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REVIEW OF CO-MANAGEMENT IN AUSTRALIA'S FISHERIES

REPORT OF THE FRDC WORKING GROUP

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EXECUTIVE SUMMARY

This executive summary contains the main findings of the review organised around the terms of reference, followed by specific recommendations where appropriate.

Findings of the Review

General

1. The original Fisheries Research and Development Corporation (FRDC) Report – “Co-management: Managing Australia’s fisheries through partnership and delegation” Project No. 2006/068 – was reviewed and found to remain rigorous, relevant and appropriate as a guide to co-management and the issues surrounding its implementation.

It is important to remember that, although this review deals primarily with trials involving the commercial fishing sector, the co-management arrangements are also applicable to the recreational, charter, aquaculture and indigenous sectors as well as to other stakeholders including environmental and some community groups.

The report has been adopted across Australia’s fisheries as a guide and “tested” in a number of projects and trials discussed in this review, and has been used as a basis for designing co-management implementation exercises in a number of fisheries.

Further, the trials to date have confirmed the validity of the “drivers” for co-management, while reinforcing the necessity to meet the “essential pre-conditions” mentioned in the original report, with some additional suggestions mentioned below. The trials are confirming that there is no one single, preferred co-management “model” but rather the appropriate form has to be developed in each case to receive the necessary support. Hence the relevant costs and benefits will be different for each case.

What is common to all cases, however, is the importance of mutual trust among the parties – both as a pre-condition to commencing negotiations and as an outcome of successful co-management arrangements

2. The list of “drivers” for co-management in the original report (Appendix 1) has been confirmed in this review. In particular, the importance of cost savings as a driver for both the industry and government was again emphasised. However, one further driver has been raised which should be added, namely the opportunity to build on human and social capital development across fisheries stakeholders and the community.

3. The list of “essential pre-conditions” for co-management in the original report (Appendix 2) has also been confirmed. The point was reinforced that not all “pre-conditions” needed to be satisfied to enter into co-management negotiations, but those

negotiations needed to ultimately cover all those points in some way in reaching an agreed co-management arrangement.

Whilst not an essential pre-condition, a number of stakeholders felt the issue of “community awareness and understanding of the co-management concept and process” was important in seeking to implement further co-management arrangements, especially when moving beyond the commercial fishing sector.

4. Most industry organisations (and some government agencies) are adopting a “wait and see” attitude dependent on the reviews of current co-management trials to demonstrate that real costs and benefits are achievable in a practical sense. Others continue to seek funding for additional trials designed to confirm successful results in different situations.

Industry and Government Structures

5. Industry organisations must be capable of providing leadership in co-management, including obtaining majority support from members and acquiring access to the necessary resources and skills for implementation. This continues to be a constraining factor. The review has reinforced the difficulties faced by most industry organisations with few staff, a restricted range of skills and a limited ability to raise additional funds. Resources are also becoming very restricted in government agencies, which means the expectations of parties from co-management have to be carefully constructed and negotiated in each case, with an agreed view on both the objectives and what is achievable. This shows the importance of the trials currently underway, funded in part by FRDC and government, to allow both government and industry to develop their positions on co-management in the knowledge of these outcomes.

6. The development of the trials should assist with the clarification of government policy on co-management as is currently occurring in South Australia where the Fisheries Act requires the Fisheries Council to promote co-management. This is being done through the drafting of a specific policy on co-management. Other agencies have made reference to support for co-management in various statements and support for trials. This “step-wise” approach is understandable, however some industry stakeholders believe that the provision of government policy support for co-management could be strengthened and this should help to overcome industry’s “wait and see” attitude avoiding differing views being held by different staff on co-management in some agencies.

7. Another developing issue is the need for specific legislative powers to comprehensively deal with co-management. Some jurisdictions now have a general delegation power, or “exemption” powers, which can facilitate co-management arrangements, but as the trials develop, there will be a need to test the adequacy of the legislative framework to handle the needs of the possible co-management arrangements. This has received attention in the FRDC project 2008/059 conducted by Dr Peter Rogers “Co-management strategies for WA State managed fisheries using the Exmouth Gulf Prawn Trawl Fishery as a case study”.

8. In order to facilitate co-management, the under-pinning structures of government agencies need to:

- (i) be flexible and adaptable to meet changing demands on their service delivery;
- (ii) embrace contingency planning based around risk assessment on changes to core service capabilities and skill sets;
- (iii) enhance new skill sets around risk assessment, contingency planning, governance models, standard setting, quality assurance, auditing and monitoring;
- (iv) consider administrative processes, staff exchanges and financial arrangements whereby existing resources could be used to financially support the collaborative development of co-management with industry and other stakeholders.

Government agencies, structures and service delivery will require flexibility to deal with the phased and “step-wise” implementation of co-management. For some fisheries this will mean changing structures and delivery, while maintaining core capacities and services to other fisheries which do not choose to follow co-management. The associated funding arrangements and cost structures around service delivery will also require a degree of flexibility and adaptation.

Challenges to be faced

9. Resourcing co-management requires a significant “up front” investment by the fisheries agency and industry in personnel, time and funding to establish the parameters, guidelines and operational arrangements. Currently co-management suffers from competition with other/higher priority areas in industry and government, and there is a reluctance to commit, or re-allocate, these resources. In the case of the Australian Fisheries Management Authority (AFMA)’s co-management trials, this “up front” investment has included significant funding or “in kind” support from FRDC and industry.

There is a need for an initial increase in resources to establish the on-going arrangements, and this has to be met by both parties while maintaining their existing services and activities. This will be a challenge for implementation, as it will require leadership to lift the view above the immediate issues of the day, to a longer term view of the potential benefits from co-management.

10. It is apparent that implementation of co-management will be based on a cautious, step-by-step, phased in approach with arrangements being different for different fisheries and situations. It will be a continuous learning process as organisations and agencies adjust to changing circumstances, including setbacks in some cases. This, in part, is often a reflection of the different characteristics of the fisheries themselves.

11. Industry and government both see cost savings and more efficient delivery of services as the prime motivator. Initial results from some trials (and overseas experience) show that overall cost savings may not be achievable, or easily identified, in the initial set up

stages, but this should continue to be pursued at every opportunity as a longer term outcome.

This will be dependent upon the particular co-management arrangements for each fishery, but the review has found that other benefits can be achieved more readily, for example greater influence in decision making, quicker decision making, improved collaboration and relationships, skills development, building of trust and social capital.

12. While there are some examples in the current trials of improved stewardship of fisheries through collaboration and joint responsibility under co-management, a challenge is to document the progress of industry stewardship of fisheries under any new co-management regime.

13. Industry and other stakeholders are critically interested in the quality and timing of decision making particularly as it affects the business of fishing. Co-management can bring better/new information and greater flexibility to that process facilitating a joint responsibility to management. This is a focus of the current trials.

