

Impact of management changes on the viability of Indigenous commercial fishers and the flow on effects to their communities: Case study in New South Wales

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Project No. 2010/304



**Impact of management changes on the viability of Indigenous commercial fishers and the flow on effects to their communities:
Case study in New South Wales**

Final Report to the Fisheries Research Development Corporation

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Cover photograph

Aboriginal commercial fishers on the south coast of NSW mending a beach haul net.
Photographer: Jessop family

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Non Technical Summary

2010/304 Impact of management changes on the viability of Indigenous commercial fishers and the flow on effects to their communities: Case study in New South Wales

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Objectives

1. Case study of Indigenous commercial fisheries focusing initially on New South Wales as a basis for a national study.
2. Determine the number of Indigenous commercial fishers in New South Wales.
3. Estimate the percentage of commercial catch made available to Indigenous communities for personal consumption.
4. Identify management changes likely to impact Indigenous participation in commercial fisheries and how they will impact.
5. Develop strategies to ameliorate the impacts of management change on Indigenous participation in commercial fisheries.

Outcomes achieved to date

Outcome 1: Better understanding of impact of fisheries management changes on continuing indigenous involvement in commercial fisheries which would;

(i) help Aboriginal commercial fishers to plan how to adapt to those changes

(ii) help New South Wales Fisheries to ameliorate the impact of proposed management changes on Aboriginal commercial fishers

Achievement of this outcome to date

The report's results will continue to inform the New South Wales Department of Primary Industry - Fisheries (DPI) and the New South Wales Aboriginal Fishing Advisory Council (AFAC) in the development of strategies to address the needs of Aboriginal commercial fishers. The report's findings will empower Aboriginal commercial fishers to provide input into fisheries management decision-making processes.

The initial findings of the report have allowed Aboriginal commercial fishers and the research team to contribute to the Independent Scientific Audit of Marine Parks in New South Wales, the Independent Review of New South Wales Commercial Fisheries Policy, Management and Administration, and one court case. The project team has also established a direct line of communication between Aboriginal commercial fishers and

high-level DPI staff through a series of forums, which has led to increased capacity on both sides and the development of future strategies outlined in a Draft Discussion Paper.

Outcome 2: Better understanding of the number of Aboriginal commercial fishers, this would allow New South Wales Fisheries to better target support strategies to maintain their contribution.

Achievement of this outcome to date

The research team is confident that they have identified those Aboriginal commercial fishers who are active in wild caught fisheries. This allowed the researchers to construct a Draft Discussion Paper with the unified voice of Aboriginal commercial fishers with strategies on how to maintain their contribution. The research team had difficulty locating Aboriginal commercial fishers participating in the aquaculture industry to do this thoroughly more time and resources are required.

Outcome 3: Better understanding of the contribution of Aboriginal commercial fishers to indigenous communities (food).

Achievement of this outcome to date

There are no formal reporting requirements that at present can accurately quantify contribution of catch to communities. Participants made estimates of their contribution to their communities, indicating strongly that it was seasonally variable.

As a result of direct consultation between Aboriginal commercial fishers and high-level DPI staff through this project, DPI are currently restructuring catch recording instruments to include distribution of catch to the community. This will allow future contributions to be accurately quantified.

Outcome 4: Better understanding by Aboriginal commercial fishers of the rationale behind New South Wales Fisheries implementation of changes to fisheries management

Achievement of this outcome to date

Capacity building on such issues as structural adjustment in the NSW fishing industry and implemented fisheries management changes was consistent throughout all consultation. Aboriginal commercial fishers were also given the opportunity to gain information on the rationale behind DPI implementation of changes directly from a panel of high-level DPI staff at the final set of Aboriginal commercial fishers forums held throughout the state. At the forums, DPI staff gave presentations on the current changes and answered questions from participants.

This report presents the results of a Fisheries Research Development Corporation (FRDC) funded study of Aboriginal commercial fishers in New South Wales. A key objective of this study was to address information gaps in relation to the number of Aboriginal commercial fishers in New South Wales and the percentage of commercial catch made available to Aboriginal communities for personal consumption. An important outcome of this study was the identification of management changes likely to impact on the participation of Aboriginal commercial fishers in commercial fisheries and the development of strategies to ameliorate the impacts of management changes on Aboriginal commercial fishers. It is intended that this study will form the basis for an application to the FRDC to fund a national study of Indigenous commercial fishing.

A total of 45 Aboriginal people were identified by the research team as having worked in the New South Wales commercial fishing sector over the last 10 years or so. Of those 45, 37 are current and eight are former commercial operators. Of the 37 current Aboriginal commercial fishers there are 29 individuals with fishing businesses, five who are nominated fishers on other fishing businesses, one is an unlicensed crew member, and two hold aquaculture permits. There is a total of 33 fishing businesses in all, three individuals holding more than one business. The research team made contact with 37 of the Aboriginal people identified and 34 of those consented to participate in the project while three current fishers declined. Of the 34 Aboriginal commercial fishers, 31 are current and three are former operators. All 34 Aboriginal commercial fishers completed questionnaires while 25 participated in one-on-one interviews, 12 in focus groups and 17 participated in six fisher forums held at three locations along the New South Wales coast.

Men comprised all of the Aboriginal commercial fishers ranging in age from 28 to 74 years, with an average of 50.2. The number of years spent in commercial fishing ranged from two to sixty, with an average of 29.2. More

than 70% of the Aboriginal commercial fishers had spent their entire working lives as commercial fishers. Participants were rarely the first generation of commercial fishers in their family - 10.8% were seventh generation, 21.6% were sixth generation, 10.8% were fourth generation, 28.9% were third generation, 14.4% were second generation and 13.5% were first generation fishermen. Eighty one per cent of Aboriginal commercial fishers were operating in a family owned business and 54% had inherited their commercial fishing entitlement from family members. Eighty four percent indicated that they fished mostly on their traditional country (including marine, estuarine and freshwater).

Twenty-eight Aboriginal commercial fishers operate in share management fisheries and two in restricted fisheries. Aboriginal commercial fishers operate in six out of the 9 New South Wales commercial fisheries (descriptions of those fisheries are available at <http://www.dpi.nsw.gov.au/fisheries/commercial/fisheries>). However Aboriginal commercial fishers are not evenly represented in the six fisheries with the majority being in the Estuary General Fishery (EGF) and Ocean Haul Fishery (OHF). There is no Aboriginal representation in the Abalone Fishery (AF) or the Lobster Fishery (LF). Some 29.2% of Aboriginal commercial fishers had fishing businesses in a single fishery only, while 54.2% had fishing businesses in two of the seven share management fisheries and 16.6% had fishing businesses in three of the share management fisheries. Aboriginal commercial fishers hold a total of 10,884 shares or 2.7% of the total shares available in all of the share management fisheries. They hold 103 fishing business endorsements, some of which have less than the required minimum shareholding. By far the largest proportion of shares is held in the EGF followed by the OHF and to a much lesser extent the Estuary Prawn Trawl Fishery (EPTF), Ocean Trap and Line Fishery (OTLF) and Ocean Trawl Fishery (OTF). There are no shares held in either the AF or LF.

Over 90% of Aboriginal commercial fishers indicated that they gave some of their commercial catch to their local Aboriginal communities. These contributions ranged from 5% to 20% of annual catch, with the average contribution approximately 9.8%. These figures vary slightly depending on the season and also community demand.

Aboriginal commercial fishers identified a variety of issues they felt impacted their ability to continue to participate in the commercial fishing sector these included issues around access, cost, culture and tradition, consultation, shares, environment, capacity, awareness, management, opportunity, value, training and compensation. The first five issues listed rated as their highest priority. Aboriginal commercial fishers also suggested a range of options to address these issues and these have been incorporated into a discussion paper to assist DPI in developing strategies to maintain Aboriginal participation in the New South Wales commercial fishing industry.

KEYWORDS: Aboriginal, Indigenous, Commercial fishing, Culture, Traditional Fishing Knowledge, Management

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A big thank you goes to the Aboriginal commercial fishers of NSW that participated in this project, for their invaluable assistance and sharing of knowledge with the research team. Their time and insight was vital to ensuring the research team, government and the public have a better understanding of their history in the commercial fishing sector. Without the contribution of these fishers this project would not have been possible. We would also like to thank Aboriginal community organisations for their help and guidance throughout the project.

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Stephan Schnierer and Hayley Egan

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1 Background

The participation of Aboriginal people in the New South Wales commercial fisheries industry has a long history (see Egloff, 2000, Tsamenyi and Mfodwo 2000, Lowe and Davies, 2001, English, 2002, McAvoy, 2002, Hawkins 2003, Cruse *et al* 2005, Goulding and Water, 2005, Barnett and Ceccarelli, 2007, Bennett 2007, Durette, 2007, Adams *et al* 2008, Roberts 2010). However, the continual evolution of fisheries management approaches in New South Wales has impacted the ability of Aboriginal commercial fishers to remain in the industry.

Very little commercial fishing is currently done by Indigenous communities in southern Australia but evidence suggests that there was greater commercial activity prior to increased government regulation of fisheries. At Wreck Bay, for example, many community members are said to have fished commercially before the repeal in 1966 of a regulation that had exempted Aboriginal people from requiring a commercial license. (Resource Assessment Commission *Coastal Zone Inquiry* 1993)

Over the last 20 or so years issues relating to Aboriginal participation in the commercial fisheries sector have been variously addressed in a range government inquiries, reviews, studies, briefing papers and policy documents (Table 1).

Table 1 Government inquiries, reviews, studies, briefing papers and policy documents relating to Aboriginal commercial fishing issues.

1986	<i>Recognition of Aboriginal Customary Laws</i> (ALRC Report 31). Australian Law Reform Commission (Chapters 33-36).
1993	<i>Coastal Zone Inquiry</i> . Commonwealth Resource Assessment Commission (RAC).
1996	<i>Fisheries, Aquaculture and Aboriginal and Torres Strait Islander Peoples: Studies, Policies and Legislation</i> (Report to Environment Australia). Commonwealth Department of Environment.
1996	<i>Report on the Fisheries Management Amendment (Advisory Bodies) Act</i> . NSW Legislative Council Standing Committee on State Development.
1997	<i>Report on Fisheries Management and Resource Allocation in NSW</i> . NSW Legislative Council Standing Committee on State Development.
1997	<i>Discussion paper on the NSW Fisheries Indigenous Strategy</i> (Carpenter).
2002	<i>The NSW Indigenous Fisheries Strategy and Implementation Plan</i> .
2002	<i>Sea Country: An Indigenous Perspective</i> . The South-East Regional Marine Plan Assessment Report. National Oceans Office Tasmania.
2003	<i>Developing the participation of indigenous people in commercial fishing</i> . A report prepared for the NSW Indigenous Fisheries Advisory Committee. (Callaghan).
2004	<i>National Principles on Indigenous Fishing</i> . National Indigenous Fishing Technical Working Group. National Native Title Tribunal.
2004	<i>NSW Fishing Industry: Changes and Challenges in the Twenty-First Century</i> . NSW Parliamentary Library Briefing Paper (Wilkson).
2004	<i>Report on Illegal Fishing for Commercial Gain or Profit in NSW</i> (Palmer).
2005	<i>Report on The Review of Fisheries Management In New South Wales</i> (Stevens).
2010	<i>Report on Recreational Fishing in NSW</i> . Select Committee on Recreational Fishing in NSW.
2012	<i>Independent Review of NSW Commercial Fisheries Policy, Management and Administration</i> .

