Behaviour Change, Sustainability and Social Marketing: Developing Action Research

Stewart Barr, Andrew Gilg and Gareth Shaw
Outline of Meeting

• The Ideas bit
• How we get the Resources
  ESRC Follow on Grants
  Business Vouchers
  KTPs
My week as an eco saint

Is it really possible to live a zero carbon life?
are you doing your bit?

When you can, leave your car at home and walk.
The Ideas Bit: Initial questions

- What influences peoples’ intentions to act and how does this translate into behaviour?
- How do these factors change for different types of behaviours?
- Is it possible to identify people with similar behaviours and to target policies accordingly?
  - And:
- How can we change behaviour?
Research Programme

Household Waste Management (1998-2001)

ESRC Environmental Action in and Around the Home (2001-03)

DEFRA Sustainable Lifestyles (2005-06)

British Academy Low-cost Airlines (2007-08)

Leverhulme: Lifestyles, Life-courses and waste management (2009-2012)

ESRC Promoting Sustainable Travel: a social marketing approach (2008-10)

ESRC Cluster on Sport, Leisure and Tourism (2008-13)
Initial Conceptual Framework

- Social & environmental values
- Psychological factors
- Situational & structural characteristics

→ Behavioural intention
→ Behaviour

↑ ↑
Promoting Sustainable Lifestyles: a social marketing approach (DEFRA, 2006)
Environmental attitudes

<table>
<thead>
<tr>
<th>Factor</th>
<th>Salient composite variables (expressed in pro-environmental direction)</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cluster 1</td>
</tr>
<tr>
<td>Concern and commitment</td>
<td>Environmental concern</td>
<td>27.7</td>
</tr>
<tr>
<td></td>
<td>Time to help the environment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-efficacy in helping the environment</td>
<td></td>
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<tr>
<td></td>
<td>Personal responsibility for environmental problems</td>
<td></td>
</tr>
<tr>
<td>Moral motives</td>
<td>Moral obligation to help the environment</td>
<td>18.7</td>
</tr>
<tr>
<td></td>
<td>Social acceptance of environmental behaviour</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Self-presentation of environmental action a positive quality</td>
<td></td>
</tr>
<tr>
<td>Outcome beliefs</td>
<td>Beliefs in efficacy of actions</td>
<td>17.0</td>
</tr>
<tr>
<td>Price</td>
<td>Willingness to pay more for environmental products</td>
<td>11.3</td>
</tr>
<tr>
<td>Satisfactions</td>
<td>Various satisfactions from environmental action</td>
<td>18.9</td>
</tr>
<tr>
<td>Logistics</td>
<td>Convenience of helping the environment</td>
<td>10.6</td>
</tr>
<tr>
<td></td>
<td>Importance of health, safety and local issues</td>
<td>15.8</td>
</tr>
<tr>
<td>Green consumer</td>
<td>Beliefs in efficacy of actions</td>
<td></td>
</tr>
<tr>
<td>attitudes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comfort</td>
<td>Willingness to sacrifice home comforts to help the environment</td>
<td>7.0</td>
</tr>
<tr>
<td>Environmental rights</td>
<td>Belief in strong environmental rights</td>
<td>10.2</td>
</tr>
<tr>
<td>Awareness of norm</td>
<td>Awareness of the normality of environmental actions</td>
<td>6.2</td>
</tr>
<tr>
<td>Trust and responsibility</td>
<td>Trust in environmental information</td>
<td>9.0</td>
</tr>
<tr>
<td>Extrinsic motivation</td>
<td>Rejection of extrinsic motives to help the environment</td>
<td>6.8</td>
</tr>
<tr>
<td>Personal instinct</td>
<td>Trust in one’s own instinct regarding the environment</td>
<td>3.8</td>
</tr>
<tr>
<td>Brand loyalty</td>
<td>Willingness to change brand labels to help the environment</td>
<td>2.6</td>
</tr>
<tr>
<td>Personal threat</td>
<td>Threat of environmental problems to the self</td>
<td>3.9</td>
</tr>
</tbody>
</table>

