

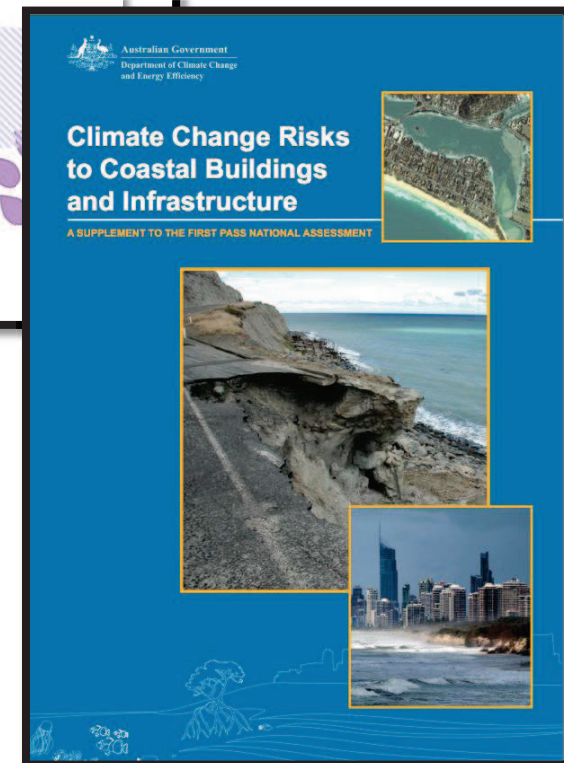
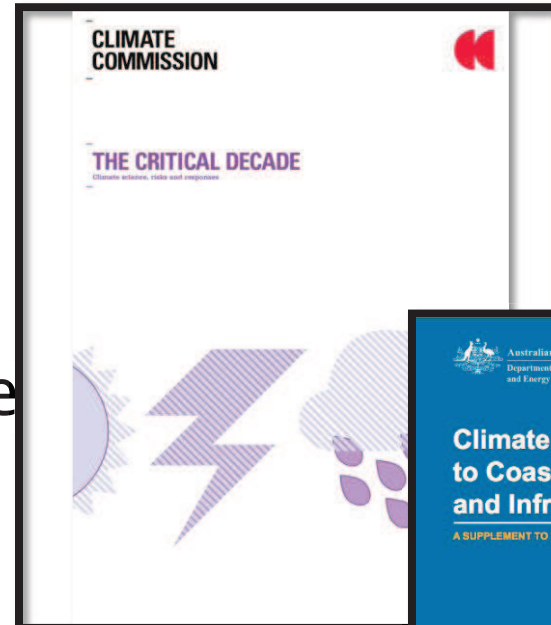
Prof Barbara Norman
Foundation Chair, Urban and Regional Planning
Co-director of CURF
University of Canberra, Australia

Adapting in concert at the regional and local level

Twentieth Asia-Pacific Seminar on Climate Change
Bangkok, Thailand, 14-15 March, 2012

Climate change

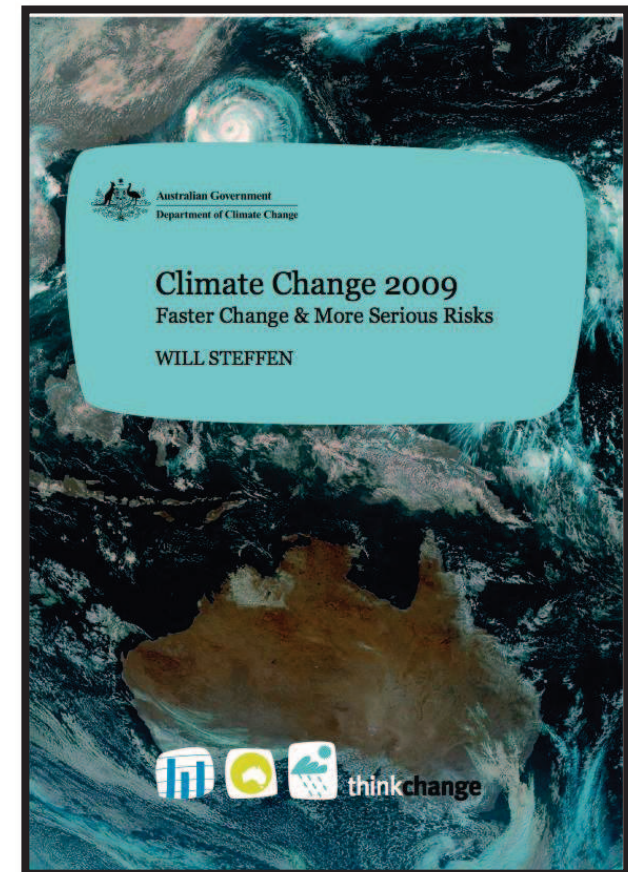
- Carbon price package
- Climate Commission
- Coasts and Climate Change Council
- Climate change adaptation program
 - Regional and local funding programs



