

# Measures with Meaning

## The role of impact assessment in achieving sustained personal response to climate change

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### Abstract

We are the first generation that has knowingly damaged our environment and we continue to do so in the face of clear evidence of what we are doing. But this is not because we don't care. People are overwhelmed with the enormity of the problem. How do we bridge the gap between knowledge and behaviour change? This paper argues that we need to change the focus of public discourse from the catastrophic impacts of climate change to the day to day impacts of behaviour change, thus bringing the problem down to a level that people can comprehend and take ownership of. This paper sets out the crucial factors needed to bridge the gap between environmental awareness and behaviour change. There is an important role for impact assessors in building this bridge should we choose to accept the challenge.

*Key words:* Climate change, Behaviour change, Environmental monitoring, Environmental mitigation

### Inconsistent Messages

"Peak oil" and "climate change" are terms that have in the past five years become part of our everyday language. Politicians and business leaders discuss these issues endlessly, travelling around the world to meetings to develop policies and plans to reduce our reliance on oil and our production of greenhouse gases - some time in the future. Ordinary citizens are urged to recycle, turn off the lights and use public transport. They are also urged to consume more and more, to move to new lifestyle blocks in the country, to take that dream holiday overseas and to expect the best of everything "because we are worth it".

The insatiable demands these latter messages generate is having disastrous consequences for planet earth. Not only are we within striking distance of peak oil, we are also close to, and in some areas have already reached, the threshold of peak water and peak fish. We are the first generation that has knowingly damaged our environment and we continue to do so in the face of clear evidence that what we are doing is resulting in a much lesser quality of life for our children and particularly our grandchildren.

According to Dr Morgan Williams (2007), New Zealand's previous Parliamentary Commissioner for the Environment "*In the past 50 years we have used up 50 percent of the world's natural capital – resources that took 3.8 billion years to create.*" He went on to say: "*We are facing monster challenges, yet there's still a big question mark about how the severity of climate issues has penetrated the collective consciousness. The changing climate is the biggest indicator of our unsustainable lifestyles, yet in the last 20 years alone in New Zealand, our resource demands have continued unabated. Our population has increased 25 percent, while our consumer energy use has shot up 61 percent and there's been a 63 percent increase in the number of vehicles on our roads.*"

According to the recent report on the state of New Zealand's environment (Parliamentary Commission for Environment, 2007) not only are New Zealander's buying more cars, the cars being bought are larger and we are driving them longer distances.

### **The Public Response**

I do not believe that this failure to change the way we live to the extent needed to avert disaster is because we don't care. A recent survey by MORI (Downing and Ballantyne, 2007) found that although 45% of their respondents saw climate change as the most serious threat facing the world today, only 4% thought that they could make a difference. The researchers concluded that for some the issue is perceived to be so significant, overwhelming and inevitable that they responded with either denial or fatalism, and their perceived helplessness in the face of the threat provides them with ... a licence to ignore the issue [or] 'opt out' from taking action.

The British Institute of Public Policy recently noted (Hansford, December 2007) that the more some people are bombarded with words or images of devastating, quasi-biblical effects of global warming, the more likely they are to tune out and switch instead into 'adaptationist' mode, focussing on protecting themselves and their families.

Up until now the environmental scientists have shaped and driven the debate. They keep us informed about what is going to happen if we don't change our behaviour and tell us how much worse the situation is becoming day by day, month by month. Meanwhile we continue to operate much as before and wait for someone else to make the first really significant move, paralysed by the enormity of the changes required. For governments as well as individuals it's a case of "I'll jump if you do".

### **The Way Forward**

Arresting climate change will require fundamental and sustained changes in the way individuals, communities, industry and governments think, prioritise, make decisions and act. We need to find ways to bring the problem down to bite-sized chunks that people can comprehend and take ownership of. We need to move people from despair and helplessness to feeling empowered and confident that they can actually make a difference. To do this we must find ways to foster community spirit, social capital and civic pride to generate a sense of communal responsibility for the health of planet earth.

I believe there is a role here for impact assessors and particularly those concerned with the social sciences but it will require us to be much more creative and influential. To make an effective contribution to addressing climate change, impact assessors must do more than simply inform decision-making. We need to push the boundaries of our analyses and we need to be more strategic in the monitoring and mitigation measures we recommend, drawing on an understanding of social, psychological and political processes. We need to become change agents.

In the development of environmental monitoring techniques, impact assessors need to look for impacts or outcomes that can demonstrate results over the short-term and deliberately look for ways to make the benefits of the new practices explicit through measures that have meaning for the average citizen. In our mitigation strategies we must look for ways of rewarding behaviour which supports sustainable practices and which impose subtle social and economic penalties on unsustainable practices. As opportunities present, we need to sell those strategies to industry and governments.

### **Critical factors in bridging the gap between knowledge and sustained behaviour change**

Environmental science has given us the information we need to act but how do we bridge the gap between knowledge and behaviour? Over the past two years I have been involved in a research project to identify the critical factors which influence the extent to which individuals respond to the findings of environmental science by changing their behaviour (Corydon Consultants et al, 2006-2007). This research was focused on the agriculture sector but many of the findings are equally applicable to citizen responses to climate change.

Our research showed that changing behaviour requires the addressing of social situations, institutional contexts and cultural norms. The success of non-regulatory or voluntary adoption measures is influenced by a variety of social, psychological and

economic factors and the extent to which these factors are incorporated into the design of initiatives to address environmental degradation will determine whether they act as facilitators of change or barriers to the uptake of new practices. Members of IAIA, particularly social impact assessors and public participation specialists, have a role to play in addressing all of these factors. Let's consider them one by one.