14. One of the benefits of co-management is that it can foster relationship building and engagement among sectors currently not actively participating in trials. It can alleviate any mistrust of the process from those interests not currently closely associated with co-management, for example conservationists, some recreational fishers, indigenous fishers and community members. Opportunities need to be taken to address this both as part of any new trials and/or as part of on-going extension and communication activities. There have been examples where some stakeholders have confused co-management with a process for determining resource access and allocation, or re-allocation, among parties. This places unreasonable pressures on the process and raises conflict immediately onto the agenda. Care needs to be taken to separate these processes.

15. It should also be noted that currently the trials have only resulted in industry considering a partially delegated model as at this time; a fully delegated model is regarded as too difficult. It has higher risks (discussed later) and would require the engagement of sectors outside the commercial industry in decision making models.

Resilience of Co-Management Arrangements

16. Resilience can be built into co-management arrangements by:

- adopting sound, collaborative processes in the early phases leading to open and transparent working relationships;
- establishing trust through sharing information and being clear and open on objectives and realistic about expectations;
- adopting the particular model of co-management where delegation of functions is only to a point where all parties are “comfortable” and confident of success;
- undertaking contingency planning, based on a risk assessment of the proposed changed arrangements;

- adopting a phased-in approach to delegation of functions through “step wise” implementation which builds collaboration and trust;
- investing in extension services supporting co-management.

17. Resilience of the arrangements is critically affected by the level of support from all parties including government, industry, and stakeholders, and a belief in the ultimate benefits which are achievable. Thus the success of trials is important to enhance this support and build resilience into relationships and trust between parties. This will be critical to counter pressures which can arise at any time.

18. Resilience is also impacted upon by the nature of the “maturity” of the fishery and its management characteristics. As well as factors such as the diversity of operators, the geographic spread, the number of fishers and their commonality of interests, the adoption of co-management can often be enhanced where there are clear property rights, harvest strategies and cost recovery regimes which provide both an incentive and an ability to measure an outcome.

Skill Sets Needed

19. A wide range of skills are normally required to effectively negotiate changed management around service delivery between the parties including financial, administrative, personnel, legal and governance skills. However, here the review concentrates on what the key skills are which must be displayed at an appropriate level of proficiency, as part of the co-management implementation process. These are:

- (i) effective leadership capabilities and a strategic vision to bring parties together to lead and drive the implementation process;
- (ii) capacity to develop a business plan to implement co-management based on a risk assessment for the fishery of the preferred arrangements desired for each particular case;
- (iii) ability to influence the culture of an organisation and take a strategic, long term view of the possibilities offered under co-management;
- (iv) effective negotiation, liaison and communication skills across government, industry and other stakeholders;
- (v) understanding of government and political processes, legislation and corporate governance requirements.

Resources Required Post RD&E

20. Until evaluation of the various trials are complete, it is difficult to predict what resources will be necessary and for what purpose. Early responses to this issue have highlighted the following:

- (i) development of co-management policy statements by fisheries agencies;
- (ii) examination of appropriate legislative capacity and support to facilitate co-management;

- (iii) consideration of the provision of staff and financial resources co-operatively among the parties, including where necessary, assistance to support the engagement of groups such as recreational fishers, conservationists and indigenous stakeholders;
- (iv) extension/communciation of the results of co-management trials and research outcomes to date to interested parties and more generally to wider stakeholders and the community;
- (v) facilitation of access to individuals who may perform a “mentoring” role on future co-management interests as they arise as well as people development and capacity building within stakeholder organisations.

Research Required

21. The focus needs to shift from funding “Research” on co-management to an emphasis on encouraging “Development” and “Extension” activities and support.

22. Under “Development,” the findings of this review support the need for the following activities:

- undertake leadership training and capacity development in people and skills;
- develop appropriate governance models for various stakeholder groups and associated funding options;
- identify and monitor overseas examples of co-management which demonstrate processes and costs and benefits;
- undertake limited further trials/pilot studies in fisheries involving more than the commercial sector, or a single other sector, to demonstrate processes, costs and benefits.

23. Under “Extension,” the findings of this review support the need for the following activities:

- undertake activities/communication to promote co-management to a wider cross-section of the commercial industry;
- engage other stakeholders – recreational, indigenous, conservationists – to explain the concepts and potential advantages of co-management, with a view to developing such arrangements in these sectors;
- develop a capacity to operate a “mentoring” facility around co-management experience to be activated as the need arises.

Recommendations

Acknowledging that it is still “early days” in the development of co-management arrangements and it is likely to be introduced in a phased-in manner over time in its particular forms, there is a need for an on-going “care and maintenance” program. This would be aimed at ensuring that the skills, learnings and experiences to date can be activated and shared when needed to assist agencies, industries and stakeholders to

implement co-management. This represents a shift in emphasis from the “R” to support for “D” and “E.”

The following recommendations are in support of this approach:

Recommendation 1. That FRDC limits any further investment in co-management to those projects which contribute to the proving of concepts and the understanding of costs and benefits.

Recommendation 2. That the FRDC supports the development of a “mentoring” capacity within an extension program which is capable of communicating the learnings, experiences and research outcomes on co-management implementation within fisheries.

Recommendation 3. That FRDC, through its existing People Development program continues to support the development of individual skills and organisational capacity building in areas referred to in this review.

Recommendation 4. That FRDC takes every opportunity to involve recreational, fishers, conservationists, indigenous fishers and community members in discussions about co-management to increase their knowledge, understanding and support for its further development.

REVIEW OF CO-MANAGEMENT IN AUSTRALIA’S FISHERIES

Terms of Reference

1. Review the lessons learnt and the challenges arising from the implementation of co-management in all jurisdictions, with a view to identifying positive and negative drivers;
2. Review the “pre-conditions” and the underpinning industry and government structures necessary for the successful implementation of co-management;
3. Investigate the resilience of the various co-management approaches to a changing fishing operational environment (bio-physical and socio-governance);
4. Assess the skill sets needed to successfully implement co-management;
5. Assess how to resource co-management once the fishery has moved past the RD&E phase;
6. Identify the relevant RD&E questions to inform future investment;

7. Make recommendations for the future implementation of co-management.

In undertaking these terms of reference, seek input from all jurisdictions and all stakeholder groups on the level of uptake and experience with co-management.

Membership

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Australian Fisheries Management Forum

Fisheries Research and Development Corporation

1. INTRODUCTION

The FRDC Board, at its meeting on 13th November 2010, decided to undertake a review of progress in the development of co-management in Australian fisheries. This followed from the original report on this topic entitled “Co-management: Managing Australia’s fisheries through partnership and delegation” 2008. This was essentially a guide to the introduction of co-management in Australian fisheries management, where the particular form of co-management reviewed focused on the delegation of fisheries management functions to industry and/or other groups.

The original report essentially argued for a change in culture and relationships between fisheries management agencies and stakeholders through greater co-operation, collaboration and joint responsibility for fisheries management under agreed co-management arrangements. This was expected to result in improved stewardship of our fisheries resources and greater community confidence in management arrangements.