Each factor mean is a composite score of the items in the factor, all coded in a pro-environmental direction and divided by the numb
DEFRA Findings

- Social acceptability;
- Intention-behaviour gap;
- Personal vs. organisation responsibility;
- The role of ‘big business’;
- Collective action.
“I suppose people think a holiday is a holiday and that they go there to relax and do their own thing. And you know, it sounds a bit nasty but you know, when you’re holiday, you’re really thinking about yourself aren’t you because it’s your time away” (DEFRA FG 1A)
PLANE CRAZY

Airport expansion will treble flights by 2030, flying in the face of vows to cut global warming

- Passenger numbers are expected to soar from 200m to 470m by 2030.
- In 2030, carbon emissions from the UK aviation industry amounted to approximately 9.8m tonnes.
- In 2030, if the proposed plans are carried out, UK aviation industry emissions will amount to approximately 14.6m tonnes.

As a proportion of the UK’s total carbon output, this would represent an estimated increase from 3 per cent today to 10-13 per cent in 2030.

GLASGOW
City’s two airports could more than treble capacity to 30m. More transatlantic flights at international airport while Prestwick to increase by 100 per cent.

EDINBURGH
Up to 23m passengers by 2030 - a 100 per cent rise on 2014. Second runway would double flight movements per hour by 2015.

BELFAST
City’s new international airport set to double passenger numbers by 2030 to 12m, likely to add scheduled flights to US and Canada, and intercontinental charters.

LIVERPOOL
UK’s fastest growing airport, passenger numbers have quadrupled in five years. New transatlantic routes added. Passenger numbers to quadruple again to 15m by 2020.

LEEDS/BRADFORD
Serves densely populated West Yorkshire cities. Could exceed White Paper passenger estimates, by 3m. Runway extension to add £1bn to £2bn in value.

NEWCASTLE
Runway extension and expanded terminal facilities planned to cope with doubling of passengers to 10m by 2030. Plans to upgrade ease access.

MANCHESTER
Passenger numbers expected to more than double by 2018 to 50m. Inquiry heard this week of plans to build 1,600-space car park in Cheshire green belt.

CARDIFF
Welsh Assembly backs expansion of Cardiff airport and new airline alliances to North Wales and South Wales. By 2030, nearly 8m passengers predicted for Cardiff.

BIRMINGHAM
Increasing long haul flights, passenger numbers set to reach 40m by 2030. Third terminal, new runway and extension planned. Campaigners oppose noise and air pollution.

LUTON
New full length runway, reception centre, aircraft stand, taxiway and parking are planned to help quadruple number of passengers by 2030 to 30m.

HEATHROW
World’s busiest international airport; fifth terminal approved. Operating costs to add such permanent and third runway to cope with 95m passengers by 2030.

GATWICK
Extra runway to handle 80m passengers if Heathrow fails to meet environmental conditions for its planned third runway. Opponents say, 20,000 new by noise.

BRISTOL
Operators plan to build 6,000 car parking spaces, double the size of the terminal, to cope with 8m extra passengers by 2030.

LONDON CITY
Environmentally friends new terminal will profit from White Paper forecasts by 3m to reach tim by 2030.

CLIMATE EMERGENCY
NO 3rd RUNWAY
GREENPEACE
Climategate chaos

By Jonathan Petre

THE academic at the centre of the ‘Climategate’ affair, whose raw data is crucial to the theory of climate change, has admitted that he has trouble ‘keeping track’ of the information.

Professor Phil Jones told the BBC yesterday there was truth in the observations of colleagues that he lacked organisational skills, that his office was swamped with piles of paper and that his record keeping is ‘not as good as it should be’.