Each of these government documents either highlighted Indigenous aspirations and concerns in relation to commercial fishing endeavours or made recommendations on ways to maintain an Indigenous presence in the commercial fishing industry. The degree to which previous report recommendations have been implemented or issues addressed is debatable, but anecdotal information from Aboriginal commercial fishers noted during a recent survey of cultural fishing in the Tweed region would seem to suggest that little has changed (Schnierer, 2011).

The management of New South Wales fisheries resources has evolved over the last 35 years or so including changes from 'open access' to 'closed access' in the 1970s, to the introduction of share management fisheries in the mid 1990s and then to structural reform of the industry in the 2000s. Early in this period there was a lack of opportunity for an Aboriginal commercial fishing 'voice' to be heard. This may have been due to a lack of recognition and understanding of the nature and value of Aboriginal commercial participation and therefore the need to engage them separately. Even where Aboriginal commercial fishers have been able to engage with consultation mechanisms, fisheries managers have proven unable to hear or act on their voice, which in turn has impacted the ability of those fishers to stay in the industry.

In 2005, a report on the performance of fisheries management by the New South Wales Department of Primary Industries (DPI) recommended the development of a structural adjustment program for the commercial fishing sector. This task was taken up by the New South Wales Seafood Industry Advisory Committee (SIAC), which commissioned a study on the development of an effective structural adjustment and regulatory reform program. Despite Aboriginal input into that study the final report made no reference to Aboriginal commercial fishers. In 2009 SIAC and DPI developed a range of options for structural adjustment encapsulated in what became known as the "Pymont Pact". The Pymont Pact contained eight elements of reform including: the creation of a range of tools to provide for tradable input and output controls; the provision for initial restructuring using minimum shareholdings and exit grants; a review of the industry regulatory requirements and streamlining of government administrative systems; a review of cost recovery; a review of fishing closures; moving the focus toward risk-based resource management; initiating an industry development program (to enhance economic value of product to fishers); and enhancing industry's voice to government.

Consultation with the commercial fishing industry on the Pymont Pact and the reform package took place through a series of port meetings in New South Wales conducted throughout 2009 and 2010. The level of Aboriginal commercial fisher participation in the consultation process however, appeared patchy. In some regions on the south coast there was Aboriginal input at the port meetings (personal observations, Schnierer). It also appeared that at times during the consultation period some Aboriginal commercial fishers lacked an understanding of the rationale behind elements of the reform package. It was against this backdrop that an application was made by researchers at Southern Cross University to the Fisheries Research Development Corporation (FRDC) for a funding. The project overall aim was to address the need to engage Aboriginal commercial fishers in all the stages of the Pymont Pact process and at the same time develop a better understanding of the place and role that Aboriginal commercial fishers play in the commercial fishing industry and for their communities.



Davies brothers fifth generation Aboriginal inland commercial fishers from far southwest NSW. Photo: Davies family

2 Need

Indigenous people have a right to benefit from the exploitation of their traditional biological resources (United Nations Convention on Biological Diversity). In Australia, at present, this right as yet does not extend to commercial exploitation (see Native Title Report, 2007, see also *Commonwealth of Australia v Akiba* on behalf of the Torres Strait Islanders of the Regional Seas Claim Group [2012]). This means that for Aboriginal people to benefit commercially from fishing they must engage in the industry as licensed commercial fishers. While Aboriginal participation in the New South Wales commercial fishing industry has a long history, successive changes in the management of commercial fisheries over the last 35 years have eroded their ability to remain in the industry. More often than not these changes were implemented without the full and effective participation of Aboriginal commercial fishers.

Since 2007 the New South Wales Government has embarked on the development of a program of structural reform for commercial fisheries through what is known as the “Pyrmont Pact”. It is essential that an understanding of the nature and dimensions of Aboriginal involvement in the New South Wales commercial fishing industry is known, so that any potential impacts from the structural reform process can be determined and addressed to ensure that Aboriginal people derive some commercial benefits from the exploitation of what they consider their traditional fisheries resources. Discussions in 2009 between the DPI, the Principal Investigator from FRDC project 2009/034 and the New South Wales Aboriginal Land Council (NSWALC) identified the need to begin research into Aboriginal participation in commercial fisheries. This was with a view to gaining a better understanding of the number of Aboriginal commercial fishers in NSW, the challenges they face to stay in the industry and the kinds of strategies that could be implemented by DPI to support the continued presence of Aboriginal people in the industry.

3 Objectives

The project objectives, as set out in the project application, were:

1. Case study of Indigenous commercial fisheries focusing initially on New South Wales as a basis for a national study.
2. Determine the number of Indigenous commercial fishers in New South Wales.
3. Estimate the percentage of commercial catch made available to Indigenous communities for personal consumption.
4. Identify management changes likely to impact Indigenous participation in commercial fisheries and how they will impact.
5. Develop strategies to ameliorate the impacts of management change on Indigenous participation in commercial fisheries.



Aboriginal commercial fishers on the south coast spotting fish from a headland. Photo: Jessop family

4 Methods

This study was undertaken in partnership with Aboriginal commercial fishers and DPI so that as new information was generated it could be shared at the same time that relevant policy was being developed.

4.1 Study sites

Study sites included all areas in New South Wales where commercial fishing occurs (Figure 1). As commercial fishing is predominately in coastal waters the study sites were coastal, except for one.



Figure 1 The study site New South Wales, Australia (Source: Google Maps 2011).

4.2 Indigenous research protocols and ethics approval

This project adopted national and international best practice protocols for Indigenous research with specific reference to the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) *Guidelines for Ethical Research in Australian Indigenous Studies* (2011) and the International Society for Ethno biology (ISE) *Code of Ethics* (2006). These protocols provide guidance on how to ensure Indigenous rights are respected and ways to ensure a two-way flow of benefits occurs.

A collaborative research methodology was adopted involving culturally appropriate engagement of participants as both “givers” and “receivers” of information (AIATSIS, 2011). Uppermost in the minds of the researchers was the need to obtain “prior informed consent” from project participants and to ensure there were “benefit sharing” arrangements in place (AIATSIS, 2011).

It must be recognised that collaborative research, by design, may be iterant, emergent and may require modifications or adaptations (ISE, 2006). Participants were given the opportunity to provide input on the methodology design and delivery. Two key informants played a major role in guiding this process. Research methods, structures and delivery were trialled and altered according to participant feedback. This report identifies where participant feedback was received and subsequently incorporated into the methodology.

Ethics approval for the project was granted by the Southern Cross University (SCU) Human Research and Ethics Committee, ethics approval number EC11057.

4.3 Community engagement strategy

As part of the collaborative research methodology, a community engagement strategy was developed with the following elements:

- use of key individuals in communities as contacts;
- consultation with key Aboriginal organisations;
- use of culturally appropriate project information for dissemination in the community;
- workshops and forums;
- culturally appropriate data collection instruments;
- processes to keep the participants informed at all stages of the project; and
- prior informed consent from participants for each stage of the project.

The researchers held two initial meetings with the project steering committee, which consisted of representatives from the DPI, Department of Aboriginal Affairs (DAA), NSWALC and the NSW Aboriginal Fishing Advisory Council (AFAC) to discuss the methodology and to identify possible organisations and individuals to contact. A further presentation outlining the research intentions was given to members of AFAC, DAA, NSW Native Title Services, NSWALC, and DPI.

For a detailed account of the community engagement approach used in this project refer to Appendix 2 (Report on Community Engagement for Project No. 2010/304).

4.4 Identification of project participants

Participants for this project were Aboriginal people currently or previously involved in the New South Wales commercial fishing sector. Commercial fishers are not required to indicate their Aboriginality as part of the licencing requirements, so the researchers used “self-identification” and “snowballing” techniques (Morrison, 1998) to identify potential participants.

An information letter was sent via email to all local Aboriginal land councils and this was followed up by emails and phone calls. A press release was developed (Appendix 3) and the project was advertised in both local and national newspapers. The DPI also aided the contact process by sending project information and contact details to all inland commercial licence holders. The research team also visited every local Aboriginal land council along the New South Wales coastline.

Potential participants were identified by community members, Aboriginal organisations and non-Aboriginal commercial fishers. Once identified, the potential participants were contacted and those willing to contribute were briefed on all aspects of the project and then asked to sign a participant consent forms (Appendix 4).

4.5 Data collected

The following data was sought from Aboriginal participants:

- commercial fishing status;
- number of years in the industry;
- fishing on traditional Country;
- fisheries endorsements (past and present);
- estimated catch rates;
- areas fished (both past and present);
- estimated annual management costs;
- estimated contribution of their catch to community; and
- recorded catch history.

In addition, the following qualitative data was sought from Aboriginal participants:

- perception and understanding of management changes;
- perceived impact of management changes on their business;
- suggested solutions to impacts; and
- future aspirations.

4.6 Data collection instruments

4.1.1 Questionnaire

Data was primarily collected through a survey-style questionnaire, delivered face-to-face at a location of the participant's choice. The questionnaire sought to obtain both quantitative and qualitative data on participant's commercial fishing activities. It contained closed-ended questions and used a "funnel" technique in which the initial questions were broad and easy to answer, followed by ones of a more specific nature. A draft questionnaire was developed and circulated during the initial contact period for comment and endorsement. The final questionnaire is available in Appendix 5.

The questionnaire produced data that is based on the participant's recollections of their commercial fishing activity. To support the questionnaire data, official documents, including validated catch history records, were sort from the participants.

4.1.2 Commercial catch data

The researchers, with guidance from NSW DPI, developed catch history consent forms (Appendix 6). Once participants provided their written consent commercial catch data was released by DPI in excel spread sheet format.

4.1.3 Affinity mini group interviews

Affinity mini group interviews (group interviews) were also used to obtain qualitative data. As all the participants fish in family groups, affinity groups (naturally occurring groups such as families, friends, neighbours etc) were identified as a useful approach to collecting qualitative data.



Participants and researchers at the Aboriginal commercial fishing forum held in Port Macquarie, 2012.
Photo: SCU research team

The group interview questions were developed around three themes: key impacts on commercial practice, future solutions; and historical and cultural accounts. Four questions were developed, consistent with the range recommended for group interviews (Stewart, 2007). The wording of the questions was developed in consultation with participants. Leading questions were avoided so that open and reflective discussion could take place. The final group interview discussion guide is available in Appendix 7.

Five group interviews were conducted. All participants had previously completed questionnaires. Each group interview was scheduled for two hours duration and in a venue familiar to the participants, usually a family home or nearby fishing location. The group interviews were facilitated by the researchers. At the start of each group interview the facilitators clarified the purpose of the interview, the role of the parties and answered questions in relation to the information sheets and consent forms. When the facilitators were satisfied that all participants understood the process they asked participants to sign the research consent form.

