Cross-Scale Barriers to Climate Change Adaptation in Local Government, Australia

Draft Summary

Institute for Sustainable Futures

AUTHORS

Dr P Mukheibir

Dr N Kuruppu

A Gero

J Herriman

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ABOUT THE AUTHORS

The Institute for Sustainable Futures (ISF) was established by the University of Technology, Sydney in 1996 to work with industry, government and the community to develop sustainable futures through research and consultancy. Our mission is to create change toward sustainable futures that protect and enhance the environment, human well-being and social equity. We seek to adopt an inter-disciplinary approach to our work and engage our partner organisations in a collaborative process that emphasises strategic decision-making.

For further information visit: **www.isf.uts.edu.au**

Research team: Anna Gero, Natasha Kuruppu, Pierre Mukheibir

COLLABORATOR

Australian Centre for Excellence in Local Government (ACELG)

For further information visit: **http://www.acelg.org.au/**

Research team: Stefanie Pillora

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SUMMARY

Given their location at the regional and community level, Local Governments play a vital role in climate change adaptation through information provision, regulation and direct provision of infrastructure and community services. Councils around Australia are at different levels in their fulfilment of this role since they are faced with challenges to climate change adaptation - both within and outside of their own organisations. This study focuses on the barriers which exist beyond the boundaries of local government itself – considering the interactions with industry, community and other spheres of government which specifically impede local government from carrying out its climate change adaptation responsibilities, or reduce the opportunity for local government to confidently engage with its role in adaptation.

Barriers which are 'cross scale' can be understood and categorised in a number of ways. For the purposes of this study we considered barriers as they arose at each stage of climate change adaptation process: understanding; planning; implementation; monitoring and management, drawing on the work of Moser and Ekstrom (2010). Additionally, the study considered the structural elements that helped contribute to establishing the barriers, and explored points of possible intervention, or 'enabling actions' which could each help overcome one or more barriers.

The research ran over six months and used a mixed methods social research approach: drawing on interviews, case studies and stakeholder workshops, and engaged with participants from within local government as well as those from other government agencies and industry groups. The research had a national focus and involved participants from 42 organisations with representation from each state and territory, and each tier of government.

The research revealed that the cross-scale barriers faced by local government in relation to climate change adaptation are not unique to climate change adaptation in Australia. That is, they face similar barriers in other areas of their work as well. It also revealed that many of the barriers faced are experienced by councils around Australia, but that each barrier is not faced equally by each council. This is largely due to the contextually landscape in which distinct processes are at play (e.g., regulatory frameworks, values and perceptions amongst different agencies and actors, geographical location, resource management arrangements etc.). The findings also suggest that there is an array of preconditions and co-conditions that need to exist before we can start to measure success in adaptation programmes.

The key barriers identified by the research can be considered to fall into four main thematic areas:

1. A poor understanding of the risks, limited access to and the uncertainty of climate change impact related information.
2. An inconsistent governance structure, co-ordination, communication and leadership between both the vertical tiers and horizontal levels of government.
3. An inconsistent problem definition and appropriate climate change adaptation framework to use for planning; and
4. Competing priorities due to limited operational resourcing, such as staffing and funding, to plan and implement responses.

The research identified a keen interest in participants to move beyond problem identification and to venture into solutions. To do so the final stages of the research considered the possibilities for interventions which would be cross-scale in focus and

which would help enable councils to navigate or overcome barriers, or would reduce the impact of the barriers on their work.

It was not the intention of this study to develop action plans or allocate specific responsibilities to any agency, but rather to gain an understanding of the potential strategies that would enable local governments to overcome the cross-scale challenges facing them under a changing climate. Many of the strategies proposed are not unique to adapting to climate change impacts, but lessons from other sectors and programs can be drawn on to overcome the cross-scale challenges. Whilst the enabling actions are based on the opinions of the participants, their contributions provide valuable insights. The key enabling strategies identified include the following:

1. **Build community consensus on a shared understanding of the seriousness of climate change risks and the need to act, through training and the delivery of a consistent message from all tiers of government:**
   The first stage of the adaptation process, i.e. *understanding*, requires that the community are adequately informed of the climate change risks. The potential exists to undermine community consensus on the seriousness of these risks through inconsistent messages from the various agencies and organisations with vested interests. A number of stakeholders concurred with the published literature (see Measham et al., 2011) that the poorly and inconsistently articulated problem of climate change by the various tiers of government was a key barrier to effective adaptation response planning and overcoming the deeply held values, beliefs and sceptism faced by local government planners. The case studies and workshop presentations revealed that by framing the adaptation response as a risk reduction and management approach attracted less resistance to adaptation planning and implementation.

