

Exploring needs to build capacity for Natural Resource Management in the South Coast region of Western Australia

July 2007

Compiled by: Eloise Seymour^{1,3}, Sally Marsh², David Pannell^{2,3}, Anna Ridley^{1,3},
Roger Wilkinson^{1,3}

CVCB Project No UWA-92A

¹Department of Primary Industries, Victoria

²University of Western Australia

³CRC for Plant-Based Management of Dryland Salinity



THE UNIVERSITY OF
WESTERN AUSTRALIA



CRC FOR
PLANT ~ BASED
MANAGEMENT
OF DRYLAND
SALINITY



Executive summary

Small groups of regional natural resource management (NRM) stakeholders in the South Coast region of Western Australia were interviewed for a qualitative research project (funded by the Cooperative Venture for Capacity Building) between February and April 2007. The research aimed to understand the capacity-building needs of South Coast Natural Resource Management (SCNRM and formerly South Coast Regional Initiative Planning Team or SCRIPT) for technical analysis and decision-making and to understand the capacities of agencies and groups within the region to develop and deliver capacity-building for land managers. Interview groups included those within the SCNRM itself (staff and various working groups) and the partner agencies and groups (forestry, natural resource management officers, Department of Agriculture and Food WA, Department of Environment and Conservation, Department of Water, a landholder group, indigenous group, local government and a mixed stakeholder group of other interested NRM stakeholders (including education and small business sectors).

The study highlighted a number of key areas that are important for increasing the capacity of SCNRM for technical analysis and decision-making. These included the abilities to: obtain and use socio-economic information, integrate different types of information, address research gaps, obtain and utilise State guidance and support and apply effective evaluation processes.

Effective collaboration and partnerships for regional NRM on the South Coast was a major strength identified by this study. SCNRM have been a very effective facilitator of partnerships with agencies and groups and have also shown a very positive attitude to community skills and knowledge. The relatively small size of the organisation has been positive for partnerships and communication but challenging in terms of the human resources required to manage large budgets and multiple projects. Challenges for NRM capacity-building in the region include management and support for NRM staff in the region, the need to better communicate the processes for funding prioritisation and rationale for incentive payments.

The following recommendations are made for SCNRM:

- That SCNRM investigate the potential to make greater use of economic and social information in NRM decision-making.
- That SCNRM seek the involvement of economists and social scientists in their working group structure.
- SCNRM review and assess their Working Group structure and processes, paying particular attention to problems that are apparent in the timeliness of project implementation decisions and the workload on individual group members.
- SCNRM develop a succession planning process for working groups, and consider the feasibility of a set timeframe for length of service on working groups.
- SCNRM consider the possibility of training for working group members, possibly at the point where new members join.
- SCNRM staff and key working group members undertake formal training in evaluation.
- At least once/year, or at key times when major pieces of work are complete, senior SCNRM staff and key working group members to meet and discuss outcomes, reflect on lessons learnt, and areas for improvement.

- That SCNRM establishes and continuously evaluates better supervisory and mentoring support for NRMOs in the region, and initiates processes to ensure good communication and information sharing between NRMOs.
- SCNRM to communicate clearly to landholders and implementation staff regarding (a) the rationale behind and processes for prioritisation of funding, (b) the rationale for payment of incentives within this system, and (c) the role of technology development, including participatory R&D, to address the protection of dispersed assets.
- That SCNRM use community consultation strategically and judiciously. For each significant strategic piece of work, a plan for appropriate community consultation should be developed. Community perspectives should be integrated with expert technical knowledge, while maintaining a focus on achievement of NRM outcomes.

The following recommendations are made for government (State and Commonwealth):

- Governments to review reporting processes and planning timelines with a view to reducing barriers to good integration by catchment councils.
- In consultation with catchment management organisations (CMOs), the State umbrella organisation for CMOs develop guidelines for CMOs along the line of those developed in NSW for processes such as collection and use of information, community engagement, and monitoring and evaluation.
- That DoW and DEC at the state level recognise the importance of effective engagement with catchment councils and to develop guidelines at the State level to promote a standard engagement policy for regional offices of their agencies.
- Governments to provide stronger guidance on evaluation processes, going beyond activities and budgets to include NRM outcomes and learning from experience.

Acknowledgments

The research team is grateful to all participants for sharing their views and knowledge about regional NRM in the South Coast region. We also would like to acknowledge the funders and in-kind contributors of the project: Cooperative Venture for Capacity Building, CRC for Plant-Based Management of Dryland Salinity, the University of WA, Department of Primary Industries (Victoria) and South Coast Natural Resource Management (SCNRM).

Acronyms

CALM	Conservation and Land Management
CMO	Catchment management organisation
CVCB	Cooperative Venture for Capacity Building
DAFWA	Department of Agriculture and Food Western Australia
DEC	Department of Environment and Conservation
DoW	Department of Water
ERF	Esperance Regional Forum
FCWG	Fostering Change Working Group
FPC	Forest Products Commission
GRDC	Grains Research and Development Corporation
IWG	Implementation Working Group
LCDC	Land Conservation District Committee
MATs	Management Action Targets
MSG	Mixed Stakeholder Group
MWG	Monitoring Working Group
NAP	National Action Plan (for Salinity and Water Quality)
NHT	Natural Heritage Trust
NRM	Natural Resource Management
NRMOs	Natural Resource Management Officers
PWG	Planning Working Group
QA	Quality Assurance
RCTs	Resource Condition Targets
R&D	Research and Development
SCMG	South Coast Management Group
SCRIPT	South Coast Regional Initiative Planning Team
SCNRM	South Coast Natural Resource Management
SEFF	South East Forests Foundation
SIF3	Salinity Investment Framework 3
WANTFA	Western Australian No Till Farmers Association

Citation for this report

Seymour, E., Marsh, S., Pannell, D., Ridley, A., and Wilkinson, R. (2007). "Exploring needs to build capacity for Natural Resource Management in the South Coast region of Western Australia", SIF3 Working Paper 0703, Future Farm Industries CRC, Perth. URL:

<http://cyllene.uwa.edu.au/~dpannell/sif30703.pdf>

Table of contents

Introduction and background	6
Methods	8
Results Part A: Capacity-building needs within SCRIPT	
Scientific knowledge-base	10
Ability of SCRIPT to integrate different types of information	11
Use of economic and social information in NRM decision-making	12
Dealing with research gaps	12
Assessing the quality of technical information	13
Incorporation of R&D into decision-making	13
SCRIPT working group structure and decision-making	15
Representativeness of the decision-making process	16
Evaluation processes used by SCRIPT	17
Part A discussion and recommendations	18
Results Part B: Capacity issues for service providers and partners of SCRIPT	
Collaboration and partnerships between stakeholders	23
Institutional arrangements and governance	27
Availability of resources	28
Consultation	30
Communication	32
Consideration of community values, motivation and capacity for works	33
Part B discussion and recommendations	34
References	37
Appendix 1 Interview questions	38

Introduction

This social research project (funded by the Cooperative Venture for Capacity Building or CVCB) has a focus on capacity building within regional natural resource management (NRM) organisations to achieve better NRM outcomes. As part of this research project, a series of small group interviews were carried out in the South Coast (SCNRM) region of Western Australia (between February and April 2007) to identify capacity needs of this regional NRM body and its partners. The research involved the regional NRM body, South Coast Natural Resource Management (SCNRM), as well as its partnership organisations and groups that play a major role in regional NRM such as State government agencies, local community groups and local government.

The research reported here had two main aims:

1. To understand and document needs for capacity-building within regional NRM organisations themselves in relation to technical analysis and decision analysis needs.
2. To understand and document capacities of organisations and agencies within regions to develop and deliver the desired capacity-building activities for land managers.

The CVCB project is integrated with the SIF3 (Salinity Investment Framework 3) project to provide a 'complete research picture' that combines bio-physical and socio-economic research (see www.sif3.org).

What is capacity-building?

'Capacity building', in the context of NRM, describes a range of activities by which individuals, groups and organisations improve their ability to achieve sustainable NRM. In this study we focus on the activities of the regional NRM organisation (also described here as a catchment management organisation, or CMO) and its partner agencies and groups.

The types of 'capacity' needed by individuals and organisations working in NRM can include awareness, skills, knowledge, motivation, commitment, confidence, access to networks, technical options and funds. Capacity is needed across a range of 'actors' in regional NRM, such as regional bodies, Landcare groups, industry and government agencies (see <http://www.rirdc.gov.au/capacitybuilding/about.html>).

The *results* of effective capacity building, and the goals for regional NRM include: enabling communities to be responsive to change; improving stocks of capital (human, social, financial, environmental); gaining community ownership of regional NRM; and enabling community members to become independent learners (Macadam et al. 2004, 2005).

The themes for effective capacity building, as they relate to this study, can be described as follows: knowledge, skills and information; collaboration; inclusive institutional arrangements; equitable availability of resources; communication; consideration of community values and capacity to carry out on-ground works; and adaptive management.

Background

The South Coast (SCNRM) region

The study area, the South Coast region of WA, comprises 5.4 million ha. The area has a particularly rich biodiversity and represents more than 20% of the State's floristic

biodiversity. It is one of the world's 25 biodiversity hot-spots (SCRIPT 2004). Agricultural land comprises 70% of the region with increasing areas of plantation and farm forestry. The region has two main centres, Albany and Esperance, which are 480 kilometres distant, with Albany and its region having the larger population. There are growing peri-urban populations around both Albany and Esperance, and both towns and the south coast region in general are popular tourist destinations. The population of 57,399 mostly live in the Albany and Esperance shires, with around 44.5% of the population in rural areas (ABS 2001). For more information about the region see: www.script.asn.au.

South Coast Natural Resource Management

South Coast Natural Resource Management (SCNRM) was established in 1994 as a small regional partnership with less than 5 staff. Over the last 13 years SCNRM has grown into a larger organisation of around 25 staff with strong partnerships with government agencies, sub-regional groups, industry and many other sectors of the community. The increased number of staff has been in response to the need to manage and report on a large budget; with around \$74 million of investment in the NRM Strategy and Investment Plan (www.script.asn.au).

The South Coast Regional Strategy for NRM and Investment Plan covers the planning and delivery of funding from the National Action Plan for Salinity and Water Quality (NAP) and Natural Heritage Trust (NHT) funding between the years 2004 to 2009. Building on past NRM efforts in the region has been an important feature. The NRM Strategy was reportedly based on the 'Southern Prospects' plan, 6 subregional land and water strategies and 18 months of community consultation (SCRIPT 2004).