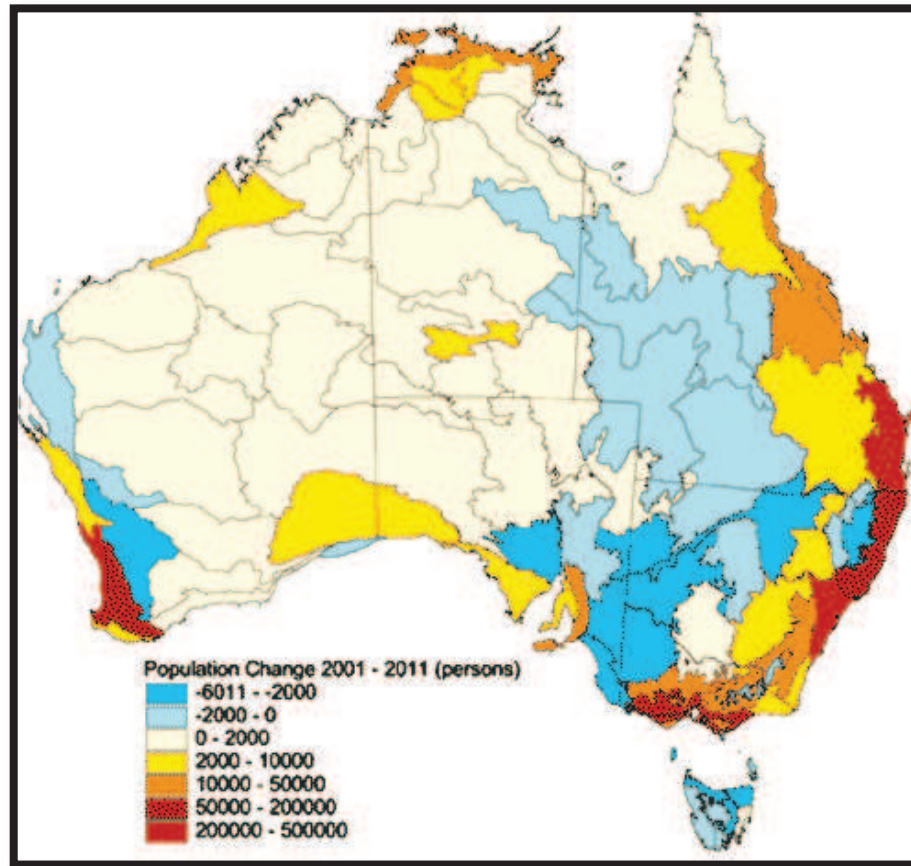
Coastal climate change risk

Planning for a range of projected impacts around Australia:

- Sea level rise
- More extreme weather events
 - Coastal storm surge
 - Recurring severe drought
 - Heat waves,
 - Floods
 - Bushfires
- A range of mitigation and adaptive planning responses will be required to respond to the projected climate science scenarios