Such culture and relationship issues are important across not only the commercial catching sector, but also all other stakeholder groups; namely the recreational, charter, aquaculture and indigenous sectors and environmental and community interest groups.

Over the three years since the release of the report, a number of projects and trials dealing with co-management have commenced, while others are requesting new funding. Often these requests “duplicate” previous research but in different fisheries, or different arrangements for co-management.

The Board has requested this review in order to provide advice on the implementation of co-management to date, lessons learnt and the direction of any future RD&E investment in co-management by the Board. The review is aimed at a policy level analysis and not a detailed cost/benefit analysis of any specific co-management arrangement. Cost/benefit analyses are currently being undertaken by others, particularly AFMA, and the activities of both these reviews are running in parallel so as to maximise the benefits of each analysis.

Whilst the original report on co-management was focused primarily on the form of co-management involving the actual delegation of functions to industry, this review discusses the development of co-management in all its forms. This is because the implementation of co-management is taking various forms in each example and it is still very much “early days” in our experience with co-management as we are “learning as we are doing”.

The process used for the review has been to gather the experiences and views of stakeholders in the industry through questionnaire responses and face to face interviews. This also included Directors of government fisheries agencies. In addition, persons involved in current co-management trials have presented directly to the review group, as did others involved in current research projects. Finally, the outcomes of recently completed research projects on co-management across Australian fisheries were also

considered. Although not part of the terms of reference, some recent overseas experience, principally in New Zealand, was also considered.

1.1 Recent changes in the fisheries management environment

The original Co-management Report was based on research commenced in 2006 and completed in 2007 with the report being published in early 2008. Although “co-management” in its various forms has existed in fisheries management over many years, the report sought to draw together the various concepts and practices and focus industry and managers on the future role co-management may play as a different approach among all stakeholders involved in management. It sought to do this by “pushing the boundaries” of co-management beyond advisory and consultation committees and towards the actual delegation of management functions from government to industry and other stakeholders.

Over the past few years since the release of the original report, some key elements of the environment in which fisheries operate have changed and these are discussed below under the two categories:

- the current climate in which Government considers both its funding priorities together with the wider public sector organisational change;
- the current operating environment facing the wild catch sector in particular, but also other fisheries sectors.

Government Issues

Governments at both the State and Federal level have undertaken numerous reviews over the last 10 years as to how their public sectors are organised and structured, with the stated aim being to achieve efficiencies in the delivery of services.

In the case of primary industries portfolios nationwide, which includes the fisheries sector, the rationale and importance of Government involvement to facilitate economic development continues to be well recognised. However, the nature of that involvement and the need for ongoing public funding has faced increasing scrutiny. This raises the question of what services the government should provide.

The main drivers for this scrutiny include a combination of:

- ever increasing demands for public services in areas such as health, education and policing where there are few alternatives to public funding;
- recognition of the potential gains of using market type approaches for public services including the regulation of primary industries activities;
- equity issues around the distribution of economic and social benefits from the use of services and who should pay for them.

This has meant the primary industries agencies have had to look long and hard at the cost and efficiency including:

- how they meet their obligations under the legislation they are required to administer;
- how they go about implementing government policy determined for their portfolio;
- how they respond to changes in circumstances and policies which change the pattern of public administration, management and service delivery.

The co-management debate is therefore appropriate and timely within this environment.

Industry Operating Environment

As reported to the Seafood Directions Conference in Melbourne in April 2010 by Professor George Kailis, Professor of Management at the University of Notre Dame, 2007/2008 saw a major “cross over” event occur when both the volume and value of imported fish exceeded that of Australian fisheries production. Professor Kailis made three important points regarding this change:

(i) the prices of our high value export species such as prawns and rocklobster have declined 53 per cent in real terms since 1998-99, with export values down by 40 per cent. A similar decline has not occurred in the prices of fresh fin fish targeting the domestic fish market;

(ii) aquaculture represents an opportunity for Australia, but it is an activity that over time will move towards those countries which have a competitive advantage in production;

(iii) it has been estimated that the shortfall in Australian seafood supply will grow from 280,000 tonnes in 2000 to 610,000 tonnes in 2020, however it is unlikely new wild fishery resources will be discovered, so any shortfall in Australian domestic consumer demand will come from imports, or an increase in aquaculture production.

So whilst maintaining our domestic wild capture fisheries in a sustainable state is essential, the real growth in domestic production is more likely to come from aquaculture.

Given this situation, it is important that the value of the returns from the domestic wild harvest fishery are maximised through, among other things, efficiencies in management.

With respect to environmental issues, both the community and the government require those licensed to operate in the fisheries, including recreational fishers and aquaculture operators, to clearly demonstrate that they are doing so in a sustainable manner. The main drivers on environmental issues are as follows:

(i) for wild fisheries, the regulatory requirements to obtain and retain access to a resource and a license to operate;

(ii) environmental requirements such as those under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* which require assessments for all fisheries that export;

(iii) how climate change will affect aquatic ecosystems and how to adapt to and mitigate its impacts;

(iv) how the national system of marine protected areas and ecosystem based management will impact on fishing operations and practices.

Some of these drivers can be influenced by fisheries agencies, but others impose requirements (and costs) on license holders and all fishers, which are beyond the control of the regulator and fall into the realm of broader environmental issues and policy.

At the same time, input costs and other factors are affecting profitability for the wild catch sector, for example increasing energy costs, an appreciating Australian dollar, barriers to trade access, inconsistent approaches to product quality, ill-defined value chains and consumer resistance to rising prices. All impact on just how well the sector is doing, now and in the future.

So whilst Governments weigh up what is a sensible investment of public funds to support the regulatory regime necessary to ensure sustainability of wild fisheries and aquaculture, all sectors are looking for efficiency and productivity improvements in governance arrangements from the principal regulator. At the same time they are coping with the prospect of increasing environmental regulation.

Furthermore, resource access and allocation issues have increased in importance over recent years as changes have occurred in the patterns of commercial, recreational, charter and indigenous fishing. The development of further Marine Protected Areas (MPAs), restrictions on commercial (and recreational) fishing and various re-structuring schemes have put pressure on existing access arrangements and this is likely to continue.

It is within this changing framework that government agencies and stakeholders consider a role for co-management as a further option for responding to change while improving collaboration in fisheries management arrangements.

Of course co-management isn't applicable to all of these issues, for example resource access is determined by separate policies usually developed by government through fisheries management plans. Clarity in access arrangements can certainly help in the co-management debates, but is not a necessary pre-condition to its implementation.

Co-management can potentially play a role in addressing some of the above issues and assist in developing a more collaborative culture across fisheries management.

1.2 Co-management projects undertaken to date

The development and implementation of co-management arrangements has been a priority of the Australian Fisheries Management Forum (AFMF) for some time and the FRDC has cooperated with this body, and individual fisheries management agencies, to jointly fund a number of co-management projects over recent years. These are listed in Appendix 3.