SCNRM has a complex structure of working groups and committees. This structure was designed to allow for wide representation across the community of many different stakeholders and cross-fertilisation between groups. The SCNRM council comprises government agency staff (7), community members (7), local government (2) and representatives from sub-regional groups (6). There is also a regional strategy sub-committee. There are 4 working groups (planning, implementing, monitoring and fostering change) comprised of a mixture of agency staff, community people and a SCNRM facilitator. Further to this, a number of reference groups exist to provide specialist advice to working groups (see <http://www.script.asn.au/region.htm>).

From its inception until June 2007 the organisation was called South Coast Regional Initiative Planning Team (SCRIPT). It has since changed its name to South Coast Natural Resource Management. At the time of the field work, the organisation was called SCRIPT. Both the interviewers and interviewees used the name "SCRIPT" during the interviews. To be faithful to their language we have retained the use of the term "SCRIPT" during our reporting of the interviews. We have tried to use the new name, SCNRM, elsewhere.

Methods

During February – April 2007 a series of semi-structured interviews were carried out, with small groups of regional NRM stakeholders in the South Coast region of WA. Semi-structured interviewing was chosen as a method as it is well suited to exploration of perceptions and opinions, the order of the questions can be altered, and it also enables the interviewer to probe for more information (Bryman 2004, Barriball & While 1994).

A total of 45 individuals spread between 15 groups were interviewed. These groups are outlined in Table 1.

Table 1: Interview participant groups and method used

Group (and abbreviation used in text)	Number of participants	Interview method
<i>Study aim 1: Capacity building within the CMO for decision-making and technical analysis</i>		
SCRIPT staff (SCRIPT staff)	3	Albany: Small group interview in person
Implementation Working Group (IWG)	2	Given geographic separation between these people, they were interviewed separately: 1 interview in person, 1 via telephone
Fostering Change Working Group (FCWG)	4	Albany: Small group interview in person
Monitoring Working Group (MWG)	3	Albany: Small group interview in person
Planning Working Group (PWG)	4	Albany: Small group interview in person
<i>Study aim 2: Capacity of agencies within the region to develop and deliver capacity-building for land managers</i>		
Forest Products Commission (FPC)	2	Esperance: Small group interview in person
Natural Resource Management Officers (NRMO)	3	Esperance: Small group interview in person
Department Agriculture and Food WA (DAFWA)	6	Albany: Small group interview in person (plus 1 joining by video-conference) Esperance: Small group interview in person
Farm Forestry (FF)	1	Esperance: Individual interview in person
Department of Environment & Conservation (DEC)	4	Albany: Small group interview in person Esperance: Small group interview in person
Landholder-based group (Landholder)	3	Esperance: Small group interview in person
Department of Water (DoW)	3	Albany: Small group interview in person
Indigenous group (Indig.)	2	Albany: Small group interview in person
South Coast Management Group (SCMG)	2	Albany: Small group interview in person
Mixed stakeholder group* (MSG)	3	Albany: Small group interview in person
TOTAL NUMBER INTERVIEWED	45 (in 15 interview groups)	

* Included representatives of education and small business sectors.

Following a three-day field trip to the region and consultation with SCNRM and agency staff, a list of possible interviewees for each group was compiled. Participants for the SCNRM staff group were selected from those who had more than three years experience in the organisation, representation from a variety of NRM management areas and those involved in the development and implementation of the NRM Strategy and/or Investment Plan.

Interview questions were based around the following themes:

- Exploring strengths, weaknesses and needs in the development and implementation of the existing South Coast NRM Strategy and Investment Plan
- How do different stakeholder groups interact to develop and implement the NRM Strategy and Investment Plan sub-programs and projects?
- SCNRM structure and decision making processes (strengths and weaknesses): implications for development and implementation of the NRM Strategy and Investment Plan
- Service provision for development and implementation of the NRM Strategy and Investment Plan
- Role of the community and community consultation

The list of interview questions can be found in Appendix 1. The research was qualitative, interviews were taped and transcripts were analysed using qualitative analysis software NVivo 2.1 (QSR 2000).

The findings reported here are the opinions and thoughts of the individuals interviewed. Those interviewed are a sub-sample only of the groups that they represent and their opinions should not be assumed to be representative of the opinions of entire groups. Rather, they represent the range of issues and opinions that are likely to be encountered.

All text in *italics* is a verbatim quote from the interviews. The group that the quote came from is in square brackets after the quote.

Results Part A: Capacity-building needs within SCNRM

This section deals with the capacity needs of SCNRM itself, for decision-making and analysis of technical information, under the following headings:

- Scientific knowledge base
- Ability to integrate different types of information
- Use of economic and social information in decision-making
- Dealing with research gaps
- Science quality – importance of Quality Assurance (QA)/peer review
- Incorporation of Research and Development (R&D) into decision-making
- Representativeness of the decision-making process at the committee and working group level
- Evaluation processes used by SCRIPT

Scientific knowledge base

The availability of good quality technical information from a variety of sources was reported by the majority of interviewees. DAFWA, DEC and DoW staff at a regional level had a strong involvement with SCRIPT via working groups. They also provided background papers for the NRM Strategy and continue to provide on-going technical advice. There was a considerable knowledge base in the areas of hydrology, soil science, agriculture and water:

‘There was really good mapping and eyes on the ground by DAFWA staff here for what things are happening in the catchments. They have a five-year background into what the region’s doing hydrologically, with erosion. Locally, people like the DoE [Department of Environment, now DEC] in town have a great technical background which they provided in the early days. They have a lot of hands-on experience with what works or doesn’t work’ [NRMO].

There was also good scientific knowledge in other parts of the regional community:

‘Knowledge is a strength on the South Coast. People are committed and they come and live here for a reason, and they are interested’ [SCRIPT staff].

The sharing of information between agencies and groups was reported as a major benefit for NRM in the region:

‘Each of the departments on the South Coast provided an agency statement of what they saw as their priorities and risks. We also went to meetings and supported the working groups’ [DAFWA].

‘We evaluated the water resources across the south coast, what the threats might be, what the present management initiatives were, what the gaps were, made suggestions for investment. We provided draft input to the RCTs, MATs. We were involved in the writing of the investment plan’ [DoW].

‘If we needed stuff about biodiversity we would go to the CALM [now DEC] people. They basically just gave us the information. Here at the Ag Dept they gave us the data – it is good sharing of information. There is trust, the agency people know we are working for the same goal’ [SCRIPT staff].

Ability of SCRIPT to integrate different types of information

The structure of the NRM strategy was reported as presenting a challenge for the integration of different types of information (although cross over of membership in working groups was said to enhance integration). The way that biodiversity integrates across other themes (i.e. investment portfolios) was provided as an example:

'The strategy took the approach of having major themes which had practical reasons but led to philosophical difficulties. What was land without biodiversity? What are rivers without biodiversity? That was a major weakness in the whole approach. It meant that you then had the DAFWA looking after land, DoW looking after water, and we were looking after biodiversity but what about the biodiversity in the water?' [DEC].

Although SCRIPT was keen to integrate information across themes, funding and reporting requirements of government make this difficult in practice:

'Early on it was 'integration, integration, integration' so we've produced this document that says integration. Then when it comes to reporting you've got to pull apart your integration and 'silo' it again for reporting. You just can't do that. You can pull it apart but the information becomes meaningless' [SCRIPT staff].

Integration of information for the NRM Strategy was largely done by agency staff:

'As far as analysis goes we didn't do any in-house ourselves. It came from the Department of Ag guys, they did the analysis and gave us the answer. They didn't do the analysis specifically for the strategy, that's just their job. So we recognised where the technical expertise was and weren't averse to it just because it came from the agencies' [SCRIPT staff].

It was also suggested that SCRIPT and agency staff are often specialists in one area, or are so busy in their own area that they find integration difficult:

'There are people who are able to look across social, economic and environmental values and provide input on that basis. The difficulty is that often we are specialists so we'll be focussed on an area and that compartmentalisation is a big issue. An issue with our scientists is that by nature they've got to focus in on their particular discipline and area, but we do need capacity to look across' [DAFWA].

'I think there is a lack of that sort of integration. I think everyone is so busy trying to make head or tail of the information that is out there. People in the Department who are delivering on SCRIPT programs are having to do a lot of ground work in actually gathering the different information so there is not a lot of time left over for bringing it all together' [FCWG].

There were a couple of suggestions made for how to improve integration; GIS was one of these:

'I think that if we were able to empower people, such as NRM officers, with better GIS skills, it would make the integration of that information a bit easier. Hopefully down the track we can start feeding in some of the information that has been gathered and start doing some better analysis' [FCWG].

The working group arrangement was also suggested as a way in which information can be integrated:

'I think that one of the strengths of SCRIPT is that almost everyone that is involved on a working group or committee, all have access to or are involved with other matters involving SCRIPT. There is great melding of knowledge, cross-referencing' [PWG].

Use of economic and social information in NRM decision-making

It was felt that there needed to be more consideration of the socio-economics of the incentives programs, particularly the economic impact of land-use change for farmers:

'With all of the investment strategies, they haven't worked out the farmer's willingness to pay for change. There are some basic principles of economics which haven't been quantified, but just based on a few experts saying what they think we should be subsidising farmers. It is going to vary socially from catchment to catchment – and that flexibility is not built in' [DEC].

There was a lot of discussion about the incentive program for perennial pastures. The program has been under-subscribed in the broad-acre cropping areas with the suggestion that the predicted land use change and capacity of landholders to make changes were not well understood:

'Maybe somebody from Albany looked at high-rainfall areas of Albany and just simply said there is 600 mm of rainfall on the coast of Young River, therefore it's suitable for perennial pastures. What they didn't estimate is out there farmers have the ability to plant 2.5 t/ha crops of canola at \$500/tonne year in year out. So what land use change is predicted and the change that people want to make are vastly different figures' [NRMO].

One group felt that while agricultural and hydrological issues were well covered in the region, socio-economic information was lacking:

'If there is a weakness here it would be in economic and social information. My feeling has always been that because of the heavy involvement of the agencies, hydrology and agriculture are well covered. Economic and social information, we don't have the same structures out there, or if we do I suspect we haven't tapped into the right ones to gather more information' [PWG].

