

Translating Scientific Understanding of Climate Change Impacts into Effective Policy Response – The Critical Role of Stakeholder Engagement

Justus, M. ¹, P. Kinrade² and B.L. Preston³

¹ Net Balance Foundation, Victoria

² Marsden Jacobs Associates, Victoria

³ CSIRO Marine and Atmospheric Research, Victoria

Email: michelle@netbalancefoundation.org

Keywords: climate change, adaptation, stakeholder engagement, integrated assessment

EXTENDED ABSTRACT

Translating improved climate change information into effective local adaptation response by local governments requires a methodology that addresses three important steps. We propose that key local stakeholders must:

1. Understand and acknowledge the need to respond to climate change;
2. Access useful data and develop an understanding of the science; and,
3. Gain support from a wide spectrum of decision makers and implementers within an organisation.

The three steps will assist project teams to break down the complex elements of such projects and work towards effective outcomes where science can be integrated into policy.

The achievement of these three key steps relies on effective communications and stakeholder engagement techniques including facilitated workshops that allow discussion, meetings and presentations to a range of stakeholders within relevant organisations and communication resources that are carried out throughout the life of the project.

Two Western Port Adaptation projects have or are currently utilising a range of techniques to engage local and regional stakeholders with the aim of ensuring that the three conditions for effective local adaptation response are addressed.

This paper draws on communication and stakeholder engagement methods that have been used in these studies and the initial outcomes of the most recent Western Port project to support the contention that stakeholder engagement is critical to ensuring that the three key steps are met.

1. INTRODUCTION

In response to scientific confirmation that human-induced climate change is inevitable regardless of international greenhouse gas (GHG) mitigation efforts, adaptation is now recognised as essential to minimising the adverse impacts of climate change (IPCC, 2007). Unlike GHG mitigation, climate change adaptation will depend largely on effective local scale responses, since local attributes, including social and economic characteristics and the physical environment, will significantly determine the extent of risks and opportunities posed by climate change, as well as the nature of the community's response.

The Western Port region, located to the south east of Melbourne, Victoria, is addressing climate change impacts and adaptation issues, placing it at the forefront of local climate change responses in Australia. In 2005/06 the region undertook a *Climate Change Scoping Study* (referred to hereafter as the 'Scoping Study'), which aimed to raise awareness, assess natural and human vulnerabilities and explore possible adaptation opportunities in response to climate change. However it is the current project, *Impacts of Climate Change on Human Settlements in the Western Port region* (referred to hereafter as the 'Human Settlements project') that has particular pertinence, in that it seeks to facilitate the actual implementation of effective climate change responses. It aims to do this by assisting local governments to make informed decisions and develop effective adaptation responses to climate change through a combination of biophysical modelling, economic and social impacts analysis and risk assessment (Figure 1).

The process of translating improved information on the science of climate change into effective policy response at the local level has, to date, largely been untried in Australia. Successes have been realised within some local institutions, such as local water utilities that harnessed climate information to inform adaptive management decisions.

We contend that in order to translate climate change information into effective local adaptation responses, key local stakeholders must:

1. Understand and acknowledge the need to respond to climate change;

2. Develop an understanding of the science and access useful data; and,
3. Gain support from a wide spectrum of decision makers and implementers within an organisation.

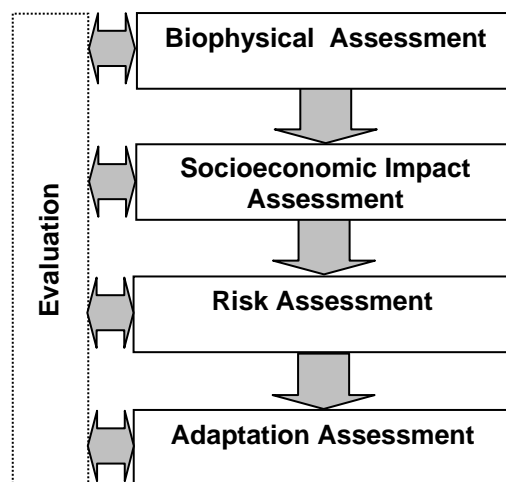


Figure 1. Framework for the Western Port Human Settlements Assessment Project.

The three steps will assist project teams to break down the complex elements of such projects and work towards effective outcomes where science can be integrated into policy. The achievement of these three steps will be greatly influenced by effective stakeholder engagement.

This paper presents a range of methods that have been used in the Western Port projects and the ways in which they have been applied to address the three key steps which will lead to effective local adaptation responses to climate change.

2. UNDERSTAND AND ACKNOWLEDGE THE NEED TO RESPOND TO CLIMATE CHANGE

The early stages of any public policy project should be dedicated to creating awareness about the project topic in order to identify and engage relevant stakeholders. With complex issues, such as climate change impacts and adaptation this is particularly important as it is a relatively new and often misinterpreted area. Our experience with local and state governments and related agencies suggests that while those within environment departments are often now familiar with the significance of the issue for their organisation, at least at a general level, this awareness may not extend to other departments, which are also vital to creating effective climate change responses.

