

Enhancing local government climate change adaptation decision-making: development an understanding of the economic costs and benefits of adaptation for Ku-ring-gai Council, Sydney Australia

This article has been downloaded from IOPscience. Please scroll down to see the full text article.

2009 IOP Conf. Ser.: Earth Environ. Sci. 6 542011

(<http://iopscience.iop.org/1755-1315/6/54/542011>)

View [the table of contents for this issue](#), or go to the [journal homepage](#) for more

Download details:

IP Address: 163.118.90.202

The article was downloaded on 30/04/2013 at 03:08

Please note that [terms and conditions apply](#).

P54.05

Enhancing local government climate change adaptation decision-making: development an understanding of the economic costs and benefits of adaptation for Ku-ring-gai Council, Sydney Australia

Ros Taplin(1), A Henderson-Sellers(1), S Trueck(1), J Scott(2), L Hayward(2)

(1) Macquarie University, Sydney, Australia

(2) Ku-ring-gai Council, Sydney, Australia

Australia is a nation of climate extremes with flooding, storms, drought and bushfires being familiar challenges at regional and local levels. The Australian national government has taken steps to ratify the Kyoto Protocol (December 2007), to commission an economic review of the consequences of climate change (Garnaut, 2008) and to offer for discussion a proposal for a carbon emissions trading scheme (CPR, 2008). Local government that is central to societal adaptation and can play an important part in national mitigation finds itself caught in the midst of these policy developments and past experiences. The challenges for local government in Australia with regard to legislation, funding, community awareness and willingness to participate all render decisions on climate change adaptation far from straightforward. Analysis of the financial risks and benefits associated with adaptation at the local level is lacking and these uncertainties limit the capacity for sound policymaking. Local government decision-makers urgently require this analysis to assist with prioritisation of adaptation measures in relation to their regions' assets and vulnerabilities. This paper reports collaborative and transdisciplinary research that has commenced in Sydney as a joint venture between Macquarie University researchers and the local government authority, Ku-ring-gai Council. Researchers and professionals involved have climate science, economics and environmental decision-making capabilities. Research for this locality is being undertaken in order to initiate development of understanding of the economic costs and benefits of future adaptation. It is expected that enhancement of capacity with the financial aspects of climate change adaptation decision-making will assist in the provision of useable knowledge to local stakeholders as well as for the Council's own operations. Depending on funding, the study will be extended by the Macquarie research team to incorporate other Australian local councils. Also it is hoped that local government authorities in other nations will also be incorporated as case studies in the longer term. Ku-ring-gai Council which is the north of the greater Sydney metropolitan region has a population of approximately 101, 000 and extends over an area of 84 km². The local Council has been addressing climate change mitigation since 1998 and has been actively involved in climate change related policy initiatives such as the Cities for Climate Protection TM (CCP) Australia programme. It has achieved 'CCP TM Plus' status in reducing its operation and community greenhouse gas emissions – the highest level achievable. Nonetheless, climate change adaptation is considered a serious issue for the Council and, in 2007, it developed a Strategic Approach to Climate Change involving plans for research of the economic, social, environmental and governance costs and opportunities of mitigation and adaptation to climate change within the Ku-ring-gai Council area. The Council has also been active with broader sustainability policy implementation with development of a Sustainability Vision Report 2008-2033 via a participatory approach with local stakeholders. The Ku-ring-gai Council – Macquarie University climate change adaptation research collaboration commenced in July 2008. Initial research has involved literature review; analysis of past Council measures and records with regard to mitigation and adaptation initiatives, costs and benefits; investigation of economic modelling considerations including selection of appropriate discount rates, timescales and climate sensitivities. Results to date indicate the collaborative research will provide: improved understanding of potential climate change challenges for the Ku-ring-gai Council region; improved knowledge of climate impacts for the Council and costs and benefits of adaptation measures; and understanding of Council's current preparedness to address these impacts. This paper presents further results and, more importantly for an international audience, the work that has been initiated towards the development of a more generic analytic approach for assessment of the local effects of climate change that can be applied by other local government authorities. At this congress we seek partners for action on climate change at a local government level in a warming world.

References

CPR, 2008, Carbon Pollution Reduction Scheme, Green Paper, July 2008, Published by the Department of Climate Change, Commonwealth of Australia, Canberra, Australia, ISBN: 978-1-921298-25-7, <http://www.climatechange.gov.au/greenpaper/index.html> 532pp
Garnaut, R., 2008, Garnaut Climate Change Review, Draft Report (June, 2008) http://www.garnautreview.org.au/domino/Web_Notes/Garnaut/garnautweb.nsf