



Development of co-operative management arrangements in the Great Barrier Reef: an adaptive management approach

C.J. Robinson, H. Ross and M. Hockings

The University of Queensland

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CRC REEF RESEARCH CENTRE TECHNICAL REPORT No 55

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The University of Queensland is an associate member.

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AN ADAPTIVE MANAGEMENT APPROACH

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- Australian Institute of Marine Science
- Great Barrier Reef Marine Park Authority
- Great Barrier Reef Research Foundation
- James Cook University
- Queensland Department of Primary Industries and Fisheries
- Queensland Seafood Industry Association
- Sunfish Queensland Inc.
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FOREWORD

This report presents research conducted for the second research task investigating co-management issues and options in the Great Barrier Reef for the CRC Reef Research Centre. It follows on from the first co-management research task which included a report on the concept of co-operative management (referred to as 'co-management') and key issues for the Great Barrier Reef entitled '*Managing Sea Country Together: Key Issues for Developing Co-Operative Management for the Great Barrier Reef World Heritage Area*' (George *et al.* 2004), a set of case studies documenting Traditional Owner aspirations for sea country (in Ross *et. al.* eds 2005), and a proposed framework for design of co-management (Ross and Innes 2005). The research presented in this report focuses on the *practicalities* of planning and evaluating effective Indigenous co-management partnerships within this unique marine protected area. This report meets the overall purpose of the two CRC Reef co-management research tasks which is to promote informed decision-making about co-management by providing research, information and knowledge-building services to the parties considering co-management.

Following the approach undertaken in previous research task, this project was jointly managed by a committee consisting of the research team, representatives of Giringun, Balkanu and Ambiilmungu Ngarra Indigenous parties and the Great Barrier Reef Marine Park Authority. This is itself an innovation in the co-operative management of research, bringing the users of the information together with the researchers to jointly decide the research directions (Innes and Ross 2001). The research team for this project is: Project Leader, Professor Helen Ross, School of Natural and Rural Systems Management (NRSM), The University of Queensland (UQ), Gatton; Research Officer Dr Cathy Robinson, NRSM UQ; Dr Marc Hockings, NRSM UQ; Ms Melissa George, Indigenous Traditional Owner and (in 2002) member of Sea Forum working group; Task Associate, Mr James Innes, Manager Research and Monitoring – Social Science, Great Barrier Reef Marine Park Authority (GBRMPA); and Research Assistant, Mr Arturo Izurieta, NRSM UQ.

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We also acknowledge assistance from Ms Anne Clark, Ms Elizabeth Gillard and Ms Fiona Sheppard (Queensland Parks and Wildlife Service, Environmental Protection Agency; Queensland Department of Primary Industries and Fisheries); Mr Clive Cook, Mr Geoff Meadows and Mr Brian Singleton (QPWS); Mr Jim Davis (Balkanu), Ms Kirstin Dobbs, Ms Kerrie Gorman and Mr Simon Towle (GBRMPA) and Dr Ilse Kiessling (National Oceans Office). Dr Dave Williams, Ms Louise Goggin, Ms Bryony Barnett, Ms Chloe Lucas and Mr Tim Harvey at the CRC Reef Research, and Mrs Leesa Young at The University of Queensland, have provided valuable support to the project.

We also give credit to the efforts of researchers, Indigenous organisations, the GBRMPA and other state and federal stakeholder government agencies, who are all committed to sustainable approaches and partnerships to care for the Great Barrier Reef.

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EXECUTIVE SUMMARY

This report is designed to inform Indigenous, government, and other parties about the practical issues involved should they proceed to implement and evaluate co-operative management (co-management) or other forms of partnership in the Great Barrier Reef. George *et al.* (2004) have shown how co-management can offer flexible possibilities for combining Indigenous common property regimes with rights of other stakeholders and agencies who have interests in environmental management. This can include co-management of areas (the entire GBRMP or areas within it), and co-management of species such as dugong and turtle, or fisheries. This report explains and demonstrates how adaptive management might facilitate Traditional Owners and government agencies should they wish to co-operatively manage the environment in the Great Barrier Reef Marine Park. An adaptive management approach enables the partnership to grow iteratively, rather than the parties being under pressure to design an effective regime from first principles. It can also allow parties to build their working relationships, and capacities to manage together, progressively.

In contrast to standard forms of environmental management, 'adaptive management' treats each management intervention as a hypothesis for testing and evaluation. It follows a distinct cycle of assessing the present situation, planning interventions to improve that situation (hypothesizing that the environment will then respond in a certain way), implementing, and then evaluating that intervention. This conscious cycle enables managers to test their assumptions systematically and measure how well the management arrangements have worked. After the evaluation, one improves future management. While it is becoming increasingly common to monitor the state of the environment, and sometimes the environmental outcomes of management interventions, practice of the *full* adaptive management cycle, including integrating monitoring results and their evaluation into continual improvement of practice, remains uncommon.

In this report, we extend the application of adaptive management as practised on ecosystems, to advocate its use with *institutional arrangements* such as co-management. This can help government agencies and Traditional Owners to engage in an ongoing process that enables progress towards shared environmental management goals to be continually negotiated, monitored and evaluated. The approach recognises but does not focus on goals that are not agreed. Instead parties concentrate on steps towards goals that can be agreed in accordance with the framework created by the first CRC Reef co-management project (Ross and Innes 2005), which advocates concentrating on a design or negotiation 'space' created between each party's non-negotiable parameters. Parties can look for ways forward from each milestone as it is reached. Thus, management objectives are not set up as fixed solutions to be achieved but can be continuously developed and refined as experience and trust grows.

Research Approach

This project was managed jointly by a committee comprising representatives from Balkanu Cape York Development Agency, Ambiilmungu Ngarra, Giringun Aboriginal Corporation, the Great Barrier Reef Marine Park Authority, and the research team. A co-managed research approach enabled the research process to be sensitive to Indigenous, scientific and shared knowledge, and provided a forum which brought the users of the information together with the researchers to jointly decide the research directions (Innes and Ross 2001). It also provided some opportunity to experience the sharing of decision-making and management of relations that is also necessary in the co-management of natural and cultural resources.

Experiences and aspirations for marine co-management in the GBRMP

Due to time and budget restraints, this report focuses on the first two steps of adaptive management – an assessment of the current situation and aspirations to help plan future actions and relationships. These steps are presented in the reverse

order because the aspirations give focus to the aspects of the present situation that need to be considered.

Indigenous case-study reports highlight the diversity of Indigenous experiences, responsibilities, and aspirations towards natural resources and cultural heritage management within the Great Barrier Reef (Ross *et al.* 2005; Appendix 1). Recognition of this diversity is important to ensure that the particular cultural, political and geographical dynamics of each local area informs whether and how parties can work adaptively towards common goals, co-managed actions and evaluation processes. Yet Ambiilmungu Ngarra and Giringun Traditional Owners agreed that they both share a *common vision to co-manage their country*. They also agreed that this vision would be achieved through associated operational goals to build relationships and perform key management actions that would:

- Support genuine partnerships founded on respect for Indigenous rights to and responsibilities for their country;
- Empower Traditional Owners to manage activities and ensure country is shared and used in an appropriate and sustainable way;
- Improve the capacity of Indigenous people to care for country, including ranger partnerships and programs.

Key government agency experiences and aspirations for working with Traditional Owners on environmental management issues were also reviewed. While comprehensive and formal co-management as envisaged by the Southern Great Barrier Reef SeaForum (1999) is not currently on Commonwealth or Queensland government agendas in the GBR, a variety of 'partnership' initiatives have been developed by the Queensland Department of Primary Industries and Fisheries, Queensland Parks and Wildlife Service and the Australian Government through the GBRMPA. The core feature of these partnerships is to meet *each agency's legislative and other responsibilities* through

- government policies which specify the role for Indigenous people in achieving agency goals;

- Indigenous partnerships which are based on a degree of consultation and consent with Indigenous people; and
- Indigenous partnerships which are integrated with other government programs and / or stakeholder interests.

Particular attention is focused on Traditional Use of Marine Resources Agreements (TUMRAs) recently proposed by the GBRMPA as part of a broader framework for engagement with Indigenous people and working with the new Representative Area Program zoning system recently implemented for the Great Barrier Reef. It is clear that TUMRAs are neither a route towards co-management nor even a partnership, but are aimed at encouraging Traditional Owners to agree on how to implement sustainable levels of traditional use of marine resources, especially dugong and sea turtle harvesting. Even so, we show that there is potential for Indigenous and the GBRMPA's aspirations for co-operating in environmental management to converge if TUMRAs are approached in an adaptive manner, and if Indigenous cultural values for marine resource use can also be included in the TUMRA agreement.

Practicalities and realities for co-management and other forms of partnership in the Great Barrier Reef

We recognise the practicalities and realities involved if parties wish to work toward co-operating in environmental management are considerable, and there needs to be significant capacity-building for Indigenous groups *and* government agencies to engage in this process. In particular, a number of important issues are apparent.

- Co-management versus Partnerships

While some Traditional Owners aspire to engage in co-management arrangements for their country, government agencies wish to engage in specific partnerships with Indigenous groups that may not offer equal power-sharing agreements.

- Country-based, regional, and Reef Wide Arrangements

Opportunities currently exist for Indigenous-government partnerships at the local scale. However, these local partnerships need to be nested in regional support networks so that Indigenous communities can respond appropriately to shared environmental impacts and work within other relevant Indigenous and government property and planning regimes.

- Planning and working towards agreed goals

Careful consideration is needed to negotiate the criteria upon which *effective* co-management actions and relationships are evaluated so that parties can agree as to whether and when management decisions and relationships are succeeding. Some issues may require different partnerships (co-management, multi-party arrangement, etc.) to set, implement, monitor and evaluate progress towards goals.

- Working towards goals to protect the GBRMP

Protection of the GBRMP should include conserving those natural and cultural values important to the Traditional Owners of the Park and GBRMPA .

An adaptive approach for Traditional Owners and government agencies to work toward co-operating in environmental management is a key emphasis in this report because it offers a more flexible and achievable approach rather than trying to find a fixed solution of management relationship. Flexibility is needed given the history of Indigenous-government relations in the Great Barrier Reef and the different visions Indigenous and government parties have for working together in the future.

Learning how to work towards shared goals will take time and effective evaluation so that new experiences and management solutions can be continually developed to protect the unique cultural and natural values of this World Heritage protected area.

ACRONYMS

ATSIC	Aboriginal and Torres Strait Islander Commission
CDEP	Community Development Employment Program
COAG	Council of Australian Governments
DATSIP	Department of Aboriginal and Torres Strait Islander Policy (Qld)
DSD	Department of State Development (Qld)
EPA	Environmental Protection Agency (Qld)
GBR	Great Barrier Reef
GBRMPA	Great Barrier Reef Marine Park Authority (Cwth)
GBRMP	Great Barrier Reef Marine Park
GBRWHA	Great Barrier Reef World Heritage Area
ILUA	Indigenous Land Use Agreement
ISUA	Indigenous Sea Use Agreement
QDPI&F	Queensland Department of Primary Industries and Fisheries
QPWS	Queensland Parks and Wildlife Service (in Environmental Protection Agency)
RAP	Representative Areas Program (GBRMPA)
TUMRA	Traditional Use of Marine Resources Agreement (GBRMPA)

1. INTRODUCTION

There is growing recognition, through Native Title and other legal processes, of Indigenous people's rights and interests with respect to land, water and natural resources. Co-operative management ('co-management') can provide innovative opportunities to recognise these Indigenous rights and interests through the creation of arrangements which combine Indigenous common property rights with the rights and responsibilities of other stakeholders in environmental management (George *et al.* 2004). This includes Indigenous co-management of National Parks which is supported by the recent and significant changes in international concepts of protected area management to take greater account of Indigenous equity and rights issues (e.g. IUCN 2003, COP-7 2004).

Australian governments have ratified these IUCN protected area definitions and have decades of experience with Indigenous co-management (also referred to as joint management) arrangements. The most familiar include joint management of Uluru – Kata Tjuta and Kakadu National Parks. Innovative co-management arrangements have also been negotiated under the Commonwealth Indigenous Protected Area initiative (Szabo and Smyth 2003).

The issue of Indigenous co-management for areas and resources within the Great Barrier Reef Marine Park (GBRMP) is not new. Ten years ago, the Great Barrier Reef Marine Park Authority (GBRMPA) facilitated, with a range of stakeholders, a 25 year strategic plan that included a commitment to 'establish cooperative management arrangements between Indigenous people and stakeholder agencies in the area' (GBRMPA 1994a). The Southern Great Barrier Reef Sea Forum, a Indigenous Traditional Owner representative group for the southern GBRMP, was established in 1997 and proposed a southern region-wide framework that could incorporate Indigenous management rights and responsibilities (Sea Forum 1999).¹ In response to Sea Forum's proposals, the Ministerial Council for the Great Barrier Reef

¹ The southern part of the GBRMP is the region south of Cooktown.

commissioned a study to develop and cost a multi-agency strategy for 'cooperative agreements with Indigenous people for natural resource management, particularly turtle and dugong' (Appleton 2000). At much the same time, the CRC Reef Research established a co-management task, which includes the current and previous reports (George *et al.* 2004; Ross *et al.* 2005, Ross and Innes 2005).

Traditional Owners have also engaged in various local initiatives as part of an ongoing effort to ensure their involvement and protection of their interests in their traditional land and sea estates (often referred to in Indigenous English as 'country').

² This includes the establishment of Indigenous community management organisations, such as the two case study groups that have contributed to this report—the Giringun and Ambilmungu Ngarra Aboriginal Corporations. These organisations provide important fora for Indigenous people to respond to government management regimes and resource allocation programs, and to try to achieve equitable co-management partnerships. Despite these efforts when Indigenous Traditional Owner groups, other stakeholders and government agencies try to find ways to engage in partnerships for management of the Great Barrier Reef, there is a misunderstanding of why each party seeks to engage in the process, what goals can and cannot be shared, and how progress and achievement of agreed goals can be judged. Considerable cross-cultural challenges arise. Indigenous people and government agencies each hold very different views about the environment and how it should be managed. In addition, partnerships may cover a spectrum of roles in sharing responsibilities for the management of a range of species, resources and environments.

The success or effectiveness of co-management is a judgment based on criteria that must be negotiated and supported by all parties involved in the partnership.

² The term 'Indigenous' refers to the Indigenous inhabitants of Australia which includes Aboriginal people and Torres Strait Islanders. The terms 'Indigenous Traditional Owner' or 'Indigenous Traditional Owner group' is used in this report and refers to an individual or group who have primary responsibility for a given area or resource under the rules and obligations of Indigenous customary law.

This report focuses on this challenge of cross-cultural communication and negotiation and considers the application of adaptive management as a useful approach to assist in the development of effective Indigenous co-management or other forms of partnerships within Australia's Great Barrier Reef.

Aims of the project

This research contributes to the overall aim of the CRC Reef's co-management project which is to inform Indigenous, government, and other parties about the issues which would be involved should they proceed to negotiate any form of co-operative management over the GBRMP. Its general purposes are:

- To provide information and procedural support for Traditional Owners and Great Barrier Reef Marine Park Authority (GBRMPA) in developing local and regional level co-management arrangements for area and/ or species, with a focus on informed, adaptive management.
- To provide a well-researched information base and procedural frameworks to demonstrate how the concepts of adaptive management and co-management can be integrated towards improved marine environmental management.

Specific aims of the report are:

- To build upon a previous CRC Reef co-management research task by providing research, advice and monitoring to assist Traditional Owners and agency parties when and if they come to operationalise co-management.
- Develop and commence implementation of a co-operative evaluation framework to enable the parties to monitor and improve their management approaches, using an adaptive management philosophy. This short-term project focuses on the 'assessment' and 'planning' steps of an adaptive management cycle, documenting the history to date of each case study and current management situation as a *baseline* for monitoring management improvements as co-management or other forms of partnership progress.

- Provide well researched advice to all parties concerning the practicalities for implementing co-management.
- Provide Indigenous capacity-building through research positions and engagement processes.
- Assist the CRC in its Indigenous engagement process.

Structure of the report

Following the introduction, the co-managed approach used in this research is outlined. This is followed by Indigenous and government agency perspectives of the current situation for co-operating in environmental management within the Great Barrier Reef. This information is the first step of the adaptive management process and provides vital baseline information for parties to use when negotiating future management goals. The next step of the adaptive management process is then considered and some current Indigenous and government initiatives are explored and compared.

Although the analysis highlights that differences between Indigenous and government approaches and objectives for co-operating in environmental management are profound, potential for convergence is evident if shared Indigenous and government objectives can be identified and if the process of meeting objectives is approached in an 'adaptive' manner. For example, caring for dugong and turtle species and habitats, ensuring country is healthy, and protection of Indigenous cultural values could all be agreed goals between Traditional Owners and the GBRMPA. The report examines how an adaptive approach might facilitate Traditional Owners and the GBRMPA should they wish to work together towards these shared goals. The report concludes by outlining key practicalities and realities parties would have to consider should they wish to pursue co-management or other types of partnerships to work towards these and other shared goals for the Great Barrier Reef.

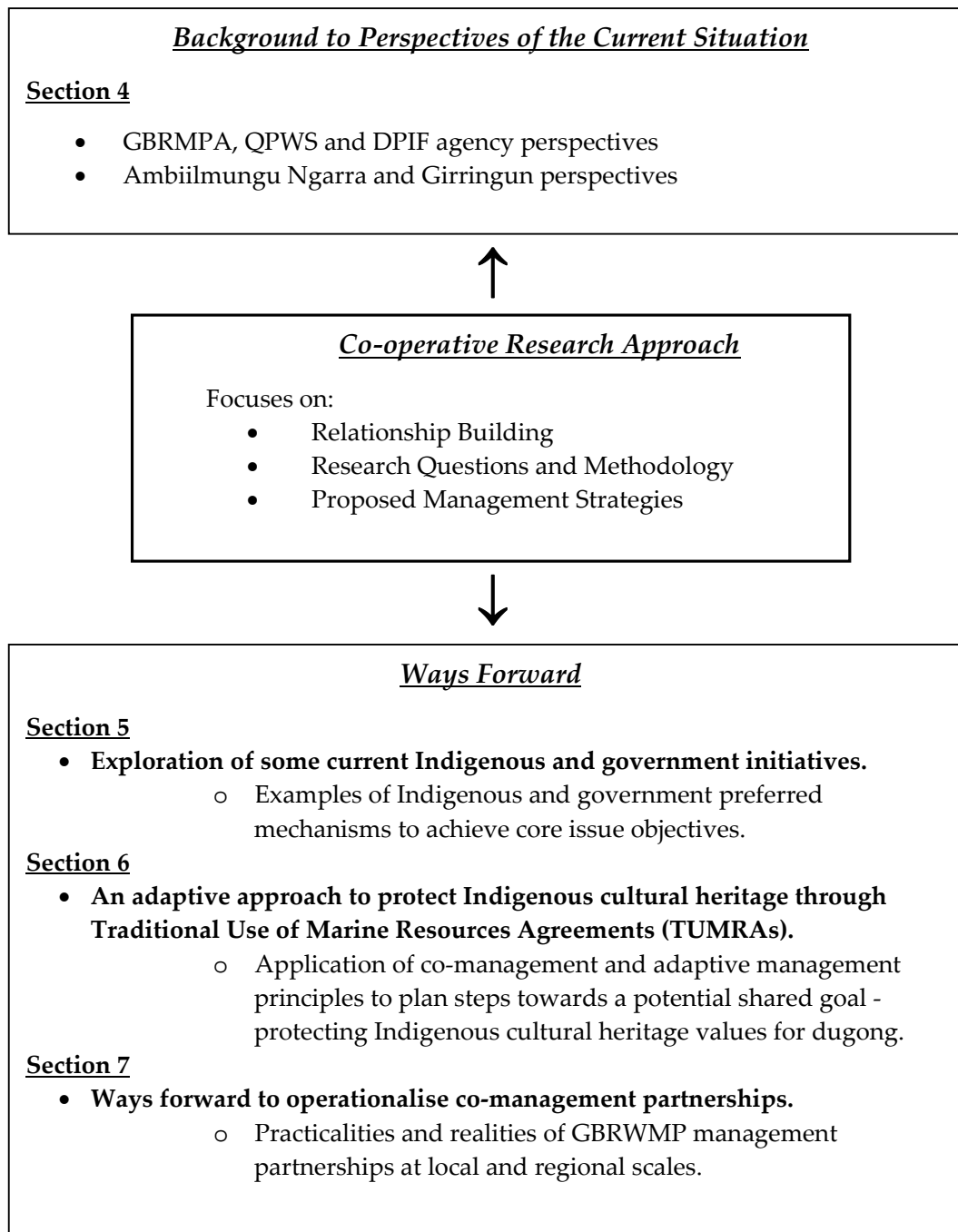


Figure 1 – Report Structure and Research Approach

2. CO-MANAGEMENT AND ADAPTIVE MANAGEMENT

The development of the concept and application of co-management has been in response to the recognition of Native Title or treaty rights in several countries, combined with unsuccessful experiences with government imposed management regimes that failed to integrate social, legal and ecological dimensions of natural resource management. A range of agreements and partnerships have been developed in Australia and overseas that provide Indigenous people with various levels and types of sharing in environmental decision-making and management responsibilities (see George *et al.* 2004). As a result, there are diverse and broad interpretations and implementations of arrangements under the term 'co-management' that embrace what Berkes *et al.* (1991) describe as 'a continuum' of decision-making roles for a given territory, species, area or set of natural resources.

In the Australian context these arrangements range from situations where Indigenous community based management prevails with some sharing of decision-making with government (e.g. Dhimurru Land Management Aboriginal Corporation– see Robinson and Munungguritj 2001); joint management of terrestrial national parks (e.g. Uluru-Kata Tjuta and Kakadu – see Woerne Green *et al.* 1994); and arrangements in which management is shared to a degree but government responsibilities dominate (e.g. some of the weaker terrestrial joint management arrangements – see Baker *et al.* 2003). This diversity of interpretations complicates discussions about co-management.