Whereas another group felt that there was too much focus on economics:

'DAFWA staff and SCRIPT have only got the economic hat on. I don't think that's the only way that we work with people, there is education, community capacity-building. The representatives that we end up getting on committees can often be more concerned with the dollars. You can't address investment in salinity without properly understanding social impact' [NRMOS].

Dealing with research gaps

A lack of biodiversity information for the region was reported. This was described as a challenge and a major knowledge gap for the development of management strategies and investment planning in the region. Key DEC staff had written a biodiversity background paper for the NRM Strategy but also acknowledged that more biodiversity information was needed:

'When it comes to dealing with biodiversity conservation there are huge knowledge gaps. So it is quite difficult to come up with good biodiversity strategies if you don't understand these things. There is a lack of knowledge also in terms of ecological

processes. We pulled some of it together and wrote a Biodiversity Background Paper for the strategy' [DEC].

The DAFWA individuals who were involved in developing the NRM Strategy reported a lack of research, and a lack of funding for research, in some crucial areas, although the NRM Strategy was said to mention management actions related to knowledge deficiencies:

'Sometimes we were working in a knowledge vacuum. Because it was all about on-ground activity there was no way of investing reasonably to do an assessment. You couldn't really have research to understand these catchments. It was very difficult to get that up and running. There are some things in the Investment Plan but you wouldn't say it's full-on research though' [DAFWA].

DAFWA and other government agencies were a major source of knowledge and technical information. Research gaps were most often handled via the skills in the working group and through their networks of agency contacts:

'Most of the time when a technical issue is raised the people in those relevant fields can answer the questions. We've got a pretty good technical spectrum in the group. Generally they pass documents on that may be relevant to people with technical expertise in their department' [IWG].

Although good technical skills were reported, it was suggested that a regional directory or database would be very useful:

'SCRIPT have access to a wide range of expertise, but one thing that they haven't been able to achieve is to get a directory of expertise available. They tried to do it, but for some reason that has failed. I think it is possibly due to not having the right person to know what to ask and how to put it together' [MWG].

Assessing the quality of technical information

Several interviewees, including SCRIPT staff and agency staff, reported that the quality and rigour of the technical information used for the NRM Strategy could be defended:

'The process followed for the NRM Strategy development was very rigorous, objective, scientific and can be defended' [DoW].

'A lot of our regional technical experts are involved in international scale projects – so we know publications, journal history and rigour behind the science in that way. This region attracts retired academics' [SCRIPT staff].

The partnering agencies also checked on technical rigour of material:

'If the Ag Department or Water Dept saw a document coming through they would ask us 'what's the process for making sure that all of this is correct?' [DAFWA].

One interviewee highlighted the importance of getting the right mixture of technical and community people on the working groups. It was felt that while the agency staff provided technical rigour, community members were very beneficial for providing practical advice:

'The trouble is that you didn't have that knowledge to tell whether it was accurate. That is why it is so critical to have technical people on those groups. But of course they can be promoting their own field. There is no doubt that you have to involve the farmers. If you don't then the whole thing is bound for failure. The Lake Warden group have several farmers who are passionate and realistic to what is achievable' [farm forestry].

Although the region seems to consider technical rigour of information, a lack of guidelines from the State level for collecting and using information was reported:

'We've done the best we could. We had no guidance from the national or State level of how to prioritise across themes, and we still haven't. We used the Salinity Investment Framework, that was the best starting point' [DAFWA].

A lack of State guidelines was also reported regarding monitoring and evaluation processes:

'Everyone is trying to work out what are we monitoring, what are we evaluating? There isn't a standard. So there is duplication happening there. There has been a lack of direction from the State. We've got these MATs and there should have been an standard system to say what to measure and how to measure them' [IWG]

Incorporation of R&D into decision making

There are no formal processes for incorporating R&D into decision-making, although the working groups, particularly the Implementing Working Group (IWG), follow formal processes in deciding which projects to invest in. It was also evident that SCRIPT prides itself in having good access to the research and knowledge held in the region:

'SCRIPT have a history of being involved with research because they know they can't do the 'vegemite spread' any more. They know that one of the best things you can do is to come up with new perennial plants for agriculture that are profitable and control salinity. So SCRIPT has got the attitude to invest in this, alongside research funds. So I think SCRIPT can hold their heads pretty high' [PWG].

SCRIPT has been using an asset-based, SIF (Salinity Investment Framework) process for a number of years. The SIF process seems to be tied strongly to the decision-making process, particularly in the IWG:

'Originally we used the SIF2 matrix and some other information and we actually looked at the catchments and with the matrix scored them. They were also scored against things such as the capacity of the community in that area to be involved in it' [IWG].

'There was identification through the SIF process of those assets, there's been an understanding of the value attached to those assets. So our strategic catchments were identified early on in the piece – and I'd say it's not 100% right, but it's pretty close' [SCRIPT staff].

The SIF process is also well known to the government agencies involved with SCRIPT:

'We've been applying SIF across regional and within a catchment now since SIF first became accepted. It's not new to us. The difference is that we've applied it at a catchment scale as well' [DEC].

However, one interviewee felt that there needed to be greater accountability by working groups in relation to the use of technical advice and R&D in decision-making:

'There needs to be some sort of accountable process where you need to make a decision based on the technical advice. How many times do you see technical advice put up but the decision becomes political? The decision makers, whether they are community people, need to show justification that they've taken technical advice into consideration' [DEC].

The interview groups were also asked whether ‘cause and effect’ was considered in decision-making. The IWG acknowledged that they aim to consider cause and effect but it is difficult to do in practice:

‘We are definitely trying to. A lot of questions are raised like ‘what effect does this have for the big picture’. I don’t think we are at that stage yet and to get the information it’s bloody hard to do. So I think we ask the question but we are all very open that we may not get the right answer’ [IWG].

SCRIPT working groups and decision-making

The interviews revealed a number of themes regarding SCRIPT working groups and decision-making:

- The role of SCRIPT working groups
- The complex decision-making ‘layers’ within SCRIPT
- Burnout of SCRIPT working group members
- Skills seen as important for NRM decision-making

Within SCRIPT, working groups have the major role in NRM decision-making. They were formed after the NRM Strategy was developed so are instrumental in the implementation of the strategy. They describe their roles as:

‘We are a multidisciplinary group that includes agency staff and landholders. Information previously locked away in agencies is now freely exchanged. The role of the group is to ensure projects are scoped correctly and that the investment is done right’ [MWG].

‘We have an overseeing role in making sure decisions about the utilisation of resources (human or \$) is done in a planned way. Its success depends on all those other working groups out there as well. It’s not definitive in its own right’ [PWG].

‘We oversee the implementation and management of certain areas under the investment plan – those pertaining to change or thought relevant to the group. We also have a role to look at fostering change throughout the organisation and its activities [FCWG].

Working group members have specific professional disciplines and experience. They bring in local knowledge from various parts of the region:

‘In our structures we have community, NGOs, government agencies. It’s a skill-based operation and we have good representation. The process is balanced and it delivers money to those areas that need it’ [SCRIPT staff].

Some interviewees, especially those involved in the on-ground implementation of projects, felt that although the structure was good for involving many stakeholders, it could also be cumbersome, messy and time-consuming for decision-making:

‘I think there is extensive involvement of lots of different people in the working groups, which makes everything so cumbersome. If anything there are too many people’ [DoW].

‘I think the decision-making structures in SCRIPT are quite messy in the way they have set it up. They set up these massive working groups that have very little consistency or structure themselves in how to make a decision. You just get ping-ponged off in all these different directions’ [NRMO].

'You've only got a certain amount of time to spend your money in and often things are dragged out for months by SCRIPT ... It's crazy having all your major decisions going to a working group that meets every 2 months – that doesn't have a consistent decision-making framework' [NRMO].

Burn out of working group members and volunteers in sub-regional groups, were reported. Filling positions on working groups was said to have become difficult and it has tended to be the same people sitting across various committees, which was had positive and negative consequences:

'It seems to be the same people that you see the names from five years ago. It is good to see that level of devotion but there also needs to be new people with new ideas and energy' [DEC].

'People just aren't productive after a while. I reckon people shouldn't be allowed to stay in committees for too long. You see so much more clearly when you have a break' [DAFWA].

Succession planning for working group members was seen as very challenging and the lack of available volunteers made it difficult to make strategic appointments:

'There is nobody putting up their hand to become involved' [landholder group].

'When somebody leaves they say 'we need to find someone to take his place' instead of 'let's groom someone to take on this role' [farm forestry].

Various skills were suggested as being important for prioritisation and decision-making including: consideration of socio-political factors, GIS, being objective and strategic, being able to communicate the science, good cross-disciplinary knowledge; and local knowledge.

Two interviewees suggested that working group members should undertake formal training:

'People on these decision-making committees need training. You can't just chuck a heap of literature at someone. Local government is a classic. When you get new councillors on board they get trained up on process, accountability and some of the technical background. I think a similar model or approach needs to be done with people who are on SCRIPT committees. There is a lot of money at stake' [DEC].

Representativeness of the decision-making process

A number of themes emerged regarding representativeness of decision-making including:

- The stakeholders perceived to be missing from SCRIPT decision-making
- Distance factors and difficulties in involving Esperance people
- The presence and/or absence of undue influences in SCRIPT decision-making

There was a general feeling that the SCRIPT structure was very effective in involving many sectors of the community. However, a number of stakeholders were considered to be currently missing (or requiring greater involvement). Suggestions were: local government, indigenous community, biodiversity-based groups, Esperance farmers, agribusiness and commercial sectors.

There are currently vacancies for Esperance farmers on committees and working groups. The size of the region has been a major challenge:

‘Some of the community-based people from the east have been very hard to keep on board. By nature the region has a centre, and it’s Albany. If I’m in Esperance, there’s a disconnect. It’s five-hours drive, and there’s no plane trip. Though, the management group meets in different regions, and that’s good and the public are invited to that’ [DAFWA]; and

‘There are a lot of representatives on SCRIPT committees from the Albany side and not a lot of people from Esperance. Landholders won’t drive for five-hours to go to a day meeting and then drive back. Maybe having a central hub in Jerramungup is not such a bad idea. It’s about 260km away. It would make all the difference between a 2-day and 1-day meeting’ [NRMOs].