A major objective of the 2005/06 *Western Port Scoping Study* was to extend understanding of the potential impacts of climate change throughout key stakeholder organisations. Then having achieved this, draw on stakeholder expertise and ‘local knowledge’ to prioritise regional issues in terms of climate change impacts and adaptation.

To meet these objectives the *Scoping Study* used a series of sector-based workshops to enable participants from a range of local government departments, State Government departments and agencies and community organisations, to discuss and investigate the impacts of climate change on their region and develop regional priorities. The full day workshops were run by a professional facilitator, with support from people with strong understanding of the scientific and policy aspects of climate change.

While providing simplicity to participants was a high priority, it was important not to lose sight of the complexity of both the science and cross-sectoral impacts. A careful balance was required to ensure that participants were given the opportunity to break down the issue to a sectoral level to gain a perspective on what impacts it was likely to have on their work in addition to allowing the larger group the opportunity to discuss the broad implications across departments and organisations and investigate the cross sectoral issues and possible partnerships.

Outcomes of the *Scoping Study*, while successful in engendering discussion of the issues amongst regional stakeholders and setting priorities, were limited by a degree of ‘self-selection’ in the participation processes. That is, despite the project team’s best efforts, the participation was largely limited to stakeholders who already had an understanding of the issues and/or saw a direct link between climate change and their core activities.

Thus, although the current Western Port *Human Settlements project* was able to build on the awareness and understanding that was generated from the *Scoping Study*, it was clear that further work was needed to build understanding of the potential implications of climate change for the region in more detail, especially amongst stakeholders whose core activities were outside of the environment domain. To that end, much of the first stage of the project was dedicated to identifying and

engaging relevant organisations and staff across a wide range of sectors.

This was achieved through a range of targeted engagement processes including presentations, a large number of one-on-one discussions, and a series of structured workshops. For example, one of the workshops targeted State Government departments and agencies and regional authorities with responsibilities for planning and infrastructure and service provision in the Region. Other workshops were held with each of the five local councils in the Western Port region, involving staff from across a wide range of departments.

The workshops and other engagement processes allowed for two-way information sharing – what stakeholders could do for the project and what the project could deliver for them. In this way, the workshops were successful not only in increasing understanding of the issues but also in gaining commitment and concrete support for the project, including the provision of data, information and expertise. This provided a very sound base from which to build the project on.

A number of valuable lessons learnt from the scoping study have now been applied in the Human Settlements project to build initial awareness and understanding:

- In order for sectors and organisations to begin to understand the implications of the climate change issue on their operations, opportunities should be created for information sharing and participation.
- Participant organisations should be identified based on the project’s objectives and the perceived stake they may have in the project.
- Individuals involved should be in a suitable role within their organisation in which they have the capacity to influence action or at least the capacity to determine whether to proceed with their organisation’s involvement.
- It is important that participants are aware that they have something to gain from their involvement in the project that will benefit their organisation and that they have the opportunity to provide input to the projects outcomes.

For complex topics it is just as beneficial to provide some opportunity for sector based

discussion as it is to raise the complex interactions that the issue creates.

It is important to note that extensive consultation undertaken in the initial stages of a project can result in considerable interest in the project but can create unachievable or unrealistic expectations and too many ‘stakeholders’, all of which need to be managed effectively over the life of the project. The type and extent of consultation undertaken in these early stages is also limited by factors such as available funding, time and resources.

3. ACCESS USEFUL DATA AND DEVELOP AN UNDERSTANDING OF THE SCIENCE

A second important condition for effective local climate change response is that climate change information and data is accessible, relevant and clearly understood by local policy and decision-makers. This means that policy makers must have access to data that is relevant to their operations, in a format compatible with their existing systems and at a scale that is meaningful to them. It also requires data to be in a form or accompanied by explanations that allow it to be easily understood and adapted to the specific needs of decision makers without altering the scientific basis.

Feedback from both of the Western Port projects has indicated that once presented with the broad issue of climate change, one of the first responses of decision makers is to seek further information that is:

- specific to the region
- targeted and focused – on particular sectors, industries, groups etc;
- relevant – provides practical understanding of the impacts of climate and what can be done to address them; and
- reliable – assumptions and uncertainty to be made clear.

It is essential that the expectations of stakeholders are understood and adopted as far as practicable by researchers and scientists to ensure that the data is useful to policy makers and that the resources allocated to the research component of the project contribute to effective responses to climate change. It is also important that two-way communication occurs to ensure that decision makers’

expectations are realistic and achievable – in particular they understand that certainty on many aspects of climate change is neither achievable nor necessary for effective policy response. Furthermore, both resource constraints as well as scientific and technical challenges may limit the ability of researchers to fulfil all stakeholder expectations.