In this report, co-management refers to an agreement of equitable relationships which promotes the idea that partnerships can be agreed mutually and fairly but the allocation of roles and contribution between these parties may differ, based on their interests, priorities and capacities (see George et al. 2004).

Adaptive management provides a useful philosophy and framework for guiding the development of co-management or other partnerships (Figure 2). Rather than believing that an existing management relationship or planned management intervention *will* work, or is the best possible solution to a situation, adaptive management is a way of approaching management strategies and relationships like a scientific hypothesis or proposal for testing. A management action might work, and one needs to try it out and collect evidence, through monitoring and evaluation, to test assumptions and to measure how well the management arrangement or intervention has worked (see Walters and Holling 1990; Margoluis and Salafsky 1998). After the evaluation, one improves on it. In contrast to the more typical linear approach of plan-then-implement, adaptive management follows a cyclic approach:

- *Assess* the present situation, usually with some focus on what one wants to improve about it, and on the features one considers important about it (especially focusing on development of a 'model' or 'hypothesis' about how the system is operating and what factors are impeding or driving change in the system);
- *Establish* clear management goals or objectives based on the assessment carried out in the first step. These objectives should be achievable and measurable so that progress towards their fulfillment can be ascertained. They may be focused on targeting issues identified in the 'model' or 'hypothesis' developed in the initial system assessment. Identifying factors outside the control of management can be important in setting realistic goals and objectives and ensuring that later monitoring takes account of the impact of extraneous factors. Short term goals that are within the capacity of managers to achieve and medium term goals that are not necessarily entirely within the control of managers but can be significantly influenced by management actions will be the primary focus of this planning, but the link to longer term, more aspirational goals should be clearly articulated.
- *Plan* some management actions designed to achieve short and medium term goals. One often considers several options at this point (again based on the system 'model' or 'hypothesis') and selects the most promising;

- *Implement* the action, partnership or process;
- *Monitor* (collect relevant information) and *evaluate* (assess that information) to work out how well the management intervention has succeeded, and why (or why not). This links to the start of the next cycle, by providing information towards an updated assessment, and revised plans for further testing. The question of what to monitor is relevant here. Because adaptive management focuses on program improvement rather than just reporting on management outcomes a broad range of indicators is required. The Context, Input, Process and Product model for evaluation (Stufflebeam and Shinkfield, 1985) and IUCN Management Effectiveness Evaluation Framework (Hockings *et al.* 2000) both advocate assessment and monitoring of indicators relating to the context of management, inputs, processes as well as the outputs and outcomes of management actions. Focusing evaluation on all elements of the management cycle (i.e. planning and objective setting, inputs, processes, outputs and outcomes) allows judgments to be made about the adequacy and appropriateness of management inputs, systems and processes as well as the delivery of management programs and achievement of objectives (Hockings *et al.* 2004). The potential to use information from evaluations for adaptive management is enhanced by collecting data on such a broad range of aspects of management because examining the relationship between performance on various aspects can be used to build hypotheses about critical factors impacting on management effectiveness (Goodman 2003; Leverington and Hockings 2004).
- *Updated assessment.* The new situation for assessment includes changes resulting from one's management interventions, but also changes that have occurred for other reasons. It is important to recognize other sources of change, since one is never able to 'manage' the entire context. The updated assessment may also reflect changes arising from an improved understanding of the system and how it operates. Assumptions built into the initial analysis of the system may have been shown to be false as a result of the later monitoring and evaluation. Changing assumptions will often lead to selection of a different management intervention as the best possible means of achieving management objectives. Some authors,

such as Nyberg (1999) have more than four steps in the cycle or label them slightly differently, but the key steps and principles are the same.

While it is becoming increasingly common to monitor the state of the environment, and sometimes the environmental outcomes of management interventions, practice of the *full* adaptive management cycle, including integrating monitoring results and their evaluation into continual improvement of practice, remains uncommon (Allan and Curtis, 2003; Lee 1999; Dovers and Mobbs 1997). Problems identified in application of adaptive management include a lack of information by practitioners on how to develop appropriate system models, engage stakeholders in the process, and develop appropriate monitoring and evaluation systems as well as the need for cultural and institutional change to embrace experimentation and reflection on management (Allan and Curtis, 2003). In this report, we extend the application of adaptive management as practiced on ecosystems, to advocate its use with *institutional arrangements* such as co-management (Ross *et. al.* 2005). The advantage of linking an adaptive management philosophy and approach to a co-management context is that it reduces pressure on the initial decisions about management relationships and actions, because they are provisional and all parties would accept that they would need improvement. There would also be less pressure to reach agreement on a single course of action, since more than one management strategy could be tested and the outcomes considered together. Adaptive management is also a helpful approach for surfacing assumptions and making explicit models of how a system does, or should, operate.

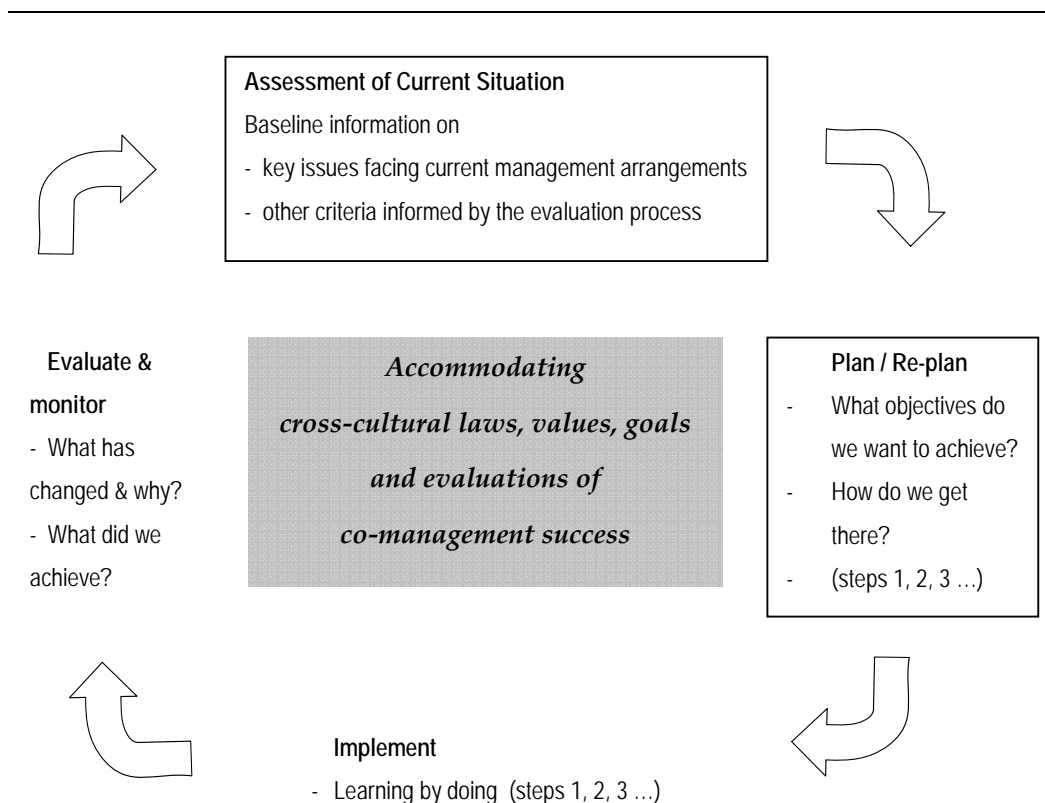


Figure 2 – Key features of adaptive management in a co-management arrangement

Note: Assessment and planning steps are boxed, and are the focus of this report.

Other researchers have also begun to recognise the opportunities that arise from combining adaptive with co-management, coining the term ‘adaptive co-management’ (e.g. Buck *et al.* 2001; Berkes *et al.* 2003). So far the focus is mainly on how Indigenous knowledge, laws and systems of governance can adapt to changes in their local environments, in partnership with government agencies. In this report, we focus on combining co-management with adaptive management and advocate that testing needs to be conducted together by Indigenous and government parties.

In summary, the combination of adaptive management with co-management offers opportunities to focus on:

- The *process* of co-management: the effectiveness of the shared management arrangements (structures and processes, and the quality of relations between the parties);
- The *results* or *outcomes* of the co-management: the management outcomes in the natural (or human-made), social and economic environments, and in people's activities.

While natural resource management typically focuses on the outcomes of environmental processes in the narrow, ecological sense, we know that Indigenous people consider natural resource management to be inseparable from cultural heritage (with spiritual and cultural knowledge, and permission protocol dimensions; as well as interest in the physical manifestations of cultural heritage such as sites). We also know that Traditional Owners are interested in improvements in quality of life for their people, including improved livelihoods through employment and economic ventures, keeping culture strong, and social qualities.

In this report we concentrate on how adaptive management can support development of the *processes* of co-management. The equally important area of *outcomes* of co-management is a larger question requiring extensive work that is beyond our resources, timeframes and access to data. However, the same strategy of using an adaptive management approach would be equally applicable to plan and evaluate desired outcomes from co-management arrangements.

Consider, for example, an experience taken from the case-studies summarized in the first CRC Reef co-management project (Nurse-Bray *et al.* 2005). Giringun Aboriginal Corporation was concerned about the extent of damage caused by tourists visiting a section of Hinchinbrook Channel (under Queensland Government, not the GBRMPA jurisdiction) containing Aboriginal fish traps of considerable cultural heritage significance. At high tides boat anchors were damaging the traps, and at low tide people were walking on the traps and dislodging the rocks. The Giringun Aboriginal Corporation decided to do something about this situation.

They had some attractive and prominent signs made (funded by a Coastcare grant), and installed them (they formed a hypothesis that signs would persuade people to avoid the area, and implemented this). The signs were stolen. They installed more, and these were stolen also. This intervention was not working, but they were not sure why. Were the signs too attractive, and being 'souvenired'? Or were they being taken for other reasons, such as antagonism to what The Girringun Aboriginal Corporation was asking of tourists (Evaluation)? In response to this evaluation, the Girringun Aboriginal Corporation suggested some different management strategies, including creation of a new form of tourism permit, which would require the Environment Protection Agency's cooperation. In other words, the first intervention had not worked, the situation in terms of damage to the fish traps had not been solved, and a new intervention was proposed. The Girringun Aboriginal Corporation, without being familiar with the concept, had followed one cycle of adaptive management.

Later in this report we critically analyse whether the GBRMPA's initiative to develop and implement accredited Traditional Use of Marine Resources Agreements (TUMRAs) can be built using adaptive management. Ideally, an initial version of a TUMRA could be designed and tried, the parties could evaluate its success (according to whatever criteria they decide are important), and then the TUMRA could be improved. The principle would be to assume that the TUMRA would not be perfect first time, and should be improved on the basis of experience. Given the potential complexity, this approach could enable a TUMRA to start by addressing a few issues, then be expanded (as well as improved) as the parties gain experience and readiness to take on more responsibilities.

Constant monitoring and *evaluation* also distinguishes adaptive management from linear approaches to management. This step enables a management hypothesis to be tested based on agreed measures (indicators) to determine the success of management decisions and actions. It thus informs improvement, and feeds into a new adaptive management cycle. How would evaluation work in a co-management regime? As discussed further in this report, an important challenge for the

application of adaptive management to a co-management agreement is that Indigenous criteria may be very different from agency-based evaluations of what constitutes a 'success'. It is important to identify *what* criteria are, or are not, held in common so that parties can negotiate what actions are to be planned, implemented, monitored and evaluated. It is also important to understand *why* differences and similarities exist in this initial assessment so that parties can negotiate all aspects of the adaptive 'learning by doing' process.

3. RESEARCH APPROACH

This project was managed jointly by a co-operatively managed committee comprising representatives of Balkanu Cape York Development Agency, Ambiilmungu Ngarra, Giringun Aboriginal Corporation, the GBRMPA, and the research team. This committee enabled the research process to be sensitive to Indigenous, scientific, and government shared knowledge, and provided a forum which brought the users of information together with researchers to jointly negotiate the research directions (Innes and Ross 2001). The committee also allowed parties to strengthen relationships and practise an aspect of co-management through shared development of research goals and agendas.

Since only a few members of each party could realistically participate directly in the project, representatives were used to gain two-way communication with the wider membership of parties involved. The current research approach and focus was developed from one-on-one discussions organised by the Project Leader between October and December 2003, then preliminary discussions by members of the committee in February 2004. This led to the collection and analysis of material during a research trip in early March and another trip in early May 2004. The focus of these trips centered on three broad themes; i) obtaining baseline information and background to perspectives on current management arrangements within the GBRMP; ii) clarification and confirmation of aspirations for co-management or partnerships held by Indigenous case-study groups and key government agencies (GBRMPA, QDPI&F, QPWS); and iii) discussion of general attributes of the critical steps needed for a system to plan, implement and evaluate progress towards shared goals in co-operating in environmental management.

A desktop analysis was also undertaken whereby information was collected from policy documents, secondary sources and by telephone. Meanwhile, information relevant to the two Indigenous case studies was conducted by Ambiilmungu Ngarra Corporation and Giringun Aboriginal Corporation respectively. Giringun

delegated Ms Ellie Bock to consolidate a report on Girringun Traditional Owner group's sea country issues and co-management aspirations, combining information from a series of workshops and meetings with previously documented information (see Appendix 1). Ambiilmungu Ngarra Corporation similarly appointed Mr Roland McLean who travelled widely and consulted among Ambiilmungu Ngarra Traditional Owners living both on and off their country, to verify and add to aspirations listed in a previous case study (Roberts *et al.* 2005). This information is incorporated in Section 4 of the report.

A draft of the current report was presented and discussed with members of the committee at a meeting held at the end of May 2004. This provided the committee with some time to consider and consult on the report's findings and recommendations before the report was released for external review in August 2004.

4. BACKGROUND TO INDIGENOUS AND GOVERNMENT AGENCY PERSPECTIVES OF THE CURRENT SITUATION IN THE GREAT BARRIER REEF

The first critical step to engage in an adaptive approach towards co-management or other forms of partnership is to assess the current situation (Figure 2). This provides vital baseline information for parties to negotiate clear management objectives, implement agreed activities, and negotiate the criteria to evaluate co-management progress. This Section provides a baseline assessment of current partnerships that exist in the Great Barrier Reef Marine Park (GBRMP).

INDIGENOUS ASPIRATIONS AND EXPERIENCES

Over the past decade a number of government commissioned reports have documented the general features of Indigenous co-management aspirations and experiences in Australia and the GBRMP (e.g. Bergin 1993; Sea Forum 1999; Appleton 2000). Other government sponsored reports have also investigated the implications of the existence of Indigenous customary marine tenure in Australia for ecologically sustainable development (Cordell 1991), fisheries (Lawson 1984), coastal management (Smyth 1993) and the development of Australia's ocean policy (e.g. see Robinson and Mercer 2000). A number of recommendations have emerged from these inquiries which revolve around three core themes:

- Recognition of Indigenous customary rights to use and manage land and marine estates,
- Introduction of provisions to enable Indigenous people to benefit commercially from the exploitation of the resources in their country,
- Government support for Indigenous people to be involved at all levels of management.

A community-based alliance of Traditional Owners from the southern Great Barrier Reef created the Southern Great Barrier Reef Sea Forum (Sea Forum 1999; see George *et al.* 2004 for more details). This forum was used to outline why

Indigenous people wish to move towards genuine co-management partnerships founded on respect of Indigenous rights and interests, and document an agenda for doing so (Box 1). Sea Forum proposed a 'framework' or regional process for the Southern GBRMP, through which finer-scale localised agreements could be negotiated to address local issues, interests and circumstances (Sea Forum 1999).

Box 1: Issues identified by the Southern Great Barrier Reef Sea Forum to justify the need for genuine co-management partnerships

The degree to which Indigenous interests are marginalised under the sheer weight of other interests in marine resources:

Indigenous people are regarded as simply another stakeholder group that is not empowered to consent on management programs and activities.

The complexity and lack of integration of the management arrangements covering sea estates:

Indigenous country and its management involves many agencies that have complex and confusing jurisdictions and resource responsibilities for the Great Barrier Reef

The significance of resource use problems:

There is no baseline information to monitor and manage the impacts on significant cultural, environmental and economic aspects of the Great Barrier Reef.

The lack of effective recognition of existing Indigenous rights and interests:

The recognition of native title in Australia has not translated into marine resource management practice.

The social and economic impacts accruing from limited Indigenous involvement:

Programs that facilitate regular Indigenous movement through and management of country could improve biodiversity and Indigenous health.

The lack of progress towards co-management:

To date there remain few positive examples of co-management in marine resource management in the Great Barrier Reef.

Source: Sea Forum 1999.

The summary of Indigenous experiences and aspirations with environmental management partnerships in two case-studies outlined below highlights that some progress has been made at the local level. Even so, the concerns outlined by Sea Forum seven years ago are still valid and are far from being fully resolved.

Ambiilmungu Ngarra Traditional Owner perspectives

Ambiilmungu Ngarra rights and interests for country include marine and terrestrial areas on Queensland's Eastern Cape York Peninsula that encompass eastern Princess Charlotte Bay, Bathurst Heads, and Cape Melville south to Lookout Point (Roberts *et al.* 2005). The area contains a number of national parks, two around Bathurst Head and Barrow Point that are very important dugong areas. Ambiilmungu Ngarra Traditional Owner aspirations for environmental management arrangements have been discussed in case-study material collated for this project and are summarised in Box 2 and Box 3 below.

Box 2: Ambiilmungu Ngarra Traditional owner aspirations for co-management

'This is our country, we know our country, we know what we think is bad for our country, we have plans for our country, and we want to look after our country.'

- Greater real involvement in management of land and sea
- Aboriginal (Bama) rangers put in place. These rangers should be trained to nationally accredited standards and chosen by Traditional Owners
- Ranger control of hunting permits
- Protected areas for dugong and turtle
- Building of resource centres / ranger stations in particular locations nominated by Indigenous Traditional Owners
- Control of visitors
- Control of commercial fishing
- To be part of the process that determines how many fishermen should be in a certain place
- Protection and patrolling of sacred sites
- Support for outstations explaining to the public that Indigenous people are performing a service for the broader Australian community by protecting country
- Agencies to understand that co-operation from both sides is required to make these things happen.

Sources: Roberts et al. .2005; fieldwork interviews.

Ambiilmungu Ngarra Traditional owner aspirations are also based on their experiences with government agency partnerships and other stakeholder activities in this area (Box 3).

Box 3: Ambiilmungu Ngarra Traditional Owner experiences with current management arrangements and partnership initiatives on land and in the GBRMP

Partnerships between Ambiilmungu Ngarra and relevant government agencies

- The GBRMPA partnerships have focused on the control of Indigenous turtle and dugong harvesting effort
- A Memorandum of Understanding has been negotiated to use and manage the Wakooka block of the former Starcke Holding, proposed as an extension to Cape Melville National Park.
- Short term Indigenous Ranger programs with support from National Heritage Trust funds.

Consultation and consent for management zones, areas, use, and programs

- Unsuccessful attempt to establish Cape York Regional Sea Issues Forum to enable Traditional Owners to contribute to review of Far North Section Rezoning process.
- Representative area program based on bioregional mapping / criteria with insufficient consideration of cultural values, traditional ownership or economic aspirations.
- Minimal commitment (funds and consultation) to keep Indigenous people informed about program initiatives or changes to rezoning process and RAP.
- National Indigenous Coastal Reference Group disbanded with change of Commonwealth government
- Future Acts Notification process implemented after passing of *Native Title Amendment Act 1998* requires Traditional Owners to comment on activities requiring permits (exploratory fishing, research activities, tourist activities, charter fishing and anchoring of cruise ships). Problems include time period to respond (28 days) and provision only to comment rather than empowering people to control the consent of these activities.

Ongoing concern fishers and tourists accessing cultural sites, driving over grave sites, damaging the environment through uncontrolled access and catching more marine resources than they need.

Ambiilmungu Ngarra involvement in management of country

- Indigenous Ranger programs have been initiated in the past with Ngulad Land Trust support from the GBRMPA and QPWS. No Indigenous Rangers for GBRMP were employed at time of writing.

Sources: Roberts et. al. 2005; fieldwork interviews.

Girringun Traditional Owner perspectives

Girringun Aboriginal Corporation represents the land and sea interests of nine Indigenous Traditional Owner groups – Bandjin, Gulgnay, Jirrbal, Nywaigi, Waragamay, Girramay, Warungnu, Djiru, and Gugu-Badhun. The Girringun area comprises the land and waters from Rollington, northwest to Ravenshoe. Offshore islands and waters surrounding Hinchinbrook, Goold, Brook, and the Family Islands are also included in Girringun country (Appendix 1).

There are many features of this region that have natural, cultural and economic significance. The current Cardwell-Hinchinbrook Regional Coastal Management Plan summarises some of these features, which include sites of high biodiversity and high natural integrity, habitats for many rare and threatened species, prominent Indigenous cultural areas and resources, a wide range of Indigenous Traditional Owner economic development opportunities (such as cultural and ecotourism activities, and fisheries), and various primary and recreational industries (QPWS 2003).

From an Indigenous perspective, Girringun sees itself in the business of not only managing land and sea country, but also undertaking social planning and achieving social, cultural, economic and environmental outcomes. Girringun's aspirations for co-management arrangements are summarised in Box 4.

Box 4: Giringun Traditional Owner aspirations for co-management

'To establish ongoing and collaborative whole of government management approaches to ensure effective and holistic management of the Giringun community of land, sea and people'.