This review has drawn on the experiences from these projects and the outcomes of recent reviews of some co-management trials, particularly those conducted by the AFMA, as well as more general views on co-management from a wide range of stakeholders.

These are not the only projects undertaken across Australia's fisheries as others not requiring FRDC/government funding have been implemented by negotiation between stakeholders and management agencies. Some examples of these are the rotational scallop harvesting arrangements in Tasmania, trawling for Stout Whiting in Queensland, and RecFishWest undertaking consultation under arrangements with WA Fisheries.

With all this activity, fishers and managers are increasingly conscious of the potential benefits of expanding co-management as a viable alternative approach, in certain circumstances, to expand our fisheries management options, and in effect to seek to change the culture and critical relationships in fisheries management.

This is not without its difficulties which include skeptics who are apprehensive of "putting the foxes in charge of the hen house." This review seeks to draw out the lessons from the co-management experience to date in Australian fisheries, acknowledging that it is still "early days" in the implementation process, particularly as it relates to the delegation of functions under co-management.

2. CO-MANAGEMENT: SMOOTH SAILING OR STORMY SEAS?

The answer to this question is that co-management will have to weather more stormy seas before it gets into smooth sailing.

To set the scene for this statement, it is important to recognise that there is not one single co-management arrangement which is being trialled, but rather a range of different approaches along the co-management continuum including to the point of delegation of functions to industry/stakeholders.

This can be highlighted by noting, in part, the following variety of co-management projects and trials underway together with a brief comment on their status:

(i) Spencer Gulf Prawn Fishery SA – the fishery is seeking to move to a more extensive delegated model (but not a fully delegated model) than is currently being practised involving industry directly in research services, stock assessment, harvest strategy and real time spatial management, but currently awaiting government policy formulation and resources to be made available;

(ii) Exmouth Gulf Prawn Fishery WA – research and a favourable business case showing cost savings in progressing further co-management practices have been recently completed, but due to a focus on a range of other reforms with industry and uncertainties around a new “levy” basis for the fee structure, arrangements have not progressed further. Nevertheless, co-management remains a part of the broader government reform process.

(iii) Northern Prawn Fishery – the industry is undertaking delegated functions around catch and effort and observer data management under co-management and seeking to extend further in relation to scientific observers and research surveys, but awaiting formal review and decision by AFMA and its Commission;

iv) Southern and Eastern Scalefish and Shark Fishery – co-management is focused on streamlining AFMA’s data management and quota administration through the Lakes Entrance Fishermen’s Cooperative Ltd and individual fishers. Awaiting formal review by AFMA with other businesses showing interest in extending the outcomes to their situation.

(v) Great Australian Bight Trawl Fishery – involves the Great Australian Bight Industry Association proposing to undertake a range of functions with AFMA around monitoring, stock assessment and Total Allowable Catch (TAC) setting, research funding, fishery independent surveys, as well as operational matters, data collection and quota auditing arrangements. Awaiting formal review by AFMA.

(vi) Queensland Inshore Fisheries-North Qld – proposed development of three regional community-based co-management trials with a wide range of stakeholders across sectors. The project is aimed at improving regional fisheries management arrangements, but is experiencing significant difficulties and conflict due to differing expectations of what the process would deliver, in particular changes to resource access and allocation.

(vii) Queensland Finfish (Stout Whiting) Trawl Qld – a co-operative arrangement between industry and government involving TAC setting, reporting and monitoring - original co-management progress partially retreating back to formal regulation due to compliance issues.

It was always recognised that the implementation of co-management would take many different forms depending upon the circumstances of the fishery itself, as well as the desire of industry and the capacity of the agencies to develop the necessary protocols and introduce operational flexibility within their structures.

As a generalisation, the implementation of co-management to date can be categorised as a cautious and considered approach. The delegated forms of co-management have tended to involve the less complex fisheries and those where a strong industry association exists. As the R&D and trials continue, governments are still developing their policy approaches, while industry are waiting to see proof of the benefits of co-management realised in practical examples.

Setting aside the “advisory” models which are well entrenched in fisheries today, there are successful examples of the delegated form of co-management operating across Australia, although the delegations are not always embedded in statute but operate “by arrangement.” or under “exemption” powers under the legislation.

Some examples of these include the following:

(i) Tasmanian Scallop Fishery – a voluntary arrangement involving industry, scientists and managers aimed at setting harvesting practices to maximise returns while protecting the resource through rotational harvesting, with industry undertaking surveys and compliance issues.

(ii) Spencer Gulf Prawn Fishery SA - with delegated functions to industry currently around stock assessment and resource surveys to assist in harvest strategies, industry based observers and day to day harvest management. Delegations to industry are under exemptions under the legislation.

(iii) Exmouth Gulf Prawn Fishery WA – involves close collaboration between industry, scientists and managers on harvest strategies, monitoring and reporting with industry engaged in undertaking surveys and real-time harvest strategy decision-making, subsequently endorsed by government.

(iv) Fish Stocking in Queensland Impoundments – where the government fisheries agency has delegated to recreational fishers the task of stocking freshwater impoundments, monitoring and surveys, together with managing the funds associated with such activities.

(v) WA Fisheries contractual arrangements with RecfishWest and the Western Australian Fishing Industry Council (WAFIC) to undertake formal consultation and representational services, including those required under legislation.

(vi) The three AFMA fisheries mentioned above.

In developing such arrangements, the building of trust and key relationships has been critical and influential in overcoming hurdles and difficulties. Difficulties were not seen as a reason to abandon the process. As one respondent recently stated “it is rare to have all these things (the essential pre-conditions) in place and that is why you have mixed results.” It demonstrates the importance of keeping the long-term benefits in mind as we learn from experiences.

2.1 Challenges facing the implementation of co-management

2.1.1 All aboard?

The original report envisaged that co-management, as a concept, had to ultimately embrace all users of the resource and indeed the community itself, and not just commercial fishers.

This is because the concept of changing the way fisheries management is undertaken ultimately requires political and community support and confidence. In some cases recreational, charter and indigenous fishers, as well as environmental groups, will be actively involved in the implementation of co-management arrangements, whether or not they are actually delegated functions. An example of this is the Daryl McPhee project in inshore fisheries in North Queensland (FRDC project 2009/211 “Whose fish is it anyway?- investigation of co-management and self-governance solutions to local issues in Queensland’s inshore fisheries).

The review found that overt political and community engagement is only just commencing and requires further effort and encouragement, otherwise this will be potentially, a factor inhibiting the development of co-management.

In the case of the political process, only the Commonwealth Government and the South Australian Government have amended legislation to expressly allow for a delegated form of co-management as an option in fisheries management. In addition, in the case of South Australia, the Fisheries Management Act provides for the promotion of co-management as a function of the Fisheries Council of South Australia.