A number of Esperance interviewees discussed the difficulties in getting Esperance views fully considered. SCRIPT groups had travelled to Esperance for meetings but these were said to have low attendance from Albany members of the groups. While video-conferencing was thought to be effective it was not seen as effective as promoting your cause in person:

‘I like the way SCRIPT come over here. They consult with us. But it is the same people that they are talking to all the time. They don’t get that broad cross section of the community. Staff come over, the executive, working groups come over – but not very often. Most of the IWG meetings are done with video conference. That is a blessing. At least you get that interaction and I think it works well, though it’s not the same as being in the same room’ [farm forestry].

There were mixed opinions regarding perceived ‘undue influences’ in SCRIPT decision-making. One interviewee felt that SCRIPT and their partner agencies and groups were working together towards the shared goal of preserving the environment. Another felt that although some group members have their own interests at heart they are *‘actually quite balanced and debate about things’* [IWG]. In some cases people felt that some members of working groups seemed more vocal and better able to state their case:

‘Some groups have got the ability to put their case forward and are doing it very well. Then there are others who struggle with that. I’m not sure that anyone is checking if there is a right balance’ [MWG].

It was mentioned by only a few participants that DAFWA have a major influence, probably due to the strong role they had in the development of SCRIPT as an organisation. Another interviewee felt that this just reflected that it had put in more effort than other departments:

‘Some people may call that undue influence when rather it is just participation’ [DAFWA].

Evaluation processes used by SCRIPT

The interviews did not reveal any formal evaluation processes within SCRIPT, although a sub-regional group did have a Monitoring and Evaluation Plan. In some instances it was felt that it was perhaps too early in the implementation process to start evaluation. It was also suggested that informal evaluation probably occurs ‘naturally within the working groups’.

The SCRIPT staff group discussed the need for evaluation processes in SCRIPT, giving examples of formal and informal evaluation that has occurred:

‘The questions will get asked at the strategy sub-committee level. Then I suppose it’s up to us as staff to take it a step further and initiate an evaluation, depending on the

question being asked. Up until now its pretty much been internal really' [SCRIPT staff] and;

'We are constantly evaluating ourselves, constantly tweaking the model. We have evaluated some of our delivery mechanisms, our incentives program. That was a formal consultancy that did that evaluation' [SCRIPT staff].

There is evidence of good sharing and 'looking back on learnings' in a strategic catchment group, although this is also largely informal:

'Recently they have done a review of all the strategic catchments. So they have all had to go back look at what they are doing and where they are going. That process of getting all the project officers from the strategic catchments together is a good process because they can learn from each other' [IWG].

'I don't like the attitude of 'ok that project is finished so let's forget about that'. That is not the right thing to do. You need to look at what worked and what didn't work. With some of our programs it is a bit early to evaluate them' [IWG].

Discussion

This study has highlighted a number of factors which affect the capacity of SCNRM for technical analysis and decision-making. These are:

- The availability and use of socio-economic information
- Integration of different types of information
- Capability to address research gaps
- Availability of State guidance and support
- SCNRM structure
- Use of asset-based approach
- The size of the region
- Use of evaluation processes

Based on the discussion in this section, key strategic recommendations have been made regarding increasing the capacity of the SCNRM for technical analysis and decision-making. These recommendations can be found throughout the following discussion sections.

The availability and use of socio-economic information

Generally, the study showed that those interviewed thought that SCNRM had good access to and had made good use of existing biophysical data (both NRM and agricultural) in the development and implementation of its NRM Strategy. However, the study revealed a capacity gap, common to many regional NRM organisations, relating to the under-use of economic and social information. The focus on mainly biophysical data is most likely a result of the heavy involvement of government agencies, particularly DAFWA, DEC and DoW, but is also related to the lack of availability of good socio-economic data.

As noted, this gap is common to many regional NRM organisations. A low level of capacity to assess and apply economics was also found in the North Central Victorian case study (Seymour et al. 2007a). Furthermore, a study of 18 catchment organisations around Australia (Seymour et al. 2007b) revealed that the minority of CMOs who did use economics did so to a very modest extent and in a very limited way, mainly through the conduct of Benefit Cost Analysis of specific programs or interventions.

Given that a large focus of SCNRM is on-ground activities that require significant land use change by land managers, the consideration of farm-level economics can be very important. Pannell (2007) lists a wide range of questions where economics is highly relevant to catchment councils, including questions at the farm level (for example, are particular environmentally friendly farming practices likely to be attractive to commercial landholders, and if so, on what scale?); the catchment level (for example, how would agricultural management need to be adjusted in a catchment to achieve particular environmental targets at least cost?); and the regional level (for example, how should the funds of the environmental program be targeted to achieve the greatest environmental benefit for the available resources?). These questions are of central relevance to SCNRM.

A number of interviewees were aware of the need for more social information to inform decision-making. In particular, the implementation staff seemed to be very aware of the limitations of the current incentives program. Consideration of socio-economic information will be crucial in the design of incentives and other NRM activities for different parts of the region and informing the development of realistic Resource Condition Targets.

Social factors are particularly important in areas where the number of small non-commercial landholders is high. This is particularly relevant for the Albany and Esperance (Lake Warden) areas. Current work in the Lake Warden area by Roger Wilkinson (as part of the SIF3/CVCB project) will be helpful in this regard.

Recommendation 1: SCNRM to investigate the potential to make greater use of economic and social information in NRM decision-making.

Recommendation 2: SCNRM to seek the involvement of economists and social scientists in their working group structure.

Integration of different types of information

Although there are no formal mechanisms for integration of information by SCNRM, a good deal of informal integration seems to occur. The interviews revealed that the mixture of skills in the working groups, and the mix of agency people, allows for useful integration to occur. The acknowledged presence of individuals within these groups who are analytical and 'systems-thinkers' is a great asset.

More sophisticated use of GIS was suggested by interviewees as a way to improve integration of information. Spatial approaches are very useful if the user has sufficient skills to interpret the data for decision-making; and providing that the data used is reliable and accurate.

The increased use of formal decision frameworks, like SIF3, will also help with integration.

The integration of different types of information for NRM decision-making is a challenge for most CMOs. The need to build capacity in integration of information was also found in a similar study of the North Central region of Victoria (Seymour et al. 2007a) and in a study of 18 catchment organisations around Australia (Seymour et al. 2007b). A study by Paton et al. (2004) also found that CMOs had limited capacity for integrating different types of knowledge.

The SCNRM staff and various people in working groups recognised the importance of being able to integrate information, but report a number of barriers to actually achieving this. Firstly, it is apparent that SCNRM has to give primary attention to the core task of getting

NAP and NHT funds onto the ground via their Investment Plan within a tight timeline. The task of doing this within such a tight timeframe may not allow the time for formal integration to occur to the ideal extent. Secondly, the structure of NRM reporting requirements to government also seems to be a hindrance to genuine attempts at integration. Reporting against Resource Condition Targets (RCTs) requires information to be presented in separate themes such as land, biodiversity, water, riparian, etc. These hindrances to developing good processes to integrate information would be faced by all CMOs in Australia.

Recommendation 3: Governments to review reporting processes and planning timelines with a view to reducing barriers to good integration by catchment councils.

Availability of State guidance and support

Overall there is a lack of guidance from the State level for catchment councils in regards to methodologies for planning, prioritising, monitoring and evaluation. This is a major capacity issue that also seems to apply to agencies (e.g. DoW) in regards to their role in regional NRM. DAFWA are an exception in having a commitment to regional NRM all over WA, although it does not provide consistent state-wide guidance. Guidance from a Federal level (via the Joint Steering Committee for NHT and NAP) is available to some extent. Nevertheless, a number of interviewees reported the need for State-wide guidelines.

In NSW, the Natural Resource Commission Standard provides guidance for NSW CMAs on issues such as collection and use of knowledge, community engagement and monitoring and evaluation ([www.nrc.nsw.gov.au/ documents/Standard%20for%20quality%20NRM.pdf](http://www.nrc.nsw.gov.au/documents/Standard%20for%20quality%20NRM.pdf)). This could provide a good model for WA to build on.

It seems that it is up to the individual catchment councils to make the most of regional NRM, resulting in considerable regional variation in processes, and much reinventing of wheels across the different regions. This is a real failure of the regional system at the state level. Success in a region depends strongly on the willingness and capacities the individuals in local agencies. On the South Coast there is very good cooperation between agencies; but this is likely to be because of past levels of cooperation in the region and hard work to follow-up on existing networks rather than a result of State-level coordination.

Recommendation 4: In consultation with CMOs, the State umbrella organisation for CMOs to develop guidelines for CMOs building on the concepts developed in NSW for processes such as collection and use of information, community engagement, and monitoring and evaluation.

Recommendation 5: DoW and DEC at the state level to recognise the importance of effective engagement with catchment councils and to develop guidelines at the State level to promote a standard engagement policy for regional offices of their agencies.

SCNRM structure

SCNRM seems to have been able to capture a great deal of local knowledge and experience in the community through its Working Groups. Many other CMOs would envy SCNRM's success in this. SCNRM claim benefits from having an intelligent and informed community, many who have strong interests in NRM. Many interviewees reported the wealth of technical experts and academics in the region with specialist skills to offer NRM. This seems particularly apparent in the Albany area where a number of highly skilled individuals are able to devote time to SCNRM. However, there also needs to be good representation from land

managers; both smaller landholders and large commercial landholders. It has been more difficult to obtain and keep this type of practical expertise in the working groups, especially from the Esperance side of the region.

The SCNRM structure of working groups and committees seems to be very good for exchange of information, building good trust and working relationships between different agencies and groups, and allowing access to a range of expertise. The combination of agency and community-based specialists with landholders provides a range of perspectives to analyse information and make decisions. The working groups seem to function well in providing technical advice, and for integration of different types of information and views. Many members of working groups 'double up' in other committees based on asset themes. This provides good opportunities for cross-pollination between groups. Interviewees who were part of working groups suggested that the structure worked well; aside from large workloads.

However, implementation staff, such as NRMOs, have a different perspective on the working group structure. They report a cumbersome and multi-layered process for decision-making. Implementation staff find it challenging and often time consuming to get direct responses from working groups. Given the short windows of opportunity for carrying out some types of on-ground works, for example, perennial pasture establishment, any delay in response from working groups can have large implications for spending implementation budgets. The time taken for decision-making may be a weakness in the SCNRM structure.