Partnerships between Giringun and relevant government agencies

- To develop an ongoing and effective land and sea management regime, through the establishment of co-management partnerships and programs between Giringun and relevant management agencies.
- To build local capacity and initiatives to address specific land /sea management needs of Traditional Owners in the region.
- To facilitate mechanisms that will ensure the ongoing protection and management of the cultural and environmental heritage of the area.
- To have indigenous management rights and interests recognised by all levels of government.
- To be integrally involved in the management of country, including an on-ground presence in the Cardwell / Hinchinbrook marine area.

Management and Protection of Natural and Cultural Heritage

- To be involved in managing and protecting relevant Indigenous cultural resources and sites, as these are important aspects of culture, spirituality, identity and well-being.
- To cease commercial crabbing activities due to adverse affects these methods have on traditional sea country
- To implement specific Indigenous Cultural Zones and / or Indigenous Protected Areas to protect indigenous cultural sites, and allow areas to be managed with Traditional Owners in a more culturally appropriate manner.
- To assist in projects that address impacts of agriculture on water quality in the region.
- To collect, research and document Indigenous cultural and environmental knowledge and facilitate its incorporation into current management approaches and structures.

Co-management of Tourism

- Develop principles for co-management of tourism based on mutually agreed 'rules for country' that embrace sustainable use, provide opportunities for Indigenous capacity building and empowerment; recognise native title rights and responsibilities, involve Traditional Owners in decision making and resolution of disputes; provision of an accurate and accessible data-base of tourism use and activity.
- Rework zoning system to create exclusive use and access zones for Giringun to pursue cultural activities and initiate tourist ventures.
- Create and be part of a negotiation table for tourism to enable Giringun, management agencies and tourist operators to resolve key issues and activities in relation to tourism, and develop a system of permit assessment that incorporates environmental and cultural impact assessments to be part of permit.
- Introduce cultural permit system and interpretation services to create forums to develop a database of tourist numbers in country and enable visitors to learn about Giringun and cultural issues.
- Contribute to cultural assessment activities and help make decisions about tourist access to country and sites of special significance.
- Continue and expand signage program as an important step in controlling and managing tourism impact and visitation on and to their country.

Giringun involvement in management of country

- To be integrally involved in the management of country and be a core part of the on ground management presence in the Cardwell / Hinchinbrook marine area
- To have access to employment, economic and training opportunities with government agencies and industries that enable Giringun to be contracted for day-to-day management activities in the GBRMP.

Sources. Appendix 1; Nursey-Bray *et al.* 2005; fieldwork interviews.

Giringun Traditional owner perspectives of the current situation are also based on their experiences with government agency partnerships and other stakeholder activities in this area (Box 5).

Box 5: Giringun Traditional Owner experiences with current management arrangements and partnership initiatives on land and in the GBRMP

Partnerships between Giringun and relevant government agencies

- Discussions in progress with the GBRMPA about the possibility of developing TUMRA s to manage traditional use, hunting and subsistence, including those Indigenous people coming into Giringun country and hunting 'out of country'.
- Development and implementation of Giringun Marine Park Ranger Unit with QPWS.

Consultation and Consent for management zones, areas, uses, and programs

- Acquiring traditional lands by purchase (Badjuballa, formerly Kirrima Station, Mungalla Station)
- Maintain 'No Anchoring' markers, Scraggy Point.
- Run cross-cultural training workshop for the GBRMPA and QPWS representatives.
- Collate and manage cultural heritage and resource information to assist conservation of Hinchinbrook Island Fish Traps and protect dance, story, medicine, hunting and other cultural heritage sites.
- Formal submissions documenting concerns that current commercial and recreational fishing activities are adversely affecting fish stocks, dugong and turtle breeding areas and Indigenous access to these natural and cultural resources.
- Concern over proposed coastal developments (such as the Marina proposal at Clump Point) in areas that are particularly significant cultural sites.
- Concern expressed about the detrimental effects of shipping accidents that could occur in Giringun sea country.

Giringun involvement in management of country

- 3 Giringun Rangers employed by QPWS. Work plans and day-to-day management activities negotiated between QPWS and Giringun Executive Steering Committee.
- Giringun committed to co-operative processes that support family and community involvement in a range of caring for country activities.

Sources: Appendix 1; Nursey-Bray et al. 2005; fieldwork interviews.

Here we are outlining the first two steps of adaptive management – an assessment of the current situation and aspirations to help plan future actions and relationships. These steps are presented in the reverse order because the aspirations give focus to the aspects of the present situation that need to be considered.

A comparison between Ambilmungu Ngarra experiences and aspirations (Box 2 and Box 3) with those expressed by Giringun (Box 4 and Box 5) highlight some important features of Indigenous perspectives of the current situation in the GBRMP. Both groups share similar aspirations for Indigenous co-management for their respective traditional territories. Both have long-term both strategic (forward planning, whole of country, integration of multiple issues) and operational elements (day to day management by rangers or accredited volunteers), but their current focus is on day-to-day management rather than negotiating more comprehensive agreements. This could reflect current political realities – in 2002 the then Minister for the Environment decided against pursuing the type of framework agreement sought by the Southern Great Barrier Reef Sea Forum and requested instead that the agencies pursue practical local arrangements such as ranger programs which could be implemented without lengthy negotiation – and a practical desire on the part of many Traditional Owners to commence action.

These aspirations revolve around a desire for ongoing support to implement effective Indigenous environmental management regimes. Both groups also wish to improve their capacity to influence government decision-making, ensure visitor use and access to country is culturally appropriate and ecologically sustainable, and involves Traditional Owners in management decisions and activities. This includes having ‘an on-ground presence’ on country through ranger or other day-to-day management activities available in the Great Barrier Reef. It also involves recognition and support for the role Elders play in governing decision-making processes, and the role for families and the wider community to share, teach and learn appropriate information necessary to engage in the co-management process.

Traditional Owners within each case-study have sought to fulfill their aspirations and concerns in different ways. Ambilmungu Ngarra Traditional Owners are focused on the development of infrastructure (e.g. boats) and ranger employment opportunities or accreditation of volunteers trained as a basis for direct and practical Indigenous management of their sea country. Relationships with a range of agencies whose day-to-day management roles they seek to share are currently being developed in an effort to gain acknowledgement of Ambilmungu Ngarra's management role and make effective use of the infrastructure available. On the other hand, Giringun has engaged with existing agency management structures, particularly the Queensland Parks and Wildlife Service which provides day to day management of its own areas of the Marine Park and the GBRMP, in an effort to build working relationships and share on-ground management activities. Its rangers are currently employed as QPWS staff though under the guidance of a joint Giringun-QPWS committee. Through this engagement and training they seek to increase their capacity to progress towards equitable co-management arrangements. The Giringun strategy focuses strongly on building mutually useful relationships with agencies, as a precursor and ongoing support to each initiative such as a ranger unit.

THE GBRMPA AND OTHER RELEVANT AGENCY PERSPECTIVES

The goal of the GBRMPA is to 'provide for the protection, wise use, understanding and enjoyment of the Great Barrier Reef in perpetuity through the care and development of the Great Barrier Reef Marine Park'. To help achieve this goal the GBRMPA has a range of objectives, including 'protection of the natural quality of the Great Barrier Reef while providing for use of the Reef's resources'. Park management is achieved 'primarily through the community's commitment to protect the Great Barrier Reef and its understanding and acceptance of procedures of zoning, regulations and management practice', as stated under the Park's new zoning plan (GBRMPA 2004b). Indigenous people's traditional affiliations and rights in management of the marine park are also recognised.

One of the most comprehensive statements ever made of the GBRMPA's aspirations for the Great Barrier Reef is a 25 year strategic plan written in the mid 1990s (GBRMPA 1994a). While this thoroughly prepared document is no longer the major guide for the agency's current management agendas, the ideas within it are informative for their period and many of the objectives in the plan have been or are being addressed through current management initiatives. Aspirations for conservation, recognition of Indigenous interests, resource management, education, consultation, research and planning, and integrated planning were all outlined, including 5 year objectives towards these final goals (GBRMPA 1994a). The objectives that specifically refer to Traditional Owners as one of 'key players' in achieving the GBRMPA's final goals are summarised in Box 6 below.

From a GBRMPA management perspective, effective co-management is judged on conservation criteria. Indigenous people are seen as one of the many stakeholders who have an interest in the managing agency's actions but not necessarily with any particular status over other stakeholder groups, although the agency recognises the potential legal and social ramifications of Native Title claims, and of recent wildlife court decisions. The degree to which Indigenous rights and interests are bound by concepts of ecological sustainability constitutes a critical dynamic to the relationships between the GBRMPA and Indigenous people.

Box 6: The GBRMPA aspirations for Indigenous partnerships stated in the 25 Year Strategic Plan for the GBRMP (as at 1994)

Traditional Use of Marine Resources

- The GBRMPA and other relevant agencies to coordinate development, implementation and evaluation of management plans for dugong, turtles, whales, dolphins, and crocodiles (2.2.3).
- To develop, in conjunction with Traditional Owners, an understanding of their marine resource uses, and management practices (4.10).
- Strategies include – research on ecological sustainability of traditional hunting, fishing and gathering, effects of non-traditional use on harvesting resources used traditionally by Traditional Owners, research with Indigenous people on appropriate cultural uses and sites, use rights and traditional marine tenure and management regimes
- QDPI&F to coordinate the development, implementation and evaluation of management plans according to the needs of commercial, recreational and traditional collecting and gathering for various fisheries (2.2.2. and 2.2.3).

Conservation of Cultural and Natural Heritage

- Provide the opportunity for Indigenous membership and full involvement in management and protection of cultural heritage of area (1.10).
- To develop, implement, and evaluate management plans for recreational activities (2.3).

Aboriginal and Torres Strait Islander and GBRMP management arrangements

- Coordinated planning for the GBRMP with the Torres Strait Protected region and Australian Fishing Zone (5.2).
- To ensure that the interests of Aboriginal and Torres Strait Islanders are reflected in the management of the GBRMP (6.1).
- To develop a culturally appropriate information program for Indigenous people, regarding the area and its management (6.3).
- To establish cooperative management arrangements between Traditional Owners and stakeholder agencies in the Area (6.4).
- To develop, implement, and evaluate management plans for recreational activities (2.3).

Source: Adapted from GBRMPA 1994a.

George *et al.* (2004) argue that the consideration of Indigenous peoples on the same terms as other stakeholders reinforces the argument that Indigenous dispossession is still occurring. The way in which the GBRMPA defines its stakeholder category limits the capacity for Indigenous people to identify the scope and nature of their rights and interests, and forces Indigenous groups to conform to the management framework formulated by the managing agency. A recent report investigating cultural heritage issues within the GBRMP concurs with this view (Greer *et al.* forthcoming). Rather than Indigenous interests in the region being seen holistically, Indigenous peoples of the GBRMP are primarily identified on the basis of how they *use* the Park, and whether this use is sustainable.

Indigenous hunting is considered to pose a direct threat to turtle and dugongs, and Indigenous rights to use these traditional marine resources have dominated relations between Indigenous peoples and management agencies

(e.g see QPWS 1999; Hopevale Aboriginal Land Council and Nursey-Bray 1999; Marsh 2003a).

Recent 'partnership' initiatives from Federal and Queensland governments have sought to improve and expand the scope of Indigenous-government relationships. The Council of Australian governments (COAG) has committed to a reconciliation framework based on a vision of 'shared responsibility, shared future' whereby government support and actions are tailored and coordinated in response to community needs and aspirations (COAG 2000). In Queensland, this has included a commitment from various government agencies responsible for management of the GBRMP to enter into various programs under the Queensland Government's '10 year partnership framework' (DATSIP 2001). The aim of this initiative is as follows.

'By 2012, Indigenous people will have significant access to, and involvement in the management of land and sea country. Indigenous people will have the resources and skills needed to effectively plan for and sustainably manage land and sea country to meet their aspirations'. Queensland Government '10 Year Partnership' Framework 2001.

Partnerships are guided by a range of initiatives outlined in the *'Meeting Challenges, Making Choices'* program (DATSIP 2003a). This includes a range of programs focused on communities within the Cape York region, partnerships to enhance economic development and to address family violence. Various government agencies have also committed to a *'Looking after Country'* initiative which aims to improve Indigenous people's access to land and sea country; involve Indigenous people in planning and management of sea country; and increase Indigenous input into impact appraisals of natural resource planning and policy making (DATSIP 2003b).

Scientific advice and technical support is offered to Indigenous people interested in forestry, fishing or agricultural industries (AFFA 2002; QDPI&F 2003). Training and employment opportunities associated with park management have also been developed (QPWS 2001) and mechanisms to incorporate Indigenous people's perspectives into the protection of cultural values along Queensland's coast are currently being considered. The various Indigenous partnerships currently available in the GBRMP region are summarised in Box 7.

Box 7: Indigenous partnerships currently available within the GBRMP

Indigenous ownership of land and sea country estates and use of resources

- Ability to transfer land ownership to Indigenous people under Commonwealth Native Title Act 1993; Queensland Aboriginal Land Act 1991 and Torres Strait Islander Land Act 1991.
- Some traditional hunting and gathering activities require permits issued under terms of the Great Barrier Reef Park Regulations 1983. A few Indigenous Traditional Owner groups (e.g. in Hopevale, Mackay and Mossman) have the right to issue permits delegated to them by the GBRMPA. Traditional Use of Marine Resources Agreements (TUMRAs) are also available as part of the GBRWHA new zoning plan – discussed further in Section 5 of this report.
- Some traditional activities of Traditional Owners are recognised 'as of right' under Section 211 of the Commonwealth Native Title Act 1993.

Specific requirements to consult with Traditional Owners in GBRMP planning and management

- Objects of the Environmental Protection and Biodiversity Conservation (Cwth) Act 1999 Section 3, include – (d) to promote a co-operative approach to the protection and management of the environment involving governments, the community, land-holders and Indigenous peoples; and (f) to recognise the role of Indigenous people in the conservation and ecologically sustainable use of Australia's biodiversity; and (g) to promote the use of Indigenous peoples' knowledge of biodiversity with the involvement of, and in co-operation with, the owners of the knowledge.
- In order to achieve object (g), the EPBC Act promotes a partnership approach to environmental protection and biodiversity conservation through conservation agreements with land-holders; recognising and promoting Indigenous peoples' role in, and knowledge of, the conservation and ecologically sustainable use of biodiversity; and the involvement of the community in management planning.
- Great Barrier Reef Marine Park Regulation 18(4b) 1983 requires that the GBRMPA must have regard to the need to protect the cultural and heritage values held in relation to the Marine Park by traditional inhabitants and other people when considering an application for permission to use or access a designated area (discussed further in Section 6 of this report).
- Coastal Protection and Management Act (Qld) 1995 (Chapter 1, Part 2, Section 4a) recognises coastal management is to be achieved by 'coordinated and integrated planning and decision making, involving, among other things, the preparation of coastal management plans that have regard to Aboriginal tradition and Island custom of Aboriginal and Torres Strait Islander people particularly concerned with land affected by the plans.
- Queensland Fisheries Act (Qld) 1994 (Part 1, Section 14) states Aboriginal and Torres Strait Islander rights to take fisheries resources subject to a provision of a regulation or management plan that expressly applies to acts done under Indigenous tradition or custom. Such regulations or management plans may only be developed after cooperating with Aborigines or Torres Strait Islanders, considered by the chief executive to be appropriate, to reach agreement, or reasonably attempt to reach agreement, about the proposed regulation or plan.

- Nature Conservation Act (Qld) 1992 states that management principles of Queensland's National Parks on Aboriginal Land or Torres Strait Islander Land require the Park to be managed, as far as practicable, in a way that is consistent with any Indigenous custom applicable to the area, including any custom relating to activities in the area (Section 18 and 19). A person, other than an authorised person, must not take, use, keep or interfere with a cultural or natural resource of a protected area, other than under - (a) the interim or declared management intent for the area; or (b) any conservation agreement or covenant applicable to the area. 'Cultural resources' of a protected area means places or objects that have anthropological, archaeological, historical, scientific, spiritual or sociological significance or value, including such significance or value under Aboriginal tradition or Island custom (Section 62(1)).

Initiatives to increase Indigenous involvement in management and planning

GBMRPA

- An Indigenous member appointed by the Minister for Aboriginal Affairs since 1994 to represent Indigenous interests on the GBMRPA.
- Two Indigenous representatives on the Great Barrier Reef Consultative Council and one Indigenous representative on each Research Advisory Committee.
- Indigenous Policy and Liaison Unit established in 1995 to provide cultural policy and advisory service on representative areas program, species conservation, fisheries management, and planning and permit processes and TUMRAs.

EPA / QPWS

- Indigenous Engagement Unit (established in 2003, previously called the Indigenous Involvement Group) provides an advisory service for policy, program implementation and monitoring, and offers support for Indigenous staff.
- QPWS employees are required to complete diversity and cultural awareness training (from 2004).
- Implementation of EPA Indigenous Employment and Development Strategy (from 2003), including support for Secondary School Scholarships for Indigenous staff and the establishment of QPWS Indigenous ranger positions.

QDPI&F

- 2004 Scoping Study to identify realistic forms of aquaculture for Indigenous people in North Queensland.
- Northern Queensland Indigenous Aquaculture Working Group and Northern Queensland Indigenous Fisheries Working Group established in 2003 to consider indigenous aquaculture and fisheries opportunities in the Cape York Gulf of Carpentaria Area (in collaboration with DAFF and ATSIC).
- Four QDPI&F project officers employed since 2003 / 2004 to facilitate implementation of various partnership programs with interested Indigenous people.

Sources: AFFA 2001; DATSIP 2003b; Cain 2004; Ellis 1999; EPA 2002; GBMRPA 2004c.

There are a number of policy initiatives aiming to achieve greater respect for Indigenous interests in the (land and sea) country both within the GBRMP and at a state-wide level. Some of these policies are in early implementation stages though most of the initiatives are too recent to show widespread results or have so far only been implemented to limited degrees. The identification of the actual degree of implementation of each of these initiatives is beyond the scope of this report. Even so, a preliminary investigation found that information on actual programs, training schemes or other initiatives for a given Indigenous Traditional Owner group or within a given area is not readily available.

The background to these Indigenous and government perspectives of the current situation outlined in this Section of the report helps put current management decisions into context. These perspectives also indicate some of the difficulties involved in negotiating explicit specifications of desired management outcomes that are important pre-requisites for a meaningful evaluation of management (and co-management) effectiveness (Hockings 1998). The next Section focuses on some of these current Indigenous and government initiatives in more detail. This is followed by a discussion on how an adaptive and co-operative approach to goal setting might facilitate these and other parties to negotiate and implement common management objectives.

5. EXPLORATION OF SOME CURRENT INDIGENOUS AND GOVERNMENT INITIATIVES

This Section compares some strategic and operational proposals and initiatives on the part of the case study bodies and the GBRMPA to enter into environmental management partnerships. We describe these as 'strategic' and 'operational' approaches since there is no clear division between Indigenous and agency preferences for ways forward. While the case study parties are currently focused on operational approaches, they and other Indigenous Traditional Owner groups also have pursued strategic approaches on other occasions and will no doubt continue to do so when opportunities arise. Meanwhile while the GBRMPA and some other agencies are focused on strategic approaches, the Queensland Parks and Wildlife Service (EPA) and parts of other agencies that are also responsible for day-to-day management support or are open to Indigenous engagement in operational matters, for instance the EPA partnership with Giringun Aboriginal Corporation managing the Cardwell Indigenous Ranger Unit (Giringun Aboriginal Corporation and Nursey-Bray 2002).

The following analysis begins by identifying aspirations for the case-study groups (Giringun and Ambilmungu Ngarra) and key government agencies (GBMRPA, QPWS and QDPI&F) that reflect what they want to achieve through a co-management or partnership arrangement. Goals are also identified which describe the broad opportunities and challenges associated with each aspiration. These aspirations and goals were discussed and developed between the Research Committee members during the course of the study (see Research Approach). The aspirations and goals provide the platform on which to model the various analytical and practical responses which are discussed in this and the following Sections.

The Indigenous case-study groups currently emphasise a preference for a relationship-building and practice-based approach through the mechanism of

community-based, day-to-day management arrangements. This is compared with what we describe as a *strategic* approach that is currently favoured by government agencies. The GRBMPA Traditional Use of Marine Resources Agreements ('TUMRAs') initiative is outlined as one strategic mechanism that is currently being developed.

The Section ends with a discussion that compares the implications of these alternative approaches and poses the question - can these alternative approaches and objectives converge? A recommended way forward is for parties to treat management relationships, approaches and objectives as experimental, rather than settle on specific responses and desired outcomes from the outset, as a way to work towards a common goal (Hockings 1998). This recommendation is explored further in the next Section, which considers how the common desire to conserve biodiversity and protect cultural heritage might offer possibilities for Indigenous Traditional Owner groups and government agencies to trial ways to set, reach and adapt milestones towards these shared goals. Reaching consensus on co-management goals and the evaluation of co-management success is a challenging proposal. To date, certain aspects of these goals (in particular Indigenous rights to use traditional marine resources such as dugong and turtle) have dominated relations between Indigenous peoples and management agencies and been a focus of tension rather than agreement in the GBRMP (see also Hunter and Williams 1998; Marsh 2003a). Flexible planning and management approaches will be needed to allow the fears and concerns of Traditional Owners and GBRMPA to be allayed early on and allow experience and trust to grow through this adaptive process.

Traditional Owner operational initiative

Ambiilmungu Ngarra and Giringun Traditional Owners agreed that while they have unique issues and priorities, both groups share key aspirations for successful co-management of their country. This is put simply as an aspiration for ongoing and holistic support for co-management partnerships. After some discussion it was

agreed that this appraisal of co-management success could be translated into goals surrounding the co-management of country.

