Canberra Urban and Regional Futures

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CURF’s inaugural year has been an outstanding success by any measure.

Beginning with the launch in November 2010, the program has received enthusiastic support by the two founding universities. Researchers from UC and the ANU have come on board, and we have generated a useful database of who’s doing what around the region. As always, we were impressed to learn that much more is going on than we originally thought!

Promoting education to serve the region was also a priority for CURF. Urban and Regional Planning at UC provides accredited professional degrees as part of a wide range of courses responding to the challenge of developing a more sustainable built environment. At the ANU, the Master of Climate Change provides in-depth training on one of the most complex issues to face humanity in the 21st century, and a companion Master of Energy Change degree is under development.

Our first year was full of events that engaged the public. The quarterly CURF seminar series was well attended, and generated several ongoing conversations and follow-up activities. The inaugural CURF regional symposium at Batemans Bay in August 2011 featured components designed to connect with policymakers, the business community and the public about the challenges facing the region.

Providing a strong evidence base for policy development is one of CURF’s central aims, and this requires strong and ongoing links with policymakers. During the year we built new relationships and strengthened existing ones with leaders, their staff, and public servants in the ACT Government, and with their counterparts in regional jurisdictions and in the federal Department of Regional Australia.

CURF’s overall vision is to connect research, education, policy linkage and public engagement to generate new knowledge aimed at solving complex urban and regional problems. In our first year we took the initial steps towards achieving that vision by launching two integrative research projects, one focused on the future of Canberra’s inner north and the other on the development of a spatial plan for the region.

Many other cities and regions in Australia and around the world face the same challenges, such as climate change, peak oil and demographic change, as the Canberra region does, and so building national and international connections has been important for CURF. In addition to a range of federal agencies, there have been active discussions with international groups including UN Habitat, the OECD, New York City Mayor’s Office, the Royal Town Planning Institute (London) and Renmin University (Beijing).

This record of interest, development and achievement has indeed shown that CURF is meeting its objective to provide a platform for researchers, policymakers and citizens to come together around the future of our city and our region.

Barbara Norman and Will Steffen
The Canberra Urban and Regional Futures (CURF) initiative was established in 2010 by the University of Canberra (UC) Urban & Regional Planning Discipline and the Australian National University (ANU) Climate Change Institute (CCI). CURF originated from the realisation that urbanisation, population pressures, the potential impacts of climate change and an awareness of the environmental and social impacts of urban growth were driving an increasing interest in research for evidence-based decision making on cities. The overall objective of this research is to find new pathways for more sustainable cities and regions.

CURF is jointly managed by its Foundation Partners - UC and the ANU, the ACT Government (through the ACT Chief Ministers Department) and the federal government (through the Department of Regional Australia, Regional Development and Local Government). Its current collaborating partners are the ACT Environment and Sustainable Development Directorate, CSIRO Ecosystem Sciences, and the School of Physical, Environmental and Mathematical Sciences, University of New South Wales at the Australian Defence Force Academy.

His Excellency, Michael Bryce, AM AE KStJ B Arch (Qld) Hon. DUniv (Canb and Qld) LFRAIA LFDIA FRSA, is the CURF Patron.

The CURF office is located in the Urban and Regional Planning Discipline at the University of Canberra in the Australian Capital Territory, Australia.

VISION

CURF supports the development of new pathways for a sustainable Canberra and its surrounding region through enhanced research, innovation and knowledge sharing on critical issues.

STRATEGY

The cornerstone of CURF is the ‘platform’ created to build the bridge between researchers within the academic community, and between researchers, policy makers and the communities in the Canberra region. CURF is thus a new concept that transcends existing institutional arrangements by building connections between research organisations, as well as between these, governmental bodies and communities. In developing this platform there is a commitment to build on the synergies of current
organisations, the added value being in making the connections and improving the communication.

A key element of the strategy is to build partnerships, particularly ones that cut across traditional boundaries – academic disciplines, sectors, and jurisdictions. CURF is designed to facilitate this through research, education, and conversation seminars, roundtables and workshops. Its design is open-ended, making it well placed to receive new ideas, returning to the underlying theme of ‘learning by doing’. The development of CURF has been largely based on the following seven 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

**CANBERRA & THE REGION**

The Canberra Region, sometimes called the Australian Capital Region (ACR) is a stunningly beautiful landscape that stretches from the Snowy Mountain Ranges that form part of the Great Dividing Range in South East Australia to the far south coast beaches in the south east corner of Australia.