However, statements of Ministerial support and agency policy support would provide greater confidence in pursuit of co-management arrangements among stakeholders. There are cases where support for co-management as a concept has been included in general fisheries policy statements, but no cases of a comprehensive policy of implementation of co-management. Understandably these will be informed by the outcomes of current trials. Likewise, there are general powers of delegation in most fisheries legislation, under which co-management can be accommodated, but no specific references in legislation which comprehensively cover co-management as an alternative fisheries management tool (for example, as proposed in the recent report by Dr Peter Rogers cited in the Executive Summary).

This may be about to change as South Australia is in the process of drafting such a policy through the Fisheries Council, for the consideration of the Minister following a consultation process. Western Australia’s new fisheries legislation includes a head of power to delegate to identified non-government bodies, including fishing sector organisations, the purpose of facilitating co-management arrangements. The use of such arrangements between government and stakeholders, rather than traditional regulatory

approaches will be endorsed through the proposed new legislative framework, with an aim to simplifying arrangements. Also other States, for example Victoria, Queensland and NSW are developing new fisheries policies and legislation which will include the option of co-management.

A similar situation arises with the fisheries management agencies themselves, where there exists expressions of support and general references to the possible role co-management could play, but no specific policy document or proposed implementation plan at this stage. Clearly there is support in some agencies as examples of co-management arrangements exist and further trials are underway, however, some industry respondents have stated that they see these as limited “exceptions to the rule” and not necessarily the preferred approach by governments. This is one of the reasons causing industry to adopt a “wait and see” attitude and call for more trials.

However, the fact that such trials are underway and the language of co-management now permeates fisheries management discussions, has allowed fisheries agencies to experiment with a range of different practices and service delivery approaches around seeking more efficient service delivery. This is seen as an achievement in itself so far.

It is early days yet, with all stakeholders, particularly fisheries agencies and industry, awaiting the outcomes of trials and FRDC projects, so it is no surprise that a cautious approach is being adopted by both parties. Despite the recognition of the benefits and the drivers behind co-management, which respondents have reinforced in this review, both governments and industry want to see implementation trials which demonstrate the practical attainment of cost savings, improved flexibility in real-time decision making and improved collaboration.

Many of the other stakeholders have responded that their experience to date with co-management is that it has been purely a matter for the commercial fishers and hence they have felt somewhat excluded from the process. Nevertheless, there is a desire to be a part of it and they want processes to provide for that, including recreational, charter and indigenous fishers as well as conservation groups, and in some cases, local community groups and stakeholders. This situation has arisen because of the focus initially on cost savings by the commercial sector and the design of co-management arrangements around that sector. Other factors influencing this situation, from a fisheries agencies perspective, have been competition with other priorities, funding availability and staff and expertise issues.

There is no doubt that the more complex the co-management arrangements are, the higher the transaction costs in developing and implementing new arrangements together with more complex governance arrangements. This has been a reason for the problems with the North Queensland Inshore fisheries project and a reason for the proposed extension of the Spencer Gulf example wishing not to proceed to a full delegation model.

The wider and further engagement with other stakeholders clearly needs to happen and is most likely to occur through improved extension and education, as well as additional

trials and the development of co-management policies by agencies. The delegation of fish stocking functions to the recreational sector in Queensland is a good example of co-management arrangements with the recreational sector, and, although the governance arrangements require further development, it demonstrates that progress is possible with innovative approaches.

Respondents have also commented that it is important that various government departments involved in activities which impact on fisheries management, for example environment departments, are satisfied that co-management arrangements are capable of meeting their various requirements and obligations.

2.1.2 Who is plotting the course?

The previous section helps to demonstrate that there is a concern about a lack of leadership coming forward to develop the opportunities offered by co-management. Initially, it was believed that leadership would come from both government agencies and industry, where there was a mutual desire to achieve cost efficiencies and faster turn-around in decision making. However, the review has found that a more cautious, step by step approach is being adopted with trials taking on various different forms of co-management with generally limited industry delegation at this time.

The review has found a number of reasons for this as follows:

- designing the trials requires the allocation of scarce resources in time and funding;
- co-management activities have to compete with all other existing activities to be given sufficient high priority;
- entering into new arrangements requires a range of skills across all parties which often are not available, or not available at a sophisticated level, for example designing governance arrangements across government and industry, undertaking risk assessments of the new arrangements, changing organisational structures to be flexible in how and when they deliver services into the future, auditing and review processes;
- parties are awaiting successful trials that demonstrate cost savings and other efficiencies.

Leadership is a critical pre-condition for co-management to become an accepted fisheries management tool. This applies to both industry and government agencies where even the transfer of one or two key people can significantly hinder the process. It also needs to be backed by legislative powers where the decision has been taken to proceed to implement the policies or, in cases where legislation change isn't necessary, more sophisticated administrative and management arrangements need to be in place to allow it to proceed.

Industry leadership and capacity building in industry organisations is also required in order to develop the skills needed to transition to a much more collaborative and flexible working arrangement with government. It should be noted that this also applies to

fisheries management agencies which require sometimes different skill sets in particular areas as discussed later in this review.

Co-management remains a priority for members of AFMF who are ultimately responsible for arranging its implementation. However, implementation can only occur in collaboration with industry and other parties. Thus “leadership” cannot be forced onto parties. It must be a negotiation where all parties are satisfied with the particular form of co-management and believe in the benefits which will arise.

Satisfaction with the outcome also involves the general community understanding co-management and supporting its benefits. If the community remains concerned with “putting the foxes in charge of the henhouse” then gaining political support to implement co-management will remain difficult. Thus bringing the community along and explaining the process and purpose is necessary and will engage them in the building of the “social capital” with industry.

As mentioned above, a number of government agencies together with environmental and other legislation have an impact on fisheries management arrangements, both at the State and Commonwealth levels. Any new co-management arrangements have to be mindful of satisfying their needs.

To this end, the “drivers” for co-management were reviewed against those contained in the original report, as were the “pre-conditions” to test their continuing appropriateness and validity.

2.1.3 “ Drivers” towards co-management

The review was able to confirm the on-going validity and appropriateness of the original listing of drivers as contained in the original report. Most commonly the emphasis was still on the desire for cost savings both by industry and government, and the desire by industry to have a more effective engagement in decisions affecting their businesses.

There were two additional suggestions received to potentially add to the list of drivers: Firstly, “the opportunity for greater community involvement in fisheries management decisions” was mentioned, but the review felt that there was little evidence to date that this issue was currently a driver of co-management. It was acknowledged that more work was required in extending the concept of co-management to the community to assist in understanding, and support for the aims and benefits.

Secondly “the building of human and social capital within the industry and wider community” was mentioned which was similar to the existing driver in the report of “improved public perception of industry”. However, it was felt that this suggestion was an important expansion of the original concept and should be included in future lists of drivers.

2.1.4 “ Essential pre-conditions” for co-management

The review was also able to confirm the original essential pre-conditions as remaining appropriate for the successful implementation of co-management. Emphasis was again placed on the need for adequate resources, both funding and skills, to be available to industry and government for implementation, followed by the need for leadership and an appropriate legal framework.