Ambiilmungu Ngarra and Giringun Aspirations – Co-Management of Country

Goals:

Indigenous autonomy - Co-management agreements to provide new approaches to resource use and environmental management based on genuine partnerships founded on respect for Indigenous rights to and responsibilities for their country, and mutual interest with agencies in caring for country.

Enforcement powers - Indigenous rangers would be empowered to regulate the activities of visitors to country and their own communities to ensure country is shared and used in a culturally appropriate and sustainable way.³

Indigenous rangers out on country - Co-management efforts must improve the capacity of Indigenous people to care for country through ranger partnerships and programs.

A common approach to achieve this aspiration and associated goals is to focus on building relationships and performing key management actions on country as a basis for co-management arrangements. Relationship-building is deemed to be an ongoing and critical approach to, as Phil Rist, Traditional Owner and Giringun CEO put it, ‘make co-management work’ (*personal communication*). This involves strong leadership and commitment to ensure relationships are strong enough to negotiate and work towards common goals within the Traditional Owner group, between Traditional Owners and other stakeholders, and between Indigenous and government co-managers. The Indigenous emphasis on relationship-building involves:

³ These enforcement powers would merge a customary role, whereby visitors should ask Traditional Owner permission before visiting country or using natural resources, with the agency expectations of ranger functions and duties.

- Following Customary Law, under which visitors to country should ask Traditional Owners' permission to be present and to use natural resources, and Traditional Owners bear responsibility for their well-being after accepting this hosting role;
- Managing an Indigenous constituency which includes historical residents (Aboriginal or Torres Strait Islander people who have moved or been relocated there in the past), according to custom;
- Developing the human foundations of management with government agencies: personal engagement, familiarity and trust; and
- Clarifying roles and responsibilities between Traditional Owners and agency managers.

Actions on country integrate natural resource management and cultural heritage considerations, since these are inseparable in Indigenous eyes. These actions include enabling Indigenous people to get out on country, to be involved in existing management activities (e.g. as rangers patrolling various uses of sea areas including fishing and tourism), responding to particular problems (e.g. putting up signs on Hinchinbrook Island to stop tourists degrading historic Aboriginal fish traps), and continually building relationships with government agencies through planning and conducting these activities.

Indigenous community management regimes have been established by both case-study groups and provide an important mechanism by which Indigenous people can respond to Indigenous aspirations and needs. For example, Giringun's Indigenous community management initiative focuses on ranger services in the first instance, which Phil Rist has described as a 'shifting spanner' that adjusts or connects with every other management issue Giringun is interested in (*personal communication*, project meeting 3-4 February 2004). This includes day-to-day management, training and development, community planning, fishing, tourism, and water quality issues that have to be continually negotiated. A conceptual diagram to summarise these Indigenous management responses is outlined in Figure 2.

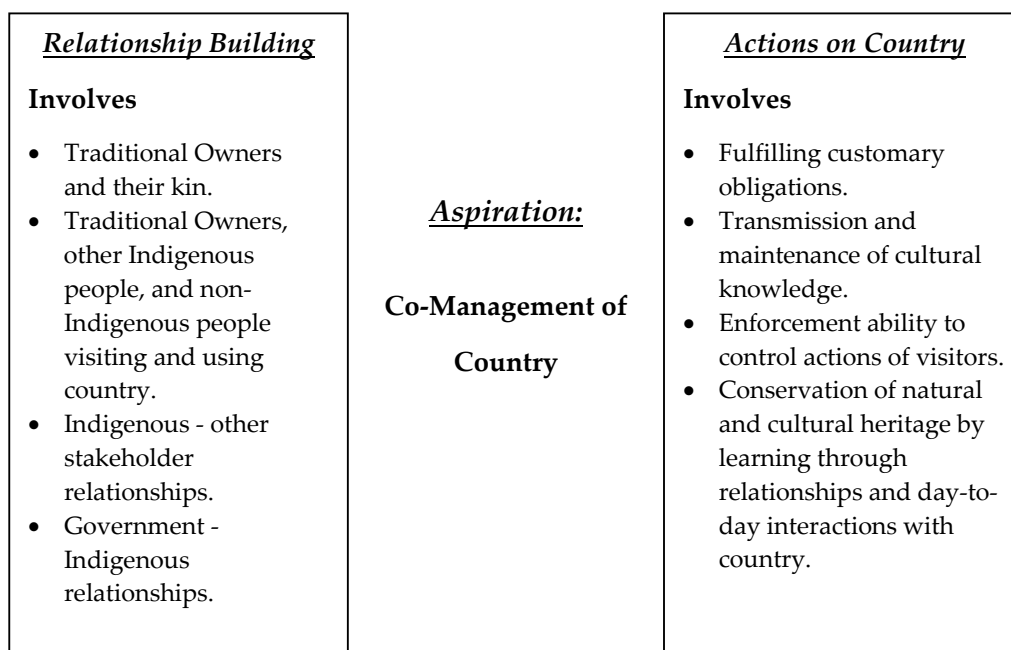


Figure 2 – Key features of current Indigenous community management initiatives

Community-based relationships and actions as a means to work towards co-management partnerships echo effective strategies that have been used by other Indigenous Traditional Owner groups in Australia and overseas. These include the efforts of Traditional Owners from Kowanyama who have forged a partnership with QDPI&F to co-manage the barramundi fisheries at the mouth of the Mitchell River on the West of Cape York Peninsula (Sharp 1998). This agreement evolved from this Traditional Owner group taking initiatives to achieve recognition with QDPI&F as a legitimate fishing stakeholder by providing surveillance and other services that the agency was less able to provide. A Fisheries Officer who is also a Traditional Owner was trained and appointed to this region (Young *et al.* 1991).

Another example can be found in North-east Arnhem Land where the Yolngu have built on environmental relationships founded on mutual respect for Indigenous and Western ecological knowledge and management approaches to negotiate a range of coastal and marine co-management partnerships, including the establishment of an Indigenous Protected Area (Robinson and Munungguritj, 2001; Kennett *et al.* 2004). Many formal co-management agreements achieved in the USA and Canada have also been built on common concerns for the sustainability of natural resources. Management relationships have been trialed, implemented and adapted in a process that has enabled Indigenous groups to experiment with making sensible agreements with other stakeholders and government agencies (Ross 1999; Robinson 2001).

The GBRMPA Traditional Use of Marine Resources Agreements (TUMRA) initiative

A key feature of government initiatives to engage with Indigenous people is a focus on *management outcomes* that achieve environmental sustainability and encourage local stakeholder input (including Indigenous people). Partnerships with Indigenous people are currently seen as a means to outcomes for which the agency has mandates, not as a policy direction in their own right, although particular staff may be highly sympathetic to Indigenous aspirations and committed to achieving good outcomes for both parties. Further, the degree of equity in such partnerships is not specified: the choice of the term 'consultation' suggests that the partnerships may be equal or unequal (see George *et al.* 2004, Ross *et al.* 2002), to the extent such judgments can be made.

The GBRMPA reef-wide framework for Traditional Use of Marine Resources Agreements (TUMRAs) is a good example to illustrate this government approach. TUMRAs are a component of the legislation package implementing the recent Representative Areas Program (RAP) (GBRMPA 2004) which underpinned the rezoning of the entire GBRMP. This rezoning includes the allocation of no-take areas across a representative range of habitats and communities in the Marine Park, also taking into account the range of human values, activities and opportunities that exist

in this region (Day *et al.* 2002; Innes *et al.* 2004). The process of engaging people who have an interest in the RAP and the Marine Park was the most extensive public planning exercise ever undertaken by the GRBMPA. This included consultation with the Reef's Indigenous people to consider conflicting issues that may arise between the RAP goals and Indigenous cultural and heritage values. As a result of this consultative process, a range of planning and management tools have been identified which can be used to facilitate Indigenous engagement, including TUMRAs.

Planning and management tools such as those being offered by the GRBMPA reflect current government aspirations for meeting legislative and other responsibilities when engaging with Indigenous people on environmental management issues.

GBRMPA aspiration– *Meeting Legislative Responsibilities*

Goals:

Government Policies - Indigenous partnerships have a role to play in meeting legislative responsibilities.

Indigenous Consultation – Indigenous partnerships are based on a degree of consultation and agreement with Indigenous peoples.

Integration with other partnerships and programs - Indigenous partnerships are integrated with other government programs and/or stakeholder interests.

TUMRAs have the dual goal to engage with Traditional Owners and to conserve species and habitats, particularly those that are vulnerable due to human-related mortality issues (such as hunting) (GBRMPA 2004b). TUMRAs are intricately connected to the re-zoning of the Park and the type of traditional use activities which are allowed to continue 'as of right' under Section 211 of the *Native Title Act*. An important objective is to reduce extent of traditional hunting activities conducted without permission from the GBMRPA or the consent of Traditional Owners (Cain 2004: 16).

Under this management framework, 'traditional use of marine resources' can encompass activities in accordance with Aboriginal and Torres Strait Islander custom or tradition for the purposes of satisfying personal, domestic or communal needs. Under TUMRAs, traditional use is allowed to continue 'as of right' within each zone but a permit is required for activities that are not deemed traditional, are conducted by Indigenous Australians who are not Traditional Owners for the area, and are not allowed within the Zone (GBRMPA 2004b).

TUMRAs are initially formulated by Traditional Owners. A majority, though not necessarily all Traditional Owners, are expected to agree to the proposals. GBRMPA, possibly with some negotiation with the Traditional Owners, accredits the plan, in effect adding its statutory authority to create permits to the TOs customary authority to manage resource use in their country. A TUMRA can thus be viewed as an accredited community based plan (though not termed such) governing Indigenous use of marine species, comparable to the permit initiatives that have already been trialed in Indigenous communities (Cook 1994a; Marsh 2003a). The focus is clearly on species management (see George *et al.* 2004), and control of Indigenous take of species especially where this could expose inconsistencies between Native Title rights and the GBRMP zoning. The opportunity to broaden a TUMRA into wider sets of management issues, including management of the habitat of the species in question, has yet to be explored or tested.

Importantly, TUMRAs are *not* viewed by GBRMPA as a co-management or even a partnership agreement. Rather they are an agreement amongst the members of a Traditional Owner group, that is accredited by the GBRMPA under the agency's policies and regulations. This group does not necessarily involve all Traditional Owners involved in the area and / or resource for which the TUMRA will have effect. However when accrediting TUMRAs, the GBRMPA will seek verification from Native Title Representative Bodies on the identification of Indigenous Traditional Owner Groups, an important consideration given the current discussion about Traditional Owner status and Native Title rights to country.

To have a TUMRA accredited, the participating Traditional Owner group is required to provide a detailed description of the area and activities that will be covered by the agreement, including a description of the activities (such as dugong hunting) proposed to be undertaken at specific locations. These Traditional Owners also have to explain their mechanisms in ensuring compliance with the provisions of the TUMRA and are required to outline the manner in which monitoring and reporting of activities will be conducted under the TUMRA, including records about the take of protected species (GRBMPA 2003). Of potential concern to Traditional Owners is the lack of associated provision of resources for them to regulate activities, monitor and report. Hopevale's experience suggests a coordinator (with office) is crucial, and some Traditional Owner groups seek a presence on water to spot or prevent poaching, since social censure alone is unlikely to be successful in every community (see Marsh 2003a; Marsh 2003b).

Some GBRMPA staff see future opportunities for TUMRAs to expand into a potentially useful framework for Traditional Owners to negotiate a range of other Marine Park management issues that they could be involved in managing. For instance, these issues might include threatened species conservation in a specified area, traditional fishing in high conservation zones, and management planning based on cultural and heritage values (see also Savage 2003). TUMRAs could also provide a practical solution to the considerable transaction costs for Agency staff by enabling Indigenous people that are associated with a permit-based approval to manage these issues. A conceptual diagram to summarise this TUMRA initiative is summarised in Figure 3.

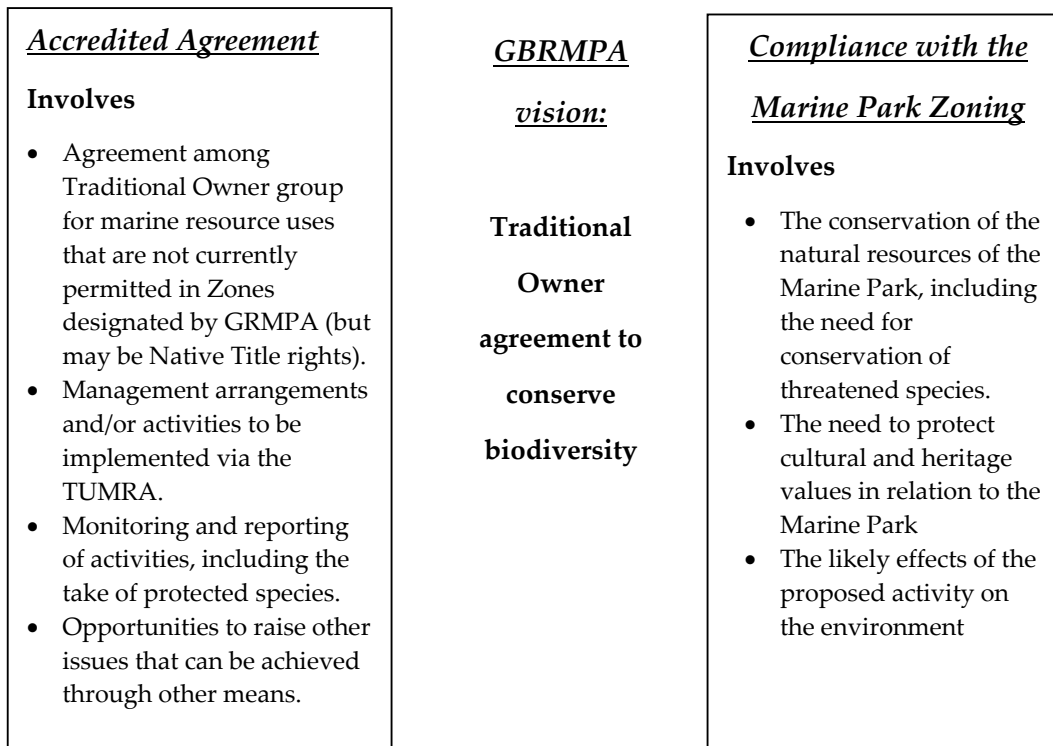


Figure 3 – Key features of the GBRMPA TUMRA initiative

An alternative to TUMRAs, available for similar purposes, is the Indigenous Land Use Agreement (ILUA) instrument created under amendments to the *Native Title Act 1993*. There appears no reason it cannot be created over sea country within the Park, indeed people have begun to speak of Indigenous Sea Use Agreements (ISUAs). An ILUA is simply an agreement between Traditional Owners and other parties concerning land or resource use. It is a potentially flexible agreement, available between Traditional Owners and any other party, agency, industry or community. While past examples have been quite restricted, for instance to allowing mining activities, ILUAs offer a large envelope which could potentially be turned to almost any purpose including regional agreements (see George *et al.* 2004). Either party can initiate negotiations towards an ILUA. They can be stand-alone agreements, or negotiated under National Native Title Tribunal (NNTT) procedures. Independently

negotiated agreements can also be accredited by the NNTT later for additional legal standing.

Comparison between Indigenous and GBRMPA initiatives

A comparison between the content and achievement of Indigenous and GBRMPA initiatives reveals two key differences. First, the desired management outcomes of goals articulated by Ambiilmungu Ngarra and Giringun perspectives are associated with caring for country and include Indigenous capacity-building and human relationships. They seek to achieve these goals through actions on the ground (sea), principally focused on the local or country-based scale. Issues of highest priority continue to adapt in response to changes in local conditions and community needs. In comparison, the TUMRA initiative fits into the GBRMPA's regional strategic approach for the GBRMP. Thus the aim of TUMRAs is to manage the use of threatened species and also encourage Traditional Owners to agree on their role in meeting some of the objectives of the new Great Barrier Reef Marine Park Zoning Plan.

The second key difference between these Ambiilmungu Ngarra and Giringun perspectives and the goals of TUMRAs is that they rely on different mechanisms to achieve each vision. Indigenous customary laws are different to agency legislative requirements and policy tools. This in turn affects how and why decisions are made, the protocols involved in knowledge accumulation and information sharing, and the rules that guide management actions and practices (George *et al.* 2004). One, the TUMRA approach, proceeds from an agreement, which paves the way for on-sea activities. The other seeks to start with ranger (on-sea) activities, using a partnership to achieve this, and then build more formal relationships from this practical management experience.

Although the differences between these starting points are profound, potential for convergence is evident if some Indigenous and government objectives can be shared and if the process of meeting objectives is approached in an 'adaptive' manner.

Caring for dugong and turtle species and habitats, ensuring country is healthy, and protection of Indigenous cultural values could all be shared goals between Traditional Owners and the GBRMPA.

The next Section draws one of these potential common goals – the protection of Indigenous cultural values for dugong in the GBR to discuss ways in which co-operative and adaptive management principles might facilitate co-management partnerships. This includes a critical analysis of whether TUMRAs, as currently envisaged, are flexible enough to facilitate the process of setting and meeting shared goals that can reflect the legislative responsibilities of the GBRMPA *and* Indigenous Traditional Owner aspirations to engage in equitable co-management arrangements.

6. AN ADAPTIVE MANAGEMENT APPROACH TO PROTECT INDIGENOUS CULTURAL VALUES THROUGH TRADITIONAL USE OF MARINE RESOURCES AGREEMENTS

As outlined earlier in this report, adaptive management is based on an approach that acknowledges that neither Traditional Owners nor government representatives hold comprehensive knowledge about the ways in which ecosystems work, what constitutes 'good governance' for a given area or resource, or what will be the full environmental impacts of human activities. A central tenet of adaptive management is an open, investigative and experimental attitude. In a cross-cultural resource management situation, as in the GBRMP, this lack of comprehensive knowledge and need for an open leaning approach embraces the ecological system and the social system. Flexibility, experimentation and monitoring are all needed for parties to develop effective environmental management approaches *and* relationships. An adaptive management approach does not view a given management action as the only possible response to a given management goal. Nor does this approach view the nature or focus of a partnership as unchangeable. Rather, social interactions, like human-environment interactions, are seen as experiments that are to be trialed, tested and evaluated to determine if they work. Improvement is usually possible, and desirable.

The combination of co-management and adaptive management principles incorporates the four steps of the 'learning-by doing' process. As indicated in Figure 2, the first step is the assessment of the current situation. This assessment has been discussed in previous sections of the current report and reveals four integrated features of government agency and the Indigenous case-study groups' current interests and concerns in the GBRMP:

- **Management relationships** – there is agreement on the need for a partnership.

- **Management arrangements** – both parties are experimenting with ways to accommodate each other within their own legal and management frameworks.
- **Management activities** – some initiatives are in place for Indigenous participation in some NRM activities.
- **State of the Environment** – there is a common desire for a healthy environment for future generations.

The second step involves an adaptive approach towards setting agreed goals and is the focus of this Section. This step is based on an acknowledgement that some aspects associated with this goal may not be shared or agreed. But the focus remains on steps and measures of progress towards goals that can be agreed, then looking forward from each milestone as it is reached (Hockings *et al.* 2000).

Goals that are shared set the template for co-managers to experiment with management strategies and partnerships that are evaluated on the basis of criteria that are negotiated between all parties involved.

One of the benefits of an adaptive approach to goal setting is that it can facilitate the clarification of what is agreed. Setting goals may take considerable time and effort before both parties are willing or comfortable enough to experiment with management approaches or arrangements. Careful consideration of the criteria upon which *effective management* is to be judged and measured is also needed, so parties can reach agreement as to whether, and when, management decisions are succeeding.

There are a range of models and approaches available to help parties design, manage and monitor how management interventions and management relationships are meant to work. A key feature of these models is to highlight each party's

management assumptions, solutions and criteria for success for a given agreed goal.⁴ These frameworks also enable each party to identify the main problems associated with a given goal, and establish what they perceive to be the cause and effect relationships between these problems. The focus then is to address the underlying causes (rather than the effects) of problems, in an effort to find solutions that are sustainable and effective.

In the following Section, a hypothetical example outlines possible ways to achieve the shared goal of protecting Indigenous cultural values for dugong in the GBRMP. This is chosen for illustrative purposes. In reality we envisage the protection of Indigenous cultural values being pursued as part of a broader shared goal, to manage dugong in the GBRMP.

This exercise does not pretend to have identified the objectives that may be chosen in reality. This is for parties who wish to implement such partnerships to negotiate and clarify. Rather, it provides an example to highlight how an adaptive approach might facilitate Traditional Owners and GBRMPA co-operation should they wish to work together towards this goal.

Protecting Cultural Values for Dugong

The previous Sections in the current report have emphasised that the significance of biodiversity is inextricably linked to Indigenous cultural values for many Indigenous people in the Great Barrier Reef. Maintenance of these cultural values relies on the transmission of Indigenous people's knowledge, use and management of the environment which is governed by Indigenous people's relationships to their kin and to particular geographical features of their country. It is perhaps not surprising then, that many places and species that have high biodiversity values in the GBRMP also have high cultural values for Indigenous people.

⁴ Models that encourage co-operative approaches to design and evaluate project goals and success are summarised in Margolius and Salafsky (1998), and Borrini-Feyerabend *et al.* (2000).

For Indigenous people, caring for country means caring for cultural heritage.

The continued and appropriate use and management of country and its resources allows Indigenous people to learn, share and pass on appropriate knowledge; maintain places of cultural value; and respond appropriately to changes in country's condition, through rules and obligations governed by Indigenous Law.

