

Climate Change Adaptation Research Grants Program

- Social, Economic and Institutional Dimensions Projects

Project title:

Enhancing the Adaptive Capacity of Small-to- Medium Enterprises (SMEs) to Climate Change and Variability.

Principal investigators:

Dr Natasha Kuruppu

Lead organisation:

University of Technology, Sydney

Objectives:

To understand the key underlying factors and processes shaping the adaptive capacity of SMEs in Australia to climate change and associated sea level rise. Specifically, this project will answer:

- 1) To what extent have SMEs considered and integrated adaptation into business planning?
- 2) What are the key barriers and opportunities to adaptation in various SME sectors? and
- 3) What types of adaptation strategies can businesses adopt in anticipation of climate change?

Project design and methods:

In conceptualising adaptive capacity we recognise that climatic risks are rarely shaped by physical forces alone but are an interaction of the hazard (i.e., climate related or other stresses) and the vulnerability context of the system. In overcoming vulnerabilities and reducing future risks, a system requires a level of adaptive capacity. In examining underlying factors and processes shaping adaptive capacity of SMEs this study refers to the literature on both, adaptive capacity and private sector which highlights three key components determining adaptive capacity:

- 1) Business characteristics (e.g., number of employees, rented or owner occupier, gender of owner, age of business)
- 2) Subjective or psychological factors (e.g., people's perceptions of climatic risks, their knowledge of the causes and their self-efficacy beliefs in responding to these risks)
- 3) Objective factors (access to assets such as social, natural, physical, cultural and human resources, organisational climate/institutions and political and social structures)

Adaptation within this context is recognised as a process that moderates climatic risks. Furthermore, we acknowledge the mutuality between nature-society relations where adaptation will not only be technical and specific to climatic change but will also address general socio-economic constraints and possibilities of double exposure (e.g., changes to food prices and reduction in international tourists). Many studies - influenced by the critical political economy approach to hazards - have demonstrated that vulnerability is constructed socially; its underlying causal factors are predominantly social, rather than biophysical and are rooted in the socio-political processes that allocate resources in a society. Thus we adopt theories from Political Ecology with its focus on structure, agency, scale and material nature to understand the processes that mediate adaptive capacity of SMEs. The research undertakes a detailed comparative study of SMEs in two States i.e., Qld & NSW specifically targeting larger regions that incorporate a diverse range of SME industry sectors (as categorised by the ANZIC Industrial Classification Code). This diversity will allow the study to tease out themes that may be specific to a particular industry sector. Within this criteria, two' towns in each State will be chosen to represent an urban and regional (includes coastal towns) setting (e.g. Brisbane and Gold Coast may be chosen in Qld whilst Sydney and Dubbo in NSW). Some of these towns may have already experienced the direct or indirect impacts of extreme climatic events and thus may provide interesting insights to existing perceptions of climate change and adaptive capacity. The results from the two States will be scale-up through key-informant interviews with stakeholders from other States as well as through a national focussed workshop. It is envisaged that the design of the electronic survey and contents of workshops as well as selection of targeted towns will be decided upon with input from the Chambers of Commerce in NSW and Qld. Each task and method included in our research is heavily informed by stakeholder participation using a range of different approaches. This will ensure our outputs are end-user focused and thus be practical for use amongst SMEs. This research will not include primary industry (e.g., fisheries, electricity, mining).