To assist the *Western Port Human Settlements Project* team produce data that is useful to policy makers; one-on-one consultation with local governments was undertaken at the beginning of the project. The interviews focussed on key people throughout each of the five local governments. The outcomes from these interviews were particularly useful in pinpointing areas of vulnerability and high priority to councils and identifying existing data and resources. The project team used this feedback to determine appropriate scales and formats for analyses and to prioritise areas in the region on which to focus. This should ultimately lead to data and other information that is relevant and useful to policy makers, either to feed into their existing planning and decision making processes

Notwithstanding this, the project team determined that an additional engagement tool, centred on ongoing communication between researchers and stakeholders, would be needed to ensure that data and other information generated by the project continues to remain relevant and useable across a wide range of stakeholder organisations.

The tool in question is a stakeholder reference group, a successful model of which was applied in the *Scoping Study* and therefore has been reapplied to the *Human Settlements project*. In each case, the Reference Group was set up as a group of ‘critical friends’ who met regularly throughout the project, providing advice on project methods and information needs and presentation. In the case of the *Human Settlements project*, members of the reference group were handpicked during the early stages of the project based on their ability to provide input and expertise and the relevance of the climate change issue and project to their organisation. Members have varying degrees of scientific, planning and policy knowledge. This allows for information presented by the project team to be reviewed from different sectors and perspectives. Importantly, the structure and approach applied to the reference group – regular, structured but quite informal meetings – allows for members to openly challenge and debate information.

Ultimately, this should lead to the project generating data that is more comprehensive, targeted, understandable and useful to stakeholders than it would otherwise have been. It also helps to ensure transparency in the execution of the research that may aid in securing stakeholder buy-in and uptake of project results.

4. GAIN SUPPORT FROM A WIDE SPECTRUM OF DECISION MAKERS AND IMPLEMENTERS WITHIN AN ORGANISATION

The third key condition for effective climate change responses is wide acceptance of the issue and of the need for effective actions in all of the relevant stakeholder organisations. Within an organisation, there are two main levels of staff that can be and should be involved in responding to climate change: decision makers and implementers. Representatives from each of these areas often have differing views on how and what is required from a project and in the types of data they require in order to respond. It is important to recognise these differences and to ensure that both policy makers and implementers are targeted in consultation and communications.

While the involvement of policy makers and implementers is generally only essential at the end of a project timeline, when all of the information has been provided and the project is approaching the end, it is vital that the relevant contacts are identified and consulted throughout the life of the project. The support of these stakeholders is essential and it is important that they have had opportunities to provide input and have a sense of ownership. While they may not need to be engaged at the highest level throughout, it is important that they are considered in light of the first two steps and engaged appropriately such as through council workshops and presentations at key milestones throughout the project.

As it would be nearly impossible to engage all of the policy makers and implementers within each relevant organisation, key contacts for each local government were appointed early in both projects. In addition to providing information to the project, the key contacts are able to feedback progress and information from the project to their organisations. To ensure the information is accurate and consistent, it is ideal for the project team to assist key contacts with the production of

background papers and project updates for wider distribution within their organisations..

The key to gaining support from decision makers and implementers has been to engage or inform them throughout the project timeline and to allow opportunities for feedback and comment.

5. CONCLUSION

Our constant refrain in this paper is that effective local and regional responses to the complex issue of climate change require a number of key conditions to be met. These conditions, in turn, can only be met through real engagement of and communication with key stakeholders. In this paper we have presented a number of tools and methods that have been utilised in the Western Port region of Victoria to effect stakeholder engagement on climate change and lessons learnt from those projects.

Communication must be initiated early in the project and be maintained throughout the project. While different tools and techniques are required to address the key conditions, we have demonstrated that providing a forum for stakeholders to discuss issues within and across sectors is beneficial.

Providing an opportunity for people to debate and discuss the relevance of information to their own sector is important in gaining ownership of the issues and will increase the likelihood that policy changes are made and that implementers have some understanding and ownership of the issues following the completion date of the project.

A downside associated with extensive engagement and communication with stakeholders is that it requires resources, time and management and can potentially create unachievable or unrealistic expectations. However, consultation can also contribute to efficiencies through the identification of existing data, more relevant outputs, and therefore more successful outcomes.

The *Western Port Human Settlements Project* has successfully engaged many stakeholders across a range of sectors. As a result of this extensive engagement, there is a great sense of awareness within the region of the need to respond to climate change. The data, methods and processes generated, first through the *Scoping Study* and now through the *Human Settlements project* should provide useful

information for regional decision makers to aid in implementing those responses. By the time the *Human Settlements* project is completed in mid-2008 we should have a good indication of whether policy change is likely to be realised as consequence of this engagement.

6. ACKNOWLEDGEMENTS

This project has been undertaken through funding from the Australian Greenhouse Office and the Victorian Department of Sustainability and the Environment. The authors also thank the invaluable contributions from the local councils of the Westernport Greenhouse Alliance.

7. REFERENCES

IPCC (2007), *Climate change 2007: the physical science basis, Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge University Press, Cambridge, UK and New York, NY.

The Regional Development Company and Marsden Jacob Associates (2006), *Climate change impacts and adaptations in the Western Port region: lessons learnt report*.

van de Kerkhof, M. (2006), A dialogue approach to enhance learning for sustainability – a Dutch experiment with two participatory methods in the field of climate change, *The Integrated Assessment Journal*, 6 (4).