The region includes the national capital, Canberra, the largest inland city in Australia. The national capital is surrounded by regional townships, local villages, agriculture lands with a diversity of land use (sheep, beef, vineyards, horticulture), large sections of public lands for forestry and open space and a range of rivers, estuaries, coast and marine environments. In this respect the region provides a ‘rich’ laboratory for examining sustainable solutions in a period of urbanisation and a changing climate.

Map of Canberra and the Region. Courtesy of ACT Planning and Land Authority (ACTPLA).
RESEARCH PRIORITIES

In developing its research portfolio, CURF places high priority on:

- Promoting and facilitating interdisciplinary research that integrates across institutions and areas of expertise;
- Linking researchers with practitioners and policymakers from the outset of the research so that academia, government, business and the community can work together in the co-production of knowledge to support sustainability;
- Carrying out synthesis and integration projects, drawing on the broad range of individual research projects profiled by CURF to address complex, trans-disciplinary issues facing Canberra and the region.

CURF-related research is organised into two categories: (i) Individual research projects, organised by theme, carried out by investigators from a number of research institutions in the region; and (ii) synthesis and integration projects carried out by CURF staff or research assistants.

RESEARCH THEMES AND PROJECTS

CURF has defined the following eight research themes for the Canberra region. There are inter-linkages between these research themes, and the thematic structure will evolve further as the research context develops over time.

- Climate Change and the Environment
- Infrastructure, Transport and Urban Form
- Sustainable Regions
- Healthy Communities
- Social and Cultural Heritage
- Economic Development
- Coastal and Marine Planning
- Policy, Governance and Institutions

There are a wide range of research projects within these eight themes. More information on them is found at: http://www.curf.com.au/researchintheregion/curflinkedresearchprojects/climatechangeandtheenvironment/

Dr Matthew Brookhouse from the Fenner School of Environment and Society researching the correlation between tree rings and climate change in the Kosciuszko National Parks. Photo ANU
SYNTHESIS AND INTEGRATION RESEARCH

CURF provides a long-term and evidence-based approach to decision-making by undertaking synthesis and integration research. This becomes even more important as evidence mounts that a "business-as-usual" approach – in which decisions are based on criteria used in the past – will not be effective, and in fact is becoming counterproductive, in dealing with the 21st century challenges.

Three key activities are carried under this approach:

- **Synthesis reports:** Providing syntheses of a large body of research is a critical feature in providing the evidence base to support visionary leadership and decision-making.
- **Scenario studies:** Building scenarios is an excellent way to engage the community in possible futures for their city and region.
- **Transformative ideas:** Often it is difficult to break out of incremental change. An important role for CURF is propose transformative ideas and projects that can break current, inadequate approaches to sustainability and jump-start a switch to a significant new trajectory in, say, urban form or transport or in regional development.

CURF is initially focusing on two such integrative programs of a transformative nature: (i) Canberra Inner North Transformative Project, and (ii) ACR Regional Spatial Plan.

CURF is an evolving process of inquiry, innovation and connections. The partnerships will be strengthened over time building on the themes and principles of CURF. It is intentionally an open-ended process hopefully making a lasting contribution to a more sustainable regional approach to managing urban settlement and responding to climate change.
EDUCATION

Although CURF is not an academic unit in its own right, it works closely with the relevant units in the University of Canberra and ANU to promote, facilitate and contribute to educational activities relating to urban and regional planning, climate change and sustainability.

COURSES

UC ACADEMIC PROGRAMS:
Bachelor, Graduate Diploma and Master of Urban and Regional Planning – a suite of professionally accredited urban and regional planning courses designed to provide the skills and knowledge to meet the challenges of planning and managing sustainable cities and regions in Australia and our region.

New cross-institutional unit:
Coastal Planning – an intensive week open to students at UC and ANU on the south coast examining the policy conflicts and challenges in implementing a more sustainable approach to coastal planning and management including planning for coastal urban growth and climate change.

ANU ACADEMIC PROGRAMS:
Department of Climate Change Short Course – a 3-day course on the science of climate change, the implications for policy development, and emerging strategies to address our vulnerability to climate change.