Furthermore, the study identifies a number of capacity issues within SCNRM which are affecting the effectiveness of decision-making. Burn-out and heavy workloads of working group members (including agency and volunteer community members) were widely reported. The Implementing Working Group seems to have a much higher workload in comparison to the other groups. The SCNRM region has a low population density in the region and this contributes to the problem in obtaining sufficient turnover of people on working groups. This combined with the large budget and difficulties caused by a run of poor seasons, has created a large workload to get all the money onto the ground. Limiting the time that any individual can serve on a working group may have merit. However, the lack of new potential members is a challenge and there may need to be increased attention to succession planning for working group members.

Another people-related issue is the lack of training for working group members. Formal training for CMO members around Australia may be warranted given their responsibility for large amounts of public funds and requirement from the community for transparent, objective and well-informed decision-making.

Recommendation 6: SCNRM to review and assess their Working Group structure and processes, paying particular attention to problems that are apparent in the timeliness of project implementation decisions and the workload on individual group members.

Recommendation 7: SCNRM to develop a succession planning process for working groups, and consider the feasibility of a set timeframe for length of service on working groups.

Recommendation 8: SCNRM to consider the possibility of training for WG members, possibly at the point where new members join.

Use of asset-based approach

The use of the Salinity Investment Framework, as an asset-based approach to salinity investment, is well established and recognised in the region. In addition, there is considerable interest in the SIF3 framework (Ridley and Pannell, 2005) as the next generation of SIF. The SIF process allows for the allocation of salinity funds to be prioritised based on identified high-value regional assets, as opposed to spreading funds across the whole region. In addition SCNRM recognises the need to respond appropriately for dispersed assets, and that this needs to be done differently than for localised assets.

Although some of those interviewed had doubts about using an asset-based approach for the allocation of funds, they seem to understand the need for it. Overall, the SCNRM region has developed a higher level of strategic thinking about salinity funding than perhaps any other region in Australia. In particular, there seems to be a positive attitude to R&D and the need for a framework to integrate information and guide decision making. Despite use of the SIF framework the interviews did reveal that there is often difficulty in linking ‘cause and effect’ of management options. This could reflect a reality because of inadequate data, but it suggests an area for future effort.

The size of the South Coast region

The distance factor between Albany and Esperance will continue to create a feeling of ‘Albany-centric’ decision-making. It will also continue to create a problem for getting more Esperance stakeholders involved in SCNRM decision-making. The distance is not only physical; it is also social because people in Albany and Esperance have little reason to travel to each other’s town. Although a number of interviewees suggested establishing a central hub in Jerramungup, they recognised that this was still probably not a good option. The authors agree with this assessment. The distance factor is a fact of life for the South Coast region. The Esperance stakeholders felt that although they could join meetings by teleconference, it was not the same as being there in person to ensure the best interests of the Esperance area were heard. An ongoing commitment from Albany-based working group members to attend meetings in Esperance will be beneficial. As identified earlier there are two positions vacant for Esperance landholders in the working groups which are proving hard to fill. SCNRM may need to be flexible and ‘think outside the box’ on how they can engage commercial landholders from Esperance who are unable to spend the time required away from their businesses.

Use of evaluation processes

Like in many other regional NRM organisations, formal evaluation of projects, programs and decisions is not carried out to any great extent (Seymour et al. 2007b, Allan and Curtis 2005). The interviews revealed that some felt it was too early in the life of the NRM Strategy for evaluation. This suggests that evaluation is perceived as an activity to be conducted after on-ground activities have been completed and their effects have been realised. Rather, evaluation is important at all stages of a project. Evaluation should be linked to on-going decision making as a project is implemented, and should follow on logically from evaluation processes set up during project planning. Another general observation of regional NRM evaluation is the tendency to interpret evaluation as largely about keeping track of budgets, projects and progress of on-ground works (Paton et al. 2004, Allan & Curtis 2005). This output-based focus is probably in response to the requirements of government, so is not surprising. However, there is a need to consider the other aspects of evaluation, such as what can be learned from past decisions, and what are the likely NRM outcomes of SCNRM actions/projects/decisions.

Recommendation 9: SCNRM staff and key working group members to undertake formal training in evaluation.

Recommendation 10: At least once per year, or at key times when major pieces of work are complete, senior SCNRM staff and key working group members to meet and discuss outcomes, reflect on lessons learnt, and areas for improvement.

Recommendation 11: Governments to provide stronger guidance on evaluation processes, going beyond activities and budgets to include NRM outcomes and learning from experience.

Results Part B: Capacity issues for service providers and partners of SCNRM

This section deals with the capacities of agencies in the region to develop and deliver capacity-building activities for landholders. These agencies include: DAFWA, DEC and DoW. The following themes are explored:

- Collaboration and partnerships between stakeholders
- Institutional arrangements and governance
- Availability of resources
- Consultation
- Communication
- Consideration of community values, motivation and capacity for on-ground works

Collaboration and partnerships between stakeholders

SCRIPT as a facilitator of regional NRM

Overwhelmingly SCRIPT was seen as a very effective facilitator of NRM in the region. SCRIPT's greatest strength seems to be in their ability to develop effective partnerships and build on existing networks in the region:

'SCRIPT have done a marvellous job in pulling together groups of people involved in NRM and taking the region from a pure Landcare background into a more up-to-date version of NRM' [DEC].

'The South Coast community is everyone. Here we have expertise in the community, government agencies, tertiary institutions. So we identify what we need and go and find the person to help us' [SCRIPT staff].

'We are purely facilitators and coordinators of NRM outcomes. The community are very clever and know where they want to get to' [SCRIPT staff].

However, it was also recognised that while SCRIPT was relatively small and dependent on good partnerships with government agencies, then collaboration is likely to work well. It was felt that if SCRIPT started to build in-house technical expertise and duplicate roles with other organisations, tensions may develop:

'SCRIPT is becoming like an agency now. I think that is changing the nature of what SCRIPT is. It's not so much a partnership, they want to do things themselves' [DoW].

'If SCRIPT can do their own thing then they will stop forming partnerships. As soon as you can do your own thing the communication stops. Because SCRIPT doesn't have the technical expertise within their own body, it's very dependent on making use of other expertise, and it does that very effectively' [DAFWA].

Collaboration at the district level

The majority of NRM decision-making and activity occurs around the two major centres of Albany and Esperance. In part, because these communities are quite isolated from each other, collaboration between agencies at a district level works very effectively. In Albany:

'We've got bipartisan support across the board from all local agency people. The local people here are brilliant' [SCRIPT staff].

And in Esperance:

'We all work really closely in the Esperance district, across agencies. It is isolated and is a big shire. We've got to work together otherwise we are continually banging heads' [FPC].

SCRIPT-DAFWA collaboration

The SCRIPT-DAFWA relationship is long-established and very strong. DAFWA support SCRIPT in a number of ways including provision of technical expertise, involvement in SCRIPT working groups and reference groups, and shared office accommodation in Albany. They provide SCRIPT with key datasets and information about agricultural land and land degradation. DAFWA were one of the lead agencies in the development of the NRM Strategy:

'We actually suspended a project for a year to concentrate on helping with the NRM Strategy. A directive from our department was to support catchment councils' [DAFWA].

One of DAFWA's major contributions to the partnership has been engaging with sub-regional groups and pulling together the technical information to inform the 'land' theme of the NRM Strategy. They have also provided guidance regarding extension, consultation and community-based processes.

DAFWA were seen as a major partner in the NRM planning process:

'We are engaged as an equal partner for planning processes. SCRIPT doesn't discriminate between community-based people and agency people, they are all seen as the community. DAFWA and SCRIPT being co-located is a great benefit for the partnership' [DAFWA].

SCRIPT-DEC collaboration

Although DEC did not allocate many resources into developing the NRM Strategy, a number of key staff had input into the biodiversity and water themes:

'SCRIPT were being asked to develop a document that would have major implications to biodiversity conservation in this region. So there was a lot of sympathy in our Department and we were quite willing to help in whatever way necessary' [DEC].

It was reported that even though key DEC staff gave input into certain themes they 'missed out on a lot of issues'.

DEC staff in the region provided on-going technical advice for SCRIPT projects:

'I spend time in my local strategic catchment providing regional advice, help to prioritise assets, salinity threat mapping' [DEC].

SCRIPT-DOW collaboration

DoW made major contributions to the development of the NRM strategy:

'Ours was the first background paper and others sought to model that. We evaluated the water resources across the south coast, what the threats might be, what the present management initiatives were, what the gaps were, made suggestions for investment. We provided draft input to the RCTs, MATs. We were involved in the format of the document. We were involved in the writing of the investment plan' [DoW].

One interviewee reported difficulty in communicating with SCRIPT, even though they were working on a SCRIPT-funded project:

'I'm working for the DoW but am fully funded through SCRIPT and working on a fully-funded SCRIPT project but have had very little contact with the organisation. There hasn't been much engagement with us' [DoW].

SCRIPT-local government collaboration

The low population density of local shires and limited staff members in some areas was said to have a large impact on the capacity of shires to be involved in NRM. Some shires were also experiencing increasing pressure from development, both from the mining boom and from tourism:

'Local governments are just so loaded up now, their core business has expanded' [DEC].

Also some shires put more emphasis on NRM than others:

'The local government here is more concerned with the economics of the town rather than the environment' [NRMO].

The South Coast Management Group (which has mainly local government membership) has been an important way of improving the relationship between SCRIPT and local government:

'SCRIPT staff have an excellent relationship with SCMG. Just that SCRIPT have the confidence in SCMG to define where projects are going is good' [SCMG].

There was acknowledgement from some interviewees that the SCRIPT-local government relationship could improve:

'It has always been a rocky relationship but there are a couple of significant improvements I think, especially in sub-regions where there is better representation with local government' [FCWG].

'With the NRM Strategy local government were brought in too late because of the long period in getting the strategy prepared. We took our eye off the ball but now the investment has come through we really understand what it is about' [MWG].

'The relationship is good and getting better. There is certainly an understanding and awareness of the need to involve local government. They have statutory powers that we don't want. Through the SCMG we fund their activities and ask for their technical support' [SCRIPT staff].

SCRIPT-indigenous relationship

It was reported that SCRIPT has been working on its engagement with the Indigenous community:

'There is heaps of room for improvement. They are a fundamental group in NRM and we can learn a lot by working with each other. We have developed an Indigenous Engagement Strategy which when fully implemented will have significant effects on all of our activities in relation to that' [FCWG].