**1. The extent to which individuals are involved in defining the problem, the solutions and in monitoring**

The development and facilitation of processes to achieve this level of participation in decision-making is clearly within the role and responsibilities of our public involvement specialists and of social impact assessors as part of their community and stakeholder consultation and the designing of monitoring and mitigation strategies.

**2. The strength of social networks**

Research in behaviour change shows that social networks can be used to facilitate knowledge and awareness and to provide mutual support and encouragement. Public participation processes can be designed in such a way that they build and enhance social networks and social capital. Since the 1980s social impact assessors have drawn on community development skills and methods to enhance their practices in this way.

**3. The quality of the scientific information provided**

Conflicting opinions on the relationship between adverse weather events, chemical emissions and modern lifestyles undermine attempts to change human behaviour. Opposing opinions give people an excuse for not taking action. So scientists need to counteract the views of climate change sceptics in language that ordinary citizens can understand and relate to. Environmental impact assessors have an important role to play in producing this information. The translation of that technical information into the language of the street is at the core of sound public participation and community consultation practice.

**4. The complexity of the proposed innovation to address that damage**

The experiences gained from programmes to get people out of their cars and into public transport or to promote waste recycling have clearly demonstrated the importance of making alternative practices simple, affordable and efficient. Impact assessors must keep this in mind when they are developing mitigation measures. It will be difficult to get traction on mitigation measures that involve significant increases in cost, time or effort.

**5. The quality of on-going support to reinforce the decision to change and build confidence and capacity**

The research on behaviour change shows that change is not a one-off event, but an iterative process involving a series of steps which an individual can reverse if the new approach does not satisfy his or her needs, values and expectations. Each step needs to be supported by incentives, encouragement, and capacity- building to maintain those changes. These are requirements that impact assessors need to keep in mind when developing mitigation measures.

**6. The extent to which leaders lead by example**

Leadership can be demonstrated in many ways including consistency of central and local government policies and economic incentives. This will require better interdepartmental policy co-ordination as well as a move away from GDP to GPI<sup>1</sup> as a measure of a county's well-being.

It is the responsibility of economic impact assessors to highlight inconsistencies in economic policies and incentives and the way these act to undermine efforts to change environmentally damaging behaviour. Economists also need to continue the push to include environmental degradation in the valuation of economies so that the costs of growth to countries and to planet earth are made explicit.

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<sup>1</sup> Genuine Progress Indicators

Leaders showing the way on climate change can come from industry and NGOs as well as government. As members of IAIA we must be seen to walk the talk, to demonstrate integrity, by closing the gap between our own knowledge and behaviour.

### **7. The ability to demonstrate results and the ease with which success can be measured**

The visibility of environmental damage and of the results from taking action are primary influential factors in facilitating behaviour change (Corydon Consultants et al, 2006; Proshaska et al, 1997; Allen et al, 2005; Barr and Cary, 2000; Kaine et. Al, 2004; Ross and Nisbett, 1991; Atkinson et al, 1993). This factor poses a significant challenge for the design and measurement of mitigation strategies for climate change because the outcomes of any actions we might take today are unlikely to show (in terms of reversing the changes in climate) for many, many years. The damage that will happen to our climate in the next thirty years is already in the mix – there is nothing that can be done about it, things will continue to worsen no matter what we do. If we undertake enough action right now to reverse climate change impacts, we won't see any results of that for thirty years. That is more than a generation.

So we have to find mitigation measures that ordinary citizens can relate to and that produce results that can be measured regularly over the short-term to demonstrate that changes in behaviour are having positive effects. We need to move from a focus on **climate change effects** – which tend to overwhelm people, and create a reaction of fatalism or helplessness - to **behaviour change effects** which in the long run and in a wide variety of ways, will lead to reverses in climate change. We must develop mitigation strategies for small everyday things that are within the power of individuals to influence and then find ways to measure progress and find very visible and creative ways of making the outcomes of this monitoring widely known.

Barr and Cary, (2000, p.12) provide a good example of this strategy from Australia. Changes in water tables as a result of irrigation are normally unobservable and consequently it has been difficult convincing farmers of the need to address this issue. In some parts of Australia well flags are now being used to make changing water table levels visible to the passing observer. The same sort of approach could be adopted for show trends in use of motor vehicles – think of a sign on a motorway with the total number of cars crossing a particular boundary each week, noting when the number increases or goes down.

Other strategies we could promote in our towns and cities as part of our impact assessment work are:

- Neon signs showing the number of people using public transport each day with some form of celebration when it gets to a certain level;
- A gauge showing on a monthly basis the amount of refuse going into a landfill or the level of water consumption, with some form of community celebration when the gauge reaches the desired level;
- Green Awards for companies and authorities that give public transport passes in lieu of company cars, or who replace round-table meetings with video conferencing - especially for international meetings.

The possibilities and opportunities are endless. These are all things that individuals, organisations and communities can influence through their daily choices. They are things that can be made visible, that can foster social capital and civic responsibility and that can be enhanced by celebrations of achievement and by leadership.

I believe that impact assessors and public participation specialists have much to contribute to this effort. We have the tools and the knowledge to be agents of change. All we need now is the belief in ourselves and our professions and the courage and commitment to act.

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