The data is crucial to the famous ‘hockey stick graph’, used by climate change advocates to support the theory. Professor Jones also conceded the possibility that the world was warmer in medieval times than now – suggesting global warming may not be a man-made phenomenon.

And he said that for the past 15 years there has been no ‘statistically significant’ warming.

The admissions will be seized on by sceptics as fresh evidence that there are serious flaws at the heart of the science of climate change and the orthodoxy that recent rises in temperature are largely man-made.

Professor Jones has been in the spotlight since he stepped down as director of the University of East Anglia’s Climate Change Unit after the leaking of emails that sceptics claim show scientists were manipulating data.

The raw data, collected from hundreds of weather stations around the world and analysed by his unit, has been used for years to bolster efforts by the United Nation’s Intergovernmental Panel on Climate Change to press governments to cut carbon dioxide emissions.

Following the leak of the emails, Professor Jones has been accused of ‘scientific fraud’ for allegedly deliberately suppressing information and refusing to share vital data with critics.

Discussing the interview, the BBC’s environmental analyst Roger Harrabin said he had spoken to colleagues of Professor Jones who had told him that his strengths included integrity and doggedness but not record-keeping and office-keeping.

Mr Harrabin, who conducted the interview for the BBC’s website, said the professor had been collating tens of thousands of pieces of data from around the world to produce a coherent record of temperature change.

Astonishment as scientist at centre of global warming emails row admits...

- Data for vital ‘hockey stick graph’ has gone missing
- There has been no global warming since 1995
- Warming periods have happened before - but NOT due to man-made changes
Rub a dub dub
three men in a tub,
a necessary
course of action
due to flash flooding
cau sed by
climate change.

Jack and Jill went up the hill
to fetch a pail of water.
There was none,
as extreme weather
due to climate change
had caused
a drought.

Climate change is
happening. Temperatures
and sea levels are
rising. Extreme weather
events such as storms,
floods and heatwaves
will become more
frequent and intense.
If we carry on at this rate,
life in 25 years could be
very different.

Climate change has serious
implications for our way of
life. For example, extreme
weather conditions such
as flooding, heat waves
and storms will become
more frequent & intense.
If we carry on at this rate,
life in 25 years could be
very different.
Sustainable Holidays, Low Cost Air Travel and Climate Change

(Barr et al., 2010)
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Cluster 1</th>
<th>Cluster 2</th>
<th>Cluster 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Number</strong></td>
<td>52 (26%)</td>
<td>105 (52%)</td>
<td>44 (22%)</td>
</tr>
<tr>
<td><strong>Profile</strong></td>
<td>Tended to be older, with a high proportion of retired</td>
<td>Mostly young and employed FT</td>
<td>Young/middle-aged, working FT</td>
</tr>
<tr>
<td><strong>Home-based environmental actions</strong></td>
<td>Undertook the whole range of environmental actions with the greatest frequency</td>
<td>Tended to be conscious consumers, bought organic food, composted their waste and bought environmentally-friendly products. Tended to recycle, save energy and water less often than other clusters.</td>
<td>Tended to save water and energy in the home and to purchase devices that helped them do this. Tended to make environmentally-conscious purchases, compost their waste and purchase organic food less frequently. Committed to saving energy and water on holiday.</td>
</tr>
<tr>
<td><strong>Environmental actions on holiday</strong></td>
<td>Most committed to environmental actions on holiday</td>
<td>Least committed to environmental actions on holiday</td>
<td></td>
</tr>
<tr>
<td><strong>Holiday taking</strong></td>
<td>UK 28%</td>
<td>UK 34%</td>
<td>UK 29%</td>
</tr>
<tr>
<td></td>
<td>Europe 33%</td>
<td>Europe 50%</td>
<td>Europe 50%</td>
</tr>
<tr>
<td></td>
<td>Int. 39%</td>
<td>Int. 16%</td>
<td>Int. 21%</td>
</tr>
<tr>
<td><strong>Average nights away</strong></td>
<td>12</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td><strong>Mean flights in last 12 months</strong></td>
<td>2.6</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Attitudes to taxes on air travel</strong></td>
<td>50% in favour of tax</td>
<td>38% in favour of tax</td>
<td>36% in favour of tax</td>
</tr>
<tr>
<td><strong>Heard of carbon off-setting</strong></td>
<td>73%</td>
<td>52%</td>
<td>39%</td>
</tr>
<tr>
<td><strong>Used carbon off-setting</strong></td>
<td>36%</td>
<td>11%</td>
<td>0%</td>
</tr>
</tbody>
</table>