Master of Climate Change – a flexible degree program that can be tailored to individual interests and skills, ranging from fundamental science to the legal and policy dimensions of climate change.

Master of Energy Change (under development) – a broad-ranging degree structure including the physical sciences, engineering and economics.

SUMMER SCHOLARS

The two projects carried out by the scholars were:

PROJECT 1: MEETING THE ACT’S EMISSION REDUCTION TARGET (SHIHUI WANG)
The recent ongoing concern driven by climate change due to the greenhouse gas emissions has been continuously attracting peoples’ attention. As a result, the ACT Government has adopted a target to reduce greenhouse gas emissions by 40% of the 1990 levels by 2020. This report examined the viability of this reduction target by providing some detailed calculations and discussions. Three scenarios are presented with various reduction strategies and assumptions in terms of the degree of efficiency. In conclusion, the ACT’s reduction...
target can be achieved, and is very likely to be achieved earlier than 2020, if the plans proposed in this report are implemented as early as possible.

**PROJECT 2: TRANSFORMING THE TRANSPORT SYSTEM FOR SE AUSTRALIA [RICHARD REID AND RUBINA SINGH]**

This report examined two key improvements aimed at integrating the Sydney-Canberra-Melbourne transport corridor. First, the implementation of high-speed-rail in the existing corridor has been proposed to build an efficient and sustainable inter-city transport system. Second, a light rail system has also been proposed for the Canberra region to shift the focus from private vehicles to public modes of transport. A light rail system would complement the government’s initiatives to encourage walking, cycling and use of buses. The introduction of high-speed rail for the corridor, and light-rail in Canberra, are aimed at transforming the transport system sustainably, to enable the system to meet the challenges of climate change and oil vulnerability.

**PHD STUDENTS**

CURF encourages prospective PhD scholars interested in issues of urban and regional planning, climate change and sustainability to undertake their research projects at UC or ANU, and facilitates their linkage to appropriate academics and supervisory panels.
CURF Launch, from left to right: Tony Carmichael, Barbara Norman, Ian Chubb, Stephen Parker, Will Steffen, Andrew Cappie-Wood. Photo by Belinda Pratten.

CURF LAUNCH

CURF was formally launched in November 2010 jointly by the two Vice-Chancellors, Professors Stephen Parker (UC) and Ian Chubb (ANU). The launch followed a period of consultation and discussion among the research institutions and with the ACT and regional governments as well as the private sector and community organisations.

Read more about the CURF launch at the following link: http://www.curf.com.au/news-and-events/curfinthemedia

WEBSITE

The CURF website is a portal for information on urban and regional research activity, seminars, events and student involvement, especially in the context of climate change and sustainability.

A regional map showing the location of CURF-related research projects is a key element of the website. It is the primary site for collecting and accessing meta-information on research in the Canberra Region.

The site will be further developed over time, becoming the focal point for information sharing and a platform to engage with the regional community.

The CURF website can be found at: http://www.curf.com.au/

SEMINAR SERIES

CURF hosts a quarterly seminar series in order to profile key people in the research, policy and community sectors and to highlight key issues facing Canberra and the region. The seminars provide an opportunity for building contacts, collaboration and research opportunities.

The inaugural CURF seminar was given by Romily Madew, Chief Executive, Green Buildings Council of Australia in March 2011 at the University of Canberra. The title of Ms Madew’s presentation was, “Could Canberra become Australia’s most sustainable city?” The event attracted approximately 120 attendees including local, regional and federal government representatives, researchers as well as members from the regional community.

In May 2011, Professor Will Steffen from the ANU Climate Change Institute addressed the audience on the topic “Climate Change 2011: Risks and Response Options for Australia’s Cities and Region”. This presentation provided
the context for discussing the challenges that climate change poses for cities and regions in the 21st century.

The third seminar was held at ANU in August 2011 and featured Professor Barbara Norman, presenting on “Surf, Turf and CURF: a sustainable regional future”. A particular focus of the talk was on innovative regional responses in managing urban growth including planning for climate change.

The final seminar in the series, Creating a Sustainable Garden City was given by Hon. Simon Corbell, MLA and Minister for the Environment and Sustainable Development in October 2011 at UC. The Minister posed the questions: Are there benefits and opportunities presented by the polycentric nature of our Garden City? Can the Garden City be sustainable? What is the role of existing and new suburban development? And how can sustainability be achieved in a relatively low density, dispersed city like Canberra?