Indigenous harvest and management of dugong is one central feature of Indigenous people's role in caring for country within the GBR. Dugong is a species of extremely high cultural importance in many areas of the GBRMP. Indigenous people's role in protecting cultural values for dugong includes ensuring correct hunting protocols are followed – including who is permitted to hunt, where hunting can take place, why hunting areas might be temporarily closed, and the appropriate butchering procedures and distribution of meat. Dugong also travel in and through sea country that is owned by Indigenous people. Indigenous protocols require appropriate permission to be gained if a person wishes to go to or gather food in a place in someone else's country. Rights to country also bestow responsibilities on Traditional Owners to maintain sites, such as sacred and cultural geographical features, including those that have been left by the creation journeys of ancestral dugong beings (e.g. Bradley 1998; Robinson and Munungguritj 2001; Sharp 1998).

GBMRPA is required to have regard for the need to protect Indigenous cultural values in the GBRMP under the agency's legislative responsibilities (see Box 7). As Greer *et al.* (forthcoming) note, the definition of what constitutes Indigenous cultural and heritage values under these regulations remains ambiguous. Even so, Indigenous cultural values associated with following appropriate permission protocols, maintaining sites of cultural importance, and traditional hunting would appear to be values that GBRMP is obliged to consider.

Of particular relevance is the *Great Barrier Reef Marine Park Regulations* 1993 18(4)(b) which require the GBMRPA to consider the need to protect Indigenous and non-Indigenous cultural and heritage values when considering an application for a relevant permission (permit) within the GBRMP. The Australian Administrative Tribunal (AAT) recently overturned a permitting decision made by the GBMRPA regarding pearl oyster farming operations on Palm Island, adding further weight to these GBMRPA responsibilities (AAT 2004). In the case of Palm Island, cultural values included spiritual beliefs and practices associated with fishing, gathering and hunting. Importantly the AAT also found that the need to seek the consent of Traditional Owners before entering upon another's country and the right of Traditional Owners to refuse permission to visitor requests, are protocols associated with Indigenous cultural values in this area.

An adaptive approach to work towards shared goals for dugong

An adaptive approach to set and evaluate goals to tackle the shared 'problem' of how to protect Indigenous cultural values for dugong might offer a useful framework for Traditional Owners and the GBMRPA to consider. The motive for such a partnership includes the fact that the threatened status of dugong is also a threat to the survival of Indigenous cultural values. Also, dugong management issues have and continue to strain relationships between the GBMRPA and Traditional Owners (Hunter and Williams 1998; Marsh 2003a, Nursey-Bray 2006).

Key causes of declining dugong populations that Traditional Owners and GRMPA might identify could include dugong mortality (and one of the many associated issues which include but are not limited to boat strikes and traditional hunting); Indigenous people not being empowered to care for country (including appropriate permission protocols and traditional hunting), degradation of dugong habitat (including increased sedimentation and a lack of appropriate knowledge of these habitats), and the absence of effective and equitable partnerships between both

parties. Parties can then consider which of these reasons can realistically turn into management goals to guide management actions (see Figure 4).

Negotiations could then turn to identifying effective solution(s) for a given goal. Effectiveness of these solutions can be assessed from a selection of agreed indicators to provide the basis for measuring progress towards meeting the agreed goal. These indicators could include measures of the condition of the environment and dugong populations (e.g. Chin 2003; GBRMPA 1994b); the well-being of Indigenous culture and heritage (e.g. Smyth 2000); aspects of management actions (e.g. Hockings *et al.* 2000); and measures of good governance (e.g. Abrams *et al.* 2003).

The process of setting agreed goals, criteria for effective management responses, and indicators to evaluate progress towards effective management goals is by no means a simple task. An adaptive approach to this planning process would recognise that goals and management responses to protect cultural values for dugong might need to be reviewed. Future measurements might reveal that the causes of a given problem (in this case declining dugong populations) identified by each (or all) parties may or may not be correct. Proposed solutions will need to be tried, evaluated, and may need to be changed. Indicators to measure and evaluate progress towards objectives may need to be re-considered. The criteria upon which 'success' is judged may also need to be reviewed. This cross-cultural 'learning-by-doing' process can challenge Indigenous and agency perspectives and reflections about what is learnt and what is done. In turn, this experience can offer profound possibilities for how co-management arrangements or partnerships can 'work' to achieve shared goals.

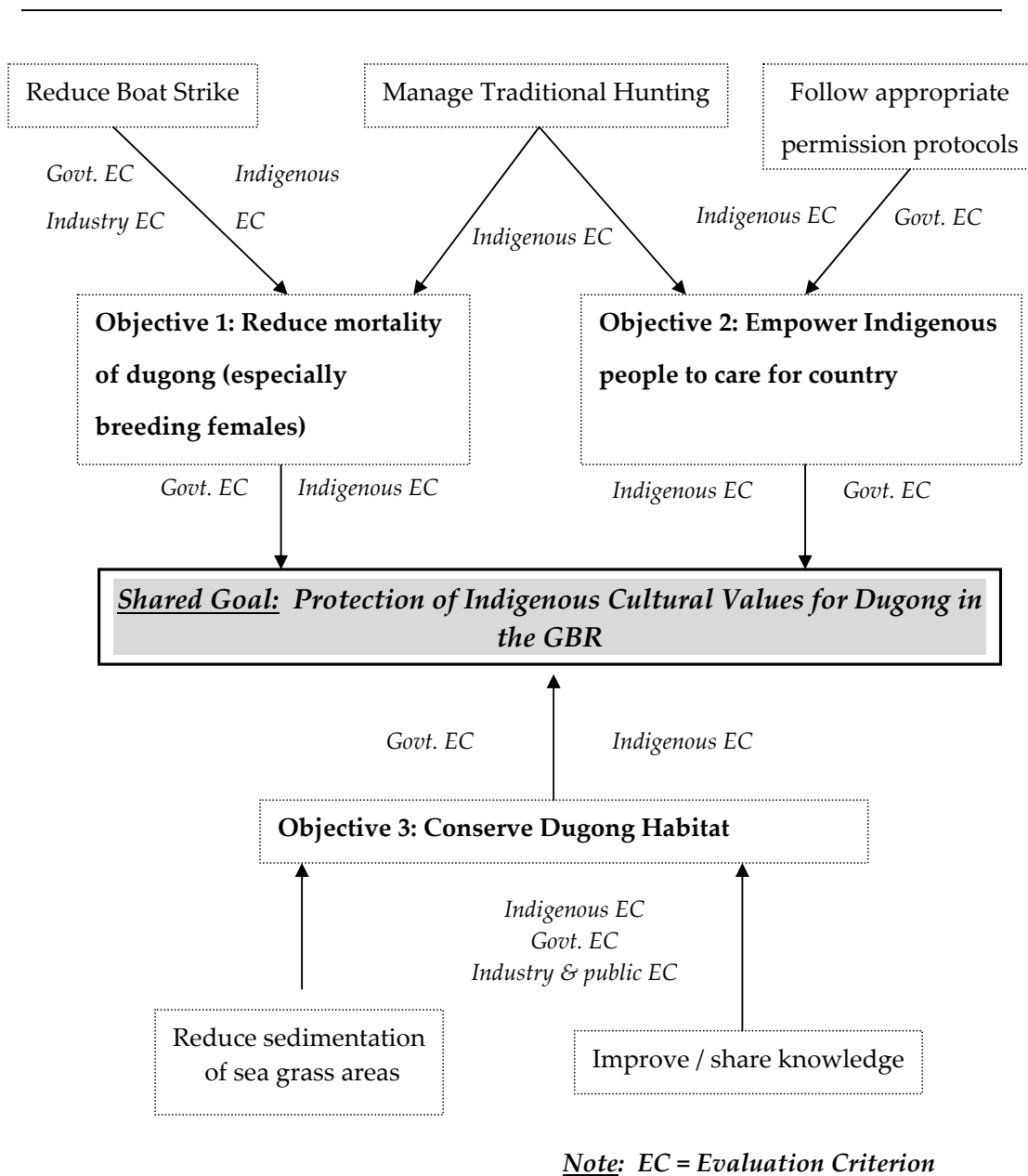


Figure 4: Hypothetical shared goal and evaluation criteria that may be identified by Traditional Owners and GRMPA to plan and monitor progress towards the protection of Indigenous cultural values for dugong. An adaptive approach to setting a goal and management objectives would recognise that the goal, objectives and management response might need to be reviewed.

Setting objectives and designing management responses to protect Indigenous cultural values for dugong in the GBR may also reveal that some objectives (and associated management responses) may not initially be agreed or shared. For example, the objective to manage traditional hunting to reduce mortality for breeding female dugong outlined in Figure 4 may be shared, but the objective to manage traditional hunting to empower Indigenous people to care for country may not be agreed. Even if parties agree on an objective, discussions between the parties may reveal that it is appropriate for Traditional Owners to evaluate the effectiveness of proposed actions, and to decide the means by which this evaluation will be conducted.

In some cases a multi-party arrangement may be negotiated to monitor and evaluate progress toward a given objective (for example, reduce sedimentation of seagrass areas). Some criteria identified and measured by the GBMRPA may be similar to criteria identified by Industry partners (e.g. tour operators) and Traditional Owners (the QDPI&F 'Seagrass-Watch' initiative to assess the condition of important dugong habitat may be informative in this process).⁵ Other indicators used by each party to measure the success of management responses may not be comparable. For example, the hypothetical case outlined in Figure 4 illustrates the objective to manage traditional hunting as being evaluated by Traditional Owners, using their own criteria and indicators of success. It may be culturally inappropriate and difficult in practice for agencies to participate in this evaluation task.

The TUMRA Option?

The clarification of shared goals and management objectives is one of the critical components of an adaptive approach to a co-management or partnership arrangement. A key question emerges about whether TUMRAs offer a sufficiently

⁵ Seagrass-Watch is a community-based program to monitor changes in the growth, distribution and composition of sea grass developed by Queensland's Department of Primary Industries and Fisheries (QDPI&F) in conjunction with CRC Reef, Queensland Parks and Wildlife Service and community groups (Alcock and McKenzie 1998).

flexible mechanism for Traditional Owner groups and GBMRPA to trial, implement and test objectives and management responses. Although Cain (2004, p.17) reports that TUMRAs offer a framework that can 'move towards cooperative management arrangements between marine management agencies and Indigenous Traditional Owner groups on a wide range of sea and country issues' it is important to note that co-management is not the intent of TUMRAs and there is currently no Australian Government support for Indigenous co-management for the GBRMP.

The potential of TUMRAs will also be limited if these agreements are constrained into becoming another government attempt, through permitting, to regulate Indigenous hunting and fishing of marine resources. Indeed the GBMRPA has no capacity to regulate the Native Title based take of turtle and dugong, although Traditional Owners can. Hunting permits have already been trialed in the GBRMP and the GBMRPA staff members have recorded the lessons learnt (some of which are being acted on). These include:

- Indigenous community management regimes need to have committed and skilled members, and their efforts recognised and supported from government to develop effective management of sustainable hunting (Hunter and Williams 1998);
- An awareness that cultural and heritage values can only be identified by the people who speak for the particular area in question and those values do not separate the physical, cultural and spiritual association with 'country' (Cook 1994b);
- The GBMRPA's efforts to reduce the level of mortality of dugong must not just focus on traditional hunting but also deal with other impacts (Hunter and Williams 1998);
- Government agency enforcement can provide support, but is not the solution for Traditional Owner efforts to control unauthorised hunting or poaching (Hunter and Williams 1998).

These government appraisals are not necessarily the same as those judged by Traditional Owners involved in the permit process. There is also the ongoing concern

that adaptive management in the GBR will only focus on the Reef's ecosystem rather than considering institutional arrangements and relationships; rely on western scientific data and indicators to judge the success of management programs; and fail to accommodate Indigenous perspectives on what has been learnt from past (including permitting) partnerships (e.g. see Cook 1994b; Day 2002; Marsh 2003a).

Even so, the fact that there is a legislative requirement for the GBRMPA to have regard for the protection of Indigenous cultural values, and that the specific details of TUMRAs have yet to be fleshed out does offer an opportunity for innovative experimentation to negotiate dugong (and other marine resources) protection and management. A number of issues need to be considered with respect to the potential of TUMRAs to facilitate an adaptive approach to set and meet shared Indigenous and GBRMPA goals and management objectives. These include:

- *An adaptive approach towards goal setting:* Are the GBRMPA and Traditional Owners willing or able to negotiate agreed objectives, and respect objectives that are not shared?
- *Agreed criteria for successful management objectives:* Success can mean different things for Traditional Owners compared with the GBRMPA and can even be defined in different ways for a particular situation (Shindler *et al.* 1999). Can TUMRAs be evaluated according to criteria that reflect what both parties agree to be effective actions *and* relationships required to meet objectives?
- *A good model of governance to protect Indigenous cultural heritage:* Can TUMRAs offer what Abrams *et al.* (2003) argue constitutes 'good governance'? This would provide Traditional Owners with a legitimate voice in decision-making; ensure Traditional Owners and GBRMPA decision-makers are accountable; require both partners to be responsive, effective and

efficient; and achieve outcomes that the partners agree to be fair and equitable.

- *Committed and sustained support to implement agreed objectives:* This would require Traditional Owners and GBRMPA to make a long-term commitment (financial and otherwise) to shared goals negotiated through a TUMRA; be willing to adapt and change management responses and be willing to offer the support needed for these changes to occur; and ensure that flexibility in the TUMRA process is balanced with a clear and rigorous process to enable identification of environmental trends over time and assess the extent to which TUMRAs are implemented and achieved.

An examination of Figure 4 suggests there is potential for TUMRAs to provide a mechanism for many, but not all of the objectives we have canvassed towards the hypothetical shared goal of protecting Indigenous cultural values for dugong in the GBR. GBR regulations suggest that TUMRAs would empower Traditional Owners to manage traditional hunting more than at present, by (in effect) delegating the GBRMPA's permitting authority to the Traditional Owners concerned (adding statutory weight to their customary authority and sanctions). Depending on the design of a particular TUMRA, they can thus presumably assist in empowering Traditional Owners to care for their country, at least in principle. In practice, any empowerment might be very limited if resource constraints preclude Traditional Owners being able to act on the additional authority the TUMRA confers, by detecting and enforcing infringements. The lack of accompanying resources to enable Traditional Owners to implement their proposals is a current weakness of the TUMRA vehicle.

Reducing other human-induced causes to dugong mortality, such as boat strike, would require an ancillary arrangement, negotiated with other parties such as recreational and commercial fishers, tourism and boat designers: this may be very difficult to arrange within the current framing of TUMRAs, which focuses on two

parties, Traditional Owners and GBRMPA. Conserving dugong habitat is also a critical notion for consideration. The conservation of a species relies on the conservation of relevant habitat, and so is an important consideration for a TUMRA. Although Indigenous people's activities pose little or no threat to the habitat, damage to the sea grass food source and boat strikes threaten the safety of individual dugong. Habitat protection has been linked legally to treaty rights (analogous in this instance to Native Title rights) to Indigenous fishing rights in Washington State in the USA (Ross 1999), on the argument that protection of salmon habitat is a necessary part of meeting Indigenous treaty rights to fish. Protection of dugong habitat would require the GBRMPA to work with other parties. Indigenous interest founded in a TUMRA could perhaps add impetus to this.

The GBRMPA's current intent for TUMRAs suggests that Traditional Owners will have the power to design the content of the TUMRA, but the GBRMPA holds the power to accredit it – possibly debating aspects of the design it may not favour - and in doing so delegate its permitting powers to the Traditional Owners. This contrasts with what we would view as an ideal co-management arrangement, in which design would be mutual and no party would hold a hierarchical power relation over another. This limits the potential of TUMRAs to offer a more creative and far-reaching arrangement.

The practicalities and realities involved if parties wish to adopt such an adaptive approach to work towards co-management in the GBRMP are considerable and there needs to be significant capacity-building for Indigenous groups *and* government agencies to engage in this process. This capacity-building will require a shift in the way GBRMP management goals are set, and management responses are monitored and evaluated. This process will require substantial and sustained resources. It will also require substantial changes to offer what Jareith and Smyth (2003) describe as a commitment to implement 'innovative governance' to ensure values and policies associated with the GBR meets Australia's international and national obligations.

7. PRACTICALITIES AND REALITIES FOR CO-MANAGEMENT AND OTHER FORMS OF PARTNERSHIP IN THE GREAT BARRIER REEF

The benefits of an adaptive approach for Traditional Owners and government agencies to work towards co-management arrangements in the GBRMP have been the focus of this report. We have shown how an ongoing 'learning-by-doing' process could be followed to help clarify why each party seeks to engage in the partnership, what goals can and cannot be shared, and how to judge the progress and achievement of agreed objectives. In particular, we have focused on the first two steps of the adaptive management process – the assessment of the current situation and setting and planning key goals (refer back to Figure 2).

Indigenous and government perspectives of the current situation in the GBRMP were reviewed and some common goals from both parties were identified and compared. From this cross-cultural assessment and number of practicalities and realities facing co-management in the GBRMP became apparent.

Co-management vs partnerships

- While Ambiilmungu Ngarra and Giringun perspectives suggest that Traditional Owners aspire to engage in co-management arrangements for their country, government agencies wish to engage in specific partnerships with Indigenous groups that may not offer equal power-sharing agreements.
- Legislative and customary legal obligations define what agencies and Traditional Owners can do respectively.
- The preferred partnership foci are also diverse and dynamic.
- Effective relationships require trust and mutual respect, and are affected by each party's past experiences and future aspirations.
- Partnerships will differ greatly depending on the parties and issues.

Country-based, regional, and reef wide arrangements

The local scale is where opportunities for Indigenous-government partnerships currently exist but they need to be nested in regional support networks because:

- The achievement of many goals and management objectives (e.g. reduced mortality of dugong) may be influenced by processes and factors well beyond the control of GBRMPA – Traditional Owner management partnerships and often extend beyond sea country boundaries.
- Some policy and program issues require Indigenous people to work at regional scales.
- Indigenous groups and their countries have legal, economic and cultural connections.

This suggests the need for agencies to make multiple and flexible arrangements, *and* for the parties to nest local arrangements within broader regional agreements. Fear of resource implications (e.g. the number of boats required to respond to the aspirations of a large number of Traditional Owner groups) is affecting the discussion of local arrangements. The need for complementary regional and reef-wide arrangements has slipped from focus (George et al. 2004).

The next step of the adaptive management cycle – setting and planning co-management goals and management objectives - was also reviewed. It was noted that profound differences could exist between government and Indigenous desired management objectives. Even so, some objectives are shared and opportunities exist if the process of meeting these objectives is approached in an adaptive manner. For example, caring for dugong and turtle species and habitats, ensuring country is healthy, and protection of Indigenous cultural values were all goals identified as potential issues of agreement between Traditional Owners and the GBRMPA. Once again, a number of practicalities and realities arise in the process of setting and meeting these goals so that they can reflect Indigenous Traditional Owner aspirations and also meet government agency's legislative responsibilities.

Planning and working towards agreed goals

Actions and relationships required to work towards shared goals might need to commence in a strategic way (e.g. TUMRA), or with operational activities. The parties can either form relationships first and then move on to infrastructure and capacity (Girringun's approach) or apply for infrastructure first with a view to building working relationships around activities on-sea (Ambiilmungu Ngarra / Balkanu approach). They could try a mix of both. Some issues may require different partnerships (co-management, multi-party arrangement, etc.) to set, implement, monitor and evaluate progress towards goals.

Careful consideration is needed to negotiate the criteria upon which *effective* co-management partnerships are evaluated so that parties can agree on whether management decisions and responses are succeeding. Monitoring and evaluation of progress towards shared goals might need careful and innovative negotiation to work out how management effectiveness should be judged, and who by.

Effectiveness of co-management partnerships might be judged on tangible outcomes (e.g. increased dugong numbers) as well as less tangible outcomes (e.g. improved GBRMPA – Indigenous relations). It also might include a range of self, joint and multi-partner monitoring and evaluation frameworks.

Working towards goals that protect the unique values of the GBRMP

Protection of the GBRMP values should include those ecological values and also values that are important to the Traditional Owners of the Park.

- The requirement of the GBRMPA to have regard for the need to protect Indigenous people's cultural and heritage values offers innovative possibilities for Traditional Owners and the GBRMPA to work towards shared goals through the Traditional Use of Marine Resources Agreement (TUMRA) initiative.
- There are some opportunities for the GBRMPA, Traditional Owners, and possibly other stakeholders and government agencies, to work towards co-

management, multi-party or other forms of partnership arrangements. Although there is currently no Australian or Queensland Government support for Indigenous co-management of the GBRMP there is some openness towards the similar concept of 'partnerships'.

Traditional Owners and government agencies, including the GBRMPA, may be awed by Indigenous aspirations for co-management, partnership or other management initiatives that are currently being sketched out for the GBRMP. An adaptive approach for parties to take the first step towards these visions might offer a more flexible and achievable approach rather than trying to find a fixed solution or management relationship. It is too early to determine whether the various partnership initiatives currently being offered by government agencies are appropriate or adaptive enough to build sustaining relationships or achieve effective outcomes. Meanwhile, Indigenous people continue to repeat their concerns and aspirations while adapting their own management regimes to respond to shifting government agendas and contemporary pressures on their country.

Initiatives from the Australian Government Department of Environment and Heritage Indigenous Protected Areas Program (IPA) might offer useful insights to start this adaptive process. IPA's form part of Australia's national system of protected areas and are managed through on-ground works as specified through a management plan. Throughout the stages of considering, developing and implementing an IPA, key principles have been identified to guide and monitor IPA effectiveness and progress. These include:

- **People tend to behave responsibly when they have responsibility.**
- **Good decisions will generally be made when the decision-makers have good information presented in an appropriate way.**
- **Allowing time and space for decisions ensures better and more durable outcomes.**
- **All decisions regarding country remain with the Indigenous owners / managers.**
- **Indigenous groups are free to run the consultative process their own way.**
- **Funding must allow for on-ground work from the beginning, rather than just planning and talking in the abstract.**
- **Everyone needs to know they can withdraw from the process at any time.**
- **Regular monitoring and review is necessary to maintain good management outcomes (Szabo and Smyth 2003: 151-2).**

The *practicalities and realities* involved if parties wish to adopt such an adaptive approach to work towards co-management for the GBRMP are considerable and there needs to be significant capacity-building for Indigenous groups *and* government agencies to engage in this process. Traditional Owners and government agencies, including the GBRMPA, also may also be awed by Indigenous aspirations for co-management or the partnership and TUMRA initiatives that are currently being sketched out for the GBRMP. An adaptive approach for parties to take the first step towards shared visions might offer a more flexible and achievable approach rather than trying to find a fixed solution or management relationship.

