns and strategies, together
with exploration of the key principles of related theory, this report has set the context
to develop relationships and coordinate further efforts within the sector to adopt
appropriate messaging techniques, which will gain from shared learning and
collaboration on a more cohesive message. Further exploration of these concepts will
be explored in the next paper of the series.
Summary of Good Practice & Improvement Measures for the Sector

- Continue to build awareness of the issues in real terms
- Map the multi-dimensional layers of influence within the environment sector
- Provide a clear message on the direct and indirect impacts of behaviour on wider environmental problems
- Identify and break down barriers such as denial and common misunderstandings/perceptions
- Develop clear outcomes that will set out the target community or group and allow future impact and measurement to be assessed
- Explain how practical goals can be achieved to help demonstrate the steps people must take to achieve the envisaged outcomes
- Recognise individual readiness and outline stages of readiness that can be aligned to appropriate techniques of influence
- Provide real examples of evidence and impact that people can relate to
- Focus on ownership and control to allow people to make informed and responsible choices
- Seek to influence policy development in line with social marketing techniques
- Review the effectiveness of interventions and apply any current evidence that could improve effectiveness
- Seek to develop opportunities and initiatives with target community/group input to the process
- Engage with the younger audience as the message is likely to be more effective through education at an early age
Bibliography

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