'Restoring Connections' is a major SCRIPT program that is aiming to achieve this.

'Through Restoring Connections the project officers and the coordinator go out and consult with individual communities, finding out what projects they are interested in and then helping them do that. So it's a SCRIPT project where virtually all the indigenous engagement comes through. There is an archeologist, he's the coordinator and two indigenous project officers' [Indig.].

Consultation and interaction is on-going, particularly around Albany:

'In most of the regions the indigenous views were well represented. I think Albany would have been our main point of consultation and we did quite a few meetings here. But all of that is still ongoing. If someone rings up and wants to meet with us and find out what is going on, then we go out and consult with them' [Indig.].

However, it is felt that indigenous knowledge is not always taken into account:

'Well I haven't seen anything put into practice. I go on field trips, it's really good. But I don't think they fully understand it, other than coming back to us and asking us to solve problems in cultural resource heritage' [Indig.].

SCRIPT was keen to involve the Indigenous community in decision-making but indigenous positions on its committees were seen as hard to fill because it was difficult to narrow down the representation. The interviewee suggests that it is impossible to narrow down Indigenous representation to a few individuals:

'I wracked my brains to try and develop a steering group. I can't run a steering group with nine people representing Albany. There is no way that it's possible because it's all family. Noongars don't classify skills and expertise as a reason for being a representative. It's all family oriented. So I can't pick nine people even just from Albany, not including all the other areas in the western region' [Indig.].

SCRIPT-NRMO collaboration

There were a range of opinions about the SCRIPT-NRMO relationship reported. NRMOs are located throughout the region and are spread apart geographically. They are employed (with SCRIPT funds) to support sub-regional groups/strategic catchments. There are varying arrangements for where the NRMOs are housed. Some are co-located with agencies and some employed by sub-regional groups.

It was reported that the turnover of NRMOs was high across the State. A lot of them were graduates and needed 'management, support, training and career development support at a local level' [DEC]. The role of NRMOs was said to be quite complex:

'They are expected to carry out huge tasks. The SCRIPT structure is evolving and expects NRMOs to evolve with it as well as carry out their tasks – that's a big ask' [FCWG].

The NRMOs group commented on the high turn over of people in these positions, and reported a lack of communication and guidance:

'When we first came on board we were told that NRMOs were dropping like flies because of burn out and the frustrations and challenges of working with SCRIPT' [NRMO].

'We have our monthly phone hook-ups but we don't really know what each other is doing. We develop our projects and implement them in the best way we know possible' [NRMO].

However, they did report receiving good support at the local level:

'I think we are making pretty good ties with SCRIPT staff based here. We can help each other out if we need to' [NRMO].

'In the strategic catchments we have a good relationship with all the guys, so the pasture experts, water experts. So it works well at the project level' [NRMO].

The SCNRM staff group outlined plans for support for NRMOs:

'We are instigating a framework where we provide mentoring and financial support to NRMO management committees. We also support them with HR issues' [SCRIPT staff].

SCRIPT-forestry collaboration

The forestry groups interviewed included the Forest Products Commission and South East Forest Foundation (SEFF) in Esperance. With forestry a major industry on the South Coast, FPC and SEFF participate in SCRIPT working groups, local NRM groups (such as Esperance Regional Forum) and took part in consultation for the NRM Strategy:

'There are 3 or 4 different committees that we are involved with that are directly related to SCRIPT. We also sit on the Lake Warden Recovery Catchment group with people from DAFWA, DEC, the shire, all brain storming on how to minimise run-off into the lakes' [FPC].

Institutional arrangements and governance

There are two aspects to governance for SCRIPT: (1) the requirements of SCRIPT itself for accountability and reporting; and (2) the requirements of the Federal government in regards to NAP and NHT.

While it was recognised that SCRIPT manages a large budget and need to have accountable processes, the bureaucracy associated with that can be frustrating, especially for landholders and sub-regional groups:

'The majority of money spent is in rural areas, on farms. Generally farmers are people who don't want heavy reporting and documentation. They just want to know if the money is there to complete the project that they want to do. Sure SCRIPT still have all this high level strategic stuff they have got to do in their own offices. But when it comes to delivery they need to simplify it completely' [DoW].

There was concern that SCRIPT would become more bureaucratic as it increased in size. Federal requirements for funding have meant that SCRIPT processes have had to become more formalised:

'We've morphed from being a really inclusive group to being a bureaucratic body. It's because of all the checks and balances placed upon us' [FCWG].

'SCRIPT started out as a Regional Assessment Panel with community ownership but now it has got bigger, and bigger and bigger. The more people you get on, the more support they need. So I wonder will we end up getting top heavy? It has taken a lot of time from a lot of people to set this up and get it running properly. Hopefully it can keep going' [IWG].

'SCRIPT is a bureaucracy, it's a quasi-government agency whether it likes it or not' [DEC].

One of the working groups highlighted the governance of the Investment Plan over SCRIPT activities:

'The Investment Plan becomes the tail that is wagging the dog. It has almost become people's focus because it's the thing that we've got to get right. It's easy to get lost in that, to lose our vision of how to get there. There are other pathways too' [FCWG].

Participants were also asked about statutory powers and the effect of having statutory powers on relationships with the community. SCRIPT is a non-statutory body. A number of WA government departments have statutory powers so it was felt that if SCRIPT also had this role there would be duplication of effort. It was suggested that statutory powers would just be a burden on SCRIPT and would affect its status as a community-based organisation. The majority of interviewees were against SCRIPT having statutory powers but one suggested that it might be useful for environmental issues higher up in the catchment:

'Some people need to be told what to do, particularly in the head of a catchment. If somebody at the head of the catchment are not looking after it there are huge implications right down the estuary. So if you did have some statutory powers that you could assist them to farm, but they wouldn't like it. It's a tough one' [SCMG].

Availability of resources

The allocation of funding for sub-programs, projects and incentives (under the NRM Strategy and Investment Plan) was based on an asset-based approach and targeted strategic sub-catchments. There seemed to be wide awareness of the asset-based approach (such as SIF), especially in the Esperance side of the catchment. Nevertheless, there were varying opinions regarding the need for investment around key assets as opposed to the need to engage as many keen landholders as possible:

'There are still people who want to keep the community really engaged and then there are others who say 'let's look at the science'. The targeted approach doesn't make everybody happy' [IWG].

'We were told we were on a low priority zone yet we are the land users. The lifestylers near the assets can't really do a lot. We are potentially the polluters, so we get the blame but we don't get the assistance. I just think we should be treated equally' [landholder group].

'Let's not look at strategic catchments. Let's just spend the money where we think we can get landuse change in the region somewhere' [NRM].

The reasoning behind the asset-based approach was discussed by a number of interviewees:

'You need to look at the science first. You need to take a regional view of what the assets are and not say 'oh this community is being left out'. You need to look at another way of assisting those communities' [IWG].

When asked about the balance of NRM investment (for different environmental themes) across the region, the majority of interviewees were satisfied that the balance was fairly good. The only contentious issue was biodiversity with some suggesting under-investment and others over-investment. However, most acknowledged that it was difficult to actually get biodiversity funds onto the ground:

'There should have been a much greater proportion of funding for biodiversity. But given the huge amount of money, our agency would not have had the capacity to spend it. You'd have to use a large amount of the funding to increase your capacity to implement biodiversity works' [DEC].

'There seems to be a lot spent on biodiversity, because that has probably been an area that hasn't been well resourced' [MWG].

'Just getting all the groups together to work on biodiversity is hard. There is a lot of money spent on it but there wouldn't be much getting on the ground' [NRMO].

Tension around public and private-good outcomes was reported by DAFWA staff. The concentration of high-value assets around the coast has seen a major concentration of funds in those areas:

'Generally the high value assets, such as biodiversity, are on the coast or receiving end of the catchment. The difficulty has always been putting investment into farmland, which is seen as a private good. We need to make it as easy as possible for farmers to adopt practices that will benefit those assets' [DAFWA].

The effect of large budgets, and the pressure to spend them in a short time, was reported by a number of groups, firstly catchment groups:

'One of our catchment groups has been working for a long time with a record of successes. But suddenly they were given \$100 k and having the capacity to look after it was a big impost' [MWG].

'A little group of people and a bunch of community people working in a voluntary capacity cannot spend \$40 million effectively' [DEC].

Resourcing issues have also affected the agencies:

'Most of the people in the agencies were fully committed. We had to appoint new staff. The surge of money hitting all at once just swamped us' [DAFWA].

'Because there are so many dollar resources that leads to [a need for] human resources' [PWG].

Bad seasons and low population density also have a large impact on trying to spend funds on the ground:

'There is just not the manpower, consistency of seasons or population to spend the amount of money that we have' [SCRIPT staff].

'If the conditions aren't right then you can't spend the money. Particularly with perennials, they are expensive and you can't afford to waste them' [SCMG].

Partner agencies and organisations involved in implementation of funding report the inflexibility in the systems for utilising underspent budgets:

'We keep asking is there something else we can strategically re-invest in? There can be heaps of funds leftover from pastures that can't be spent because of drought or other issues' [DEC].

Overestimating the targets for perennial pastures (particularly in broad-acre cropping areas) has caused underspending difficulties:

'People underestimated the challenges and logistics of putting in perennials. We are going to underspend and SCRIPT will think that is a black mark' [DAFWA].

'Project officers feel responsible for underspending. The people who set the targets poorly understood the situation' [DAFWA].

Consultation

The interview groups discussed a number of aspects of consultation including:

- The strengths and weaknesses of the consultation process for the NRM Strategy development,
- The possibility of over-consultation to some individuals/groups/areas,
- The best stage in the planning process to undertake consultation; and
- The degree of ownership of the NRM strategy felt by the community.

The vast majority of interviewees reported that SCRIPT has used good consultation processes from SCRIPT for the NRM Strategy development. Suggested strengths included the involvement of a broad range of stakeholders, the long time period for consultation and the strong involvement of existing sub-regional groups:

'From my experience being involved in a number of NRM groups in WA, the range of stakeholders and where they come from is well represented in SCRIPT compared to other regions' [DEC].

'The strength was that consultation was very bottom-up. The community latched onto it really well and people felt they were being listened to' [DAFWA].

