

## Packaging innovations to sustain River Murray communities

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### Abstract

Project management and procedural guides on governing for a sustainable community are being piloted by three River Murray councils. Innovations incorporated into the integrated assessment and response phases of the process are identified, along with some preliminary observations on their application. The assessment phase considers change in the quantitative, qualitative, functional, and spatial characteristics of a local community's human, natural, and built capital. The capacity building task in rural Australia has been interpreted elsewhere as improving the sector's capital stocks. With its emphasis on capital accounting, adoption or adaptation of the pilot's design to other localities in the sector can contribute to that task.

### Media summary

Growing capital is the capacity building task for rural Australia. Relevant innovations are identified. Their testing by three River Murray councils is considered.

### Key words

Integrated assessment, participatory methods, adapting innovations.

### Introduction

The task of capacity building in rural Australia has been identified as *improving the stock of human, social, financial, physical and natural capital in an ethically defensible way* (McAdam *et al* 2004:2). Knowing whether rural Australia's stock of capital is improving, remaining steady, or declining will be one way of evaluating the capacity building efforts of individuals and organisations.

Capital accounting is one among many innovations presently guiding decisions of three local governments on the River Murray. Each of the three councils has declared a commitment in some form to governing for sustainable development, as have many other policy makers in public and private sectors throughout the world. How do they honour such commitments? Which among many processes advocated across the domains of science seem usable at the grassroots? How can they be packaged for making the transition to a sustainable development path – a place where the net worth of changes in capital stocks is not declining over time (Bunnell 2002). Effective communication will provide the means for answering such questions.

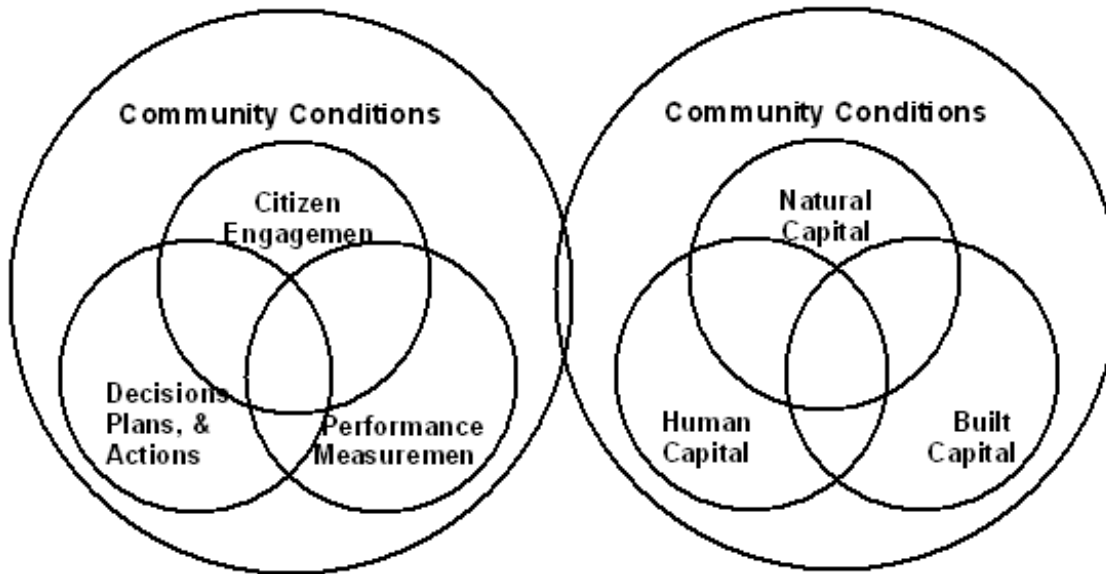
This paper identifies key innovations influencing design of project management and procedural guides being piloted by the three River Murray councils. Some preliminary observations from their use by the target audience are then offered, including identifying some possible futures.

### Considering innovations for sustaining communities

#### ***Diffusing innovations in communities of practice, and in communities of place***

Building capacity in rural Australia through diffusion of ideas on, say, measuring change in capital stocks will need interpersonal channels of communication in two forms. One will be through networks building communities of practice. The other will be through networks within communities

of place. The International Institute for Sustainable Development (IISD) informs on managing and evaluating knowledge networks for sustainable development based on some seven years of study (IISD undated). Extensive experience by CGIAR workers sharing and adapting ideas with large numbers of rice producers has been tested in other contexts and provides a guide to fostering technological change at the grassroots (Douthwaite 2002). The principal local government acts of Australia's states and territories require councils engage their communities in decision-making, consistent with global trends towards new public management. A model of effective governance for sustainability (Figure 1) sees local communities of learning built from evaluating the decisions, plans, and actions taken by policy makers in public and private organisations as they respond to change in community conditions (Epstein 2005).



**Figure 1: Model of Effective Governance for Sustainability (Adapted from Epstein 2005)**

#### *Innovations in participatory methods of Integrated Assessment (IA)*

IA has its origins in the Club of Rome Report of the 1970s. Its most recent form sees policy decisions being informed by combining scientific and local knowledge in arenas recognising uncertainty and risk (Rotmans and Van Asselt 2000). A model built on three capital domains - SoCiety, ENvironment, and Economy (SCENE) - sees indicators in each domain as having qualitative, functional, and spatial as well as quantitative characteristics. The SCENE model thus accommodates assessing change in capital stocks at differing spatial scales of decision-making. First piloted in the 1990s, SCENE has been considered as a communication and modelling device at city, provincial, national (Grosskurth and Rotmans 2005), multi-national (Knickel and Kok 2003), and global resource (Stehl and Loorbach 2003) scales.