The facilitators made an audio recording of each group interview. The audio recordings are stored on a computer and backed up on a compact disc. As part of the requirements of the SCU ethics approval process, the recordings are being stored in a secured cabinet in the Principal Investigator's office at the SCU Lismore campus.

4.1.4 Individual interviews and comments

Interviews were conducted with individual participants who completed the questionnaire but were unable to attend a group interview. These interviews were used to gain qualitative insights into the impact of management changes, traditional fishing values and future aspirations. Issues raised by community members and participants during the all phases of the project were also noted.

4.1.5 Forums

Aboriginal commercial fishers were invited to participate in forums, the aim of which was to create a space for them to further discuss issues impacting their ability to stay in the industry and to generate strategies to ameliorate those impacts. The forums also provided the opportunity for two-way exchange of information.

Three forums were held along the coast, in Ulladulla, Port Macquarie and Tweed Heads. The forums ran for an average time of five and half hours. All Aboriginal commercial fishers with active commercial licences in the fishing regions surrounding these centres were invited to attend.

The forums were semi-structured with set outcomes that included prioritising current impacts and determining solutions and future aspirations. Participants worked together, asked questions and shared knowledge of other aspects of their fishing businesses and traditional knowledge.

Prior to the Ulladulla forum, participants requested the attendance of a DPI representative so that they might provide DPI with insights into the Aboriginal commercial fishing sector. The DPI representative was also able to provide advice on the feasibility of participant's ideas for industry reform, as well as explaining the proposed structural reforms (see Appendix 2).

Video recordings were made of the Ulladulla and Tweed Heads forums with participant consent, while an audio recording only was made of the Port Macquarie forum. As result of the success of these forums and the changing climate in fisheries governance, both participants and fisheries managers requested the research team conduct three more forums with both parties present. It was not possible to fit this type of extension within the project timeframe, so the research team requested and was permitted an extension of the project timeframe.

The extension forums were conducted at the same locations and, where possible, same venues as the earlier forums. All active Aboriginal commercial fishers were invited, as well as appropriate high level fisheries managers from DPI. The researchers drafted a discussion paper based on the key issues, solutions and needs of Aboriginal commercial fishers as explored in the previous forums. The draft discussion paper was distributed among the Aboriginal commercial fishers and fisheries managers in advance, along with a forum agenda.

The aim of the forums was to provide further opportunity for an equal two-way exchange of information. Importantly, all forums were held on traditional Country. The agenda for each forum was:

- Welcome to country.
- Question time (research team and Aboriginal commercial fishers only).
- Researcher introductions and explanation of the agenda.

- Fisheries managers run down on upcoming changes and the context for those changes as well as the impacts, followed by question time.
- Working through the draft discussion paper, questions from all parties.
- Open discussion.

All the extension forums were video recorded, still photographs and notes were also taken (see Appendix 2 for more detail).

4.7 Analysing data

Quantitative data were analysed using a Microsoft Excel program.

All group interviews and forums were either video or audio recorded. Some individual interviews were audio record, for others the researcher took written notes. The transcribed text from the group interviews, forums and individual interviews were analysed by searching for common themes using key words and selecting key quotes for presentation in the results section.

5 Results

5.1 Background Information

Some background information is provided initially to help the reader with certain concepts and terms used throughout the results section when referring to aspects of commercial fisheries in New South Wales.

5.1.1 Fisheries

The New South Wales commercial fisheries industry includes both wild harvest commercial fishing and aquaculture. The wild harvest commercial fishing industry comprises 10 fisheries under two management regimes; the Share Management Fisheries (SMF) and the Restricted Fisheries (RF).

The SMF are comprised of seven types of fisheries including the Estuary General Fishery (EGF), the Ocean Hauling Fishery (OHF), the Ocean Trawl Fishery (OTF), the Ocean Trap and Line Fishery (OTLF), the Estuary Prawn Trawl Fishery (EPTF) the Lobster Fishery (LF) and the Abalone Fishery (AF). The RF comprises three distinct fisheries, the Sea Urchin and Turban Shell Fishery (SUTSF) the Inland Fishery (IF) and the Southern Trawl Fishery (STF) (Figure 2).

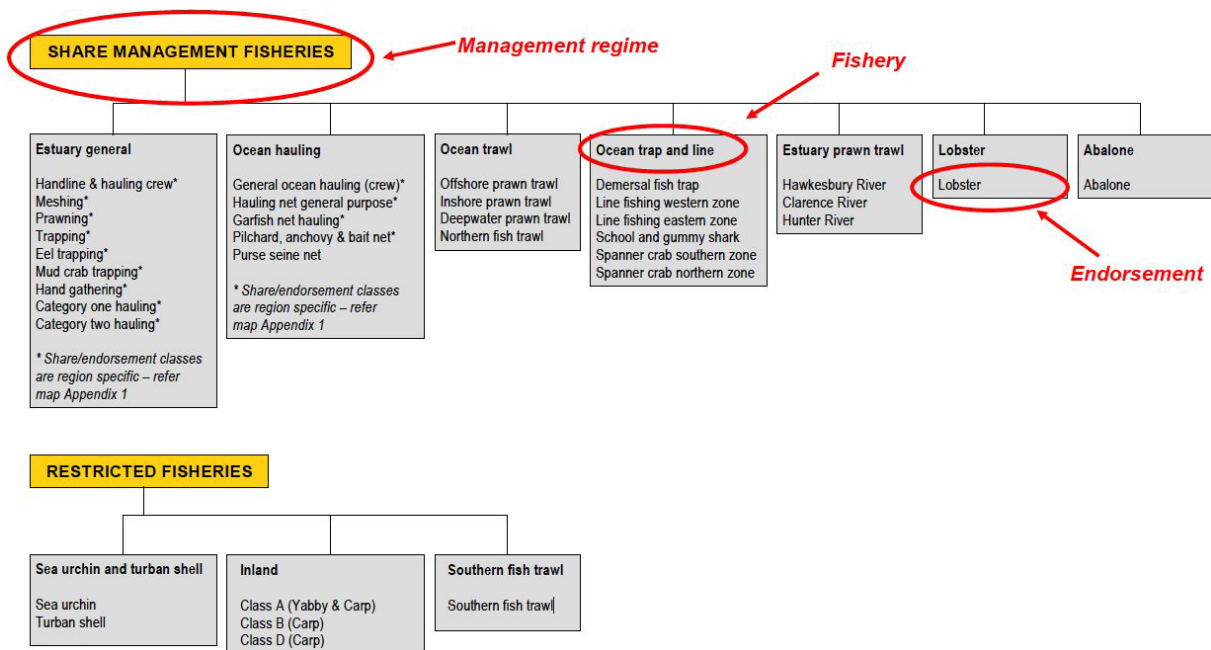


Figure 2 Fisheries, management regimes with corresponding share and endorsement classes in New South Wales. (Source New South Wales Department of Primary Industries 2012).

Commercial fishers in all of the SMF and RF must have a commercial fishing licence and an endorsement authorising them to undertake certain fishing activities. There are 113 different endorsements across the share management and restricted fisheries (NSW Department of Primary Industries 2012). Endorsements in the EGF and OHF are region specific. There are seven regions (see Figure 3) resulting in 56 endorsement types for the EGF and 28 for the OHF (including the purse seine net which is not region specific).

To be entitled to fish, a commercial fisher must hold an endorsement for a particular SMF and possess the minimum shareholding for that endorsement or belong to the original endorsed business. For example the minimum shareholding for meshing in region 1 of the EGF is 125, for garfish netting in region 6 of the OHF it is 40 and for the EPTF in the Hunter region it is 100 (NSW Department of Primary Industries 2012).

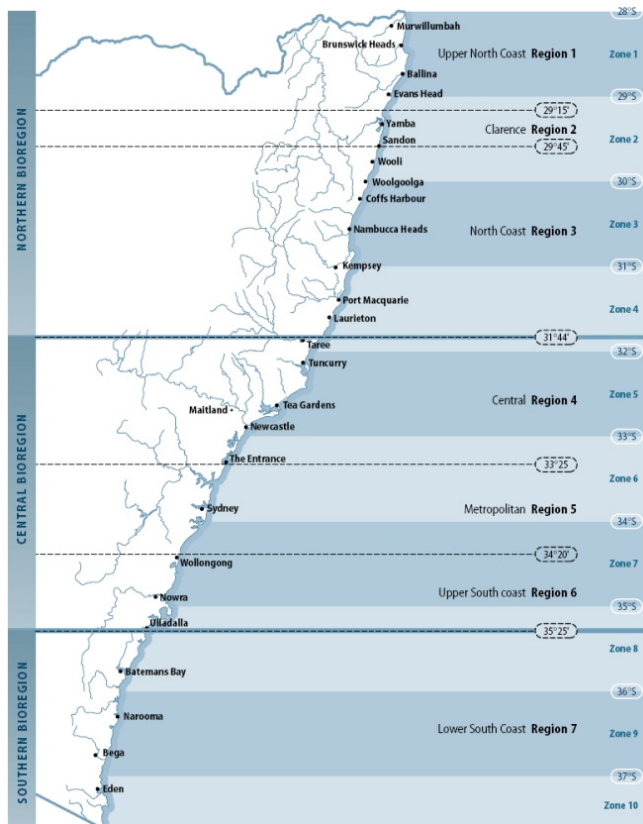


Figure 3 Fishing regions and zones in New South Wales. (Source: New South Wales Department of Primary Industries 2012).

5.1.2 Fishers

There are three ways that an individual can participate in the New South Wales commercial fishing sector:

1. 'Fishing business' owner with endorsements and minimum shareholdings;
2. 'Nominated fisher' for a fishing business;
3. 'Crew member' for a fishing business where crew are permitted.

In the first two cases a commercial fishing licence is required, but not in the third case.

5.2 Aboriginal people identified in New South Wales commercial fisheries sector

One of the main objectives of this project was to determine how many Aboriginal people participate in commercial fisheries in New South Wales. Such information can be used as a base line against which to predict or measure the impact of fisheries management changes on Aboriginal participation.

Forty-five Aboriginal people were identified as having worked in the New South Wales commercial fishing sector in the last 15 years. Forty-three of those identified worked in the wild catch sector and two in the aquaculture industry. Anecdotal evidence suggests that there may be more Aboriginal people working in the aquaculture sector outside of those identified in this study. Thirty-seven of those individuals identified were able to be contacted by the researchers. Of those contacted 34 consented and three declined to participate in this project. Of the 34 participants, 31 are current and three are former operators. All 34 participants com-

pleted questionnaires, while 25 took part in one-on-one interviews, 12 in focus groups and 17 participated in 6 forums held at three locations long the NSW coast.