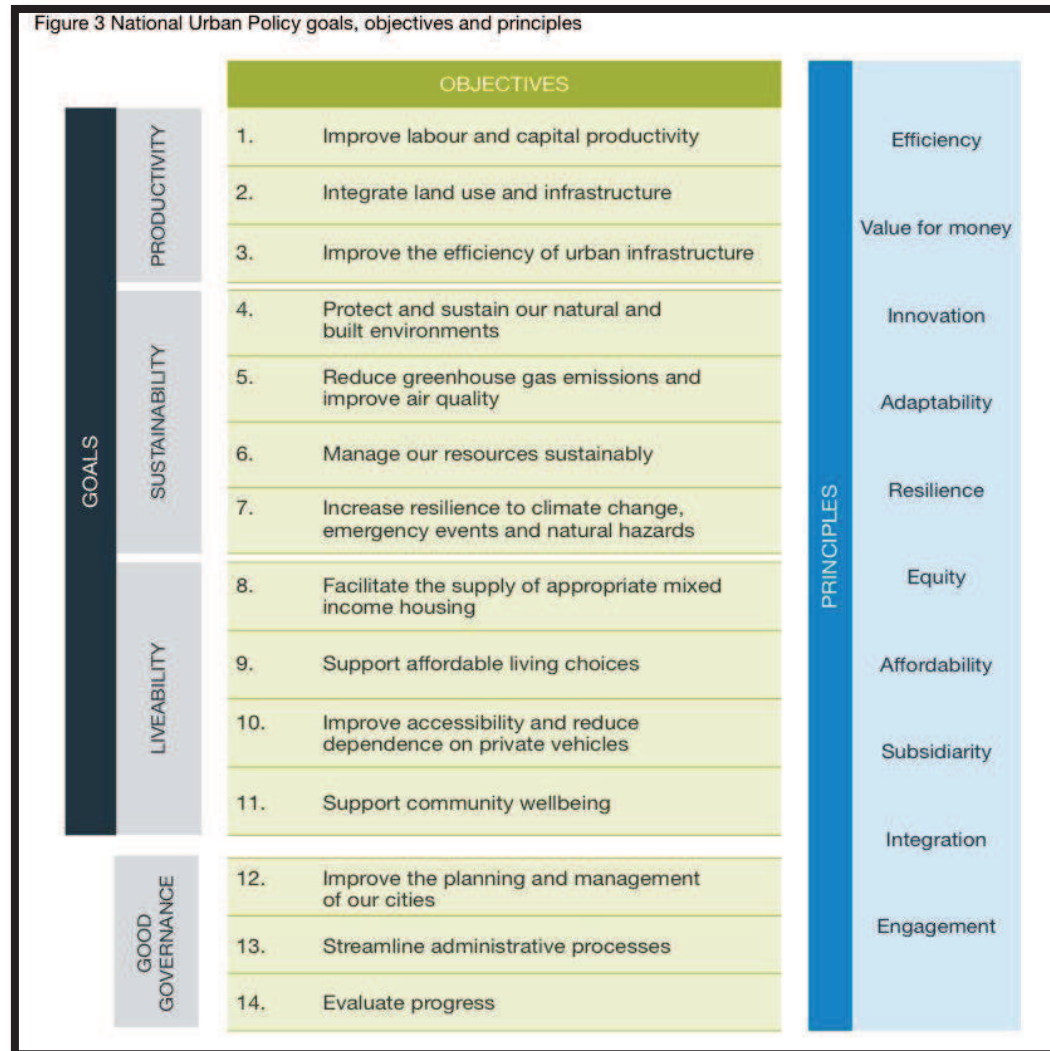
Coastal urbanization in Australia



Australian State of the Environment Report

Urban policy and adaptation

Figure 3 National Urban Policy goals, objectives and principles



Coasts, cities and climate change

- Planning for extreme weather events
 - Heat, fire, drought, storms, coastal inundation
- Similar processes emerging:
 - Understanding the science
 - Introducing the concept of buffers
 - Building in resilience
 - Applying a range of planning policy instruments including climate change mitigation and adaptation responses

Planning for extreme weather events



The Age 29 November 2007



The Age 29 Jan 2009



Gold Coast QLD Development in 1930 , 2007, Insurance Council of Australia 2008, Improving Community Resilience to Extreme Weather Events, p.4)

Planning for risk and uncertainty

- Coastal urban growth
- Projected impacts of climate change
- Adapting to planning for risk and uncertainty
- Some implications for local, regional and national policy
- An integrated regional response to adaptation supporting local action