It was felt that while consultation for the NRM Strategy was good, community engagement at the implementation stage could have been done better:

'They went through this really good engagement process but then when it came to developing the sub-programs and having other agency input into developing the sub-programs, I think it was a bit light-on and a bit Albany-centric. You actually need negotiation, more of a sharing of power to come to some form of agreement' [DEC].

Other weaknesses reported were more generic problems with consultation that might arise in any situation. These include needing to involve a wider cross-section of the community, the dominance of more vocal individuals, the time-consuming nature of consultation and the need to better understand community capacity-building:

'With community representation you get people who are very active with strong ideas and the minute-taker only takes down what the loudest person says' [DEC].

'SCRIPT have a limited understanding of the full scope of community engagement and how to engage people cyclically over time. But then for a lot of NRM people it isn't their field' [NRMO].

One interviewee reported that some regional communities are feeling over-consulted, emphasising the need to build on past consultation and not start again with a 'blank sheet':

'I sometimes think that the small communities have been facilitated to death. I find that you can speed things up if you start with the issues raised last time and ask which ones are relevant and are there any gaps? A blank sheet really takes us back and duplicates what has already been done' [IWG].

Others felt that consultation should be ongoing, and that sometimes you had to re-visit issues you thought had been agreed previously:

'I think you need community consultation all the way through the process. Coming in blank is a hard one because if the community doesn't know what you are on about then they won't give you any sensible input. I think it's also important to go back on your first draft. Don't think you've consulted just because you've spoken to them once. To do really good consulting is a long road that you keep re-visiting' [MWG].

Perceptions about ownership of the NRM Strategy by the South Coast community were varied. Some felt that those directly involved in NRM decision-making would certainly feel ownership:

'Some felt isolated from the process, whereas others who were more involved probably see it differently. I think it depends on how much involvement they actually had' [DoW].

One interviewee suggested that Esperance broad-acre farmers may not feel ownership:

'In the Esperance area most people wouldn't know that the NRM Strategy exists. Farmers who get some immediate benefit of some of the Landcare groups might. For people who aren't involved in decision-making or having an influence probably don't feel ownership' [DEC].

Comments made during the interview with Esperance broad-acre farmers suggest that this is indeed the case for at least some:

'They probably thought they had the right intentions but I felt that we weren't workshopped properly. It has been imposed on us. There may have been a consultative process but I can't recall it. SCRIPT need to come out to us, at the right time that suits us, if they want to engage us. They really need to come half way. Don't just tell us. We are a really good role model for other groups to get NRM going. It is a lost opportunity' [Landholder group].

Communication

The current level of SCRIPT recognition in the community was raised by several participants across a range of groups. Various issues around naming, branding and publicity were discussed. There was a perception that the name SCRIPT did not seem to promote ownership

by the community. The need for a name change was being discussed within SCRIPT during the time the interviews occurred:

'A lot of people don't know who SCRIPT is, they don't have a well-known branding' [DAFWA].

'We are just going through a re-branding exercise where SCRIPT will come out with a new identity and that will really help to get the community to take ownership' [SCRIPT staff].

'SCRIPT are about the South Coast. I don't have anything to do with the coast. The name is disenfranchising to people who are inland' [Landholder group].

SCRIPT recognised the need to communicate to and involve a wider cross-section of the community, or those on the periphery of NRM. Communicating NRM so that it is relevant and interesting was seen as the key for involving more of the regional community:

'I think a big part of communication is just being relevant. There are a lot of people out there who think NRM is not relevant to them. SCRIPT need to show that connection, that everyone can really gain from being involved' [DAFWA].

'We need to open people's minds about how they live in the environment and their impact. We need to reinvigorate people's sense of wonder about the environment' [FCWG].

A major part of the NRMO role is to interact with the community in NRM, but this group report a lack of community engagement strategies. The NRMO's DAFWA contacts relay a lot of information from the community:

'Our job is to go to the community as well and say what are your NRM issues? The scary thing is that without any community consultation strategy or frameworks for how we get that information in, we are really not engaging the community. It is only titbits of who has been involved before. We are based at the ag department, so it's the ag dept people who are getting in our ears more than the people on the ground' [NRMO].

The SCMG were taking an innovative approach to promoting NRM activities on the South Coast (and increasing the community recognition of SCRIPT) by targeting local surf clubs:

'On the coast we are looking at broadening our partnerships. Recently we are getting surf clubs involved. You need to look outside the box. SCRIPT do this well through the Fostering Change Group, they are renowned for looking outside the box' [SCMG].

The need to improve communication to urban communities was suggested by the DoW and DEC groups:

'They certainly don't get to the urban community in terms of messages. The general communication isn't aimed at that. It's difficult because you are trying to talk about strategic NRM which is not the most exciting thing in the world. They need to market it differently, make it a bit more personal' [DoW].

'Our urban community is probably more focussed on the marine and coastal zone. Urban people might be more interested in social recreational values and aesthetics. It's all about working out the values that the community have' [DEC].

There were a range of opinions regarding communicating and engaging landholders. Some interviewees felt that communication was mainly pitched at farmers, whereas others think it should be better targeted for farmers:

'If the main stakeholders are farmers it has to be relevant to production and high profitability' [DEC].

'SCRIPT see their job as communicating to farmers but that is only one tenth of the population really' [DoW].

The size of the region also creates problems of communication. An Albany-centric focus was noted by a number of interviewees, particularly those from Esperance:

'Albany has a big hub and we have a tiny hub. There is not a real sense of ownership about the whole region, it's a bit Albany-centric' [NRMO].

Consideration of community values, motivation and capacity for on-ground works

One of the major strength of NRM in the South Coast region, discussed by the majority of interview groups, was SCRIPT's consideration of past NRM activities when the NRM Strategy was developed:

'We didn't have a clean slate. We had the history, the various initiatives before that we could look at to see what worked' [DoW].

'SCRIPT had been going for a long time and had good linkages. When they wanted community input into the NRM Strategy and investment plan they didn't have to go back to ground zero and they still had ground-up processes' [IWG].

The landholder group and NRMOs had a number of suggestions about how to better engage landholders and understand their capacity and motivation for change:

'NRMOs need to have a understanding of the way farmers think, how we make decisions. They need to look at the whole picture, which is often overlooked by others with a different agenda. Understanding body language, interaction and being patient are all tools required to engage the community' [landholder group].

'SCRIPT need someone to help them design initiatives for long-term community change. Half the journey is recognising that they don't have a lot of this expertise, but they've got a lot of passionate people' [NRMOs].

A member of the mixed stakeholder group made an observation about the changing nature of NRM and a change of community motivation for NRM:

'A decade ago NRM was very much seen as a landholder issue. There is a risk now that NRM is seen as a government issue, not a community issue. The community's role is no longer about NRM but to agitate that the government pay for it' [MSG].

Another important area discussed in interviews was that of burn-out of volunteers and general lack of volunteers in the South Coast region:

'In our community there is such a small population that everyone is involved in about six different committees or organisations. They volunteer hundreds of hours' [MSG].

'Our council are all getting older but how do we bring new people in? Everyone out there is flat out – part of the school, fire brigade, sporting clubs, etc.' [SCRIPT staff].

Discussion: Capacity issues for service providers and partners of SCNRM

This study has highlighted a number of factors that affect the capacity to deliver regional NRM via SCNRM and their service providers and partners. These are:

- SCNRM as the 'facilitator' for regional NRM: implications for collaboration and communication with partners
- SCNRM recognition of regional NRM history
- Including local government in regional NRM
- The management and support of NRMOs
- Communicating regional NRM processes to the community
- Inflexibility issues of the SCNRM investment plan
- SCNRM and community engagement

Based on the discussion in this section, some key recommendations have been made.

SCNRM as the 'facilitator' for regional NRM: implications for collaboration and communication with partners

One of the major observations of the SCNRM case study has been the tension felt between SCNRM being a 'facilitator' of regional NRM, based on partnerships, compared with SCNRM developing their own internal capacity as a stand-alone organisation, responding to the requirements of its dominant funders, the state and national governments. This issue is also related to the increasing size of the organisation. The message from interviewees was very strongly that collaboration and communication will work well while SCNRM continues to be the 'facilitator' for regional NRM and uses a partnership approach. As SCNRM becomes larger and starts to become more of its own distinct NRM entity, the other partners have indicated that they may feel threatened and communication and partnerships could break down. There is evidence that this situation can develop in larger CMOs. Tension between the CMO and agency service providers was found to be even stronger in a similar study conducted in the North Central region of Victoria (Seymour et al. 2007b).

This issue of size is a double-edged sword: on one hand small size seems to be positive for partnerships and communication, but it was also noted that SCNRM is battling to deal with large budgets and multiple projects because "dollar resources need human resources". The problems facing smaller community organisations like SCNRM (which rely on much volunteer labour) as they deal with large and complex investments needed to protect environmental assets are different from those facing larger statutory organisations with similar tasks. The latter will perhaps inevitably face more difficulties with stakeholder engagement and tension with agencies who perceive the catchment organisation as a competitor, but they will have more capacity to deal with the budget and projects that they have.

SCNRM has been very successful in the development of regional partnerships and this has been the key to the success of regional NRM on the South Coast to date. The mutual respect of knowledge and skills between and SCNRM and agencies such as DAFWA, DoW and DEC has been a real strength of NRM in this region.

SCNRM recognition of regional NRM history

The interviews with SCNRM staff indicate a very positive attitude to community skills and knowledge. Remarks such that SCNRM “moved Landcare” rather than alienated Landcare show how well SCNRM has respected people’s knowledge and experience and worked with them to move on. SCNRM communication processes are seen as strongly “bottom-up”, and building on existing networks and what has previously been done. This is probably a result of SCNRM being a non-statutory body, being relatively small in size and its desire to build partnerships.

Including local government in regional NRM

The need to improve the relationship with local government is commonly reported by catchment organisations. A key finding of the Keogh report that reviewed regional NRM arrangements (Keogh et al. 2006) was that local government ‘is yet to be fully engaged’ in regional NRM. The role of local government in regional NRM is set to become increasingly important, and its expertise in peri-urban issues will be critical for regional NRM (Shepherd & Petrie 2006).

SCNRM is keen to improve its relationship with local government, and recognises that it ‘brought local government in too late’ in the NRM Strategy planning process. Some shires are more interested in NRM than others. The formation of the South Coast Management Group (comprised of local government members) to work directly with SCNRM would seem to be a successful initiative and a model that could be adopted by other regional NRM groups.