5.1.1 Aboriginal commercial fisher profile

Aboriginal commercial fishers were all male, ranging in age from 28 to 74 years, with an average of 50.2. The number of years spent in commercial fishing ranged from 2 to 60, with an average of 29.2. More than 70% of Aboriginal commercial fishers had spent their entire working lives as commercial fishers. Few participants were first generation commercial fishermen in their families, with estimates ranging up to seventh generation. Eighty one per cent of participants operate in a family owned business and 54% inherited their commercial fishing entitlement from family members. Eighty four percent indicated that they fished mostly on their traditional Country.

5.1.2 Commercial fishing authorities

There are 35 Aboriginal commercial fishers currently in the wild catch sector. Of these, 29 own fishing businesses, five are nominated fishers on other fishing businesses and one is an unlicensed crew member. There are 33 Aboriginal commercial fishers in SMF and two in RF.

There are 33 Aboriginal owned fishing businesses, 31 in SMF and two in RF. There are three Aboriginal commercial fishers who own more than one fishing business. Aboriginal commercial fishers operate in six out of the 10 NSW commercial fisheries however the vast majority are in the EGF and OHF (Table 2). There are no Aboriginal people in the abalone or lobster fisheries.

Table 2 The numbers of Aboriginal people who own fishing businesses, are nominated fishers for a fishing business or are unlicensed crew in the New South Wales commercial wild catch sector (N=38).

	Fishing business	Nominated fishers	Unlicensed crew
Share Management Fisheries	31	5	1
Estuary General Fishery	27	3	-
Ocean Hauling Fishery	24	2	-
Estuary Prawn Trawl Fishery	1	0	-
Ocean Trap & Line Fishery	3	0	1
Ocean Trawl Fishery	1	0	-
Lobster Fishery	0	0	-
Abalone Fishery	0	0	-
Restricted Fisheries	2	-	-
Inland Fishery	2	0	-
Southern Fish Trawl Fishery	0	0	-
Sea Urchin & Turban Shell Fishery	0	0	-

Approximately 29.2% of Aboriginal commercial fishers own fishing businesses in a single fishery, while 54.2% own fishing businesses in two of the SMF and 16.6% own fishing businesses in three of the SMF (Figure 4).

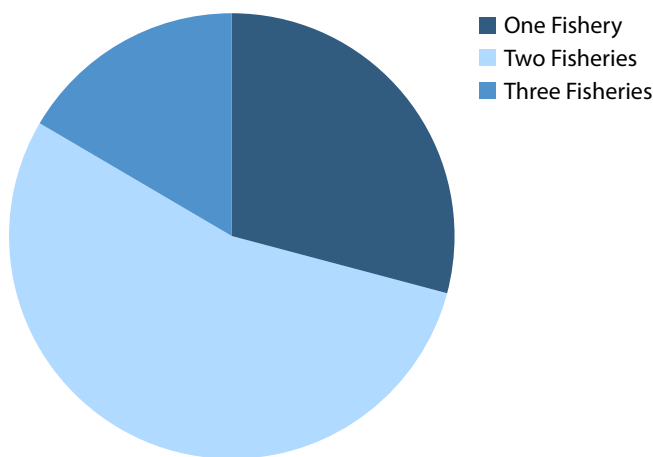


Figure 4 The proportion of Aboriginal commercial fishers who own fishing businesses in one or more of the Share Management Fisheries (N=24).

5.1.3 Fishing businesses and shares

The 33 Aboriginal fishing businesses represent 2.6% of all fishing businesses in the New South Wales SMF. Together, Aboriginal owned fishing businesses hold 12,463 shares or 3.1% of the total shares available. Shares held by Aboriginal owned fishing businesses are spread across 46 of the 105 SMF endorsement types (Appendix 8). These figures can be further disaggregated to reveal that there are 103 endorsements attached to Aboriginal owned fishing businesses. Many Aboriginal owned fishing businesses hold shares which are on or above the minimum shareholding requirement, however some hold less than the required level of shares (Figure 5).

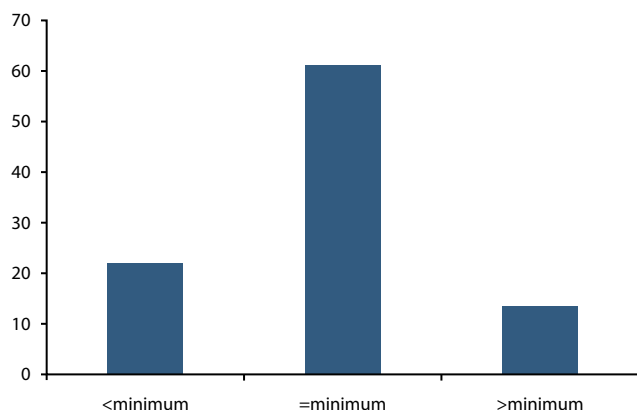


Figure 5 The percentage of all endorsements attached to Aboriginal owned fishing businesses in all New South Wales Share Management Fisheries that are below, equal to or above the minimum shareholdings (N=136).

5.1.4 Shares by fishery type

By far the largest proportion of shares held by Aboriginal commercial fishers is in the EGF followed by the OHF and, to a much lesser extent, the EPTF, OTLF and OTF (Figure 6).

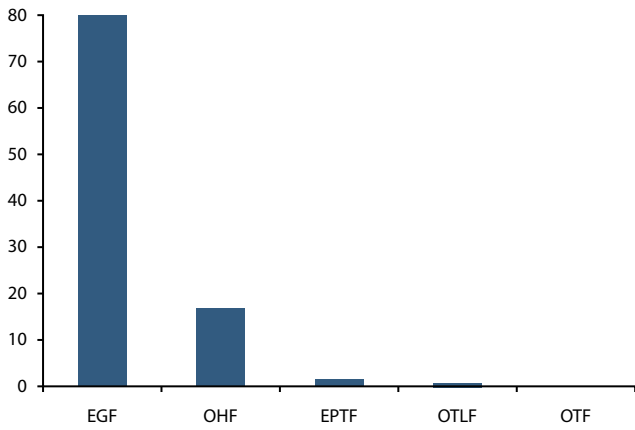


Figure 6 Shares held by Aboriginal commercial fishers as a percentage of total shares in each Share Management Fishery in New South Wales (N=12,463).

5.1.5 Estuary General Fishery

5.1.2.1 Background to management of the fishery

The EGF is a multi-species multi-method fishery that operates in 76 of the New South Wales estuarine systems. This fishery includes all forms of commercial estuarine fishing (other than estuary prawn trawling which forms its own discrete fishery) in addition to hand gathering of pipis and beachworms from ocean beaches.

There are 63 classes of shares available in the fishery (hence 63 types of endorsement), comprised of nine classes of share for each of the seven regions. The classes of shares correspond to the type of endorsement available in the fishery and the region in which that endorsement holder may take fish. Licensed commercial fishers must have the minimum shareholding to be eligible to fish an endorsement. Each endorsement authorises the use of specific gear to take permitted species from certain waters.

The minimum shareholding for each of the EGF endorsement types is 125, except for hand gathering in region 5 where it is 100.

5.1.2.2 Aboriginal commercial fisher shares

There are 27 fishing businesses owned by Aboriginal people in the EGF and they hold 3.4% of the total available shares (Appendix 8). Of those 27 fishing businesses, approximately 22.1% are below, 74.4% are on and 3.5% are above the minimum shareholding of 125 (Figure 7).

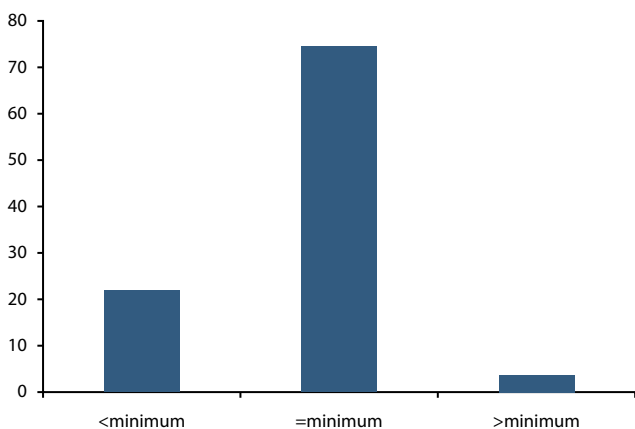


Figure 7 The percentage of Aboriginal commercial fisher fishing business endorsements in the Estuary General Fishery that are below, equal to or above the minimum shareholdings (N=86).

The majority of the estuary general shares held by Aboriginal commercial fishers are in Regions 7 and 4, followed by Regions 1 and 3 (Figure 8). No shares are held in Regions 2 or 5.

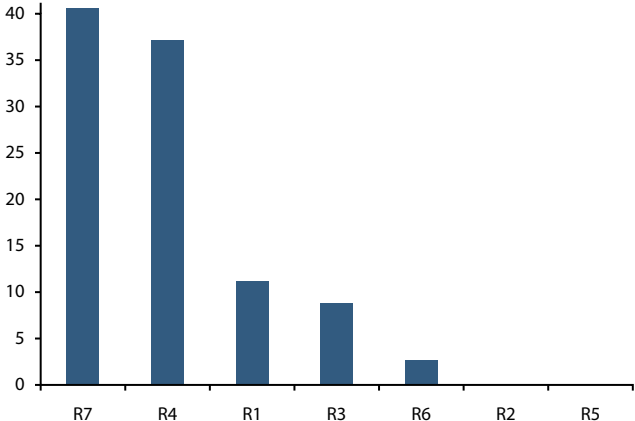


Figure 8 The percentage of Estuary General Fishery shares held by Aboriginal commercial fishers in each fishery region (N=10,002).

Aboriginal commercial fishers hold shares in 27 of the 63 endorsement types in the EGF with the predominant endorsement types being, handline and hauling crew followed by prawning and meshing then category one hauling, hand gathering, and category two hauling (Figure 9). A smaller proportion of shares are held in mud crab trapping and eel trapping endorsements.

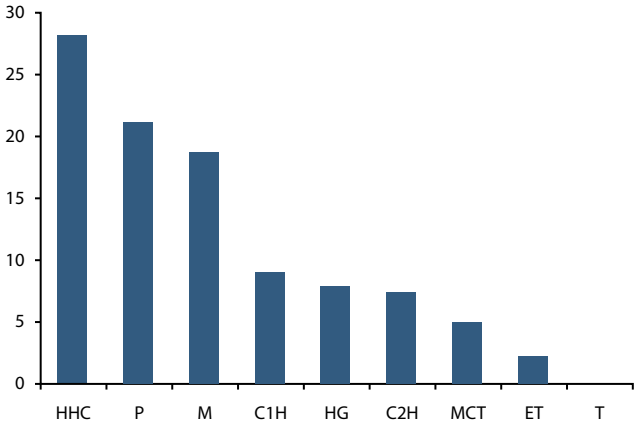


Figure 9 Shares held by Aboriginal commercial fishers in the Estuary General Fishery as a percentage of the total number of shares in the EGF (N=10,002). HHC=Handline and Hauling, P=Prawning, M=Meshing, HG=Hand Gathering, C1H=Category One Hauling, C2H=Category Two Hauling, MCT=Mud Crab Trapping, ET=Eel Trapping and T=Trapping.