Adapting to changing environments

- Extreme weather
 - Wildfire, floods, drought, storms
 - Sustainable built environment
 - Climate change adaptation
-
- River Basins
 - Coasts and estuaries
 - Cities
 - Regions in transition



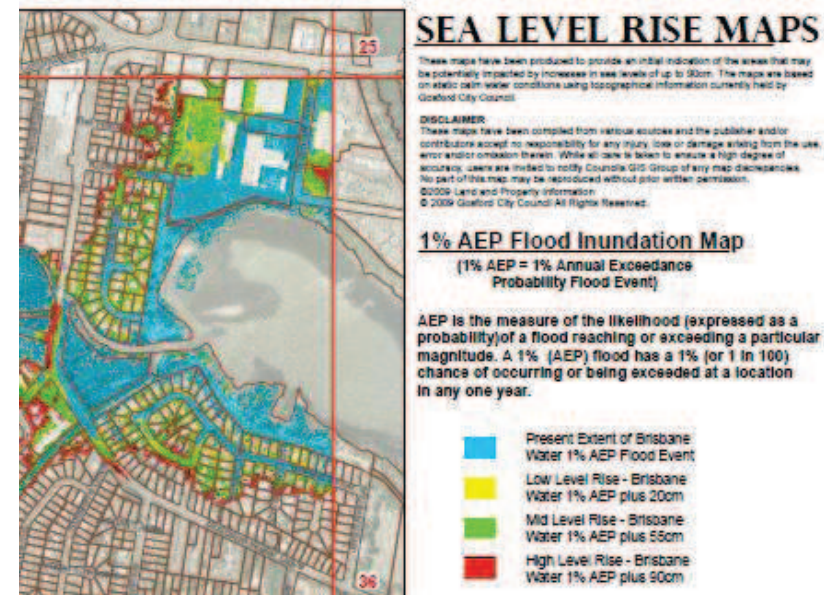
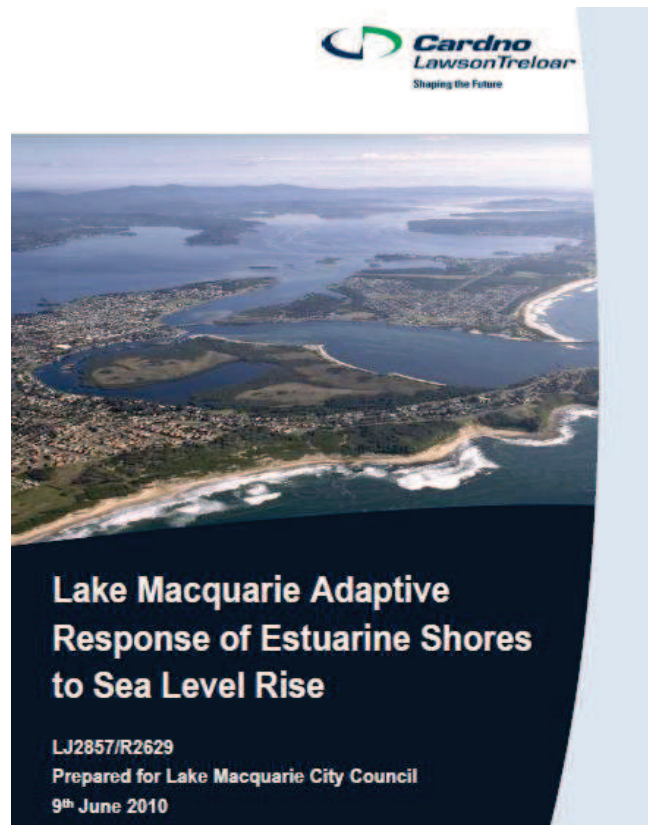
Faculty of Architecture, Design and Planning

Planning for climate change adaptation
in Coastal Australia: State of practice



Nicole Gurrán, University of Sydney
Barbara Norman, University of Canberra
Catherine Gilbert, University of Sydney
Elisabeth Hamín, University of Massachusetts, Amherst