\[N = 201 (1 case contained missing values).\]
“Yes, I have thought about it and like Margaret said about planting trees, I do; like I recycle 100% of what I possibly can so like now, there’s not one piece of paper goes in my bin, so that kind of makes me feel less guilty about using my car as much as I do [and] flying as much as I do, but I don’t think I would [off-set] if I’m honest” (BA FG 2M)
Greens in flight

Britain's addiction to cheap flights will be hard to break, even among those who say they are committed to protecting the environment, said researchers from Exeter University. Those who recognised the danger posed by air travel continue to fly.

What's green and flies? An eco-hypocrite

They recycle obsessively, treat on real apples and compost every scrap of organic vegetable peeling and used Fair Trade tea bags - and they're not slow to tell you about it.

But when it comes to sacrificing their points to Stansted and weekend breaks in Prague, it seems that even the most green-conscious waver in their zeal for saving the planet.

A study by Exeter University has unsurpassed the inhumane nature of supposedly environmentally-friendly flights who refuse to give up low-cost flying despite the damage to the planet.

The authors of the study say this 'green hypocrisy' shows how difficult it will be for governments to reduce greenhouse gas emissions by urging people to cut down on air travel.

'The addiction looks hard to break'

Environmental campaigners argue that cheap short-haul flights have fuelled a massive hike in carbon emissions over the past few years.

With as much as 50 per cent of the UK's total greenhouse gas output, the figure is predicted to reach 20 per cent over the next few decades.

Celebrities in particular are criticized for struggling to reconcile their well-meaning efforts to develop green credentials and the demands of the modern world.

Only last week, Emma Miller admitted she 'can't avoid flying' as she tweeted the world promoting climate change awareness.

And the actress isn't the only one. Coldplay frontman Chris Martin, who uses his status to urge environmental responsibility, flies home between gigs with a low-emissions Tesla car - and uses private jets.

The latest findings on eco-hypocrisy were presented at the Royal Geographical Society yesterday.

The researchers carried out in-depth interviews with members of the public last year ranging from climate change sceptics to those who believed they were dedicated environmentalists.

Professor Sarah Klain, a co-author of the study, said: 'These people were not occasional environmentalists - they might have lived their lifestyles by being committed to environmental causes.

There is currently a big debate going on about sustainable tourism - and the report shows that that debate has yet to reach the public.

'There seems to be a gap between sustainable behaviour at home and sustainable behaviour on holidays.'

Dr Stewart Barr, who led the focus group study, said that although the study was based on only 54 people, the findings reflected a widespread trend among those professing to be green-friendly.

'Most of the committed environmentalists said they still travelled by low-cost travel, even though they realised it was problematic,' he said.

'And they couldn't see a way around it.

'We were surprised because we thought that people would transfer their attitudes towards environmentalism in the home to their holidays - but the difference was more stark than we had imagined.'

'The UK's addiction to cheap flights looks hard to break.'
The challenge of climate change and behavioural change

- Many ‘environmental’ behaviours are embedded as ‘normalised’ and unchallenged everyday practices in the home context, often influenced by practical issues (Shove, 2003);

- However, climate change poses a conflict between established and new forms of behaviour, often realised at different sites of practice, especially travel and tourism (Lorenzoni et al., 2007);

- The ‘sustainable lifestyle’ is therefore problematised by climate change, which necessitates considering different forms of behaviour and reducing (conspicuous) consumption.
The challenge of climate change and behavioural change

“Creating meaningful progress towards sustainability requires more radical solutions than just the development of new products and product substitutions amongst consumers…The anti-consumption challenge poses some critical questions about how to promote such concepts to make them acceptable to consumers”.