In comparison to the total number of EGF shares available in each region and for each endorsement, the largest percentage by endorsement type is in hand gathering while the largest percentage by region is in Region 7 (Table 3).

Table 3 Number of Aboriginal commercial fisher shares held in each endorsement type for each region in the Estuary General Fishery. The percentage values in the last column and bottom row refer to the Aboriginal proportion of the overall EGF industry held shares.

EGF – endorsement types	Number of shares in each region (1–7)							Total	%
	1	2	3	4	5	6	7		
Hauling handline & Hauling crew	250	0	250	975	0	50	1300	2825	2.7
Prawning	250	0	125	625	0	50	1075	2125	3.8
Meshing	250	0	125	725	0	50	725	1875	2.8
Hauling category one	0	0	0	250	0	50	600	900	4.2
Hand gathering	125	0	252	250	0	50	125	802	9.5
Hauling category two	250	0	125	375	0	0	0	750	3.7
Mud crab trapping	0	0	0	500	0	0	0	500	1.9
Eel trapping	0	0	0	0	0	0	225	225	1.2
Trapping	0	0	0	0	0	0	0	0	0
Total	1125	0	877	3700	0	250	4050	10002	
%	5.8	0	2.3	3.5	0	1.0	21.2	3.4	

5.1.6 Ocean Hauling Fishery

There are 24 Aboriginal owned fishing businesses in the OHF and they hold 8.6% of the total available shares (Appendix 8). Of those 24 fishing businesses, 24.4% are below, 36.6% are on and 39% are above the minimum shareholding for this fishery (Figure 10).

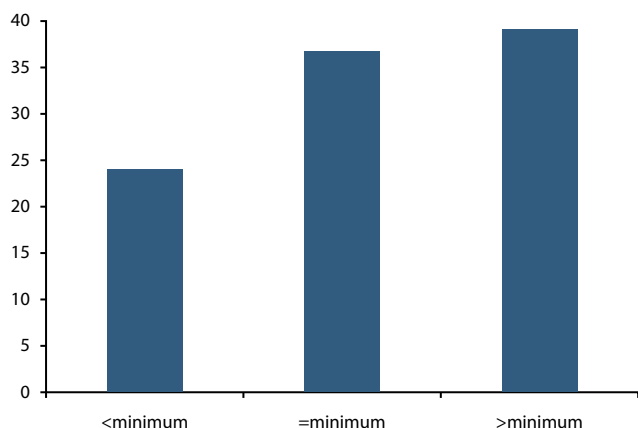


Figure 10 The percentage of Aboriginal commercial fisher fishing business endorsements in the Ocean Hauling Fishery that are below, equal to or above the minimum shareholdings (N=41).

In addition to the Aboriginal fishing businesses in the OHF there are two Aboriginal commercial fishers who are ‘nominated fishers’, one of whom is nominated on an Aboriginal owned fishing business and the other on a non-Aboriginal fishing business. The latter nominated fisher fishes on a seasonal basis to target culturally important species.

The majority of the Aboriginal owned shares in the OHF are held in Region 7, then Regions 4 and 6, followed by Regions 3 and 1 (Figure 11). No shares are held in Regions 2 or 5.

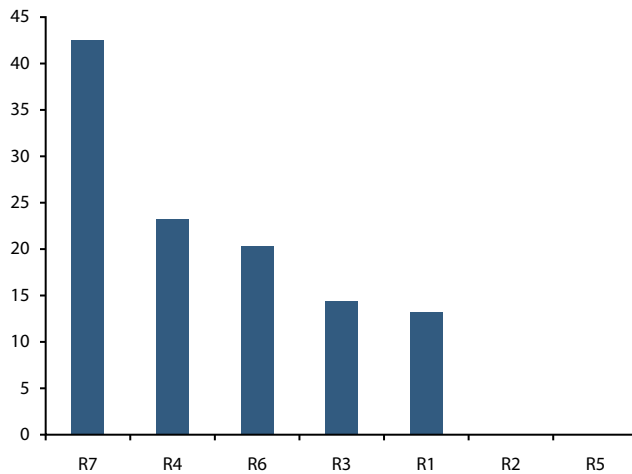


Figure 11 Distribution of Aboriginal owned Ocean Hauling Fishery shares by region (N=2090).

Aboriginal commercial fishers hold shares in 12 of the 27 endorsement types in the OHF. The predominant endorsement types are, general ocean hauling followed by hauling net general purpose, gar net hauling and pilchard and bait net hauling (Figure 12).

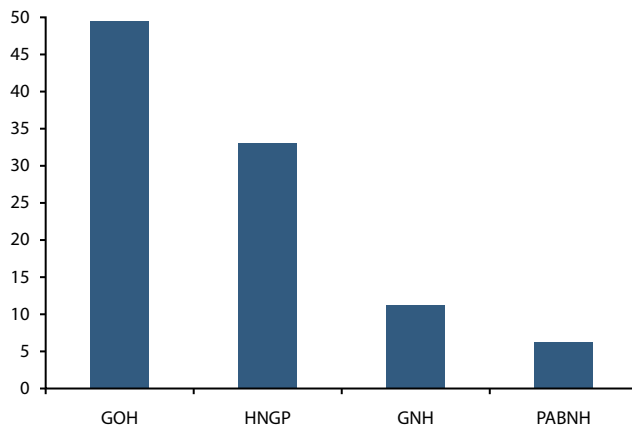


Figure 12 The percentage of shares held in each Ocean Hauling Fishery endorsement as a proportion of the total shares held by Aboriginal commercial fishers in the OHF (N=2090). GOH=General Ocean Hauling, HNGP=Hauling Net General Purpose, GNH=Gar Net Hauling, PABNH=Pilchard, Anchovy and Bait Net Hauling.

In comparison to the total number of OHF shares available in each region and for each endorsement, the largest percentage by endorsement type is in pilchard, anchovy and bait net hauling while the largest percentage by region is in Region 1 (Table 4).

Table 4 Number of Aboriginal commercial fisher shares held in each endorsement type for each region in the Ocean Hauling Fishery. The percentage values in the left column and bottom row refer to the Aboriginal proportion of the overall OHF industry held shares.

OHF - endorsement types	Number of shares in each Region (1-7)							Total	%
	1	2	3	4	5	6	7		
General ocean hauling	120	0	140	240	0	120	420	1040	8.5
Hauling net general purpose	100	0	40	100	0	60	390	690	10.1
Garfish net hauling	0	0	0	0	0	30	200	230	8.2
Pilchard, anchovy and bait net	120	0	10	0	0	0	0	130	20.3
Purse seine	0	0	0	0	0	0	0	0	0
Total	340	0	190	340	0	210	1010	2090	
%	28.8	0	4.8	4.5	0	8.0	23.5	8.6	

5.1.7 Estuary Prawn Trawl Fishery

There is one Aboriginal owned fishing business endorsed in the EPTF in the Hunter River region and it has the minimum shareholding of 100 shares. This represents 3.5% of the shares available for this endorsement and 0.35% of all the shares available in the EPTF across all regions.

5.1.8 Ocean Trap and Line Fishery

There are four Aboriginal owned fishing businesses holding approximately 0.9% of the total shares available for the OTLF. Those shares are spread across three endorsement types including, demersal fish trap, line fishing western zone and spanner crab northern zone. All of these endorsements have a minimum shareholding of 40, except the spanner crab northern zone, which has a minimum of 15 shares. There is also an unlicensed Aboriginal commercial fisher working as a crew member in the OTLF.

5.1.9 Ocean Trawl Fishery

There is one Aboriginal owned fishing business in this fishery with an inshore prawn endorsement, which is below the minimum shareholding. This fishing business holds less than 0.1% of the total shares available for the endorsement.

5.1.10 Inland Fishery

Two Aboriginal commercial fishers hold Class 'A' licences in the New South Wales IF under one fishing business, this equates to an 8% share of the fishery.

5.1.11 Aquaculture

Two Aboriginal commercial fishers are active in the aquaculture sector with a total between them of nine oyster leases stretching over a 12-acre allotment. This is operated under one business in Zone 10.

5.1.12 Abalone Fishery and Lobster Fishery

Aboriginal commercial fishers participated in these fisheries before they became share management fisheries in the early 2000s. Since that time there has been virtually no Aboriginal commercial participation in either.

5.3 Aboriginal commercial fisher annual catch

5.1.1 Estimates based on questionnaire

Some Aboriginal commercial fishers provided the researchers with estimates of their annual catches, however the estimates were highly variable and, in some cases, not comparable in terms of the units used. More work needs to be done to get consistent catch estimates.

5.1.2 Estimates based on commercial catch records

The research team sought permission from Aboriginal commercial fishers to access to their official DPI catch records. Six fishers gave written permission for this to occur. Of the other fishers, seven were reluctant to permit any external parties viewing their records and some had not yet decided on whether they would give permission.

The research team received catch history information from DPI for six fishers, of which five were coastal fishers and one was an inland fisher. Data was received electronically in the form of an excel spreadsheet. In a few cases fishers provided photocopies of some catch history fishing reports (Table 5).

Table 5 List of Aboriginal commercial fishers for which official DPI catch history data was made available. Fisher's names were coded to ensure anonymity. (EGF=Estuarine General Fishery, OHF=Ocean Haul Fishery and OTLF=Ocean Trap and Line Fishery, ME=multiple endorsements, HG=Hand gathering).

ACF	NSW Commercial Fishery	Periods	Electronic	Photocopy
A	EGF-HG	1995–2006	Yes	No
B	EGF-HG	1987–1990 2009–2011	Yes	No
C	EGF-ME and OHF-ME	1995–2008 2009–2011	Yes	No
D	EGF-ME and OHF-ME	1995–2003	Yes	Yes
E	EGF-ME and OHF-ME	1997–2002 2009–2012	Yes	Yes
F	EGF-ME, OHF-ME and OTLF-ME	1986–1993	No	Yes
G	EGF-ME and OHF-ME	2010	No	Yes
H	Inland Fishery	1984–2001	Yes	No

It had been intended to conduct an in depth analysis of the catch histories depending on the comparability of the data across the fishers. However, as there were few records provided at the time of analysis and the time periods were not aligned it was decided to analyse just two of the fishers, one from a coastal fishery and the other from the inland, as a case study of Aboriginal commercial fisher catch composition.

5.1.3 Case study one: Profile of the catch for an Aboriginal owned fishing business on the coast on New South Wales¹

This case study is of the commercial catch of an Aboriginal commercial fisher in the coastal wild catch fishery, for the period from 1995 to 2008. During this period the fisher held endorsements in the EGF and the OHF. The average annual catch for this period was approximately 40,700 kilograms.

5.1.3.1 Catch by fishery

The majority of the catch, by weight, was taken in the OHF however the EGF catch was more valuable (Figure 13).

¹ The case study areas are not identified in order to protect the anonymity of a small number of fishers.