   It is generally accepted that Local Governments are best placed to communicate the relevant climate induced impacts to the community in their area. B having consistent and accepted data and information to draw on would help to develop community consensus on the potential threats to the region. This could be achieved through the support from Federal and State governments in providing a consistent message based on sound and accepted data and information. Allowing public access to this single source of information would reduce the level of misinformation and misunderstanding.

2. **Allocate and agree upon priorities, roles and responsibilities at the three levels of government for addressing climate induced risks for improved co-operative governance, co-ordination and communication:**
   The poor clarity of roles and responsibilities for climate change adaptation, including the responsibility for managing risks of climate change, has been identified by both the study participants and the published literature, and is best illustrated in the areas of land use planning and emergency management (Productivity Commission, 2012). This inconsistency between the policies of different departments within a jurisdiction is best illustrated by the case for land use planning which at the state level is assumed to be a stable climate and thus, precluded attempts to incorporate adaptation into local government planning (Pillora, 2010; Measham et al., 2011).

   Adaptation at the local government level is generally considered to be a ‘shared responsibility’ which must be supported through collaborative efforts across the three tiers of Government (Withycombe, 2009; Productivity Commission, 2012) and hence the roles and responsibilities between state and Northern Territory governments and local governments should be clearly clarified. The recent discussion document released in May this year by COAG (2012b) that outlines the responsibilities of State and Local governments is an attempt to address this vacuum. In addition, a draft

recommendation by the Productivity Commission (2012) is that a comprehensive and up-to-date list of laws which delegate regulatory roles to local governments be published to assist state, territory and local governments assess whether local governments have the capacity to effectively discharge their roles.

3. **Improve the national climate change adaptation framework to guide complementary state and national level policy and legislation:**
   The lack of consistency in the current planning and regulatory frameworks, which are in part driven by the inconsistent definition of the climate change adaptation issue, has resulted in an uncertainty about the legal liability of local governments (Funfgeld, 2010; Mustelin, 2011; Productivity Commission, 2012). Participants to the study suggested that by linking climate adaptation to sustainability and risk management would allow for a more consistent approach to policy and legislation at all tiers of government. This would encourage the mainstreaming adaptation into currently established planning and risk management processes. The current variation in the state level policies will need to be overcome to achieve this goal. State and Northern Territory governments should therefore clarify the legal liability of local governments regarding climate change adaptation matters and the processes required to manage that liability (Productivity Commission, 2012). The obvious place to co-ordinate this would be through COAG, however, the urgency to address this policy and regulatory challenge will need to be communicated by local government through State Government.

4. **Utilise effective regional mechanisms / groups and initiatives to deliver regional priorities for climate change adaptation and establish new one where necessary:**
   In addition to cross-scale responses to the challenges identified in this study, *cross-level* collaboration in the form of regional approaches have been demonstrated by the case studies as being viable mechanisms to deliver collaborative outcomes. Integrated assessments and responses conducted at the *regional scale* have advantages over national and local approaches, since in the first instance more reliable data is available locally, system complexity is better understood and communication is usually better. Regional groups could be organised around various climate impacts such as flooding, bushfires, drought and storm surges. Co-ordination of these initiatives is necessary to ensure a coherent approach to enhancing resilience.

   Greater coordination and collaboration among local governments could also address some of the capacity and resource constraints they face – such undertaking common activities, or joint activities through resource sharing (Productivity Commission 2012). However, in some cases, the establishment of these networks/forums would require some form of State recognition and support.