Mapping the risks at the local level



Gosford SLR mapping

LM Adaptive response of Estuarine Shores to SLR report 2010

State of practice in coastal adaptation

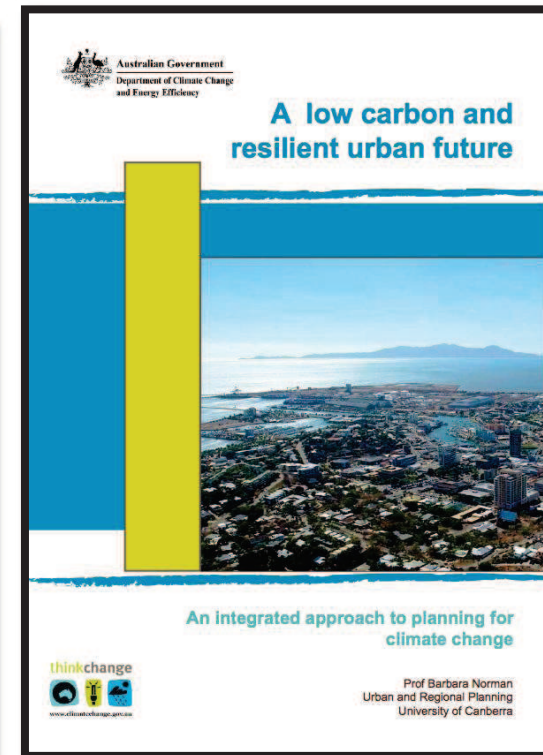
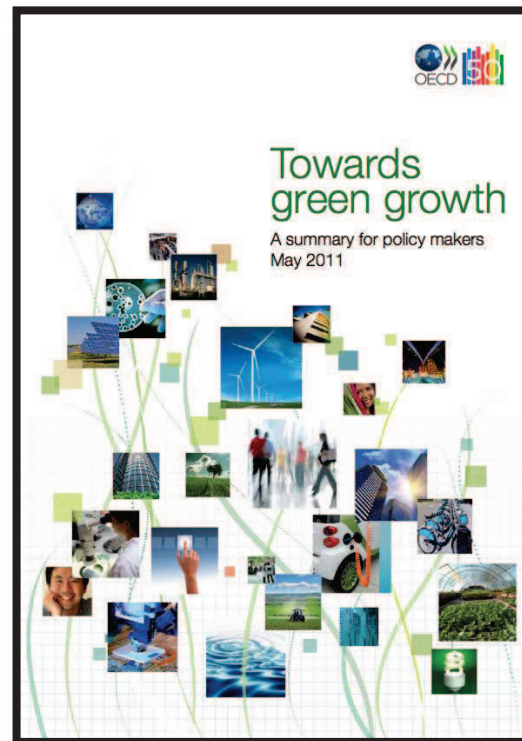
- A continuum of climate change practice
- But most local councils at a preliminary stage
- Strategies prospective, rather than underway / implemented
- Most need additional resources to activate



Gurran, Norman, Gilbert & Hamlin, 2012

Planning for climate change adaptation in coastal Australia

Responding to extreme events and climate change – developing new pathways



Large scale inner urban redevelopment - opportunities for incorporating adaptation



Docklands Melbourne

Adapting in concert at the local and regional level

- Sustainable transport and innovation in infrastructure design
- Regional spatial planning and urban growth management
- Urban design and resilient local landscapes
- Capacity building through research and education

