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For example:
Anderson, L., van Klinken, R. D., and Shepherd, D. (2008). Aerially surveying Mesquite *(Prosopis* spp.) in the Pilbara. *In*: 'A Climate of Change in the Rangelands. Proceedings of the 15th Australian Rangeland Society Biennial Conference'. (Ed. D. Orr) 4 pages. (Australian Rangeland Society: Australia).

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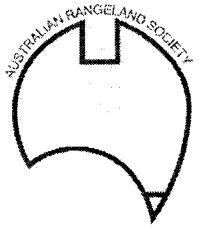

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COMMUNITY ENGAGEMENT IN NATURAL RESOURCE MANAGEMENT – CAPACITY AUDITING IN THE SA ARID LANDS

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ABSTRACT

The devolution of responsibility for natural resource management to regional communities via the regional delivery model means there is an increased focus on the capacity of communities within the 57 NRM regions across Australia to undertake these functions. How can this capacity be gauged and how does this link with regional NRM plans and impact the projects proposed within them? This study aims to identify and measure the key capacities for communities involved in NRM, and thereby enhance the capacity of participants to deliver or adopt NRM programs.

The project builds on work undertaken by the Department of Primary Industries and Resources SA, The University of SA and Rural Solutions SA by further developing and enhancing an electronic capacity auditing tool and reconfiguring it for specific application in the NRM context. The basis of the new tool is a series of statements to which participants respond collectively and through consensus using a series of Likert scales, which measure perceived capacity strength and importance and the confidence with which participants are responding. Preliminary results indicate some perceived differences in capacity strength between institutional and local community tiers. These differences are supported by participant comments and project team observations. The results can be used to identify and prioritise capacity building projects which, through the action research approach, are owned by a broad spectrum of the NRM community.

INTRODUCTION

The peak NRM body for the South Australian Arid Lands (SAAL) NRM Region is the SAAL NRM Board, comprising community members and state and federal agency staff. The Board is tasked with managing the natural resources within the region and one of its priorities has been to develop a structure within which to engage its regional communities. As part of the 2005-6 NRM Investment Strategy, the SAAL NRM Board sought to assess its regional capacity to deliver its NRM Programs. Together with the SA Department of Water, Land and Biodiversity Conservation (DWLBC) and the SA Department of Primary Industries (PIRSA), the Board commissioned a project team comprising staff from Rural Solutions SA (RSSA) and DWLBC to develop an integrated tool for assessing regional NRM capacity and simultaneously build capacity for achieving NRM change within the region.

This paper presents a project that developed an electronic NRM Community Capacity Assessment tool (the tool) to assist communities to rate the strength of their regional capacity to deliver NRM programs. The tool:

1) Identifies nine elements of capacity that span across four types of capital
2) Operationalises the elements of capacity using 61 statements and a set of social indicators linked to a four-point Likert scale

3) Generates both graphs and matrices to show the relative strength and importance of capacities as perceived by different community tiers, as well as how confident community groups were in responding to each capacity.

The current project focuses on the NRM sector and has modified the capacities and social indicators of a capacity assessment tool developed for primary industries (Cock *et al.* 2006) in light of recent work by Cavaye (2005) and Fenton (2005). Cavaye developed a capacity assessment methodology for NRM regional arrangements in Queensland and Fenton developed a framework for monitoring and evaluating the social and institutional foundations of the Natural Heritage Trust (NHT) and National Action Plan for Salinity and Water Quality (NAPSWQ).

While Fenton's and Cavaye's work systematically assess NRM community capacity at the institutional (i.e., NRM Board, State and Federal Government) and organisational (e.g., landcare group) levels, there has been very little development to date of social indicators for NRM at the individual (e.g., land manager) level. The purpose of this work is to develop a integrated tool for assessing capacity at multiple community tiers (levels) in the NRM sector by augmenting Cock *et al.'s* (2006) work which endeavours to build capacity while assessing it using a participatory action research process.

METHODOLOGY

Sampling

The tool used a participatory action research design involving the SAAL NRM Board (at the institutional tier) and six community groups which represent organisations and land managers in the SAAL NRM region. While the SAAL NRM Region encompasses an area of approximately 50% of SA, the region is sparsely populated, with just on 2% of the total SA population residing within it (ABS 2004). For more densely populated NRM regions, the scope exists for separating the organisational and individual community tier.

The SAAL NRM Board constituted the 10 board members appointed by the Minister and this group was representative of the institutional tier. Community groups were selected across the organisational and individual tiers. The project team selected participants who represented different organisations and land use interests. Each group ($n \approx 15$) was invited to a capacity assessment workshop (4 hours) facilitated by the project team. All responses were directly entered into the electronic tool for later analysis.

