

VCCCAR Project: Framing Adaptation in the Victorian Context

Framing Climate Change Adaptation in Policy and Practice

Executive Summary

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Understanding current and future climate change impacts, and how best to respond, are major challenges for Australian communities. Decision-makers need to consider the range of potential impacts climate might have in the future, where and when these may occur and how different industries or parts of the community might respond. Such complex challenges are often labelled as 'wicked' and are best addressed using collaborative approaches involving shared learning across institutions.

This working paper described what 'adapting' to climate change means by clarifying commonly used terminology and how these different concepts are used in policy development in Australia, and other parts of the world.).

Framing occurs when people with different knowledge, experiences and personal backgrounds consider an activity or a challenge. Framing is a way of making sense of a topic (like climate change) from an individual perspective but it can also be used to arrive at a shared meaning and sense of purpose in addressing the challenge.

The framing of adaptation can be **explicit** in strategies, policy documents, or procedural guidelines, but is often **implicit** in discussions, choices about planning approaches and processes, and the selection of assessment methodologies. Making framings explicit is important for establishing a collaborative process for adaptation. Explicit consideration of framing is also likely to influence the types of adaptation options and 'pathways' considered.

The most commonly used framings of adaptation are:

- 1. A hazards approach.** 'Hazards' are closely linked to disaster risk management. This natural disasters frame has been a dominant consideration in policy discussion on climate change. Increasingly broader notions of climatic hazards are being adopted, linked with other socio-economic and environmental trends, for example population expansion into bushfire prone areas in South East Australia or coastal zones likely to be affected by sea level rise or storm surges.
- 2. Risk management approach.** This is the dominant, organisational practice for dealing with many types of uncertainties in local government and the private sector. Central to the notion of risk are uncertainty and perception. Risk is defined as the combined product of hazards, exposure and vulnerability and there is a close connection between hazards and risk management approaches.
- 3. Vulnerability approach.** This focuses on who or what will be affected and in what way. A wide range of possible policy responses to vulnerability are possible. For example, *outcome vulnerability* relates to the residual impacts (e.g. on a habitat, an ecosystem, or a municipality) after all feasible adaptation responses have been taken into account. A *contextual framing* of vulnerability considers vulnerability in the broader context of interactions between climate and society.
- 4. Resilience approach.** The 'resilience' concept originated in ecology but is now being translated and applied to human systems. It is defined as the ability of groups or communities to cope with external stresses and disturbances as a result of social, political, or environmental change.

Each of these approaches has been influential in the development of climate change assessment methods. How assessment methods are framed is important given the role assessments play in adaptation planning in government. The framing can determine which departments are involved and which minister is considered to have responsibility for addressing climate impacts. Therefore, clarity of the framing and qualities and limitations of different assessment approaches will inform the methods used to assess impacts and adaptation responses.

The way that different people frame adaptation projects and planning processes is often implicit and may only come to the surface when arguing the business case for adaptation or when choosing a particular assessment approach.

Framing can occur at different stages of the adaptation process, for examples as an agency, local government, business or community considers the following questions:

'Adaptation to what?' What types of climatic changes do we need to adapt to?

'Who or what adapts?' Who or what are being impacted and how will it affect them?

'How do we adapt?' What are the processes and methods we use to devise and implement adaptation measures?

'What is good adaptation?' How do we know we are adapting successfully?

The choice of frame can lead to different types of climate change assessments:

Climate impact assessment. This approach is mainly concerned with analysing the effects of climatic change on natural, social and economic systems. Climate impact assessments can focus on biophysical impacts, socio-economic impacts, or both. Assessment can be conducted at various scales, from national level to regional and local impacts.

This approach uses quantitative data where available, leading to quantifiable estimates that are often sought after by policy and decision makers in order to justify pursuing particular strategies. However, uncertainty is a major problem because climate models are not able to give accurate local and regional scenarios for many climatic variables. The process of downscaling to regions and localities can also be resource intensive and time consuming.

Climate risk assessment. This is linked to the risk management approach and provides a way of dealing with uncertainty inherent in climate impact assessment. Risk can be quantified using various quantitative and qualitative techniques and used to assess the likelihood and expected consequences of a climate change impact under different scenarios, resulting in ratings of 'low', 'medium', 'high' or 'extreme' risk. This indicates the priority with which a risk should be treated. Risk assessment processes are suitable for organisations of various sizes, can fit well with existing organisational procedures and be readily integrated into existing risk management systems. However, the approach can lead government to be focused inwardly, often to the neglect of the interests of other departments or external stakeholders. Their reliance on qualitative data and expert knowledge also means that engaging with stakeholders from different backgrounds is essential.

Vulnerability assessment. This is now common practice in adaptation. It is implemented in many different ways using various definitions of vulnerability and a range of assessment methods. Vulnerability assessments typically address the characteristics of a vulnerable system, the type and number of stressors, and how these impact on the system. They can add valuable, bottom-up, perspectives for adaptation and be used to build the case for adaptation based on local data and information, thus ensuring that adaptation options are designed in direct response to local needs and enhancing the potential for tangible local adaptation outcomes. The range of vulnerability assessment methods in use means it is difficult to compare the results from different assessments, or understand the spatial variability of vulnerability beyond the scope of the immediate analysis.

In summary, climate change adaptation can be considered a **process of continuous social and institutional learning, adjustment and transformation**. Understanding adaptation as an ongoing process of learning is particularly relevant for local and regional scale decision-making. Understanding local vulnerability and perceived risk using a combination of quantitative and qualitative data can provide a bottom-up perspective of adaptation needs that is specific to a particular location.

In a situation of constrained time and financial resources, the **choice of a particular adaptation approach or a combination of approaches** will be highly influential in establishing a particular dominant framing for an adaptation process. Ideally, policy developers and decision-makers should pause and query why a type of approach or method will be applied to any particular adaptation project and ascertain the relevance of the underlying concepts for the purposes of the activity.

About the project

This is the first working paper produced from the project: 'Framing multi-level and multi-actor adaptation responses in the Victorian context'. This is an 18 month project which aims to develop and test an operational framing of adaptation which will subsequently act as a decision-making 'roadmap' to better inform adaptation policy and practice by Victorian authorities at the local and regional levels. To achieve these aims, the project has been structured into four work packages:

1. the development of an overarching framework for adaptation (the 'roadmap');
2. preliminary economic analysis of climate change impacts and adaptation;
3. an exploration of local narratives; and
4. testing of these research outputs in three case study locations in Victoria.

This report on *Framing Climate Change Adaptation in Policy and Practice* draws from research carried out as part of work package one. It should be noted that the analysis discussed in the report covers the early stages of thinking about impacts and adaptation – the 'first step' on any adaptation pathway – rather than a comprehensive study of all adaptation processes. Other aspects of adaptation will be the focus of future project work.

For a copy of the full paper, visit:

<http://www.vcccar.org.au/content/pages/framing-project>

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