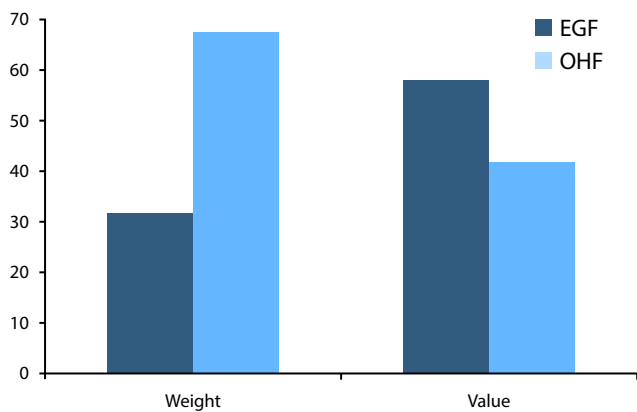


Figure 13 The percentage of the overall weight and value of the catch taken in the Estuary General Fishery and Ocean Hauling Fishery for the case study one Aboriginal commercial fisher on the coast of New South Wales for the case study period from 1995 to 2008.

The large catch in the OHF was the result of the fisher targeting sea mullet (*Mugil cephalus*) during the annual spawning run.

5.1.3.2 Fishing environments

The greatest proportion of catch by weight was taken in coastal waters followed by coastal lakes and rivers (Figure 14). While the catch from coastal waters was larger, the catch from coastal lakes was more valuable.

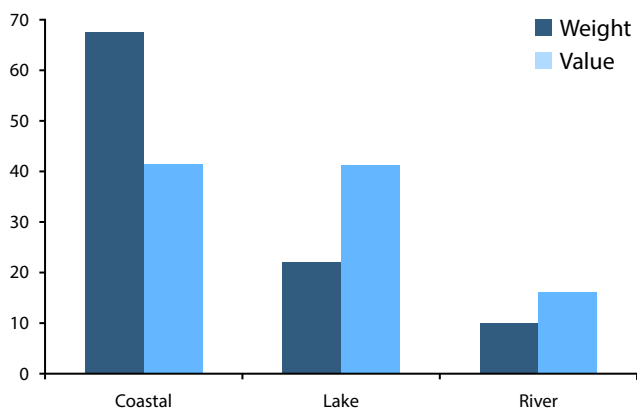


Figure 14 Percentages of total weight and value of catch per fishing area for the case study one Aboriginal commercial fisher on the coast of New South Wales during the case study period from 1995 to 2008. Note, that 'coastal' refers to the waters fished adjacent to beaches.

5.1.3.3 Fishing methods

The fisher used a variety of fishing methods with beach haul nets taking the majority of the catch (Figure 15).

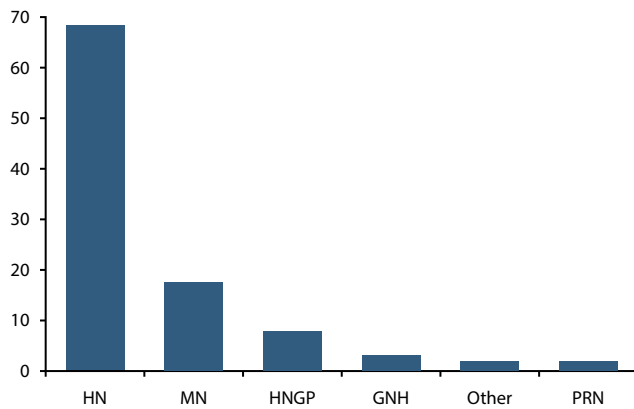


Figure 15 The percentage of the total weight of catch by fishing method for the case study one Aboriginal commercial fisher on the coast of New South Wales for the case study period from 1995 to 2008. Note: HN= Hauling Net (Beach), MN= Meshing Net, HNGP=Hauling Net-General Purpose and PRN= Prawn Running Net.

5.1.3.4 Catch composition

The composition of the EGF component of the fisher's catch comprised at least 27 species, predominantly finfish. The top six species included sea mullet (*M. cephalus*), bream (*Acanthopagrus sp*), luderick (*Girella tricuspidata*) sand whiting (*Sillago ciliata*), tarwhine (*Rhabdosargus sarba*), and the eastern king prawn (*Penaeus plebejus*) (Figure 16). Sea mullet dominated the overall catch by weight, however bream, sand whiting and king prawns were each more valuable.

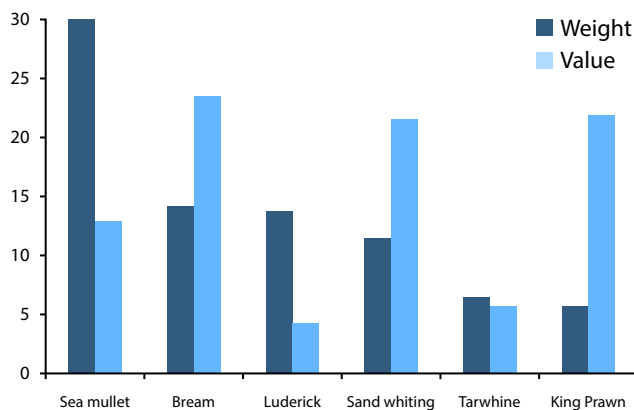


Figure 16 The percentage catch composition by weight and value for the case study one Aboriginal commercial fisher on the coast of New South Wales in the Estuary General Fishery for the case study period from 1995 to 2008.

The OHF component of the catch comprised at least 14 species, all finfish. The top four species included sea mullet (*M. cephalus*), Australian salmon (*Arripes trutta*), sea garfish (*Hyporhamphus australis*) and luderick (*Girella tricuspidata*) (Figure 17). Sea mullet dominated the overall catch by weight and value, however sea garfish while small by weight are a valuable component.

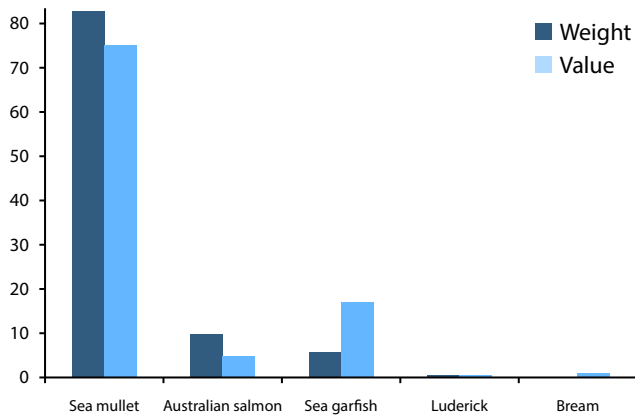


Figure 17 The catch composition by weight for the case study one Aboriginal commercial fishers on the coast of New south Wales in the Ocean Hauling Fishery for the case study period from 1995 to 2008.

5.1.4 Case study two: Profile of the catch of an Aboriginal commercial fisher in the New South Wales inland fishery

This case study involves the commercial catch of an Aboriginal commercial fisher from the restricted Inland Fishery for the period 1984 to 2001.

5.1.3.1 Fishing environments

The greatest proportion of the catch by weight and value was taken in freshwater lakes (Figure 18). While the catch from freshwater rivers was smaller by weight it was proportionally more valuable compared with that from the lake systems.

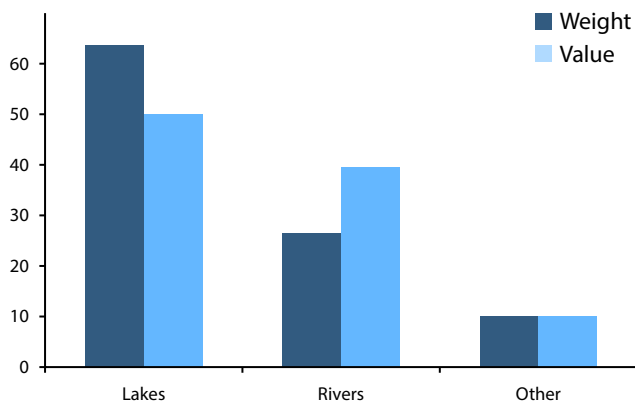


Figure 18 Percentages of total weight and value of catch per general fishing area types for the case study two Aboriginal commercial fisher in the New South Wales Inland Fishery during the case study period from 1984 to 2001.

Of the 18 or so fishing locations recorded on the catch history sheets, one lake produced over 50% of the catch which made up 41% of the total catch value.

5.1.3.2 Catch methods

The majority of the catch was taken by gill netting (Figure 19). Gill netting also returned the most value to the fisher, however yabby trapping returned a higher value, proportionately, compared to weight.

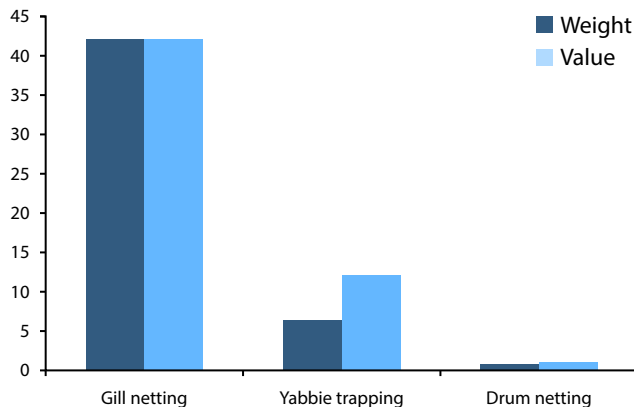


Figure 19 The percentage of the total weight and value of catch by fishing method for the case study two Aboriginal commercial fisher in the New South Wales Inland Fishery for the case study period from 1984 to 2001. Note, the catch records contained a large percentage (56%) of entries entitled ‘Other or ambiguous’ which were not included in the calculations.

5.1.3.3 Catch composition

The catch comprised approximately 12 species, which were predominantly finfish. The catch by weight was dominated by the European carp (*Cyprinus carpio*) (Figure 20). Golden perch (*Macquaria ambigua*), the freshwater yabby (*Cherax destructor*) and the Murray cod (*Maccullochella peelii*) comprised a smaller by proportion by weight but they were proportionately as, or more, valuable than carp.

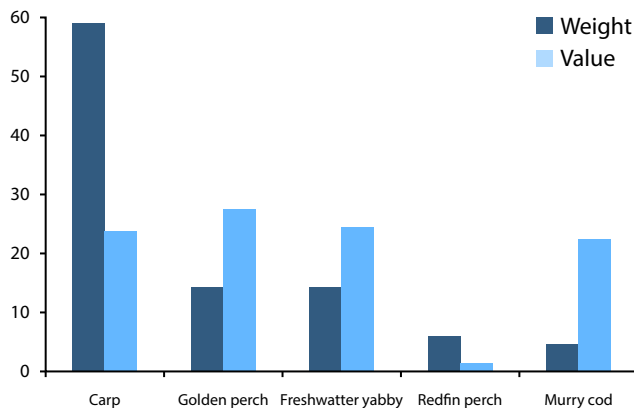


Figure 20 The percentage catch composition by weight and value for the case study two Aboriginal commercial fisher in the New South Wales Inland Fishery for the case study period from 1984 to 2001.