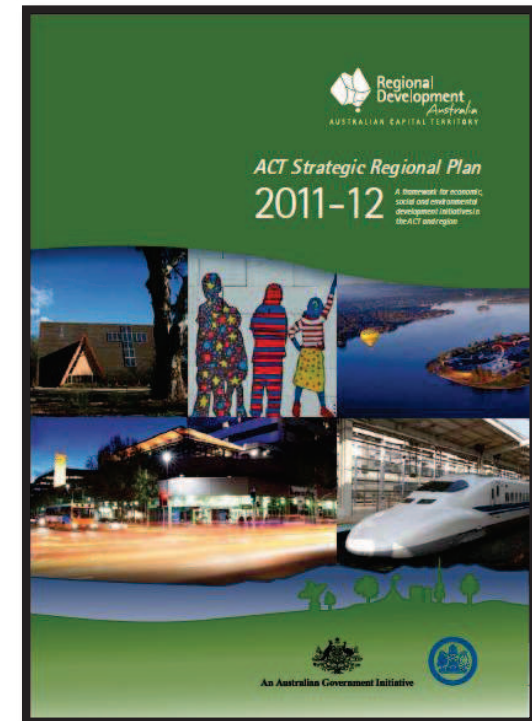
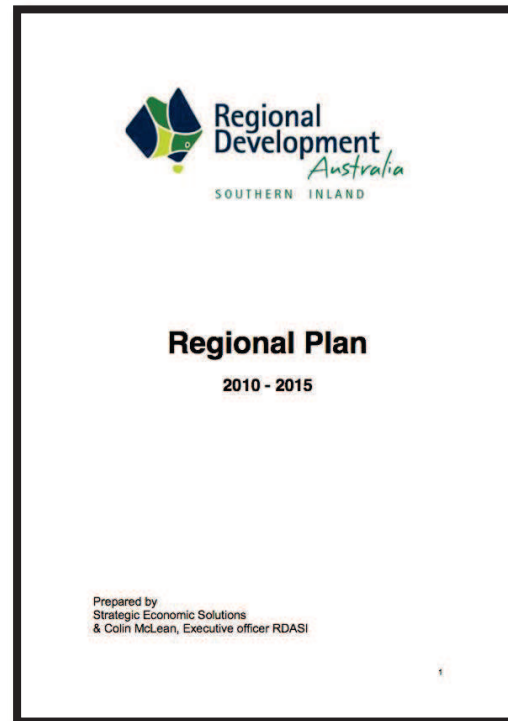
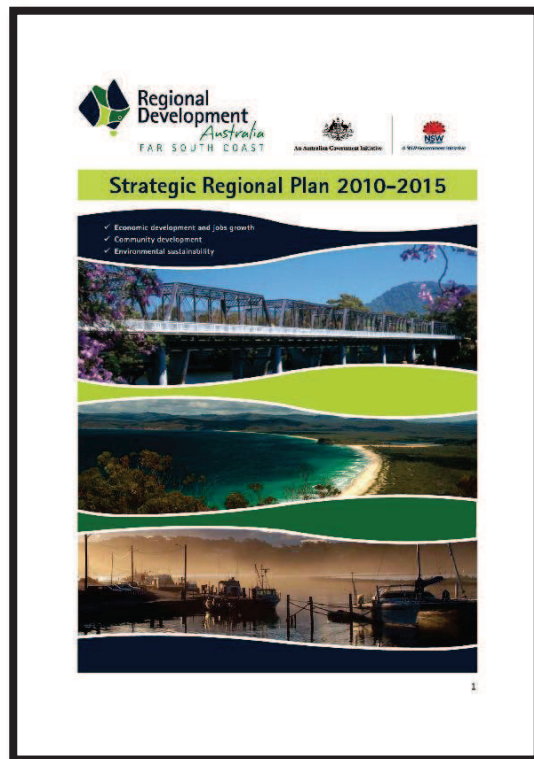
Making the connections to adapt

- Communities - the wide range of stakeholders within the region
- Jurisdictions - local and state government bodies as well as specific regional bodies (land, coasts, business, community)
- Sectors - public, private, academic, NGOs
- Disciplines - economic, science, regional planning, emergency management

The social considerations

- Social equity considerations for the most vulnerable
- Adaptive capacity variable
- Human behavior a powerful influence
- Urgent need to identify communities at most risk and most vulnerable

Regional plans to support local action



What is CURF?