To learn more about CURF events see: http://www.curf.com.au/news-and-events/

CURF REGIONAL SYMPOSIUM

The CURF Regional Symposium was held at the Australian National University and Bateman’s Bay on 25-26 August 2011. Local government office holders and officials, community members, university researchers and local businesses worked together during the Symposium on the challenges of urbanisation, population pressures, the impacts of climate change and the environmental and social impacts of urban growth for the south east region of Australia. The Inaugural Regional Symposium 2011 was sponsored by the Commonwealth Department of Regional Australia, Regional Development and Local Government.

The Symposium arrived at a number of outcomes, the most important of which was the need to do more to understand the impacts, challenges and opportunities offered by climate change at a regional and local government level. There was a strong perception that effective action required multilateral, integrated linkages in the region, going beyond the existing incremental and bilateral arrangements. To address the challenges identified, there needs to be a stronger focus on regional governance, strategic planning, service planning, and spatial planning and infrastructure.

CURF has had a very productive and rewarding first year. The emphasis was on the formulation of the CURF vision and strategy, the building of relationships in Canberra and the region as well as nationally and internationally, and the launch of a number of research, education and communication activities. Next year will be one of consolidation, building on the excellent start of 2011.

ENGAGEMENT, OUTREACH AND FACILITATION

WEBSITE
The coming year will see a continuous upgrading of the website as the main tool for outreach, with a high priority on building a detailed regional profile as an important source of information for all those working in the region. High priority data sets include climate projections for the ACR, maps showing the distribution of important ecosystem services for the region, and spatial planning documents at the ACT and regional levels.

COMMUNICATION
Getting the CURF message out to a wide range of audiences was a major achievement of our inaugural year. The communication effort will be continued in 2012, under the guidance of the CURF Executive Officer with the support of the UC Media and Communications unit and the ANU Climate Change Institute communication team.

CURF SEMINARS
The four seminars held in 2011 set a high standard, and we aim to follow this effort with four more high profile, high quality seminars on timely issues of planning, sustainability and climate change.

ROUNDTABLE AT GOVERNMENT HOUSE
At the invitation of the CURF Patron, His Excellency Michael Bryce AM, CURF will co-host a roundtable at Government House on sustainable cities, with a focus on the role of planning in meeting the economic, social and environmental challenges of urban areas in the 21st century.

RESEARCH AND EDUCATION

RESEARCH PROJECTS
Building on the initial database of individual research projects in the region, our aim is to expand this database in 2012 to include projects from other research organisations in the region as well as enhance the coverage of UC and ANU work. In addition, linking relevant research projects to the policy and management communities is a high priority.
ADAPTATION RESEARCH
Climate adaptation research is rapidly expanding with the success of several grant applications to carry out new adaptation research in the region, and the formation of the Canberra Adaptation Network to share expertise and experience, with membership across the public, private and research sectors.

EDUCATION
A number of educational opportunities already exist at UC and ANU, as described earlier. An immediate challenge is to raise awareness of these opportunities throughout the region and to suggest modifications to existing course, as appropriate, to enhance their relevance to regional issues.

POLICY LIAISON
ACT GOVERNMENT
CURF has established an excellent working relationship with the ACT Government’s Environment and Sustainable Development Directorate, and will work with ESDD through 2012 and beyond to provide a link between planning processes and the community. An early focus for 2012 is to facilitate a consultation process throughout the region on the draft ACT Planning Strategy.

REGIONAL
Building on the very successful regional symposium in Batemans Bay and Canberra in 2011, CURF aims to strengthen regional engagement throughout the year. Development of the regional spatial plan will provide an excellent overarching framework within which to coordinate the regional effort towards a tangible outcome. Collaboration with the Commonwealth Department of Regional Australia, as well as with local councils and RDAs, is a central component of the strategy. CURF will actively engage with regional organisations including SEROC (South East Regional Organization of Councils), the Regional Leaders Forum, the relevant Regional Development Australia Committees and other relevant regional bodies. During 2012, CURF also plans to hold at least one CURF seminar in the region.