It was deemed important that the community was aware of and understood the concept of co-management. It was considered that this would assist in its introduction and overall support.

The review noted that the list of pre-conditions were “tested” in the case of the FRDC Report on the extension of co-management in the Spencer Gulf Prawn Fishery and found to be appropriate and attainable in this trial. Nevertheless, comment has been received that “as it is difficult to meet all the pre-conditions, it should not be unexpected that there will be mixed results for co-management.” While this is true, the original report states that all the pre-conditions do not have to be met to proceed with a co-management discussion among parties. We have seen that the various trials are taking different forms of co-management which are suitable for the particular circumstances and fishery.

2.1.5 Under-pinning industry and government structures

Co-management, with its emphasis on changing cultures, enhanced collaboration and changing functions and service delivery arrangements, presents new challenges for the existing industry and government structures. This is particularly so as the roll-out of co-management will not be uniform across fisheries, but will be step-wise at first and may face setbacks and even failures.

In this environment, the supporting organisational structures will need to be flexible, innovative and adaptive to respond to changing circumstances and challenges.

The necessary underlining characteristics of industry organisations were outlined in the original report and will not be repeated here. Suffice to say that the organisation needs to be mature, professional, well led and have sufficient funds, or be able to access funds, to carry out the tasks as negotiated. It is preferable to have a professional track record in dealings with government.

The review has shown that the real pressures in delivering co-management come from the need for effective leadership of members of the organisation, the need for additional funding (at least for the initial design and implementation) and a different skills set based around knowledge of government processes, legislation, auditing, monitoring and reporting, and risk assessment. Access to additional funds whether from government or internally can buy most of these skills, but leadership of industry members remains critical. It is required to drive co-management to achieve the benefits and to bring all industry members along and manage internal conflicts. Unless there is almost unanimous

support within the fishery it will be impossible to achieve the cost and efficiency savings for the fishery as a whole.

Industry organisations find it difficult to raise additional funding from members and have no general “levy” powers to raise funds. At least in the short-run, industry will have to rely on access to government levy/licence fee revenue as a critical part of the negotiation process in establishing co-management arrangements. This has occurred in the NPF case and is proposed in the Spencer Gulf case.

The results to date are confirming that the fewer the numbers of operators in the fishery, the less diverse and complex the fishery in terms of the number of different participants, for example commercial, recreational and/or indigenous fishers. This results in lower transaction costs in establishing co-management and a higher probability of success. For other fisheries less well resourced, the co-management goals may need to be more modest, at least initially and some gains should still be possible without the need for significant funding.

As noted in the original report, other characteristics of fisheries, where present, can enhance the chances of success including clear property rights, defined harvest strategies and cost recovery regimes, but the absence of these should not prevent co-management negotiations proceeding.

Different dynamics exist in the case of government structures which are established to regulate, service and manage all fisheries through a range of core competencies and staff skills. New skills will be required in some cases, for example risk assessment of different governance models of service delivery, specification of performance requirements and their monitoring and auditing, and decision rules. Contingency planning will be needed for core service delivery areas to service those fisheries choosing not to follow co-management, as functions are transferred to those fisheries wishing to participate. This partial down-grading of capacity can lead to a loss of economies of scale and of key staff and result in higher costs for the remaining fisheries unless agencies can anticipate these effects and have mitigation plans to adjust to their impacts.

This partial transfer of functions can affect remaining performance in key research areas, data processing, information technology, and data analysis. Where the government has invested significant funds over many years, this needs to be factored into the risk analysis and planning for co-management.

In the case of culture changes, the agency at the most senior level needs to make clear its policy on co-management and ensure that staff at all levels in the agency and across all the necessary disciplines including managers, researchers, compliance staff support the policy. This ensures no ambiguity in dealings with industry where sometimes staff at different levels can feel threatened in letting go of functions or feel that issues require further discussion before they can be implemented.

This requirement for greater flexibility and adaptive management and service delivery, can be a challenge for agencies especially where it may need to be accompanied by a transfer of funding and resources to an industry organisation as mentioned above. This is showing up in some trials and is often related to the need to reallocate priorities within the agency.

3. ARE THOSE SHOALS AHEAD?

3.1 How resilient are co-management approaches?

As we are all aware, the fishing industry – commercial, recreational and indigenous is always facing a changing environment and operating conditions. These may arise from changing sustainability requirements, changes to fishing patterns from marine protected areas or even climate change and changing business, economic and community pressures on the structure and operations of the industry.

Fisheries management agencies and stakeholders have had to deal with such issues over time and any co-management arrangements, as part of any future fisheries management arrangements, will likewise need to be resilient enough to cope with “future shocks” or introduced pressures of various kinds. Such challenges may include key staff leaving an organisation or agency, or changes to funding availability for on-going support or changes to government or industry priorities.

The review has found that industry is concerned about the possible risks in taking over and delivering some functions on behalf of government. Legal questions arise about where legal liability resides in the event of failure to deliver functions within specifications. For instance, would liability lie with the delegate or with the government in its duty to ensure the delegate performed to a standard?

This was one of the concerns in the case of the Spencer Gulf Prawn Fisherman’s Association, The association felt that going too far down the delegation path too quickly could unsettle the arrangements because of the need to expand the representation in the management decision making processes as more and more delegated functions were taken over by industry. This could include recreational and conservation members onto a decision-making committee and the associated additional funding needs, additional governance requirements and possibly more conflict in decision making under the delegation.

This is also raised in the report by Dr Peter Rogers who argues that a broader based management decision making framework will be required.

Such issues, and others, are behind the need to undertake a risk assessment of any new arrangements from both the industry’s and government’s position. Also, it is why there is a measured and cautious “wait and see” attitude with both groups until further trials are completed and reviewed. It also means that there is caution in the form of arrangements

being introduced on a “step by step” basis being followed rather than a willingness to quickly move to a more fully delegated model.

Contingency planning is part of the risk mitigation and may lead initially to higher costs in the introduction phase, as some functions may be duplicated before cost savings can be ultimately attained. These issues, while prudent, should not become a problem for the attainment of a changed culture with increased trust, enhanced collaboration and joint responsibility for management.

Future resilience can be built into the frameworks by the stepwise approach evident in the trials, through allocating time for new relationships and collaboration to be established and strengthened, and trust and respect enhanced. Also the cautious approach to the delegation of functions and the various models of co-management being trialed, is a reasonable way to get both parties comfortable with working in a new way. This will also develop a higher degree of transparency in dealings and decisions as both parties come to understand each other’s views and the reasons behind them. Resilience will be enhanced, as stated by one respondent, “where the level of delegation of functions is only to a point where both industry and government are comfortable and confident of likely success”.

It will only be through improved working relationships and joint responsibility that future shocks can be worked through together. As mentioned earlier, resilience will be improved if the under-pinning structures are more flexible and innovative in their capacity to meet change.