5.4 Contribution of catch to Aboriginal communities

Over 90% of the Aboriginal commercial fishers interviewed for this project indicated they gave some of their commercial catch to their local Aboriginal communities. There is no requirement on the catch reporting forms for fishers to indicate how much catch is given to Aboriginal communities, so the researchers asked participants to provide estimates. Estimated community contributions ranged from 5% to 20% of annual catch, with the average contribution being approximately 9.8%. These figures vary slightly depending on the season and community demand. Only 10% of active Aboriginal commercial fishers indicated that they do not contribute

to their local community. These fishers primarily hold restricted hand gathering endorsements in the Estuary General Fishery. The reason that there is little contribution from the hand gatherers is because hand gathering is a traditional skill that is widely practiced by coastal families so they can fulfil their own needs.

5.5 Management fees and investment

Management fees and participant investment varied according to the number of endorsements held by fishers and fisheries in which the endorsements are held (Table 6).

Table 6 Aboriginal commercial fishers estimated management and investment costs (n=30).

	Management Costs	Investment
Average	\$6,920	\$19,464
Range	\$2,000 - \$20,000	\$5,000 - \$65,000

5.6 Engagement with management

The majority of participants (89%) have provided input into policy development at one time or another in relation to a range fisheries management issues (Table 7). This input has been provided through a variety of avenues that include formal written submissions, advisory roles, letters, articles, attendance at port meetings, workshops, interviews and committees.

Table 7 Summary of opportunities for Aboriginal commercial fishers to provide comment on fisheries management related issues and developments.

Process	Input Opportunity
Inquiries, Reviews	Marine Park Audit 2011
	Review of the NSW Commercial Fishery 2011
	Review of Recreational fishing 2010
	Standing Committee on State Development Report on Fisheries Management and Resource Allocation in NSW 1997
	Palmer Report 2004 Stephens Review 2007
Policy development, implementation, evaluation	Indigenous Fishing Strategy 2001
	Marine Park establishment Consultation state wide
	Seafood Industry Advisory Committee
	State Members of Parliament
	Minister for Aboriginal Affairs
	Commercial fishing reform consultation (DPI)
	Pymont Pact Reform Program (DPI)
	NSW Aboriginal Reference Group (DPI)
	Fisheries Management Advisory Committees
	Submissions to the DPI on:
- Section 37 permits - Share Allocation - Floating Skippers endorsements - Priority of shot - Block licensing - Buy outs - Crew allocations - Pini closure and Indigenous Advisory	

Process	Input Opportunity
Conferences, Workshops, Port Meetings	NSW Indigenous Fishing Conference 2004
	Indigenous Commercial Fishers Workshop 2003
	Indigenous aquaculture Workshop (hosted by DPI)
	Aboriginal Justice Advisory Councils, which led to the document, titled: 'Caught! Hook Line and Sinker: Incorporating Aboriginal Fishing Rights into the Fisheries Management Act 1994', published in 2003
	Symposium on Australian/Canadian Indigenous Peoples Aquaculture, Sydney 1999
	Aboriginal Development Business Program Workshop (NSW Trade & Investment)
	Fishing Workshops for Indigenous and non-indigenous youth

5.1.1 Management Advisory Committees (MACs)

Only 17% of ACF feel that their voice is heard in the existing MAC system, while 83% feel they do not have a voice in the industry and that they are poorly understood.

We need a voice to stay in the industry. We need to make sure indigenous communities always have access to our water resources.

(Participant 6, pers. com. 2011)

We need a voice! Cultural commercial² and commercial are not the same!

(Participant 21, pers. com. 2011)

Those who believe they do not have a voice would like to see an Aboriginal commercial fishing advisory group. All participants agreed that there are many more Aboriginal community members who would like to be involved in the commercial fishing industry. Many participants said that they have advised interested family and community members against becoming fishers due to the high cost of buying into the industry and the challenge of building an economically viable business while following cultural fishing practices.

Family and community have talent and are keen but all the doors are locked!

(Participant 26, pers. comm. 2011)

5.7 Issues identified by Aboriginal commercial fishers

Participants were asked to rank the top five issues they felt impacted their ongoing participation in the commercial fishing industry. In total, 174 specific issues were noted and these were amalgamated into 20 broad categories that included: access, cost, capacity, environment, awareness, consultation, culture and tradition, management, opportunity, value, training, compensation and shares.

The most commonly identified issue was access followed by costs, culture, consultation and environment (Figure 21).

² From participants points of view there is no distinction between fishing culturally and fishing commercially (see page 71)

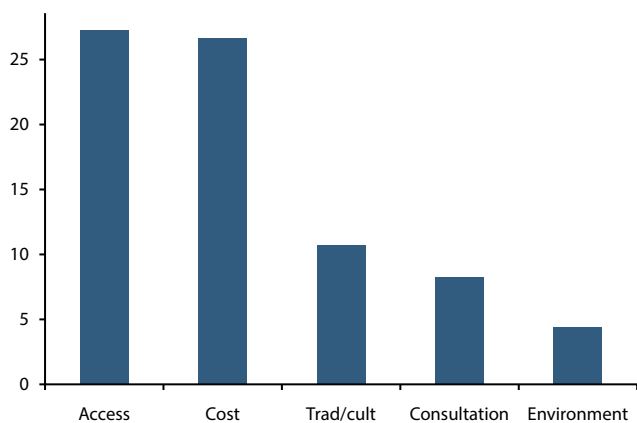


Figure 21 The top five issues identified by Aboriginal commercial fishers as impacting their ability to remain in the commercial fishing industry as a percentage of the overall number of issues identified (N=174).

Based on these results the research team sought to gain more insights on each issue through a series of individual and affinity mini group interviews with participants. Using the key issues identified in Figure 21, the researchers asked Aboriginal fishers to confirm the rankings and then to provide specific commentary on each. The results of these interviews are set out in section 5.8.

5.8 Individual and affinity mini-group interviews

The individual and mini group interviews were used to obtain detailed qualitative data in relation to the issues identified by participants in the questionnaire. This information specially relates to Objective 1 (Case study of Indigenous commercial fisheries in New South Wales), Objective 4 (Identify management changes likely to impact Indigenous participation in commercial fisheries and how they will impact) and Objective 5 (Develop strategies to ameliorate the impacts of management change on Indigenous participation in commercial fisheries). Interview questions were focussed on three issues: key impacts on commercial practice, future solutions, and historical and cultural accounts.

The transcripts of each interview were analysed in terms of the key issues identified in the questionnaire (see section 5.7). The results of the interviews are presented under the following sub-headings: access, cost, culture and tradition, consultation, environment and opportunity.

5.1.1 Access

Participants identified a number of issues around access, which were collectively one of the key concerns impacting their participation in commercial fisheries.

That's our number one priority – access to our fishery. The rest we can handle. Access is what we want.
(Participant 3, pers. comm., 2012)

Participants described a range of access issues that fell into three broad categories: access to sufficient fishable water; access to the commercial fishing industry; and access over land to water.

5.1.8.1 Access to sufficient fishable water

There was widespread concern about the loss of access to water as a result of fisheries management tools such as closures under marine parks legislation, recreational fishing havens and other special closures under Section 8 of the FMA.

My top two concerns impacting my participation in the industry are] loss of water under fisheries and marine park legislation, the section 8 closures and marine park fishing closures. Fisheries laws are number two.
(Participant 22, pers. comm., 2012)

Access to enough water was also an issue for participants in the inland fishery.

You can get a \$200 license to fish in the National Parks, but you can't fish where you want to fish. You want to be able to fish near nesting birds in order to catch yabbies, but [National Parks] don't want you there. So we've lost the water that we have always fished on.

(Participant 15, pers. comm., 2012)

Participants asserted that the establishment of Recreational Fishing Havens, Marine Parks, Aquatic Reserves and Section 8 closures have led to a significant loss of fishable waters. The impact of these closures is three-fold – they restrict Aboriginal commercial fishers from fishing in areas with which they have a long historical connection, impact on the economic viability of Aboriginal fishing businesses and restrict some cultural fishing practices.

When the marine park came in we lost 60% of our income. Not only that, but I fish the ways of my ancestors, by the moon, and my right to practice my traditional ways went too [because of the night closures].

(Participant 14, pers. comm., 2012)

If you've got access to good water you can cover your costs.

(Participant 31, pers. comm., 2012)

We are not allowed in the Tuross Lake. So we've lost virtually half our income because that's really where we worked. We virtually got half a year's wages out of the Tuross in a few days.

(Participant 5, pers. comm., 2012)

Participants in Region 7 observed that there have lost access to a disproportionate amount of fishable water through marine parks, recreation fishing havens and section 8 closures.

At the moment we've lost 90% of our water through marine parks and recreational fishing havens and Section 8 closures. What can we do? We live in an area and we've got to have somewhere to work. If Indigenous fishers are going to come up into the industry, the next generation, the first thing we need to do is get more water. The way to make the industry more sustainable is to give us more water.

(Participant 22, pers. comm., 2012)

Region seven has 16 out 32 recreational fishing havens in the state. Overnight, without consultation, we lost access to our traditional waters and our income.

(Participant 28, pers. comm., 2012)

This region is the worst in NSW for fishing closures, the river here has a year-round weekend closure on it and it is the first tidal river in the 75km of our region that Estuary General can fish. From here north is closed.

(Participant 4, pers. comm., 2012)

Participants were particularly perplexed by the logic behind marine parks, which are set up as a fixed area to protect resident species and habitat, but in so doing prevent Aboriginal commercial fishers from targeting species such as sea mullet (*Mugil cephalus*), a migratory species that passes through marine parks for a small period of time and can be caught with gear that has minimal impact on the environment.

With those marine park closures, they don't understand that the majority of the fish that we catch on those beaches are migrating fish so they should have nothing to do with that.

(Participant 27, pers. comm., 2012)

We use gear that has minimal impact on the environment and manpower. We have had local fisheries and marine park guys agree that we have the most sustainable and low impact methods.

(Participant 1, pers. comm., 2012)

Although participants had concerns about loss of access to other species in marine parks, sea mullet were the primary concern of many fishers because they are a culturally iconic species and are economically valuable.

Sea mullet are the most important species in this community. It made up for 60% of our income. We use the same methods we always have and our community relies on us.

(Participant 37, pers. comm., 2012)

While some participants criticised aspects of marine park management they nevertheless could appreciate the overall value of marine parks in the protection of biodiversity. However several voiced concerns about the lack of recognition of Aboriginal people with the marine park system and of the sustainable nature of Aboriginal fishing practices.

Personally I think marine parks are a good idea. Our people have worked to ensure our stocks are sustainable. It's our law. Thing is with marine parks the sustainable nature of our practices held no value in their planning. They forget we are part of biodiversity. Our people, our ways, our environment are all one.

(Participant 3, pers. comm., 2012)

Several participants observed that control of marine parks in New South Wales had been shifted from the Office of Environment and Heritage to DPI. Some felt this was a positive development, as they believe fisheries managers understand the impacts of certain gear types better than marine park managers.