The management and support of NRMOs

The interviews revealed an issue around the support and management of NRMOs, a situation acknowledged by both SCNRM and the NRMOs themselves. Their job is complex, the positions are spread over a wide geographic area and the positions seem to attract new graduates (who require good mentoring and support). Although the NRMOs seem to be functioning quite well at a project level, our interviews with them indicated that they feel a fair amount of work-related stress.

The NRMOs require better communication networks and genuine supervision, training and mentoring. SCNRM says that it is working on support structures for NRMOs, and these will need continuous evaluation when implemented, so that a real improvement in the working conditions of these project staff occurs quickly.

Recommendation 12: That SCNRM establishes and continuously evaluates better supervisory and mentoring support for NRMOs in the region, and initiates processes to ensure good communication and information sharing between NRMOs.

Communicating NRM investment processes to the community

There is a wide awareness of the asset-based approach to NRM investment. However, there is a tension between those who understand the necessity for an asset-based approach and those who would like to be able to involve anyone who is interested in NRM in any part of the region. Some landholders who were interviewed felt bewildered that they were not able to access incentive payments. Some broad-acre landholders in the Esperance region feel particularly disengaged from SCNRM and the NRM strategy. Also, a number of the NRMOs discussed their wish to involve a wide section of the community who were willing and interested in NRM. The use of an asset-based approach is likely to continue, given the need for a more targeted approach to allocation of scarce funds. It is important, therefore, that there be more communication to communities and implementation staff to explain SCNRM

processes and their rationales. An interested landholder turned away is a potential voice against the project, so consideration should be given to ways of involving interested landholders who are ineligible for incentive payments.

Recommendation 13: SCNRM to communicate clearly to landholders and implementation staff regarding (a) the rationale behind and processes for prioritisation of funding, (b) the rationale for payment of incentives within this system, and (c) the role of technology development, including participatory R&D, to address the protection of dispersed assets.

Recommendation 14: SCNRM consider ways of involving interested landholders who are ineligible for incentive payments.

Inflexibility issues of the SCNRM investment plan

As previously mentioned, SCNRM has tight timelines for spending its budget. There is under-expenditure and low uptake of incentives in some areas, particularly for perennial pastures. A number of interviewees argued for greater flexibility in funding. They would like to be able to allocate underspent funds to other related NRM issues. The NRM Strategy, Investment Plan and Resource Condition Targets do not seem to allow for underspent budgets to be spent in other related areas/issues. We are not clear about the extent to which this is a government-imposed restriction.

SCNRM and community engagement

Although community consultation appears to be generally good and involves a broad range of the community, some engagement issues were reported. SCNRM's awareness of the need to better involve urban communities and those on the periphery of NRM is good. However, a number of those interviewed expressed doubt over SCNRM's capacity to fully engage the community in the long-term, pointing out that it lacked people with specialised skills in this area. One feature of good consultation is that the agency is clear about the extent to which it is consulting the community. There can be a tension between community and agency priorities, as evidenced by concerns expressed by some landholders in this study. Consultation without bounds may heighten this tension. If the agency requires a strategic and evidence-based investment plan then it needs to make it clear that this requirement is not negotiable. Many aspects of the investment plan will indeed be negotiable, and for these aspects good community consultation will result in a more widely acceptable plan.

Recommendation 15: That SCNRM use community consultation strategically and judiciously. For each significant strategic piece of work, a plan for appropriate community consultation should be developed. Community perspectives should be integrated with expert technical knowledge, while maintaining a focus on achievement of NRM outcomes.

References

- ABS (Australian Bureau of Statistics) (2001). Census of population and housing. Commonwealth of Australia, Canberra ACT.
- Allan, C & Curtis, A (2005). Nipped in the bud: why regional scale adaptive management is not blooming. In *Environmental Management*, **36**, pp. 414-425.
- Barriball, KL & While, A (2005). Collecting data using a semi-structured interview: a discussion paper. *Journal of Advanced Nursing*, **19**, pp. 328-335.
- Bryman, A (2004). Social research methods, 2nd edition. Oxford University Press.
- Keogh, K, Chant, D & Frazer, B (2006). Review of arrangements for regional delivery of natural resource management programmes. Report prepared by the Ministerial Reference Group for Future NRM Programme Delivery. Australian Government NRM Team, Canberra, March 2006. Access at: <http://www.nrm.gov.au/publications/regional-delivery-review/index.html>
- Macadam, R, Drinan, J, Inall, N & McKenzie, B (2005). CVCB Factsheet: Capacity Building: A Policy Challenge (No. 5 2005) CVCB.
- Pannell, D.J. (2007). Economic questions for environmental managers, *Pannell Discussions*, No. 96, 2 April 2007, <http://cylkene.uwa.edu.au/~dpannell/pd/pd0096.htm>
- Paton, S, Curtis, A, McDonald, G and Woods, M (2004). Regional Natural Resource Management: Is it sustainable? In *Australasian Journal of Environmental Management* **11** pp. 259-267.
- Ridley, A & Pannell, D (2005). SIF3: An investment framework for managing dryland salinity in Australia. SEA Working Paper 1901. CRC for Plant-Based Management of Dryland Salinity, University of Western Australia, Perth. Access at: www.sif3.org
- QSR International Pty Ltd (2000) QSR NVivo2.1 for Windows 2000. (QSR International Pty Ltd: Doncaster Victoria).
- Seymour, E, Marsh, S, Pannell, D, Ridley, A and Wilkinson, R (2007a). Exploring needs to build capacity for natural resource management in the North Central region of Victoria. SIF3 Working Paper 0702, CRC for Plant-Based Management of Dryland Salinity, Perth.
- Seymour, E, Pannell, D, Ridley, A, Marsh, S and Wilkinson, R (2007b). Capacity needs for technical analysis and decision making within Australian catchment management organisations. SIF3 Working Paper 07xx, CRC for Plant-Based Management of Dryland Salinity, Perth.
- Shepherd, A & Petrie, M (2006). A national framework for local government involvement in sustainable natural resource management. Proceedings of: International Landcare Conference, 8-11 October 2006, Melbourne.
- South Coast Regional Initiative Planning Team (SCRIPT) (2004). Southern Prospects 2004-2009. South Coast Regional Strategy for NRM. SCRIPT, Albany WA.

APPENDIX 1 – INTERVIEW QUESTIONS [and in which groups they were asked]

Activity 1: Exploring strengths, weaknesses and needs in the development and implementation of existing NRM Strategy (and Investment Plan)

What role did your group have in developing the NRM Strategy and/or Investment Plan? [All]

From your perspective, what have been the strengths in the process of developing and implementing the current South Coast NRM Strategy (and/or Investment Plan)? Explain why [All]

What could have been done better? Do you have any suggestions for improvement for the next Strategy? [All]

Activity 2: Use of technical information that guided the development of the South Coast Strategy for NRM

Describe the role that your group has in provision of technical advice and/or local knowledge for implementation of the NRM Strategy/Investment Plan? [government agencies, working groups, NRMOs]

From your experience/observations, how does SCRIPT integrate hydrological, agricultural, economic and social information to make decisions? [government agencies, working groups, SCRIPT staff]

How are known research/knowledge gaps dealt with (could be salinity or other program areas) (eg. ignored, commission scoping study, seek research etc)? [working groups, SCRIPT staff]

Do decisions explicitly consider cause-and-effect relationships between specific land-use changes and salinity impacts? [SCRIPT staff, working groups]

Who, from SCRIPT, reads the R&D reports? [SCRIPT staff, working groups]

Are there processes in place within SCRIPT for use of commissioned R&D in decision making? [SCRIPT staff, working groups]

Who provided expertise in hydrogeology and how was it used to make decisions? [SCRIPT staff, working groups]

Are there any processes in place to assess the technical quality of the information provided? What use is made of peer review or QA to assess proposed investments before spending dollars? [SCRIPT staff, some working groups]

Given the suite of natural resource management issues in the catchment (eg. salinity, biodiversity, soils issues, water quality), in your opinion is the balance right in the current investment portfolio? [All]

What specific skills do you think are needed to make prioritisation decisions for NRM investment? Do you think specific skills are poor/missing within SCNRM? What could be done to address this? [All]

Activity 3: Exploring SCRIPT's operational environment

How does your agency see their relationship with SCRIPT? [All]

How do you think the relationship/engagement with the community would be different if SCRIPT had statutory powers? What do you think would be the advantages/disadvantages of having statutory powers? [All]

Do NAP/NHT, WA government departments, Commonwealth, Ministers/politics etc have undue influence on NRM decision making? Give examples [All]

Are any important stakeholders currently missing from the decision-making process at SCRIPT Management Committee or IWG level and how could they be better included? [All]

How does the SCRIPT Management Committee, CEO/staff, WGs ensure that they learn from (reflect on) past decisions? Is there an evaluation process in place? Please outline. [SCRIPT staff, working groups, NRMOs].

Activity 4: Community consultation

With regard to community consultation, what does SCRIPT do well (strengths) [All]

What improvements could be made? [All]

At what stage do you think community consultation (in the development of NRM Strategy/regional plans) should occur – early in development ('blank sheet') stage or 'first draft' stage? Explain why. [All]

Regional NRM can be a fairly insular area and often the same people are always involved. Are there any other important groups/individuals on the periphery that should be involved? What methods could be used to involve these groups/individuals? [All]

Community people working in NRM often talk about 'burn out' being a problem. Is this a problem within the SCRIPT region? Should SCRIPT be thinking about succession planning? [All]

Do you believe that the south coast region community feel they have 'ownership' of the NRM Strategy? If so, provide examples. [All]

Do you have suggestions for how SCRIPT can best engage the Indigenous community in the development of the next NRM strategy? How would the Indigenous community like to be involved? What special skills/knowledge does the Indigenous community have to offer SCRIPT? [Indig]

Activity 5: Funding allocation in salinity target regions

Within a salinity 'target' region, who chooses where and how funds will be spent? [SCRIPT staff, working groups]

Who is involved in the decision-making about where salinity funds should be spent? How do they choose?

[SCRIPT staff, working groups]

How are farm-level economics considered in the decision process for selection of on-ground works? [SCRIPT staff, working groups]

For other NRM issues (eg. water quality, biodiversity etc), who chooses where and how funds will be spent?

[SCRIPT staff, working groups]

How important is it to involve all farmers in an area in the program? Why or why not? [SCRIPT staff, working groups, NRMOs]