REFERENCES

- AAT (Australian Administrative Tribunal). 2004. Zen Pearls Pty Ltd and Great Barrier Reef Marine Park Authority and Ors [2004] AATA 267).
- Abrams P, Borrini-Feyerabend G, Gardner J, Heylings P. 2003. Evaluating Governance. A Handbook to Accompany a Participatory Process for a Protected Area. Parks Canada and TILCEPA – Theme on Indigenous and Local Communities, Equity and Protected Areas of IUCN CEESP / WCPA, IUCN.
- AFFA (Department of Agriculture Fisheries and Forestry). 2001. A National Aquaculture Development Strategy for Indigenous Communities in Australia, Canberra.
- AFFA (Department of Agriculture Fisheries and Forestry). 2002. Australia Indigenous Strategy. DAFF, Canberra.
- Alcock, D, McKenzie, L. 1998. Seagrass watchers get scientific about coastal monitoring. Reef Research. Great Barrier Reef Marine Park Authority, Townsville.
- Allan, C, Curtis, A. 2003 Learning to implement adaptive management. *Natural Resource Management* (6)1: 25-30.
- Appleton P. 2000. An Indigenous Co-Management Strategy for the Great Barrier Reef World Heritage Area. The Great Barrier Reef Marine Park Authority, Townsville.
- Baker R, Davies J, Young E (eds). 2003. Working on Country: Indigenous Environmental Management in Australia, Oxford University Press, Melbourne.
- Bergin A 1993. Aboriginal and Torres Strait Islander Interests in the Great Barrier Reef Marine Park: A Report to the Great Barrier Reef Marine Park Authority. Research Publication No. 31. Great Barrier Reef Marine Park Authority, Townsville.

- Berkes F, George R, Preson RJ. 1991. Co-management: the evolution of theory and practice of the joint administration of living resources. *Alternatives*. 18: 12-18.
- Berkes F, Colding J, Folke C (eds). 2003. *Navigating Socio-ecological Systems: Building Resilience for Complexity and Change*. Cambridge University Press, Cambridge.
- Borrini-Feyerabend G, Taghi M, Farvar, Nguinguiri JC, Ndangang V. 2000. *Co-management of Natural Resources*. IUCN-The World Conservation Union, Gland.
- Bradley, J 1998. We always look north: Yanyuwa identity and the maritime environment. In: Peterson, N. Rigsby, B (eds). *Customary Marine Tenure in Australia*. Oceania Monograph, no. 48, pp 125-41.
- Buck LE, Geisler CC, Schelhas J, Wollenberg E (eds) 2001. *Biological Diversity: Balancing Interests through Adaptive Collaborative Management*. CRC Press, New York.
- Cain P 2004. *A Practical Guide to Government Management and Regulation Regimes over Marine Areas in Queensland*. National Native Title Tribunal Occasional Paper Series. No 1. Canberra.
- Chin, A (ed). 2003. *State of the Great Barrier Reef On-line*, Great Barrier Reef Marine Park Authority,
http://www.gbrmpa.gov.au/corpsite/info_services/publications/sotr/indigenous/index.html.
- COAG (Council of Australian Governments). 2000. *Reconciliation Framework*. Canberra.
- Cook C 1994a. *Aboriginal and Torres Strait Islander Traditional Hunting and Native Title*. Reef Research. GBRMPA, Townsville.
- Cook C 1994b. *Protecting cultural and heritage values in the Great Barrier Reef Marine Park: policy background, current assessment guidelines and future directions*. In: *Proceedings of Coast to Coast '94: A National Coastal Management Conference 29 June - 2 July 1994*, Hobart. pp 34-42.

- Cordell J 1991. Managing Sea Country: Tenure and Sustainability of Aboriginal and Torres Strait Islander Marine Resources. Report on Indigenous Fishing. Ecologically Sustainable Development Fisheries Working group, Canberra.
- DATSIP (Department of Aboriginal and Torres Strait Islander Policy). 2001. 10 Year Partnership. http://www.indigenous.qld.gov.au/partnerships/ten_year.cfm.
- DATSIP. 2003a. Meeting Challenges, Making Choices. <http://www.mcmc.qld.gov.au>.
- DATSIP. 2003b. Looking After Country Together. A Proposal for a Partnership Agreement to Improve Indigenous People's Access to and Involvement in the Management of Land and Sea Country. Draft Discussion Paper with Department of Natural Resources and Mines, Environmental Protection Agency, Department of Aboriginal and Torres Strait Islander Policy, Department of Primary Industries, Department of Local Government and Planning, Department of the Premier and Cabinet, Department of Main Roads. DATSIP, Brisbane.
- Day J. 2002. Marine park management and monitoring – lessons for adaptive management from the Great Barrier Reef. In: Bondrup-Nielsen S, Munro, NWP, Nelson G, Willison JHM, Herman, TB, Eagles P (eds). Managing Protected Areas in a Changing World. Proceedings of the Fourth International Conference on Science and Management of Protected Areas, 14-19 May 2000. pp 1258- 1282.
- Day J, Fernandes L, Lewis A, De'ath G, Slegers S, Barnett B, Kerrigan B, Breen D, Innes J, Oliver J, Ward T, Lowe D. 2002. The Representative Areas Program for protecting biodiversity in the Great Barrier Reef World Heritage Area. Proceedings of the Ninth International Coral Reef Symposium, Indonesia. [http://www.gbrmpa.gov.au/corp_site/management/zoning/documents/Final I CRS paper Aug01.pdf](http://www.gbrmpa.gov.au/corp_site/management/zoning/documents/Final_I_CRS_paper_Aug01.pdf).
- Dovers, SR, Mobbs CD. 1997. An alluring prospect? Ecology, and the requirements of adaptive management. In: Klomp, N. and Lunt, I. *Frontiers in Ecology: Building the links*. Elsevier Science pp 39-52.
- Ellis R. 1999. Working Together - A 'Caring for Country Partnership'. Queensland Parks and Wildlife Service, Environmental Protection Agency, Brisbane.

- EPA. 2002. Indigenous Employment and Development Strategy. Environmental Protection Agency Brisbane.
- George M, Innes, J, Ross, H. 2004. Managing Sea Country Together: Key Issues for Developing Co-operative Management for the Great Barrier Reef World Heritage Area. CRC Reef Research Centre Technical Report No. 50, Townsville.
- Girringun Aboriginal Corporation and Nursey-Bray M. 2002. Girringun Saltwater Unit Co-Management Proposal. Girringun Aboriginal Corporation, Cardwell.
- Goodman, P. 2003. Assessing management effectiveness and setting priorities in protected areas in KwaZulu-Natal. *Bioscience* 53(9): 843-851.
- Great Barrier Reef Marine Park Authority (GBRMPA). 1994a. The Great Barrier Reef: A 25 Year Strategic Plan for the Great Barrier Reef World Heritage Area, 1994-2019. GBRMPA, Townsville.
- GBRMPA 1994b. Turtle and Dugong conservation strategy for the Great Barrier Reef Marine Park.
http://www.gbrmpa.gov.au/corp_site/info_services/publications/turtle_conservation/index.html
- GBRMPA. 2003. Great Barrier Reef Marine Park Zoning Plan. 2003. Great Barrier Reef Marine Park Authority, Townsville.
- GBRMPA. 2004a. Indigenous Use of Marine Resources in the Great Barrier Reef Marine Park, Representative Areas Program. Information Sheet. Townsville.
- GBRMPA. 2004b. New Zoning in the Great Barrier Marine Park.
http://www.gbrmpa.gov.au/corp_site/management/zoning/index.html.
- GBRMPA 2004c. Actions for Dugong Conservation.
http://www.gbrmpa.gov.au/corp_site/info_services/publications/dugong_actions.html
- Greer S, Harrington J, Gibbs M, Fuary M, Roe D. forthcoming. Cultural Heritage Values of the Great Barrier Reef World Heritage Area. Unpublished report to GBRMPA, Townsville.
- Hockings M. 1998. Evaluating management of protected areas: Integrating planning and evaluation. *Environmental Management*. 22: 337-35.

- Hockings M, Stolten S, Dudley N. 2000. Evaluating Effectiveness: a Framework for Assessing the Management of Protected Areas. IUCN, Gland.
- Hockings M, Stolton S, Dudley N. 2004. Management Effectiveness - assessing management of protected areas? *Journal of Environmental Policy and Planning* 6(2): 157-174.
- Hopevale Aboriginal Council, Nursey-Bray N. 1999. A Guugu Yimmathirr Bama Wii; Girrithi and Ngawiya, Turtle and Dugong Hunting Management Plan. Hopevale Aboriginal Council, Cairns, Queensland.
- Hunter B, Williams R. 1998. Sustainable hunting: in search of a solution. In: Kennett R, Webb A, Duff G, Guinea M, Hill G (eds). *Marine Turtle Conservation and Management in Northern Australia: Proceedings of a Workshop held at the Northern Territory University. Centre for Indigenous Natural and Cultural Resource Management, Centre for Tropical Wetlands Management, Northern Territory University, Darwin.* pp 63-65.
- Innes J, Ross H. 2001. Co-managed research as a strategy for informing the development of Indigenous and government management partnerships over the Great Barrier Reef. Paper presented at International Association for the Study of Common Property Inaugural Pacific Regional Meeting, Brisbane, QLD, 2-4 September 2001.
<http://dlc.dlib.indiana.edu/documents/dir0/00/00/07/03/index.html>.
- Innes J, Gorman I, McKellar C, Lowe D, Jago B, Fernandes L, Mackay J, Harris G. 2004. Managing, Analysing and Presenting Public Submissions to Achieve Marine Park Planning Outcomes: An example from the Great Barrier Reef Marine Park.
http://www.gbrmpa.gov.au/corp_site/management/zoning/documents/rap_public_submission_analysis.pdf.
- Jareith H, Smyth D (eds). 2003. *Innovative Governance. Indigenous Peoples, Local Communities and Protected Areas. The Theme on Indigenous and Local Communities, Equity and Protected Areas (TILCEPA)*. Ane Books, New Delhi.

- Kennett R, Robinson CJ, Kiessling I, Yunupingu D, Munungguritj N, Yunupingu D. 2004. Yolngu co-management initiatives for Miyapunu / Sea Turtle conservation. *Ecological Management and Restoration* 5 (3): 159-166. [online] URL: <http://www.blackwell-synergy.com/loi/emr>
- Lawson B. 1984. *Aboriginal Fishing and Ownership of the Sea*. Fisheries Division, Department of Primary Industries, Canberra.
- Lee, K. N. 1999. Appraising adaptive management. *Conservation Ecology* 3(2): 3. [online] URL: <http://www.consecol.org/vol3/iss2/art3/>
- Leverington F, Hockings M. 2004. Evaluating the effectiveness of protected area management: the challenge of change. In: Barber CV, Miller K R, Boness M (eds). *Securing protected areas in the face of global change: Issues and strategies*. Gland, Switzerland and Cambridge, IUCN. pp 169-214.
- Margoluis R, Salafsky N. 1998. *Measures of Success: Designing, Managing, and Monitoring Conservation and Development Projects*. Island Press, Washington.
- Marsh H. 2003a. An integrated framework for the conservation of dugongs and dugong hunting cultures in northern Australia. Final Report. GBRMPA/JCU, Townsville, Australia.
- Marsh H. 2003b. Progress towards the cooperative management of marine hunting by a remote Indigenous community and government agencies in the Great Barrier Reef Region. Final report. GBRMPA/JCU, Townsville, Australia.
- Nyberg B. 1999. *An Introductory Guide to Adaptive Management: For Project Leaders and Participants*. Forest Practices Branch, Ministry of Forestry, Government of British Columbia. Available online at: <http://www.for.gov.bc.ca/hfp/amhome/INTROGD/Toc.htm>.
- Nurse-Bray M, Rist P, and Giringun Aboriginal Corporation. 2005. Sea country and tourism: Giringun Aboriginal Corporation case study. Giringun Aboriginal Corporation. In: Ross H, Innes J, George M, Gorman K (eds). *Traditional Owner Aspirations Towards Co-operative Management of the Great Barrier Reef World Heritage Area: Community Case Studies*. CRC Reef Research Centre Technical Report no. 56, Townsville.

- Nursey-Bray, M. 2006. Conflict to Co-management: eating our words. Towards Socially Just Conservation of Green Turtles and Dugongs in the Great Barrier Reef, Australia. PhD thesis, James Cook University, Townsville.
- QDPI&F (Queensland Department of Primary Industries and Fisheries). 2003. Partnership Commitment for Aboriginal People and Torres Strait Islander People. <http://www.dpi.qld.gov.au/community>
- QPWS (Queensland Parks and Wildlife Service, Environmental Protection Agency). 1999. Conservation and Management of the Dugong in Queensland 1999 - 2001. Conservation Plan Series, Brisbane.
- QPWS. 2001. Master Plan for Queensland's Park System. Environmental Protection Agency, Brisbane.
- QPWS. 2003. Cardwell-Hinchinbrook Regional Coastal Management Plan. Environmental Protection Agency, Brisbane.
- Roberts CR, McLean R, Flinders C, Balkanu Cape York Development Agency, 2005. Cape York co-management case study: Ambiilmungu Ngarra Country. Balkanu Caring for Country Unit. In: Ross H, Innes J, George M, Gorman K (eds). Traditional Owner Aspirations Towards Co-operative Management of the Great Barrier Reef World Heritage Area: Community Case Studies. CRC Reef Research Centre Technical Report no. 56, Townsville.
- Robinson CJ, Mercer D. 2000. Reconciliation in troubled waters? Australian oceans policy and offshore native title rights. *Marine Policy*. 24: 349-360
- Robinson CJ. 2001. Working towards regional agreements: Recent developments in co-operative resource management in Canada's British Columbia. *Australian Geographical Studies*. 39: 182-196.
- Robinson CJ, Munungguritj N, 2001. Sustainable balance: a Yolngu framework for cross-cultural collaborative management. In: Baker R, Davies J, Young E (eds). *Working on Country: Contemporary Indigenous Management of Australia's Lands and Coastal Regions*. Oxford University Press, Melbourne. pp 92-107.
- Ross H. 1999. New ethos, new solutions: lessons from Washington's co-operative environmental management agreements. *Australian Indigenous Law Reporter*. 4: 1-28.

- Ross H, Innes J, George M, Gorman K. 2005. Traditional Owner Aspirations Towards Co-operative Management of the Great Barrier Reef World Heritage Area: Community Case Studies. CRC Reef Research Centre Technical Report no. 56, Townsville.
- Ross H, Robinson C and Hockings M, 2005. Evaluation of Indigenous co-management of natural resources. In: Bellamy J ed. Regional Natural Resource Management Planning: The Challenges of Evaluation as Seen Through Different Lenses. The State of Queensland (Department of Natural Resources and Mines). Pp 51-58.
- Ross H and Innes, J, 2005. A framework for designing co-management for the Great Barrier Reef World Heritage Area. In: Merino L, Robson J (eds). Managing the Commons, Conservation of Biodiversity. Instituto Nacional de Ecologia (INE), Secretario de Medio Ambiente y Recursos Naturales (SEMARNAT), Mexico.
- Ross H, Buchy M, Proctor W. 2002. Laying down the ladder: A typology of public participation in Australian natural resource management. Australian Journal of Environmental Management 9: 205-217.
- Savage H. 2003. Indigenous Connections with the Great Barrier Reef. In: Chin A (ed). State of the Great Barrier Reef On-line. http://www.gbrmpa.gov.au/corp-site/info_services/publications/sotr/indigenous/index.html.
- Sea Forum. 1999. Aboriginal Involvement in Management of the Southern Great Barrier Reef. Discussion paper. Southern Great Barrier Reef Sea Forum, Brisbane.
- Sharp N. 1998. Handing on the right to fish: The law of the land and cross-cultural co-operation in a gulf community in Australia. Pacific Conservation Biology. 4: 95-104.
- Shindler B, Aldred Cheek K, Stankey GH. 1999. Monitoring and Evaluating Citizen-Agency Interactions: A Framework Developed for Adaptive Management. United States Department of Agriculture, Forest Service. General Technical Report PNW-GTR-452, Portland.

- Smyth D. 1993. *A Voice in All Places: Aboriginal and Torres Strait Islander Interests in Australia's Coastal Zone*. Resource Assessment Commission, Canberra.
- Smyth D. 2000. *Monitoring Culture: Towards the Development of Cultural Indicators for the Wet Tropics World Heritage Area*. Discussion Paper, Rainforest Cooperative Research Centre, James Cook University, Cairns.
- Stufflebeam, D and Shinkfield, A. 1985. *Systematic evaluation: a self-instructional guide to theory and practice*. Boston, Mass., Kluwer Nijhoff.
- Szabo S, Smyth D. 2003. Indigenous protected areas in Australia. In: Jareith J, Smyth D (eds). *Innovative Governance. Indigenous Peoples, Local Communities and Protected Areas. The Theme on Indigenous and Local Communities, Equity and Protected Areas (TILCEPA)*. Ane Books, New Delhi. pp 145-164.
- Walters CJ, Holling CS. 1990. Large scale management experiments and learning by doing. *Ecology*. 71: 2060-2068.
- Woenne-Green S, Johnson R, Sultan R, Wallis A. 1994. *Competing Interests: Aboriginal Participation in National Parks and Conservation Reserves in Australia: A Review*, Project report funded by the Department of Employment, Education and Training, Canberra.
- Young E, Ross H, Johnson J and Kesteven J. 1991. *Caring for Country: Aborigines and Land Management*. AGPS, Canberra.

**APPENDIX 1:
IMPLEMENTATION OF EMERGENT CO-MANAGEMENT PRACTICE IN THE
GIRRINGUN AREA**



Ellie Bock and Girringun Aboriginal Corporation

Prepared 2004

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Front cover: Views of Rockingham Bay from Cardwell

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Nywaigi Traditional Owners

Warrgamay Traditional Owners

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Phil Pentecost

Melissa Nursey-Bray

ACRONYMS

AMP	Aboriginal Management Plan
CIRU	Cardwell Indigenous Ranger Unit
CQLC	Central Queensland Land Council
CRC	Cooperative Research Centre
DPI&F	Department of Primary Industries and Fisheries (Queensland)
EPA	Environmental Protection Agency (Queensland)
GBRMP	Great Barrier Reef Marine Park
GBRMPA	Great Barrier Reef Marine Park Authority
IPA	Indigenous Protected Area
IPLU	Indigenous Partnerships Liaison Unit (GBRMPA)
NQLC	North Queensland Land Council
NTRB	Native Title Representative Body
QBFP	Queensland Boating and Fisheries Patrol
QPWS	Queensland Parks and Wildlife Service (including Marine Parks)
RAP	Representative Areas Program
TUMRA	Traditional Use of Marine Resources Agreement

1 INTRODUCTION

Girringun Aboriginal Corporation ('Girringun') is located in Cardwell, North Queensland. The organisation provides a range of services to Traditional Owners of land and sea country extending from Rollingstone across to the Valley of Lagoons in the south, to Ravenshoe in the northwest and Maria Creek to the northeast. The Girringun area includes all the flood plains and coast between these points, as well as the offshore islands and waters surrounding the Hinchinbrook, Goold, Brook and Family islands.

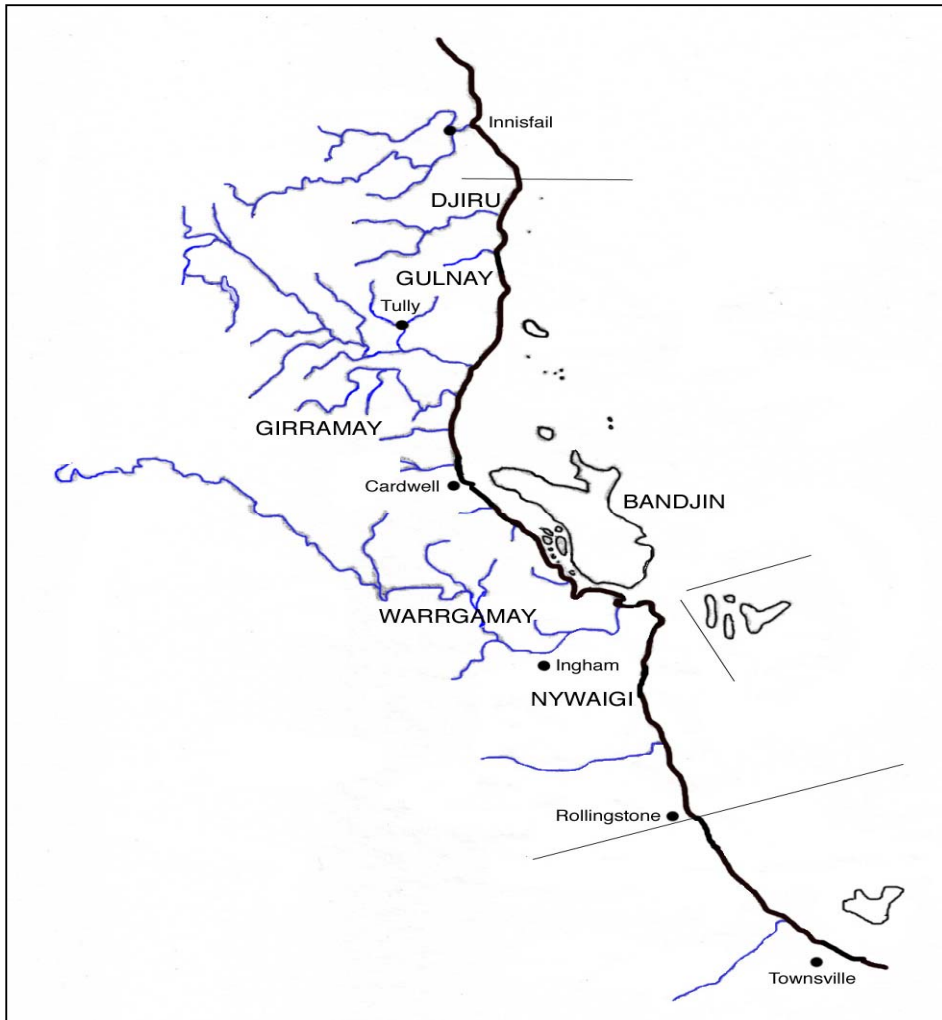
Saltwater Traditional Owner groups assisted by Girringun are the Bandjin, Djiru, Gulnay, Girramay, Nywaigi and Warrgamay peoples, whose respective country is indicatively represented on Map 1 below. Girringun also assists three freshwater Traditional Owner groups; Jirrbal peoples, Warungnu peoples and Gugu-Badhun peoples.