Auditing tool and process

The tool comprises a MS Access database containing nine capacities derived from research by rural sociologists (Webb & Curtis 2002; Fenton 2005; Cavaye 2005):

1) Culture
2) Governance
3) Networks and relationships
4) Strategic direction
5) Leadership
6) Human resources
7) Financial resources
8) Physical resources
9) Knowledge resources

Each capacity is operationalised using a set of statements, which were individually presented in an electronic form and projected onto a screen for participants. The group was asked to respond to each statement on a Likert scale from "1 = Strongly Disagree" to "4 = Strongly Agree". All responses were reached through consensus – facilitation was important to ensure equal participation by all group members. Responses to each statement were guided by a series of indicators presented on a likert scale from "1 = Strong Capacity" to "4 = Needs Strengthening". Each audit group was also asked to rate the importance of each statement relative to delivering or adopting NRM within their region, as well as how confident they were in responding to the statement.

Reporting Outputs

The tool has in-built reporting features which enable aggregation of capacity strength, importance and confidence responses made by the various respondent groups. Each capacity consists of a number of statements. For each community group, responses to statements were averaged and the result used to obtain a mean capacity strength score. The mean capacity strength score for each community group was then aggregated to obtain a total mean capacity for groups within a particular community tier (e.g., institutional tier). This process was repeated for the importance and confidence scores.

The aggregated capacity strength scores were then graphed to show the differences in capacity as perceived by: 1) institutional tier; and 2) the organisational and individual tier (these tiers were grouped together due to the low regional population size). Matrices were generated to show the relationship between the capacity strength, capacity importance and capacity confidence for each capacity. Each matrix was converted into action blocks ranging from "No Action" through to "No. 1 Priority" in order to both identify and prioritise capacity building programs.

FINDINGS

At the time of writing, the project is incomplete and results have not been correlated nor reported to project proponents. Data presented below represent possible outputs of the tool and are included for illustrative purposes only.

The mock data (Fig. I) indicate that the Board (institutional tier) perceives it has strong leadership capacity but weak financial resources to implement its NRM programs. Comparisons can be made between community tier perceptions. The organisational and individual tier perceived the Board had more financial resources than the Board itself perceived.

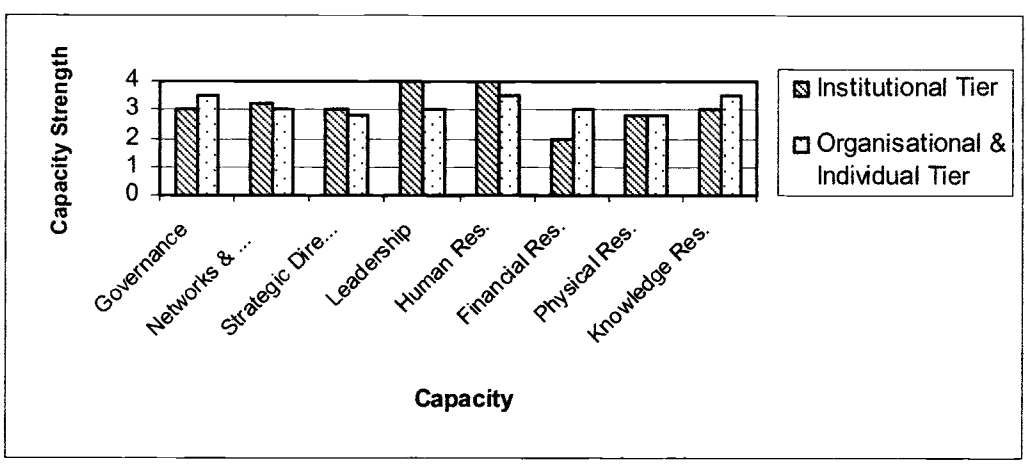

Figure 1: NRM Board's Capacity as perceived by two community tiers (mock data)

To improve internal validity, the empirical data can be triangulated with participant comments and project team observations. For example, the SAAL NRM Board noted that their strategic capacity was lower than other capacities because it has not yet developed its comprehensive NRM plan. The following project team observations reinforced the importance of group discussion.

Participants commented that the audit process was a platform for generating new information and was an aid to providing a comprehensible and specific understanding of what the Board wants to achieve. This was particularly so, given that a number of the issues raised had not been considered by the group as relevant to natural resource management prior to the audit. The social interaction also provides a means for discussing peripheral NRM issues and/or other issues relevant to the community.

CONCLUSION

This paper has outlined a NRM community capacity assessment tool, which has the power to assess institutional, organisational and individual perception of NRM capacities within a geographical region. Participant evaluation of the process has been generally positive and affirms that they are able to articulate their strengths and weaknesses relative to their capacity to deliver or adopt NRM programs.

Importantly, the presentation of the graphs and matrices provides a mechanism for prioritising investment in areas for capacity development, which has been determined by the participants themselves. The project team believes that community ownership of the process will inspire local involvement in NRM programs.

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