“The comfortable perception that global environmental challenges can be met through marginal lifestyle changes no longer bears scrutiny. The cumulative impact of large numbers of individuals making marginal improvements in their environmental impact will be a marginal collective improvement in environmental impact. Yet we live at a time when we need urgent and ambitious changes” (Crompton and Thogersen, 2009, p. 6)
Social Marketing and a Citizen-Centred Approach

French argues that we need to:

• Recognise we are not dealing with ‘passive’ citizens;
• Be more pragmatic;
• Be inter-disciplinary;
• Be insight-driven.

“Time to get out of the operations silo and start informing policy and strategy”.

Opportunities for Collaboration

- **Insight** from academic and policy research;
- Genuine consumer engagement;
- **Co-creation** of strategies and programmes;
- **Innovation** through using social media.

“…a collaborative partner who co-creates value” (Lusch et al., 2007, p. 6)
Advantages of Collaboration

• Access qualified people to spearhead new projects;
• Access experts who can help take your business forward;
• Develop innovative solutions to help your business grow;
• Develop your business for today’s market;
• Increase your competitive advantage;
• Improve your performance/business operations;
• Increase profitability.
Initial discussion:

How can academic researchers work with social marketing professionals to create effective behaviour change strategies?
ESRC’s Follow-on Funding Scheme

- Expenditure for 2009/10 is £204 million;
- Funding from BIS;
- Funds over 2,500 researchers in academic institutions and policy research institutes throughout the UK;
- Also support more than 2,000 postgraduate students.

- Funding routes: research grants, programmes, seminar series, collaborative studentships, follow-on funding, business vouchers and KTP’s.
The Scheme

“...provides follow-on funding to undertake additional knowledge transfer and impact generation activities that can demonstrate the potential for significant economic, social, policy and/or practice benefit(s)”. Gaining further insight and utility from existing research data.
Funding and Procedure

- Grants of up to £100k (£120k FEC) for up to 12 months;
- Eligible costs:
  - Research Assistant’s salary;
  - Travel and subsistence;
  - Equipment;
  - Conference organiser;
  - Supply of specialist staff, e.g. science writer.
- No new data collection permitted, but small-scale ‘testing’ permitted;
- Support from partners key to success: support can be ‘in kind’ or cash contributions;
- Letters of support.
<table>
<thead>
<tr>
<th>REFERENCE NUMBER</th>
<th>TITLE</th>
<th>PRINCIPAL INVESTIGATOR</th>
<th>INSTITUTION</th>
<th>START DATE</th>
<th>END DATE</th>
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</thead>
<tbody>
<tr>
<td>RES-189-25-0108</td>
<td>Promotion of quality of life in older age and active ageing: follow-on funding</td>
<td>Prof A Bowling</td>
<td>University College London</td>
<td>01/10/2010</td>
<td>30/09/2011</td>
</tr>
<tr>
<td>RES-189-25-0122</td>
<td>Addressing ‘problem behaviour’ in the early years: an innovative film resource</td>
<td>Dr R Holmes</td>
<td>Manchester Metropolitan University</td>
<td>01/06/2010</td>
<td>31/08/2011</td>
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<tr>
<td>RES-189-25-0140</td>
<td>Property Reforms and Forest Rights in Vietnam: Engaging policy makers, forestry experts and the public</td>
<td>Dr T Sikor</td>
<td>University of East Anglia</td>
<td>01/06/2010</td>
<td>31/05/2011</td>
</tr>
<tr>
<td>RES-189-25-0113</td>
<td>Widening Participation in Higher Education in Ghana and Tanzania: Impact, Influence and Innovation</td>
<td>Prof L Morley</td>
<td>University of Sussex</td>
<td>01/07/2010</td>
<td>31/12/2010</td>
</tr>
<tr>
<td>RES-189-25-0135</td>
<td>UK Survey of SME Finances 2009 Follow On Study</td>
<td>Dr WSA Fraser</td>
<td>University of Warwick</td>
<td>01/10/2010</td>
<td>30/09/2011</td>
</tr>
<tr>
<td>RES-189-25-0155</td>
<td>Meeting the challenge: designing effective policy for climate change in the electricity sector</td>
<td>Dr MG Pollitt</td>
<td>University of Cambridge</td>
<td>01/10/2010</td>
<td>30/09/2011</td>
</tr>
<tr>
<td>RES-189-25-0117</td>
<td>Making working memory really work: From the research laboratory to schools and beyond</td>
<td>Prof SE Gathercole</td>
<td>University of York</td>
<td>01/09/2010</td>
<td>31/07/2011</td>
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<tr>
<td>RES-189-25-0146</td>
<td>Exploiting corpus research for English Language Teaching applications</td>
<td>Prof R Carter</td>
<td>University of Nottingham</td>
<td>01/09/2010</td>
<td>31/08/2011</td>
</tr>
</tbody>
</table>
Possible Collaboration