Girringun was established in 1995 to provide advisory and referral services to Traditional Owners within its core areas of native title and cultural heritage protection. More recently, Girringun has facilitated Traditional Owner engagement with government and other interests about land and sea management issues, natural resource management planning processes and co-operative management (co-management) strategies.

Whilst saltwater Traditional Owner groups have concerns and issues relating to terrestrial resource use and management, and see both marine and terrestrial country and resources as intrinsically linked, this paper deals specifically with issues surrounding the use and management of sea country and marine resources.

In this paper, references to 'country' are interchangeable with the terms 'traditional country' and 'traditional sea country', references to 'sea country' are interchangeable with the term 'traditional sea country'. Unless otherwise stated, the terms 'saltwater

Traditional Owners' and 'saltwater Traditional Owner groups' refer to Bandjin, Djiru, Gulnay, Girramay, Nywaigi and Warrgamay peoples.



Map 1 - Indicative location of traditional country in the Giringun area

METHODOLOGY

The aim of this paper is to explore and consolidate sea country co-management issues and aspirations identified by the six saltwater Traditional Owner groups to June 2004.

This paper forms part of a co-management research project instigated by the CRC Reef Research Centre. As such, it comprises a summary of known issues identified through research undertaken by Giringun to date (including previous research into tourism funded by the CRC Reef Research Centre, see Nursey-Bray, Rist and Giringun, 2005, in Ross et. al. CRC Reef Research Centre Technical Report no. 56) and the incorporation of these with emerging issues identified by saltwater Traditional Owners during a number of meetings and workshops held between March and June 2004.

The most recently held meetings and workshops form part of a process coordinated by Giringun to, where possible, obtain Traditional Owner endorsement of agreed sea country boundaries within the Giringun area for consultative use with external agencies.

A simultaneous project is currently seeking to investigate the possible development of specific traditional marine resource use and sea country management agreements between Traditional Owners and various State and Federal government agencies. At this point in time⁶, related discussions are continuing with the Great Barrier Reef Marine Park Authority (GBRMPA), the Environmental Protection Agency (EPA), Queensland Parks and Wildlife Service (QPWS) including Marine Parks, and the Department of Primary Industries and Fisheries (DPI&F).

⁶ Prepared mid-2004.

2 JURISDICTION OVER SEA COUNTRY IN THE GIRRINGUN AREA

The Girringun area is subject to a number of State and Federal government jurisdictions focusing on land, sea and marine resource management. These jurisdictional areas often overlap and add to the complexity of clearly defining management roles and responsibilities within and between the various tiers of government, and between State government agencies.

Traditional Owners strongly believe they hold specific roles and responsibilities for their particular sea country and cultural sites, including natural and cultural resources. Current native title legislation and case law provide a legal basis for Traditional Owners' access and use of resources for personal, domestic and non-commercial communal use.

Specifically, s211 of the Commonwealth's *Native Title Act 1993* provides for rights to hunt, fish, gather and conduct cultural and spiritual activities on land and sea country. Federal Court determinations regarding the Croker Island native title claim and, more recently, the Wellesley Islands native title claim, are seen to reinforce certain rights in relation to sea country and resources.

Traditional Owners within the Girringun area who have an interest in access to, use and management of sea country and marine resources include Nywaigi, Bandjin, Warrgamay, Girramay, Gulnay and Djiru peoples. The Native Title Representative Body (NTRB) for saltwater Traditional Owner groups (except Djiru Traditional Owners) is the Central Queensland Land Council (CQLC). Djiru Traditional Owners are represented by the North Queensland Land Council (NQLC).

At the Federal level, the Commonwealth government has jurisdiction for Australian territorial waters under Commonwealth and international maritime law. As a Commonwealth statutory authority, GBRMPA has statutory responsibilities concerning the management and use of the Great Barrier Reef World Heritage Area

under the *Great Barrier Reef Marine Park Act 1975*. The Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* also provides for the protection of World Heritage Areas including the Great Barrier Reef World Heritage Area.

At the State level, several government agencies have jurisdictional roles and responsibilities for marine resource management within the Girringun area. These include (amongst others) DPI&F, EPA, QPWS and the Queensland Boating and Fisheries Patrol (QBFP).

Queensland State legislation applicable to fisheries and marine resource management include the *Marine Parks Act 1984*, the *Nature Conservation Act 1992*, the *Fisheries Act 1984*, and associated regulations.

BACKGROUND TO CO-MANAGEMENT PROCESSES IN THE GIRRINGUN AREA

Over the past decade of its operations, Girringun has collated issues and concerns raised by Traditional Owners in relation to cooperative land and sea management through research and a series of related projects.

These include the *Girringun Saltwater Unit Co-Management Proposal* (Girringun Aboriginal Corporation and Nursey-Bray 2002), submissions to State and Federal government planning processes including the recently completed Representative Areas Program (RAP) and work on specific projects focusing on cultural heritage management, tourism, natural resource use, management and monitoring, and the traditional use and management of marine resources.

3 BACKGROUND TO ESTABLISHMENT OF CARDWELL INDIGENOUS RANGER UNIT (CIRU)

The Cardwell Indigenous Ranger Unit (CIRU) was established in 2003 following an intensive consultative process involving Bandjin, Warrgamay, Djiru, Gulnay, Girramay and Nywaigi peoples. This process produced the *Girringun Saltwater Unit Co-Management Proposal 2002*, a document specifically outlining sea country management aspirations of saltwater Traditional Owner groups in the Girringun region.

CIRU has been established for a number of specific purposes which include:

- Developing an Aboriginal land and sea management program under the auspices of the Queensland Parks and Wildlife Service (QPWS), including Marine Parks;
- Enhancing Traditional Owner involvement in the management and monitoring of land and sea country under the jurisdiction of QPWS and Marine Parks; and
- Commencing moves toward co-management in practice.

At present the Unit is comprised of two⁷ Aboriginal rangers and one Aboriginal supervisor, under the management of the Head Ranger at Cardwell. Present duties for CIRU rangers include monitoring of terrestrial and marine environments and cultural heritage within the relevant QPWS administrative area (referred to as the Hinchinbrook Region).

The Unit reports to a Steering Committee comprised of Girringun executive staff and representatives from relevant government agencies; presently QPWS, EPA and DPI&F. In its current form, the functions and role of the Unit correspond in general

⁷ Now three in Cardwell and two more in Ingham, in late 2005.

with the initial stage of the proposed Saltwater Unit detailed in the *Girringun Co-Management Proposal 2002* (see below).

4 IDENTIFIED ISSUES

4.1 Girringun Saltwater Unit Co-Management Proposal 2002

During 2002, Girringun prepared a substantial sea country co-management proposal for discussion with Queensland State government agencies (Girringun and Nursey-Bray 2002). The vision for the proposal is to establish ongoing and collaborative whole of government management approaches to ensure effective and holistic management of the Girringun country of land, sea and people.

The objectives of the proposal are summarised as follows:

1. To develop an on-going and effective land and sea management regime, through the establishment of partnerships and collaborative programs between Girringun and relevant management agencies.
2. To build local capacity and initiatives in the Girringun/Cardwell/Hinchinbrook region, to address specific land/sea management needs and aspirations of Traditional Owners in the region.
3. To facilitate mechanisms and programs that will ensure the ongoing protection and management of the cultural and environmental heritage of the area.
4. To have indigenous management of rights and interests recognised by government.
5. To be integrally involved in the management of land/sea country and be a core part of the on-ground management presence in the Cardwell/Hinchinbrook marine area.

The Unit is to evolve or develop by way of a series of guided stages (see Table 1 below), building on a strong and viable foundation through mutually agreed collaborative programs, including appropriate training and development, and resourced initially by way of assistance provided by government agencies.

Table 1: Proposed Evolution of Girringun Saltwater Unit

Stage	Phase	Details
1	Primary co-management (2-3 years)	Initial establishment phase, training, identification of potential projects, cultural heritage work, service agreements
2	Secondary co-management	Increased on-ground implementation, on-job training, development of independent pilots, collaborative projects with QPWS
3	Independent level of co-management – fully trained Girringun unit	Autonomy, fully trained staff, collaborate and cooperative enforcement role (especially relating to marine management and cultural heritage management)

The proposal details a long-term strategy for the establishment of an autonomous, enforced, financially independent and competitive sea management unit controlled, managed and staffed by Traditional Owners. Issues identified by saltwater Traditional Owners during the development of the proposal through Girringun include:

- maintenance of cultural sites;
- maintaining traditional and native title rights (traditional use, subsistence, sites);
- retention of cultural and natural values for Hinchinbrook Island and the Channel;
- retention of cultural and natural values for all other islands in the Girringun area;
- involvement of Traditional Owners in the management of and protection of the natural and cultural values of the region;
- integration and coordination of coastal management;
- management of and controlled growth for tourism and other developments along the coast;
- conservation of significant remnant vegetation on the coastal plain;
- protection and conservation of threatened species (dugong, mahogany glider, cassowary);
- water quality including sediment and agricultural run-off; and
- protection of Great Barrier Reef and World Heritage values.

Attachment 1 provides further detail of issues identified during this process.

4.2 Sea Country and Tourism: Finding the Balance

In April 2003, Giringun finalised a research project detailing concerns and aspirations held by saltwater Traditional Owner groups regarding tourism in the Giringun area (Nurse-Bray et al. 2005). This project was funded by the CRC Reef Research Centre and formed part of the Centre's Co-Management Task. The project focused on Traditional Owner aspirations for the management and control of tourism activities (including recreational fishing), appropriate cross-cultural engagement, the on-going development of culturally appropriate tourism opportunities, and associated issues of concern.

In part, the resulting paper *Sea Country and Tourism: Finding the Balance*, drew on the general vision and objectives expressed by Traditional Owners regarding the management and protection of sea country and detailed in the *Giringun Saltwater Unit Co-Management Proposal 2002* (see above).

Specific areas of concern relating to tourism identified during the project include:

- boat cruises operating around Hinchinbrook Island (especially the Haven fish trap and Coral Sea wreck area);
- impact of visitation to Goold and Brook Islands;
- impact on species and sites by recreational fishers;
- impacts arising from dugong watching tours;
- cumulative impact of latent tourism (in particular roving permit operations);
- impact on cultural story and cultural heritage sites;
- management of land and sea tourism interface;
- biological impacts on species and island ecology; and
- lack of understanding by the tourism industry of the area being a Traditional Owner domain.

The project identified a preferred three-tiered approach to co-management relating to tourism in the Giringun area; comprising principles for co-management,

management options and an implementation program. The three tiers are summarised as follows:

1. *Principles for Co-management (being Rules for Country)*

- Equity of access to sea country is provided to Traditional Owners.
- Opportunities for sustainable use are maximised for Traditional Owners.
- Management of [tourism] activities is conducted in partnership.
- Management of [tourism] and programs maximises opportunities for capacity building and empowerment of Traditional Owners.
- Feedback mechanisms and flexibility of involvement are provided to Giringun members in any established tourism venture.
- Indigenous interests are fostered.
- Native title rights and responsibilities are recognised.
- Open and transparent management through publicly available information.
- Involvement of Traditional Owners in decision-making and resolution of disputes.
- An accurate and accessible data-base of tourism use and activity is publicly available to Giringun Aboriginal Corporation and the Saltwater Ranger Unit.

2. *Management options*

- Exclusive Use Zones;
- Exclusive Access Zones;
- Cultural Permits;
- Initiation of focused research programs;
- Cultural awareness programs;
- Cultural heritage assessment activities; and
- Signage and development of interpretation and extension material.

3. *Implementation program*

- Development of a spectrum of permit assessment and related activities (for inclusion into current procedures or as amendments to current procedures).

- Requirement to notify Traditional Owners of activities undertaken under permit within Giringun area (site specific and roving).
- Mutually agreed quota of numbers undertaking such operations within the area.
- Addition of a new 'cultural notification' section to the existing permit documents, to be signed-off by Giringun prior to permits being issued.
- Requirement to have a 'cultural access or permission' permit in specific areas deemed of special significance to Giringun Traditional Owners.
- Involvement in native title notification process, through established forums such as a negotiating table.
- Permit assessment fees which would go to Giringun as a contribution for their involvement in the management of tourism.
- Reporting and review process - involvement by Giringun in the determining of whether or not permits should be renewed, the scope of activities occurring in the area and monitoring, reporting and review requirements of permittees.

Attachment 2 provides further detail of the three-tier proposal and issues of concern identified during this process.

4.3 Representative Areas Program (RAP)

In August 2003, Giringun prepared an extensive submission for the Representative Areas Program (RAP) conducted by GBRMPA (Giringun Aboriginal Corporation 2003). The submission was made on behalf of saltwater Traditional Owner groups and included separate submissions from Bandjin, Warrgamay, Gulnay, Girramay and Nywaigi Traditional Owners. Although their issues were broadly incorporated into the Giringun submission, it is understood that Djiru Traditional Owners lodged a separate submission through NQLC.

All saltwater Traditional Owners participating in the RAP consultative process expressed the following general points:

- Traditional Owners will not support any zoning plan that affects their native title rights to fish and undertake cultural practices within their sea country;
- Traditional Owners hold extensive knowledge of sea country;
- Traditional Owners identified a number of areas within their sea country as particularly significant areas for breeding and feeding grounds of many culturally important species;
- Main interests and concerns of Traditional Owners are the ability to utilise, protect and manage cultural resources and significant cultural sites within sea country; and
- Traditional Owners to be actively involved in managing and protecting cultural resources and sites within sea country.

Generally issues of concern were held by a number of Traditional Owner groups, although a number of specific issues were identified with reference to particular areas within a group's own country.

The main concerns and interests expressed by saltwater Traditional Owners during the RAP process included:

- commercial fishing activities and associated impacts on traditional sea country;
- protection and management of cultural sites and cultural resources;
- traditional hunting of turtle and dugong;
- coastal development issues;
- shipping activities;
- impacts of land-based activities; and
- Australian Defence Force activities.

Further, saltwater Traditional Owners expressed interest in their active involvement in:

- developing co-management arrangements with GBRMPA;

- management and enforcement of Traditional Use of Marine Resources Agreements (TUMRAs);
- identification and management of Indigenous Cultural Zones and Indigenous Protected Areas (IPAs);
- collecting, researching and documenting of Aboriginal cultural and environmental knowledge to be incorporated into current management structures;
- employment and training opportunities in the management and protection of their sea country of the Great Barrier Reef;
- tourism opportunities;
- management of endangered dugong populations; and
- management of vulnerable turtle populations.

Attachment 3 provides further detail of issues identified during this process.

4.4 Sea Country and Traditional Resource Co-Management Agreements

Girringun has recently initiated a project to investigate the possible development of specific traditional marine resource use and sea country management agreements by saltwater Traditional Owners for use by various State and Federal government agencies. The project is currently focusing on the possible development of Traditional Use of Marine Resource Agreements as proposed by GBRMPA, and the possible future development of an agreed Aboriginal Management Plan (AMP) with DPI&F.

At this point in time, related discussions are continuing within and between the saltwater Traditional Owner groups concerned, and between the project coordinator (acting on behalf of the Traditional Owner groups and Girringun) and GBRMPA's Indigenous Partnerships Liaison Unit (IPLU). Initial contact has also been made with representatives of EPA, QPWS and DPI&F.

GBRMPA's IPLU envisage the proposed TUMRA to be, if possible, a single agreement between a number of saltwater Traditional Owner groups, outlining access to and management of sea country within a given greater region, and access to and utilisation of marine resources within specified sea country areas. Given multiple jurisdictions across the region, GBRMPA has undertaken to facilitate government-to-government and whole-of-government coordination and agreement during the development and implementation of TUMRAs.

The greater region being considered for the proposed TUMRA in this instance is the area defined by the mutually recognised, but respective sea country of Nywaigi, Bandjin, Warrgamay, Girramay, Gulnay and Djiru peoples. Defining indicative sea country boundaries is the subject of a conjointly facilitated process; however, for GBRMPA's purposes, the greater Giringun region is generally recognised as extending from Rollingstone in the south to Maria Creek in the north. Related discussions are currently occurring between Djiru and Ma:Mu peoples regarding their sea country boundaries to the north of the region, and between Nywaigi, Bandjin, Manbarra (Palm Island) and Wulgurukaba (Townsville area) in the south of the region.

Depending on the outcome of inter- and intra-Traditional Owner discussions, it may be feasible to work toward a single TUMRA. In the event where Traditional Owners decide to pursue multiple separate agreements, it may be necessary to develop more than one agreement for the greater Giringun region.

Any resulting draft TUMRA, once finalised by Traditional Owners, will undergo a GBRMPA certification process to enable it to have statutory functions; including certain enforceable, regulatory powers. Management of the TUMRA will be undertaken through a Steering Committee of Traditional Owners, which will also control a monitoring and reporting role funded by GBRMPA.

At present, the Giringun project envisages a multiple stage process to enable Traditional Owners to develop an informed position regarding the desirability or

otherwise of the proposed TUMRA(s). This is crucial given that any accredited TUMRA will be legally binding on the parties, being the Traditional Owners themselves, and may have potential implications for existing native title rights and interests, if only for the term of an agreed TUMRA.

Currently, the proposed process will include:

- Initial information dissemination.
- Selection of representatives (by individual Traditional Owner groups).
- Engagement with neighbouring Traditional Owner groups in the region.
- A series of workshops to identify, define and correlate issues.
- Obtaining independent legal advice.
- Development of Traditional Owner position(s) including an authorisation meeting.

Dependent on the points above:

- Decision regarding continuation of agreed process and further development of TUMRA(s).
- Further TUMRA development facilitated by GBRMPA's IPLU, including consultation and involvement of other relevant parties.
- Traditional Owners finalise TUMRA(s) and composition of Steering Committee(s), including selection for the associated monitoring and reporting position(s).
- GBRMPA certification including confirmation of Traditional Owners by relevant NTRBs.
- Agreement in place for set term, ongoing monitoring and review.

It must be stressed that it is not possible to predict at this stage the adoption or otherwise of the proposed TUMRA(s), as the process is still in its initial phase of information dissemination and selection of Traditional Owners representatives.

Workshops are set to continue during mid 2004, with possible subsequent

discussions including agency representatives continuing throughout the latter part of 2004.

As mentioned above, it may be feasible that upon finalisation of a TUMRA(s), certain issues can be transposed into a negotiating framework for the future development of an agreed AMP with DPI&F. An AMP would cover that area within the Girringun region which is under the jurisdiction of DPI&F, that is; State waters where other agencies hold no management functions.

Broadly defined, DPI&F's jurisdiction in the Girringun region covers the Hinchinbrook Channel between Lucinda and Cardwell. The inner areas of Missionary Bay (north side of Hinchinbrook Island) and coastal areas to the three mile limit might also be defined as State waters for the purposes of an AMP. These areas correspond generally with the sea country of Nywaigi, Bandjin, Warrgamay and Girramay peoples.

The recently released Hinchinbrook Plan of Management (GBRMPA, 2004) and a complementary management plan currently being drafted by QPWS will inform both on-going TUMRA discussions and any future discussions relating to an AMP applicable within the Girringun area. GBRMPA advises that:

'The Hinchinbrook Planning Area, (the area to which the Plan applies), consists of waters within the Commonwealth's Great Barrier Reef Marine Park and lies generally offshore from Cardwell in North Queensland, from the town of Mission Beach in the north to as far south as Ingham. The Hinchinbrook Planning Area does not include internal waters of the State of Queensland, including the Hinchinbrook Channel. The Queensland Parks and Wildlife Service is currently finalising a complementary management plan that will cover waters within the State Marine Park such as the Hinchinbrook Channel and inter-tidal waters. This Plan should be read in conjunction with the

Hinchinbrook Marine Management Plan [sic], once finalised'
(www.gbrmpa.gov.au).

Generally, indications are that issues relating to the potential TUMRA(s) should be able to be transposed into an AMP process, however any AMP developed will be subject to the *Fisheries Act 1984* (Qld) and will be progressed only through appropriate engagement by DPI&F.

Recently, inter-agency discussions at the senior State policy level indicate that the relevant agencies with jurisdiction for marine protected areas and marine resource management in Queensland may be moving toward the development of a coordinated approach to engaging with Traditional Owner interests. It may be possible in the future for TUMRAs to make management provisions for areas within State waters where these are immediately adjacent to the Great Barrier Reef Marine Park. The relevant State agencies (EPA/QPWS, DPI&F) would be party to any such negotiations.