ACT CLIMATE CHANGE COUNCIL
This newly formed body aims to coordinate discussion and provide advice to the ACT Government on the path forward to achieve the Territory’s emission reduction targets. CURF plays a strong role on the Council, with Prof Barbara Norman as Chair and Prof Will Steffen as a member.
MANAGING PARTNERS

PROFESSOR BARBARA NORMAN
MANAGING PARTNER AND CO-DIRECTOR
Barbara is the Foundation Chair and Head of Discipline, Urban and Regional Planning, University of Canberra. She is a Life Fellow and past national president of the Planning Institute of Australia, an honorary member of the Royal Town Planning Institute (UK). Her research and teaching interests include urban and regional planning, sustainable coastal planning, climate change adaptation and urban governance. Barbara is Chair, ACT Climate Change Council, Deputy Chair, Regional Development Australia Fund, Regional Development Australia ACT, a member of the national Coastal and Climate Change Council and the national stakeholder advisory group to CSIRO’s Climate Adaptation Flagship.

PROFESSOR WILL STEFFEN
MANAGING PARTNER AND CO-DIRECTOR
Will is Executive Director of the ANU Climate Change Institute, and serves as Climate Commissioner, Australian Government. He has a long history in international global change research, spanning 20 years. Prior to taking up the CCI Directorship in 2008, Will was the inaugural director of the ANU Fenner School of Environment and Society. Prof Steffen’s research interests span a broad range within the field of sustainability and Earth System science, with an emphasis on the science of climate change and on sustainability in urban systems.

MR ANDREW CAPPIE-WOOD
ANDREW is Head of the ACT Public Service and Director-General of the Chief Minister and Cabinet Directorate. Prior to joining the ACT public service in June 2007, he spent over ten years as Director-General of several NSW Government departments, including the Department of Education & Training and the Department of Housing. He also established the NSW Department of Ageing, Disability and Homecare. Andrew has also served on a number of Ministerial Councils and has chaired or been a member of a number of national and state companies and boards.

MR TONY CARMICHAEL
Tony is a First Assistant Secretary in the Department of Regional Australia, Regional Development and Local Government. He has undergraduate qualifications in urban and regional planning and a Master’s degree in social policy and planning. He led the Department of Infrastructure’s substantial role in the delivery of the Nation Building – Economic Stimulus Plan through the global financial crisis that delivered road, rail and port infrastructure through state governments and community infrastructure through local government.
THE CURF TEAM

CURF EXECUTIVE OFFICER
MS TRACY JIN CUI
Tracy is a graduate student at the University of New South Wales. Her study focuses on using geospatial technologies to explore urban green space and socioeconomics in Canberra for sustainable urban development.

UNIVERSITY OF CANBERRA
DR HITOMI NAKANISHI
Hitomi is an Assistant Professor of Urban Planning at the University of Canberra. Her background is in urban and regional planning and transport, and her research focuses on urban and regional sustainability and climate change adaptation.

DR RICHARD HU
Richard is an Assistant Professor of Urban Planning at University of Canberra. He has cross-national academic and professional experience in Australia, China and the United States.

DR KATE SULLIVAN
Kate is a Senior Research Fellow in Urban and Regional Planning at the University of Canberra. She has an interdisciplinary background in coastal planning, climate adaptation, environmental law and cultural theory, and her current research focuses on spatial planning for bushfire and disaster risk management, as well as climate change adaptation and coastal planning.

DR BRIAN WEIR
Brian is a PhD candidate at the University of Canberra. His thesis concerns policy responses to climate change in the Canberra tourism industry.

THE AUSTRALIAN NATIONAL UNIVERSITY
DR BOB WEBB
Bob came to the ANU Climate Change Institute in 2009 after a senior executive career in the public and private sectors including Deputy Commissioner roles in the ATO, and General Manager positions in the Australian Trade Commission and in the national and international resource and manufacturing sectors.

DR LANCE HEATH
Lance is Project and Business Development Manager for the ANU Climate Change Institute. He has 15 years experience in water resource management, international research collaboration and technology commercialisation.

MS ROZ SMITH
Roz is the Communications Manager at the ANU Climate Change Institute. At ANU she has also worked at the Centre for Resource and Environmental Studies, The Fenner School of Environment and Society, and the ANU Institute for Environment.

MS COLETTE GILMOUR
Colette is the project manager at the ANU Climate Change Institute for organising high level event and guest lecturers, and was responsible for the organisation of the 2011 Australia-China Climate Change Forum. She also provides project and administrative support to CURF.