5. **Develop a consistent risk planning guide to support Local Councils to prepare their own business case for investment and to improve the evidence to support business/ investment decision:**
   The inconsistency between policies of different tiers of government and their departments creates an environment where Local Governments have not in the past worked to a consistent risk assessment framework when addressing climate change risks (Pillora, 2010; Measham et al., 2011). Participants to this study explained that the absence of a consistent adaptation guide had hindered the documentation of the necessary minimum evidence for the political support required for decisions to be made by elected officials.

Whilst guides for general risk management exist (such as AS/NZS 4360:1999), having a standardised guide for assessing and planning for climate induced risks by setting out the type, minimum resolution and possible sources of information and data needed to make credible business and investment decisions would be useful for both state and local government. The use of such a guide would ensure that Local Government's across Australia approach the issue in a consistent way to produce outputs which are usable and defendable in business case preparation. State departments would have a transparent tool for Local Government climate risk plan assessment. The development of such a planning framework is a collaborative exercise between all tiers of government. Federal government's role would be to ensure consistency across the country and could provide the resources to develop the framework.

6. **Establish a central mechanism for data management and sharing:**
It has been argued that before adequate adaptation planning can be undertaken, the likely impacts at a local level due to projected climate change need to firstly be made available, and secondly understood (Booth, 2012; Productivity Commission, 2012). However, participants in this study suggested that the challenge to gaining this information is less about the lack of data and knowledge but more about the challenges associated with understanding what information is needed, where to find it, and how to effectively use it. This notion is supported by the COAG Select Council on Climate Change who that those parties with a clear understanding of their climate change risks will be better placed to identify the actions necessary to manage the risks (COAG, 2012b).

   Current information and guidance does meet the requirements of some Local Governments, since the climate change related data collection and analysis is ad hoc (Productivity Commission, 2012). Furthermore, the inconsistent use of terminology, data collection techniques and perceived lack of locally appropriate information have been put forward as challenges. Climate projections are currently only relevant at a national and to some extent regional level. The scale of the problem has not been made relevant at the local government level, however efforts are underway in NSW to develop fine scale climate projections to address this information gap (OEH, 2012).

   A national repository, hosted for example by Geosciences Australia or the Bureau of Meteorology, has been suggested for climate impact related data to be stored and made available to state and local governments, with the ability for local governments and other agencies to upload and download data and information, such as audited or peer reviewed data sets for flood mapping, sea level rise etc. An intergovernmental committee would determine the terms of reference of such a facility and the type of information to be made available. Such dependable and peer reviewed data and information would underpin investment decisions and support internal business cases for sustainable infrastructure discussed in the previous point.

7. **Make more effective use of existing Government funds and develop new funds for adaptation, to ensure continuity in the implementation of the plans:**
A consistent theme across all international and local literature, as well as being a key challenge raised by the study participants, is one of constrained resources (financial and staff) faced by Local Governments in all States and Territories together with competing priorities within their diverse portfolio of responsibilities (Pillora et al., 2009; LGSA-NSW, 2010; Pillora, 2010; Measham et al., 2011). However, many of these barriers are likely to be more significant in smaller and more isolated Local Councils, in comparison to larger urban Councils. Areas with small and remote populations, together with vast infrastructure networks, are likely to find it difficult to resource adaptation activities.

> The current funding approach at the Federal level was viewed by participants as being piecemeal, without any systematic follow through. Large long term adaptation projects that aren't available within Local Governments' own discretionary income, should be Federally funded on a priority basis. Further, investment in successful existing programs should be prioritised to carry it through to completion, and to avoid abandoning projects after the initial planning phase. In addition, grant funding should be used to build capacity among end-users who will be implementing outcomes at a local level.

These recommendations currently sit alongside many other important studies already carried out to understand the experience of local government in responding to climate change, the barriers to local government climate change adaptation in the international context and the adaptation tools and approaches here in Australia. In addition, barriers to adaptation has recently received attention from the Productivity Commission, and this study provides an opportunity to contribute to this work. The Select Council on Climate Change (of the Council of Australian Governments) has also circulated a document addressing the need to clarify the roles and responsibilities for responding to climate change. In order to action the recommendations from this study, formal discussion of the high level recommendations should be held, and the further strategy planning for each of the recommendations should be commissioned. This should include linking with the COAG SCCC planning and strategy development processes.

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