A further point here is that over-expectations by industry and government must be avoided as setbacks are likely but should not destabilise the process which, at this early stage is still about continuous learning.

A case in point arises with the new Spencer Gulf proposal to take over the purchase of research services for the prawn fishery. Questions arise as to who decides what research is needed and then who conducts the research. Purchase from providers other than the existing suppliers can diminish capability and expertise in the organisation with consequent negative impact on local research capacity to service other fisheries and needs. Contingency planning is needed in such a case, for example an agency may remain a contracted research provider or play a role in the audit of contracted research services as has happened in the New Zealand situation (Appendix 4.). The development of the ‘major, support, link’ of research services in Australia through the National Priorities Forum should provide some certainty and capacity in research areas, streamlining services, removing duplication and creating efficiencies.

This highlights the need to involve researchers in the design of co-management arrangements as research will always remain a core function in any management plan. Likewise, the other core function is compliance and whilst any co-management model will still require compliance, if there were not any changes to the compliance culture and delivery under co-management, it could undermine the improvements in co-operation and collaboration elsewhere. Industry input into more effective compliance methods and even

self-monitoring/enforcement under some arrangements, for example Tasmanian scallops and a change in current compliance methods could make arrangements more resilient and foster a greater sharing of information.

Experience to date, including overseas experience, would suggest that co-management arrangements, coupled with the incentives for more efficient service delivery under a cost recovery model, can lead to innovation in fisheries compliance, particularly in areas such as quota monitoring and the provision of catch and effort data.

4. STEADY AS SHE GOES!

4.1 Future resource needs for co-management

Given the issues raised above, the review considered the future resource needs to support co-management in a number of areas as determined by the terms of reference.

4.1.1 Skill sets

There are a range of skills needed to negotiate, implement and administer co-management arrangements. Some of these are generic to operating any business, and if not possessed by an organisation, can be purchased through staff or outsourcing of functions. These include financial management, administration and personnel development, project management, and legal knowledge.

There are other skill sets which are much more critical to the situation of developing co-management arrangements between industry and government. These fall into the following areas:

- skills around industry leadership, strategic thinking and negotiation skills;
- sound knowledge of the fishing industry, business and commercial experience and knowledge of environmental issues related to the fishing industry;
- knowledge of government legislation and processes and corporate governance;
- capacity building in organisations around liaison, facilitation and communication skills.

Of these, the key skill is leadership, either from industry or government, and the associated relationship building. The exercise of both of these is needed in greater measure to advance co-management.

4.1.2 Research, development and extension needs

The review believes that there is not a pressing need for further research into co-management, unlike activities related to extension, education, demonstration and communication to build on the previous work of the FRDC and others. This relates to the “D & E” aspect of research and the need to “prove the model.” It is this context that the

review received significant demands for further case/pilot studies either in Australia or from overseas to prove the cost/benefits in a range of different fisheries.

The other RD&E areas mentioned were as follows:

- researching different governance models to accompany co-management;
- researching different funding options for co-management;
- research into whether there is a relationship between co-management and fisher's stewardship and resulting community attitudes towards fishers;
- capacity building, people development and leadership training;
- industry and community communication/education programs.

As has been shown in previous situations, one practical way to assist in people development is through a secondment program where fishers work in a management agency and/or managers work with a private company. This builds skills and lasting relationships, as well as collaboration and trust between the groups. This has been successfully applied in both Australia and New Zealand and can reduce the time otherwise needed for relationship building and mutual understanding.

4.1.3 Other resources

A further resourcing issue relates to the need to resource "third parties" to the negotiation issues around co-management, for example recreational fishers, conservation groups, indigenous groups, and community groups depending on the fishery and the co-management model being pursued. This needs to be resolved "up front" so as not to raise unrealistic expectations and outcomes.

In the case where legislative change may be necessary, relevant government legislation drafting resources will be necessary; this should occur as government policy develops and legislation is reviewed.

5. ACKNOWLEDGEMENTS

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- members of the commercial and recreational fishing industry and their associations who participated in the questionnaire/interview process;
- individual researchers engaged in co-management projects;
- Australian Fisheries Management Forum members and representatives;
- members of the National Seafood Industry Alliance;
- staff and funding of the FRDC.

The views and conclusions in this report are the views of the members of the Working Group and do not necessarily represent the views of the Australian Government.

APPENDIX 1

LIST OF DRIVERS FOR CO-MANAGEMENT (from the original report)

- Enhanced culture involving a genuine partnership, shared responsibility and improved stewardship for common outcomes.
- Reduced conflict, improved trust and better working relationships among management and fishers.
- Reduced necessity for political decision-making.
- Increased transparency of management costs and service delivery.
- Potentially lower costs of fisheries management.
- Greater scrutiny of the existing regulatory approach and opportunity to develop more cost effective and accountable management.
- Improved acceptance of and compliance with management decisions.
- More inclusive and transparent decision-making.
- More flexible and adaptive management in “real time”.
- Improved ability to innovate and respond to industry development needs.
- Increased opportunity for capacity building and skills development in organisations.
- Improved co-operation among fishers.
- Improved public perception of industry.
- Improved investment climate for fishers.
- Opportunity for better social outcomes via improved work/life balance.
- Opportunity to highlight the economic and social importance of flow-on impacts of recreational fishing, both marine and freshwater.
- Chance to implement and have recognised environmental management systems and codes of practice.
- Expanded extension and education opportunities across the community.
- Opportunity for finer-scale regional (or spatial) management.

APPENDIX 2

List of Essential Pre-Conditions for Co-Management (from the original report)

- A willingness by governments to consider alternative management models involving greater shared responsibility.
- Fisher's groups with a significant proportion of members wanting to move to co-management.
- Identified "champion/s" who can negotiate effectively with governments and build organisational ownership.
- An effective fisher organisational structure with good governance and an ability to communicate with all fishers and other stakeholders.
- A fisher organisation with sufficient resources and skills to implement and deliver services, or an ability to negotiate and attract such resources.
- Existence of a legislative basis to delegate powers.
- Ability to generate, and commit to, legally binding undertakings through an MOU, contract or other form of agreement between the parties.
- Ability for the fisher's organisation to legally enforce agreements through civil, contractual or company law.
- Existence of conflict resolution mechanisms.