- CURF is an innovative platform for sharing information across institutions in the context of sustainability and climate change
- CURF aims for a collaborative regional response to building resilience through sharing, connecting and co-producing knowledge across boundaries
- CURF arose from a series of discussions seeded by the idea that 'something better' could be done in the Canberra region to progress the implementation of a more sustainable future for the region in the context of climate change

The CURF principles

CURF is based on 7 principles:

- Trust
- Inclusiveness and openness
- Connections and communication
- Shared commitment to sustainability and responding to climate change
- Building on synergies of current arrangements
- Taking a long term view of change
- Innovation

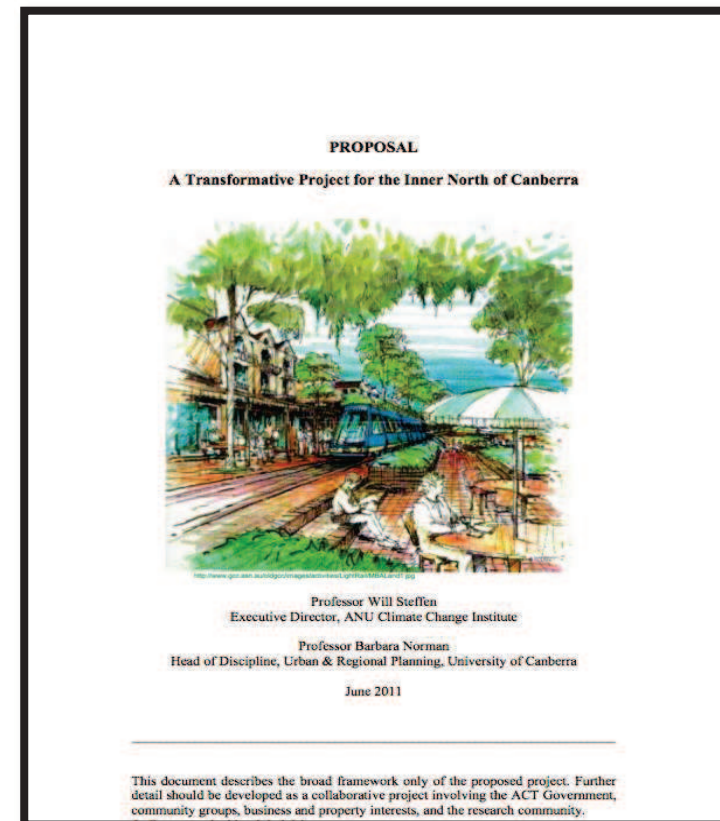
The contribution of CURF

- The co-production of knowledge jointly by the research community and practitioners through 'learning by doing' by undertaking:
 - **Synthesis reports** - to support visionary decision making
 - **Scenario studies** - to engage the community in possible futures
 - **Transformative ideas** – to jump start a new trajectory
- CURF is an evolving process of inquiry, innovation and connections

CURF supporting regional education



Engineering Sustainable Systems (ANU)



CURF Co-directors

Professor Will Steffen
Executive Director
ANU Climate Change Institute
The Australian National University

Professor Barbara Norman
Foundation Chair,
Urban and Regional Planning
University of Canberra



Left: Professor Will Steffen at the opening of the Australia China Climate Change Forum held at ANU in March 2011

Right: Professor Barbara Norman (left) discussing planning and climate change with Australian Prime Minister Julia Gillard 23 May 2011.

CURF website (www.curf.com.au)

The screenshot shows the CURF website in a Mozilla Firefox browser window. The browser's address bar displays the URL <http://dev.curf.com.au/home/>. The website's header features the CURF logo and the text "CANBERRA URBAN AND REGIONAL FUTURES". A search bar is located in the top right corner. On the left side, there is a vertical navigation menu with the following items: Home, About CURF, About our region, News & events, Research in the region, Education, Funding & career opportunities, Resources & links, and Contact us. Below the menu are the logos for the University of Canberra and Australian National University. The main content area includes a large aerial photograph of Canberra, a "Welcome" section with a description of CURF as a platform for information-sharing, and two news snippets: "Current research funding opportunities" and "CURF Inaugural Seminar 21 March 2011". The footer of the website states "Site by CREBIVE". The browser's taskbar at the bottom shows several open applications, including Microsoft Office and Mozilla Thunderbird, along with the system clock showing 4:53 PM.

Conclusions

- A developing national policy framework that links urban policy, regional development and local action on climate change adaptation
- Innovative regional responses that can 'make the connections to make a difference' at the local level
- CURF – a collaborative regional response by the University of Canberra and The Australian National University for more sustainable local futures