- Strategic: improving dialogue and understanding between social marketers and academic researchers;
- Research insight: using research data to develop social marketing programmes;
- Innovative: collaboratively working to develop social marketing programmes using collective insight.

Discussion
Business Vouchers

- Aimed at SMEs funded by ESRC
- Max £3000
- Exeter has access to a limited number of these
- Role of business partner
### Organisation

**Contact Details**
(address, tel and email)

**Brief description of Organisation** (e.g. business/charity, size, location, main activities)

Helpful Holidays are a holiday cottage letting agency in the South West with a portfolio of around 600 cottages.

<table>
<thead>
<tr>
<th>Proposed Start Date:</th>
<th>1 November 2010</th>
<th>Proposed End Date:</th>
<th>30 January 2011</th>
</tr>
</thead>
</table>

### Academic Lead

**University**
University of Exeter

**School**
Business School

### With which of our theme(s) would your proposed work engage? Please tick where appropriate

- Health and Well-being
- Leadership and Policy
- Innovation, Knowledge Creation and Knowledge Transfer
- Service Process and Operations
- Travel, Transport and Sustainability
- Environment, Landscape and Space
- Other (please state):

### Project Title

### Your Contribution to the Project

Please describe the value and the source of any in-kind match funding that your organisation will contribute to the project.

### Brief Outline of the Project

### Outline of deliverables

Please describe the outcomes that you hope to achieve on completion of the project.
**Business Voucher application**  
**Centre for Sports Leisure and Tourism**

<table>
<thead>
<tr>
<th><strong>Describe the ‘added value’ of the voucher to your organisation</strong> e.g. what problems will it address? why is it strategic to your organisation? what opportunities will it create?.</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>Project Stage</strong> Have you had any discussions with the academic who might do the work? And how much have you discussed the project</th>
</tr>
</thead>
</table>

To submit your application please do this on our on-line form at [http://www.exeter.ac.uk/slt/applyforabusinessvoucher/](http://www.exeter.ac.uk/slt/applyforabusinessvoucher/)  
and if you have any queries please contact us at slt@exeter.ac.uk
Scope of KTPs

• The time period can vary from 1-3 years or from 10-40 weeks
• The concept is based on innovating between Universities and Business
Costs of KTPs

• For SMES the annual cost is £20,000 which is 33% of the total cost
• Weekly costs for a short term project (1-40 weeks) is £1000 per week
Benefits of KTPs

• Access qualified staff to spearhead new projects
• Develop innovative solutions
• Increase your competitive advantage

On average: KTPs tend to create 3 new jobs, increase skills of existing staff and increase profits