#### ***National accounting innovations***

Changes to the System of National Accounts, combined with evolving a system for Integrated Environmental and Economic Accounting (UN *et al*, 2003), are other innovations for assessing change in rural Australia's capital. They do so in part by illustrating the capital approach to implementing sustainable development policy. More importantly they also provide the means to connect policy instruments across all scales of decision-making. They do so through establishing consistent, comparable, and credible classifications of assets and activities. Indeed, national accounting depends on households, businesses, and all spheres of government providing data on capital stocks. A best practice submission from Eurobodalla Shire Council (ESC) illustrates how it combines providing SEEA data with assessing change in its jurisdiction's human, built, and natural environments (ESC 2003). One process thus informs local as well as national decisions. Using population census data as proxies to estimate the availability of social capital in Canada's rural communities (Reimer 2004) is another example of using macro-accounting practices at micro-scale.

#### ***Innovations in decision support software***

Integrating responses by decision makers to changes in community conditions is likely to be easier to achieve than integrating assessments. In 1978 scientists from four universities facilitated dialogue with state agencies, local governments and NGOs on managing the resources of the Upper Darling Basin (Osborn 1978). That early example on applying participatory IA methods took place over two days in Goondiwindi. Participants used decision support software to map the inter-relationships they perceived between social, economic, and environmental policy objectives held by the Basin's stakeholders. Work on dealing with complexity in policy formation and social planning (Warfield 1976) created the software's design - Interpretive Structural Modelling (ISM). The tool's relevance to resolving complexities in grassroots decision-making has been demonstrated or argued in many contexts since that time. Examples include designing communities of learning (Mary Parker Follett Foundation 2002), and as an integrating mechanism in sustainability impact assessment (Boulanger undated).

### ***Innovations in information design***

Developing decision support software during the 1970s was one innovation for dealing with complexity in policy formation. Another innovation of the period was to consider the paragraph as cumbersome, and seek new ways and means of communicating and analysing information (Horn 1999). Based on structured writing, a guide for engaging communities in managing forest resources (Voegelé and Crocker 1998) illustrates innovations from cognitive science for managing Australia's rural resources.

### **The 'Towards Accountable and Sustainable Communities' (TASC) Project**

In 2004 the University of Southern Queensland approved TASC as an action research project. Learning how to manage sustainability transition at the local government/local community scale of decision-making is its purpose. The project brings together a core group of researchers with interests and experiences in what is described here as 'participatory methods in IA'. During 2004 the researchers used their networks and contacts to seek expressions of interest from eastern State local governments in a pilot study. The method proposed builds on the 'Constant Capital Rule' of tracking progress towards sustainable development. An exploratory workshop was held with the three River Murray councils in November 2004. It led to the commissioning of the pilot study reported here.

The study recognises the significance of the nexus between assessing change in community condition with forming responses to such changes. The learning by participating councils and by researchers is proceeding therefore through two distinct phases:

1. Assessing change in capital stocks, and drafting response statements to such changes;
2. Using ISM tools to structure perceived inter-relationships between response statements.

Guides on managing the pilot study; on procedures to be followed in assessing change in a local community's natural, built, and human capital stocks; and on conducting stakeholder dialogue to structure relationships between response statements were distributed in April 2005. Spreadsheet workbooks were also distributed at that time. The row headings of capital stock indicators are selected from reference classifications on produced assets (built capital), population and housing census (human capital), and land use (natural capital) maintained by the UN Statistical Commission. Column headings in the workbooks are the 'quantity, quality, function, and space' characteristics from the SCENE model, and cover the 1996-2001 interval. Assessors judge and record  $\dot{}$ , or  $\ddot{}$ , or  $\hat{}$ , as the direction of change for each stock indicator.

Assessors in each of the three local governments anticipate completing their Phase 1 tasks in September 2005. Researchers and participants have scheduled Phase 2 tasks for October 2005.

### **Observations and possible futures**

Qualitative assessments of change in capital stocks demand less resources than quantitative assessments, and this difference has been significant in conducting this study. Accessing small area statistics and other data is difficult, time-consuming, and the cost prohibitive in a grassroots pilot.

The SCENE model, however, places more value on qualitative assessments, and local governments are used to scoring a stock's condition through applying asset management principles. Any difficulties confronted in quantitative assessment are not expected to impede progress towards a mapping of responses by stakeholders, and therefore to a proper integration of governance objectives for a sustainable community.

The three pilot councils will establish at the end of 2005 their positions on moving to a 2<sup>nd</sup>-Round learning cycle, with their decisions influencing the prospect of diffusing the TASC project management and procedural guides to other local governments.

The tyranny of distance limits interpersonal communication of ideas across communities of practice and communities of place, slowing the rate of diffusing innovations. TASC researchers are therefore working with colleagues at the Centre for Public Agency Sustainability Reporting on establishing or increasing dialogue among agencies experimenting with many ways of assessing change in community condition or organisational performance.

Methods being piloted through the TASC Project reflect many innovations relevant to the task of growing capital to manage Australia's rural resources. Based in part on international developments in Integrated Environmental and Economic Accounting at macro scale, the methods being tested can make vertical integration between decision-making scales a reality. Demonstrating these capacities across scales within a regional setting should be the next step toward learning how to sustain communities of place.

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