APPENDIX 3

List of Co-Management Projects (involving FRDC support)

2011/216	Co-management review	\$75,000
2010/060	A trial to assess benefits and effectiveness of an industry managed scientific observer program in the N.P.F.	\$59,970
2009/774	Seafood CRC: Harvest Strategy Evaluations and co-management for the Moreton Bay Trawl Fishery	\$180,000
2009/330	Tactical Research Fund: SETFIA accreditation of Commonwealth trawl sector skippers towards improved environmental operation in fishery	\$70,078
2009/211	Whose Fish is it Anyway? – Investigation of Co-management and Self-Governance Solutions to Local Issues in Queensland’s Inshore Fisheries	\$300,000
2009/076	Tactical Research Fund: assessing catch handling and discards using on-board electronic monitoring in the N.P.F.	\$35,000
2009/050	An innovative approach to co-management in the Cockburn Sound Blue Swimmer Crab fishery	\$73,000
2008/059	Tactical Research Fund: co-management strategies for W.A. state managed fisheries using the Exmouth Gulf Prawn Trawl fishery as a case study	\$66,571
2008/045	Co-management in Commonwealth Fisheries (N.P.F., GAB., Lakes Entrance)	\$597,100
2007/025	Competition to collaboration: exploring co-management models for the Spencer Gulf Prawn Fishery	\$178,191
2006/068	Fisheries Co-management Initiative	\$70,734
2006/026	Development of co-management arrangements for Queensland fisheries – stage 1 picking the winners	\$172,790
2005/024	Abalone industry development: local assessment and management by industry	\$472,978

2005/235	A national environmental management and accreditation system for recreational fishing tournaments: concept development	\$27,328
2006/057	Development of a national environmental management and accreditation system for business/public recreational fishing competition	\$115,564
2008/215	Tactical Response Fund: Implementation of the NEATFish environmental standard for recreational fishing tournaments	\$58,000
2009/333	Tactical Research Fund: Review and extension of conservation and sustainability-focused initiatives which have been funded, supported or undertaken by Australia's recreational fishing sector	\$36,425
2012/027	Determining when and where to fish: linking scallop spawning, settlement, size and condition to collaborative spatial harvest and industry in-season management strategies	\$272,542
2008/022	Establishing fine-scale industry based spatial management and harvest strategies for the commercial scallop fishery in South East Australia	\$630,000
2005/027	Facilitating industry self-management for spatially managed stocks: a scallop case study	\$300,993

Other Co-Management Projects (involving fisheries agencies)

Queensland Finfish Trawl (Stout Whiting) Fishery
Tasmania Scallop Harvesting
Queensland Fish Stocking in Impoundments

APPENDIX 4

NEW ZEALAND: recent experiences

Following amendments to the New Zealand Fisheries Act in 1999, it became possible to devolve functions to industry or stakeholder organisations and allow them to directly purchase some services. This was to encourage efficiencies, cost savings and make industry more involved in joint responsibility for outcomes. This resulted in a number of functions being devolved to industry, for example quota registry services and accounting functions devolved to SeaFIC (“FishServe”); various management decision making functions and research purchases to the Challenger Scallop Enhancement Company (CSEC); assessment, monitoring and the purchase of research services to the Rock Lobster Industry Council (RLIC); and certain management, monitoring and reporting functions to the Deepwater fishing companies.

Such arrangements were facilitated by a number of factors (Harte, 2008) including:

- a policy of achieving greater transparency, efficiency and accountability from within government;
- strong support in the policy and implementation and/or operational areas from the government fisheries agency;
- the fishing sector has a durable set of fishing rights and can be held accountable for cost recovery and the delivery of fisheries services;
- the industry has developed effective commercial fisher organisations (with funding and/or levy support) that can constructively engage and negotiate with government.

This led to the attainment of cost reductions in the delivery of some services, for example FishServe, which was brought about by a number of factors including:

- act amendments streamlined administrative processes;
- the private sector company is more innovative, less bureaucratic and has more operational flexibility;
- industry invested in new technology that brought efficiencies;
- stronger internal incentives for FishServe to reduce costs.

Allowing industry organisations to directly contract for, or undertake some research services was expected to reduce costs by avoiding government overheads. Lowered transaction costs enables organisations to contract research and introduce other efficiencies.

As well, it was expected that commercial fisher’s stewardship would be enhanced as they would be directly involved in undertaking sustainability research. Both the CSEC and the RLIC mentioned above have tendered for and carried out certain research projects often around assessment and monitoring, as has the paua industry. Research contracts are often undertaken in collaboration with national science providers and internationally

recognised stock assessment consultants contracted to these bodies. RLIC also uses accredited technicians employed by science providers to undertake stock monitoring programs.

Despite these examples, and others, a number of factors have impeded the growth of further such research provision (Harte, 2001; Stokes, Gibbs and Holland, 2006) including:

- opposition by environmental NGO's and some scientists who believe fishery research remains a core responsibility of government and there is a strong incentive to distort results and pressure contracted providers;
- some segments of the fishing industry were opposed to these arrangements as they felt it was equivalent to devolution of management responsibility and they did not want to be accountable to the government for delivery of research services;
- many commercial fisher organisations lack the capacity to fund and manage complex research projects;
- there was insufficient collaboration between government and industry over the development of a direct purchasing regime.

Also, of the 241 research projects tendered over recent times, only 17 attracted more than one bid, while NIWA – the government research body – was awarded 206 contracts.

Co-management, in its various forms in New Zealand has had a chequered or “stuttering” history. Some of the causes are government’s shifting priorities, restructuring of government departments, the loss of key personnel in government (Gibbs, N. pers.com.).

Although the legislative and institutional mechanisms exist, neither the government nor the industry have become wholly comfortable with the concept. Also, over this time, fisheries management has become more complex requiring resolution of recreational, Maori, environmental and marine park issues. As it currently stands, two things need to happen to facilitate its implementation. First, the government needs to remain open to and actively facilitate stakeholder-led fisheries plans and show clear support for co-management. Second, the seafood industry needs to invest in the development of institutions and human capital within commercial fisher organisations (Harte, 2001).

The New Zealand experience has also shown the importance of key people driving the process, and if these people are lost to the process, implementation will suffer. This applies to both industry and government. Further, there are limitations with the company model being used to implement co-management particularly because there are no penalty provisions/fines under company law which could be used as sanctions; rather you have to prove “damages” under the law arising from actions and this is more difficult, time-consuming and costly.

Finally, it has also shown to be much more difficult to engage recreational, Maori and community groups in co-management experiments as these inevitably cause resource access and allocation issues to become central to the debate.

Given all of these factors above, the commercial industry is limiting its push for further co-management to purely commercial fisheries and is looking at a range of possibilities in terms of what form co-management may take, apart from the actual devolution of functions. All are designed to develop greater collaboration and improved working relationships with the government. One approach is an industry proposal to amend fisheries legislation to provide for “industry collective management arrangements or rules” to be recognised as enforceable under the law provided they have been agreed to by greater than 75 per cent of quota holders. This would allow industry to impose its own rules and have them binding on all industry and enforced through independent panels. This has support within government but has not yet been agreed.

The Minister has publicly stated his support for co-management to proceed, but with the changes to the departmental structure, and changes to key personnel and priorities in government, industry is finding it difficult to keep the momentum going.

This is not to downplay the successes mentioned in the above examples, but rather to highlight the frustrations in the expectations that many further successful examples of co-management would have followed by now.

The following sources were cited for this section:

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Stokes, T.K., Gibbs, N. and Holland, D. 2006. New Zealand’s cost recovery regime for fisheries research services: an industry perspective. *Bulletin of Marine Science*: 78. 467-485.