For reference, the Western Australian Department of Fisheries (2003) recently released an Aboriginal Fishing Strategy entitled '*Recognising the past, fishing for the future*'. This strategy incorporates Aboriginal aspirations for traditional and commercial fishing, as well as Aboriginal cultural and fisheries resource management aspirations.

Further, the Northern Territory Government has provided on-going funding support for the engagement of Aboriginal fisheries enforcement officers through a number of Community Ranger programs. In particular, the Northern Land Council has actively pursued the development of autonomous, culturally appropriate Community Ranger programs for the greater Arnhem Land region. Critical issues such as crabbing practices and by-catch have been the focus of establishing co-operative management in practice.

4.5 Implications for Effective and Appropriate Co-Management

Full recognition of Traditional Owners' aspirations requires their translation into the active engagement of appropriate Traditional Owners in all facets of management, including input into policy development and actual on-ground management practice. This includes sincere consideration being accorded to Traditional Owners' aspirations and issues, and as far as possible, facilitating their incorporation into management planning, and on-ground implementation of management practices in a culturally appropriate manner.

A recurrent theme is that agencies need to develop a deeper understanding of the obligations held by individual Traditional Owners to specific areas of country. That is, western assumptions about generic position descriptions may not be the most appropriate method of co-management engagement over time.

It should thus be recognised that given cultural obligations and responsibilities, individual Aboriginal officers may not believe that, in the end, they can be effective over regional agglomerations of country. However, it may be seen to be expedient to work in this way in the initial stages of a longer term process (such as the one outlined in the *Girringun Saltwater Unit Proposal 2002*), where skills transfer and training are seen to be fundamental underpinnings of longer term goals.

Government agencies will need to commit to an approach which devolves management responsibilities over time, and to ensure the establishment of an adequately and appropriately resourced foundation for devolved management as an interim stage leading onto autonomous co-management. In addition, such an approach will require strengthening cross-cultural awareness.

Serious recognition of these issues requires appropriate resourcing in terms of positions allocated to effective co-management. In addition, resourcing for co-management positions needs to be assessed in terms of medium to longer term

timeframes for implementation. Inevitably, political processes determine resourcing issues and as such, resourcing has generally tended to be of a limited nature.

4.6 Consolidating Moves Toward Co-Management for the Future

A sound basis has been established within the Girringun area for the future development and consolidation of co-management practices within the greater aim of creating an autonomous Girringun sea management capacity.

CIRU provides an initial vehicle for such engagement and it will require on-going support over time by Traditional Owners, Girringun and the relevant agencies concerned. In order for the Unit to continue to progress its charter of co-management under the auspices of EPA/QPWS, training and skills development, policy and management practice must be sincere and supportive in ensuring work programs reflect the priorities of Traditional Owners in addition to agency priorities.

Girringun itself provides an effective vehicle to facilitate the further development of Traditional Owner co-management in the region. However, like most Aboriginal organisations, Girringun has many demands on its time and limited resources.

Sustained financial, employment and training support from a variety of government sources must be seriously considered, and committed, for the evolution of an effective, sustainable and culturally appropriate collaboration in the management of sea country over time. Solid financial, policy and program support is critical in the achievement and realisation of the ultimate aim of an autonomous, financially independent Girringun co-management structure.

Girringun remains committed to engaging in and facilitating processes seeking an enhanced, pro-active and effective role for Girringun saltwater Traditional Owners in the management of their sea country. To this end, Girringun is sincerely interested in

continuing to collaborate and work together with the CRC Reef Research Centre, Commonwealth and State government agencies; and all other interested parties.

REFERENCES

- Department of Fisheries (Western Australia). 2003. Recognising the past, fishing for the future. Department of Fisheries, Perth.
- George M, Innes J, Ross H. 2004. Managing sea country together: key issues for developing co-operative management for the Great Barrier Reef World Heritage Area. CRC Reef Research Centre, Technical Report No. 50, Townsville.
- Girringun Aboriginal Corporation, Nursey-Bray M. 2002. Girringun Saltwater Unit Co-Management Proposal. Girringun Aboriginal Corporation, Cardwell.
- Girringun Aboriginal Corporation. 2003. Submission to Representative Areas Program. Girringun Aboriginal Corporation, Cardwell.
- Great Barrier Reef Marine Park Authority. 2003. Aboriginal and Torres Strait Islander People and the Great Barrier Reef Region Fact Sheet No 4. Great Barrier Reef Marine Park Authority, Canberra.
- Great Barrier Reef Marine Park Authority. 2004. Hinchinbrook Plan of Management. Great Barrier Reef Marine Park Authority, Canberra.
- Hopevale Aboriginal Council. 1999. Turtles and Dugong: A Guugu Yimmathirr Bama Wii Nyawiya and Girribithi. Hopevale Aboriginal Council, Cairns.
- Nursey-Bray M, Rist P, Girringun Aboriginal Corporation. 2005. Sea Country and Tourism: Finding the Balance. In: Ross H, Innes J, George M, Gorman K. 2005. Traditional Owner Aspirations Towards Co-operative Management of the Great Barrier Reef World Heritage Area: Community Case Studies. CRC Reef Research Centre Technical Report no. 56, Townsville.

Statutory references

- Native Title Act 1993, Commonwealth of Australia.
- Great Barrier Reef Marine Park Act 1975, Commonwealth of Australia.
- Nature Conservation Act 1992, Queensland Government.
- Fisheries Act 1984, Queensland Government.
- Marine Parks Act 1982, Queensland Government.

Attachment 1. Summary of Submission to Representative Areas Zoning Plan on behalf of Saltwater Traditional Owner Groups Represented by Giringun Aboriginal Corporation - the Nywaigi, Warrgamay, Bandjin, Girramay, Gulnay and Djiru People.

(Giringun Aboriginal Corporation, August 2003)

1. General points

Traditional Owners

- Will not support any zoning plan that affects their native title rights to fish and undertake cultural practices within their sea country;
- Hold extensive knowledge of sea country; and
- Identified a number of areas within their sea country as particularly significant areas for breeding and feeding grounds of many culturally important species.

2. General concerns

- Main interests and concerns are the ability to utilise, protect and manage their cultural resources and significant cultural sites within traditional sea country.
- Desire involvement in managing and protecting cultural resources and sites within traditional sea country.

3. Commercial fishing activities

Traditional Owners indicated (to varying degrees):

- That commercial operations are adversely affecting fish stocks, breeding areas, their cultural resources and access to these resources where they are located within traditional sea country;
- That certain areas are currently heavily exploited;
- Disagreement with commercial fishing practices in the Great Barrier Reef and Hinchinbrook Channel areas;
- That commercial netting and crabbing activities should cease in their traditional sea country;
- That fishing methods and catch quantities were significantly affecting fish stocks and access to cultural resources in respective areas of traditional sea country;
- Commercial activities of trawlers in important dugong and turtle feeding areas were of significant concern in that these caused appreciable
 - Damage to sea grass beds
 - Capture and injury in fishing nets
 - Boat strikes
 - Habitat degradation;
- That zoning along coastlines should be yellow to control commercial fishing but allow recreational fishing.

4. Protection and management of cultural sites and resources

- Lack of protection of Aboriginal cultural heritage sites
- Lack of involvement of Traditional Owners
- Separate and distinct zoning for protection of significant sites (such as fish traps) - Indigenous Cultural Zone
- Allow for culturally appropriate management of significant sites
- Control access to such sites
- Management and protection of important fish and other species, breeding and nursery areas, including mangrove lined coastal areas and coastal creeks
- Involvement in identification and listing of Indigenous Protected Areas (IPAs)
- Facilitation of appropriate management and active management role for Traditional Owners
- Potential to undertake such work through Saltwater Ranger Unit.

5. Traditional Hunting of Turtle and Dugong

- Taking of species by external Indigenous and non-Indigenous people
- Interested in the development of Traditional Use of Marine Resource Agreements (TUMRAs)
- Management of take for traditional purposes
- Impact of trawlers on sea grass beds
- Degradation of habitat
- Risk of boat strikes
- Yellow zoning to reduce impacts and risks.

6. Coastal Development Issues

- Concerns about coastal developments which impact on culturally significant sites
- Proposed marina development at Clump Point is of concern to Djiru
- Yellow zoning to reduce possible environmental impacts
- Indigenous Protected Area zoning to reduce cultural impacts.

7. Shipping Activities

- Risk of serious accident with significant impact on cultural resources, sites and sea country
- Risk management to reduce impact of any such event.

8. Impacts of Land-based Activities

- Representative Areas Program to work in conjunction with Reef Water Quality Protection Plan.

9. Australian Defence Force Activities

- Ensure that defence activities do not damage or destroy cultural resources, sites or sea country.

10. Traditional Owner Involvement in:

- Co-management arrangements with GBRMPA
- Management and enforcement of TUMRAs
- Identification and management of Indigenous Cultural Zones and Indigenous Protected Areas
- Collecting, researching and documenting of Aboriginal cultural and environmental knowledge to be incorporated into current management structures
- Employment and training opportunities in the management and protection of their sea country of the Great Barrier Reef
- Tourism opportunities
- Management of endangered dugong populations
- Management of vulnerable turtle populations.

Attachment 2. Summary of Girringun Saltwater Unit Co-Management Proposal 2002.

(Girringun Aboriginal Corporation and Nursey-Bray 2002).

1. Vision

To establish ongoing and collaborative whole of government management approaches to ensure effective and holistic management of the Girringun country of land, sea and people.

2. Principles

Girringun Saltwater Unit will be:

- Autonomous
- Credible
- Enforced
- Ongoing
- Appropriate
- Not duplicating
- Accountable

3. Objectives

- a. To develop an on-going and effective land and sea management regime, through the establishment of partnerships and collaborative programs between Girringun and relevant management agencies.
- b. To build local capacity and initiatives in the Girringun/Cardwell/Hinchinbrook region, to address specific land/sea management needs and aspirations of Traditional Owners in the region.
- c. To facilitate mechanisms and programs that will ensure the ongoing protection and management of the cultural and environmental heritage of the area.
- d. To have indigenous management of rights and interests recognised by government.
- e. To be integrally involved in the management of land/sea country and be a core part of the on-ground management presence in the Cardwell/Hinchinbrook marine area.

The Need

The proposal is built within a two-way understanding of the needs and priorities established by both the indigenous community and an understanding of the priorities identified by the agencies in their day to day management for the Great Barrier Reef (as documented in the Day-to-Day Management (DDM) Annual Work Program 2002-2003).

Co-management is one of four priorities within this context. Cultural heritage management is a key management responsibility but one that is not fully developed within existing management briefs. Girringun proposes as a key part of its work

program to undertake to fill this gap, and develop further momentum to cultural heritage activities and management in the Cardwell/Hinchinbrook Shire region.

The four priorities are:

1. Compliance with statutory and subordinate regulations related to:
 - line and trawl fisheries
 - dugong protection
 - zoning plans and related restrictions
 - emerging compliance issues to prevent serious environmental harm.
2. Protection works directly related to vulnerable species habitat protection
3. Essential works for the protection of key high visitor use sites to prevent environmental harm and to provide for public access
4. Implementation of indigenous co-management programs when agreed by Board.

The proposal addresses three key imperatives for management in the region:

- Provides a detailed proposal to facilitate delivery of Ministerial Council objectives and an opportunity to deliver effectively on DDM Priority 4;
- Presents an opportunity for a co-management initiative which can address and effectively incorporate indigenous aspirations as native title holders and *prima facie* owners of this country; and
- Illustrates Girringun's capacity to add value to, and build on, DDM programs which are currently not adequately funded and resourced within the Hinchinbrook area.

5. Management Frameworks - Values and Issues

Natural values

- Mangrove communities
- Sea grass habitat
- Marine mammal populations
- Diversity of coral reefs
- Significant geological and geomorphological features

Cultural values

- Cultural sites: e.g.: Scraggy Pt fish traps, middens, rock shelters, carved trees
- 14 sites registered on Register of the National Estate for historical significance
- Nationally significant freshwater wetlands
- Vegetated dune systems.

6. Identified Issues

- Maintenance of cultural sites;
- Maintaining traditional and native title rights (traditional use, subsistence, sites);
- Retention of cultural and natural values for Hinchinbrook Island and the Channel;
- Retention of cultural and natural values for all other islands in the Girringun area;
- Involvement of Traditional Owners in the management of and protection of the natural and cultural values of the region;

- Integration and coordination of Coastal Management;
- Management of and controlled growth for tourism and other developments along the coast;
- Conservation of significant remnant vegetation on the coastal plain;
- Protection and conservation of threatened species (dugong, mahogany glider, cassowary);
- Water quality including sediment and agricultural run-off; and
- Protection of Great Barrier Reef and World Heritage values.

7. Co-Management Aspirations

Key Components

- Work program and stated objectives;
- Budget;
- Suggestions for how co-management regimes can be structurally developed;
- Consideration of ways forward; and
- Memorandum of Understanding between Giringun and government agencies.

8. Structure and Operations

Reporting

- Steering committee (Giringun and relevant government agencies)
- 4 member Unit (Head Ranger and 3 rangers)
- Responsibilities to Giringun Executive.

Timeframes

Three stage process:

1. Primary co-management (2-3 years) - Initial establishment phase, training, identification of potential projects, cultural heritage work, service agreements.
2. Secondary co-management - Increased on-ground implementation, on-job training, development of independent pilots and some collaborative projects with QPWS.
3. Establishment of independent, fully trained Giringun Unit, collaborative and cooperative enforcement role, especially relating to marine management and cultural heritage management.

Attachment 3. Summary of Sea Country and Tourism - Finding the Balance.

(M. Nursey-Bray, P. Rist and Girringun Aboriginal Corporation 2005)

Aspirations of Traditional Owners in Management of Sea Country

Documented in Girringun Saltwater Ranger Unit: A Co-Management Proposal (2002). Girringun country covers both land and sea, rainforest to reef areas. However both areas are subject to differing legislation and government agencies managing them. Girringun views the land and sea interface as being one continuous country and sees the need to manage the country accordingly and holistically.

Vision

- To establish on-going and collaborative whole-of-government management approaches to ensure effective and holistic management of Girringun community of land, sea and people.

Objectives

- a. To develop an on-going and effective land and sea management regime, through the establishment of partnerships and collaborative programs between Girringun and relevant management agencies.
- b. To build local capacity and initiatives in the Girringun/Cardwell/Hinchinbrook region, to address specific land/sea management needs and aspirations of Traditional Owners in the region.
- c. To facilitate mechanisms and programs that will ensure the ongoing protection and management of the cultural and environmental heritage of the area.
- d. To have Indigenous management rights and interests recognised by government.
- e. To be integrally involved in the management of land/sea country and be a core part of the on-ground management presence in the Cardwell/Hinchinbrook marine area.

Types of Tourist Activity in the Area

Specific areas of concern include:

- Boat cruises operating around Hinchinbrook Island, especially the Haven fish trap and Coral Sea wreck area;
- Impact of visitation to Goold and Brook Islands;
- Impact on species and sites by recreational fishers;
- Impacts arising from Dugong watching tours;
- Cumulative impact of latent tourism, in particular the roving permit operations;
- Impact on cultural story and cultural heritage sites;
- Management of land and sea tourism interface;

- Biological impacts on species and island ecology; and
- Lack of understanding by the tourism industry of the area being a traditional owner domain.

Three-tiered Approach to Co-Management

1. Principles for Co-Management - Rules for Country

- Equity of access to sea country is provided and opportunities for sustainable use are maximised for Traditional Owners.
- Management of [tourism] activities along the Great Barrier Reef region and within Giringun traditional boundaries, is conducted in partnership with the Traditional Owners.
- That management of [tourism] and programs in the Giringun area, maximises, wherever possible, the opportunities for capacity building and empowerment of Giringun Traditional Owners.
- Feedback mechanisms to and flexibility of involvement are provided to Giringun members in any established tourism venture.
- Indigenous interests are fostered, and native title rights and responsibilities recognised.
- Open and transparent management is attained through publicly available information and involvement of Traditional Owners in decision-making and resolution of disputes.
- An accurate and accessible data-base of tourism use and activity is publicly available to Giringun Aboriginal Corporation and Saltwater Ranger Unit.

2. Management Options

Giringun has identified a number of ideas relating to the development of procedures and management options that will help facilitate measuring and managing the cumulative impact of tourism in their area. This section outlines a suite of co-management activities for tourism that could be adopted in conjunction and consultation with management agencies and tourism operators.

Exclusive Use Zones

In areas of high cultural significance to Giringun it is suggested that managing agencies work with Giringun to create a new type of Exclusive Use Zone and establish a number of these. Such a Zone would give Giringun exclusive access to certain areas, and where tourists unless specifically invited would be prohibited. This would enable Giringun members to undertake ongoing cultural activities without being disturbed.

Exclusive Access Zones

Consistent with the principles of equity and access outlined above, it is suggested that Giringun in conjunction with Managing Areas and tour operators define and be granted some exclusive access zones within which they may conduct tourist activities of their own. This would enable Giringun members not only to generate some income out of the industry, but facilitate the dissemination and ongoing practice of culture.

Cultural Permits

Some members of Giringun suggested it would be appropriate to develop a cultural permit system that would be distributed through the Giringun Saltwater Ranger Unit. This would be consistent with current practice in Deed of Grant in Trust (DOGIT) and native title areas elsewhere where tourists must purchase a 'permission to enter country'. Such a 'cultural permit' while not having statutory status would nonetheless be advantageous to Giringun in that it would enable Traditional Owners to develop a data-base of tourist numbers to country, and create a forum through which to educate non-Indigenous peoples about Giringun and cultural issues. It would also cover some of the core costs of Giringun in co-managing tourism activity in the area.

Initiation of Focused Research Programs

- Investigate issue of latency and subsequent inability to determine specific-site activity and impact.
- Accurately identify the proportion of local recreational fishers to tourists undertaking recreational fishing activities.
- Investigate the fact that many tourists to the area are visiting the reef and the rainforest yet management of those areas fall within different legislation, jurisdictions and management authorities.
- Mapping and assessment of cumulative impacts.
- Cultural heritage and site assessment activities.
- Documentation of cultural heritage about the area.
- Oral histories pertaining to the evolution of tourist activity in the area.
- Survey of recreational fishers.
- Cultural Awareness Programs.
- Information Management.
- Interpretation services and Cultural Tours.
- Cross-sectoral management activities.

Cultural Heritage Assessment Activities

1. Training in cultural site management
2. Identification of sites.

Signage and Development of Interpretation and Extension Material

- On-going signage program linked to management activities.
- Appropriate signage for general and specific sites.

- Production of pamphlets and brochures detailing culturally appropriate, minimal impact tourism practices.

3. Implementation Program

- i. Development of a spectrum of permit assessment and related activities for inclusion into current procedures or as amendments to current procedures.
- ii. Requirement to notify Traditional Owners of activities undertaken under permit within Giringun area (site specific and roving).
- iii. Mutually agreed quota of numbers undertaking such operations within the area.
- iv. Addition of a new 'cultural notification' section to the existing permit documents, to be signed-off on by Giringun prior to permits being issued.
- v. Requirement to have a 'cultural access or permission' permit in specific areas deemed of special significance to Giringun Traditional Owners.
- vi. Involvement in native title notification process, through established forums such as a negotiating table.
- vii. Permit assessment fess which would go to Giringun as a contribution for their involvement in the management of tourism.
- viii. Reporting and review process - involvement by Giringun in the determining of whether or not permits should be renewed, the scope of activities occurring in the area and monitoring reporting and review requirements of permittees.

Girringun Aboriginal Corporation Aboriginal Values and Cultural Heritage; Fishing and Tourism Programs relevant to Co-Management	
Aims	Activities (as examples only)
<ul style="list-style-type: none"> To maintain and support management of (where appropriate) traditional use and cultural activities 	<ul style="list-style-type: none"> Ongoing liaison with Traditional Owners / interested groups on priorities and projects
<ul style="list-style-type: none"> To develop educational and environmental action programs which ensure transmission of cultural knowledge and practice about land and sea country, and the need to care for it, to younger generations 	<ul style="list-style-type: none"> Education regarding traditional connections, values and laws Work with our local language groups to develop appropriate programs that will contribute to cultural heritage management
<ul style="list-style-type: none"> To develop strategies to maintain and protect Aboriginal food chain/semi-subsistence economic values and regimes 	<ul style="list-style-type: none"> Bush tucker programs Development of management guidelines for traditional use, hunting and subsistence activities
<ul style="list-style-type: none"> To work toward protection and prevention of further damage to important cultural sites and artifacts, including (but not limited to), burial sites, sacred sites, fish traps, hunting tools, middens, rock art sites and stories. 	<ul style="list-style-type: none"> Implementation of Hinchinbrook Island Fish Traps Management Plan Protection of and prevention of further anchor damage to fish traps at Gool Island and Scraggy Point Photographic monitoring of Scraggy Point fish traps Maintaining 'No Anchoring' markers at Scraggy Point Cultural site protection - dance , story, medicine, hunting sites Protection and conservation of Hull River Mission
<ul style="list-style-type: none"> To monitor and control development of any sort of sport regarding cultural and social impact 	
<ul style="list-style-type: none"> To reduce the impacts of recreational fishing and use in the region 	
<ul style="list-style-type: none"> To reduce and monitor professional crabbing activity in the Hinchinbrook Channel 	
<ul style="list-style-type: none"> To limit the impact of professional netting practice on turtle, dugong and fish stocks 	
<ul style="list-style-type: none"> To significantly reduce the impact of fishing competitions on fish stocks 	
<ul style="list-style-type: none"> To reduce the impact of tourism on social and cultural values 	<ul style="list-style-type: none"> Develop cultural knowledge marine tours Establish cross-cultural training workshops for tour operators Train rangers and interested people in Heritage and Interpretive Tourism Establish volunteer program with long-term tourists/backpackers working with Girringun Saltwater Rangers on marine/tourism issues Support management agencies in permitting and clean-up activities