In a way [marine parks being in the fisheries department] would be good because fisheries understand beach hauling. With beach hauling your net goes across sand and you're not ripping up the bottom. But marine parks managers don't see that. They just think your net's ripping the guts out of the bottom. It's the same with meshing, your net's shot off and picked up, not dragged along the bottom.

(Participant 22, pers. comm., 2012)

A few participants have been granted special permits that allow them restricted access to some of their traditional waters in certain zones within marine parks (under section 37 of the FMA). Those fishers who have been granted section 37 permits were nonetheless critical of restrictions placed on the permits. For example, some of the approved fishing locations, in their experience, are not the best sites for the particular method they want to use.

We got a section 37 on our traditional waters. But we've only got small stretches of our beaches and because they didn't talk to us they gave us areas that we can't use most of the year. Most of the areas we have access to have bad bottoms for hauling and aren't sheltered, so the fish run wide.

(Participant 2, pers. comm., 2012)

Several participants complained that the permits must be renewed annually and that they attach to the individual fisher's name which cannot be transferred. Participants explained that this impacts the commercial value of their shares and prevents them from passing on their knowledge related to those parts of their traditional estate within marine parks.

My business and knowledge dies with me; there is no other option. I alone am permitted to access traditional water. Fisheries won't let me pass it on. Where does that leave my community? I am the last. It's who we are. Something has to give. They can't kill our culture.

(Participant 14, pers. comm., 2012)

We got a section 37 to fish in the marine park. We have to renew that every year and put in a separate application. We've had ours since the marine park was gazetted. But if we hand the licence on our boys can't get one. They have said they won't give anymore out.

(Participant 1, pers. comm., 2012)

Many participants also raised concerns with the current zoning system that fails to reflect cultural boundaries. Several of the New South Wales coastal fisheries are split into geographical regions and access is generally limited to a single region. Most participants complained that they have lost connection to parts of their traditional waters as a result of this system.

We're connected to that water as much as we are that land. They may draw a line in the water, but we don't recognise that as our cultural boundaries. We use that resource for 90% of our existence. Fisheries need to start recognising our cultural boundaries.

(Participant 32, pers. comm., 2012)

Not only have Aboriginal commercial fishers lost connection to parts of their traditional waters, but some Aboriginal fishing families can no longer fish together because their endorsements are in different regions.

We're in zone 4 and this is zone 3. The zone line divides the verified nation straight down the middle. [My brother] can't come over. He can't go down. He could go anywhere he liked before the licences came in. In the mid-nineties they brought a date line on the zones. They didn't care what you done if you fished before that date. That didn't matter. Like me coming up here. I missed out, but I had the history of the catch return. Now they done a catch return and thrown it out of the books because new people are coming to the game and they want an even playing field. We should have been given a traditional licence from a certain time.

(Participant 31, pers. comm., 2012)

We're in region 4 and this is region 3. The region boundary divides the verified nation straight down the middle. So my brother can't come over and fish with me.

(Participant 33, pers. comm., 2012)

5.1.8.2 Access to the commercial fishing industry

Another access issue raised by all participants was access to the commercial fishing industry in terms of new Aboriginal fishers joining the industry. The future of Aboriginal participation in commercial fisheries is dependent on younger Aboriginal people being able to buy shares and fishing businesses. Yet the lack of availability of shares and high cost of available shares, coupled with the absence of funding or training programs to support Aboriginal people to enter the industry, are barriers.

Our mob has come to me so many times looking for a job. They are good fisherman. They are only young boys but I can see the potential in them to be proper fisherman. They know and have worked with us. They're very keen. They've got talent and there's no way in hell that I can help them. The only thing I can say is, "You've got to go and buy a licence". But where can they go to get a loan to get a licence? They've got no collateral for a start. All the government says is, "Yes we can do that and yes we can do this", but there is no open door there. All doors are locked!

(Participant 33, pers. comm., 2012)

We need to train. The asset is worth nothing if no one is working it. We want it to stay in the [Aboriginal] community. But the risks and costs are too high without the training. The gear will get ruined and the ocean, without skills, is a dangerous place. Many experienced fisherman have been lost to the sea.

(Participant 37, pers. comm., 2012)

Many participants complained that the effort restrictions in the EGF and OHF prevent them from using community members as temporary crew. This in turn prevents the transferral of practical and traditional knowledge from the fishers to a motivated younger generation.

We can't even get one of our young fellas on the beach or boat. How are they meant to get the knowledge to succeed and, not only that, to stay safe? There's no way forward for us.

(Participant 12, pers. comm., 2012)

With no new Aboriginal people entering the industry, participants were concerned about the future security of their community's access to culturally iconic species, as well as their ability to maintain traditional knowledge and cultural practices integral to their identities as coastal Aboriginal communities.

With me out of the industry that means my community loses access to resources. This has never just been about money. It's bigger than that. It's my role in the community to make sure we have access to fish. We need a way for young fellas to come in or we will all suffer.

(Participant 37, pers. comm., 2012)

Community can't get into commercial fishing; there are no avenues. How are we meant to pass down knowledge?
(Participant 27, pers. comm., 2012)

When access stops you lose the opportunity to pass your history on.
(Participant 14, pers. comm., 2012)

5.1.8.3 Access over land to fishable water

Accessing fishable water across land owned by National Parks, local councils, Crown land and private land was also of concern to participants. Participants complained that many of their historical vehicular access paths to beaches have been restricted³.

The beaches are taken off you by marine parks or national parks and councils. There's still places open along the coast where we can go and tracks we've always used, but then the track might go through the national park or marine park and they drop a log across it and we can't get down and go to work.
(Participant 18, pers. comm., 2012)

Some access paths have been restricted with locked gates. While participants can apply for keys to access these paths they must pay for the privilege. The cost of keys is not high but, as several participants observed, the costs



Haul of mullet, caught during the seasonal run on the far south coast of NSW. Photo: Jessop family

³ Although legally fishers have the right to access fishable waters, this is often hindered or not physically possible because of gates, the erection of fences or private property boundaries.

escalate when you have to buy keys to unlock gates at multiple locations. Some participants also reported locks being changed without having been informed of the change and of locks being tampered with.

They call it a public resource, yet we pay access to work it and get to it. We pay more money and they take more away. We pay for the access keys on land and they get changed or filled with super glue, just because we pay for access does not guarantee us a thing. Not on land or water.

(Participant 22, pers. comm., 2012)

5.1.2 Costs

All participants (except one) raised costs when asked to list their top five barriers to ongoing participation in the commercial fishing sector. Concerns were centred on the rising cost of management (such as commercial licences, boat licences, community contribution fees, structural adjustment fees), fuel costs, equipment and maintenance, price of product and cost of endorsements.

5.1.8.1 Management costs

Participants agreed that the rising cost of management and fisheries charges impacts the economic viability of their businesses. Fees have steadily increased over the last 10 years and in the opinion of participants this has been the main reason for the loss of other Aboriginal commercial fishers from the industry.

I'm paying a fair bit because I've got five registered boats; so I'm looking at over \$500 there for the boats. Then I've got maritime fees on top of that for three of the boats because they have motors. Then I've got licence fees and they're going up again. Before, if you had more than one business you only paid about \$800 and then a smaller amount for other ones, but now you have to pay \$800 for each business; that's why I got rid of one of my businesses.

(Participant 37, pers. comm., 2012)

Participants felt it is unjust for them to have to pay management fees to access what they consider are their traditional fisheries resources.

You know what's crazy? This is our peoples' resource and yet we pay to fish it. Even worse we pay a community fee. That is ridiculous. We support our community. They have always come first. We pay for management; well they've never got that right. It's a part of who we are to protect and manage this resource, yet they never ask us and when we tell them about the problems they don't listen or understand.

(Participant 23, pers. comm., 2012)

Another thing with that licence, why should we pay a commercial licence when it's an Aboriginal fishing licence? It's not a whitefella licence, it's an Aboriginal fishing licence. It's our fishery.

(Participant 37, pers. comm., 2012)

A number of participants strongly questioned why Aboriginal commercial fishers are required to pay the annual "community contribution fee" when they already support their communities by providing catch.

Why should we have to pay a community [contribution]? That is one of my biggest arguments. Our argument is we supply fish to the community so we're doing them a favour from the start.

(Participant 36, pers. comm., 2012)

5.1.8.2 Operating costs

The rising cost of fuel is affecting all participants. Several participants observed their operating costs have increased as a result of closures and zoning restrictions, which mean they must drive longer distances to access fishable water or. In one case, a participant was forced to relocate to a different part of his region, off his traditional country, to save on operating expenses by being located closer to fishable waters.

I fished on the beaches my family fished on for generations. When the marine park came in I lost access to my country. I was driving 100 kilometre round trips, sometimes more, to get worms. The only way I could feed my family was to move to the southern reaches of my region and leave the country that I'm connected to.

(Participant 18, pers. comm., 2012)

There was also much frustration expressed by participants at the ongoing incremental creep of additional new fees just to stay in the game. For example, participants talked about the fact that they have to pay gate-access fees to local councils, National Park and private landowners which can be as much as \$250 per annum. Participants also felt that it had become more expensive to purchase and maintain equipment such as vehicles, nets, traps and multiple boats.

Normally we only get a season out of our motors so just to maintain them. Like to make a net you're looking at four or five thousand plus to build a net. You can do one haul and rip the guts out of a net and its rooted. You can't do nothing with it, just got to put a new net in. So it's getting harder for what we get out of it.

(Participant 33, pers. comm., 2012)

5.1.8.3 Infrastructure costs

Aboriginal commercial fishers are dependent on seafood supply chain infrastructure to distribute their products, in particular the transport network and fishing cooperatives. Participants spoke of the impact of rising fuel costs on their freight charges. In several cases the cost of freight exceeded the retail value of the product at market.

Issues with trucks and freight is a big concern. This time of year down here we only catch salmon but when you pay \$14 a box to get them to market and commission you get very little back.

(Participant 27, pers. comm., 2012)

All you can do is laugh when you send a truck full of product to the market and you get a bill for \$3.12 back. We are talking two days work and you still owe them a coffee! You're product sale doesn't cover your freight. It's a joke.

(Participant 7, pers. comm., 2012)

The costs associated with fishing cooperatives, including membership fees and charges for ice and crates, have also increased. Although recognising that cooperatives are an important part of the industry, some participants indicated that they can no longer afford to distribute through their local cooperative.

It used to be the co-op worked with you and for you. Now they cost you money and give you nothing and that's if you are lucky enough to still have one in your area.

(Participant 24, pers. comm., 2012)

We don't bypass our cooperatives. We need co-ops because it's infrastructure. We need it. We put excess fish through the co-op. So we check out the price and some weeks we have a quiet week and some we have enough fish. But the price means everything and that's what we follow.

(Participant 3, pers. comm., 2012)

Loss of infrastructure along the supply chain is also a problem. For example, one participant referred to a local cannery that catered to the salmon industry on the South coast. The fishers could directly sell their product to the cannery and freight costs were minimal. The cannery closed as a result of gazetted closures of some local fisheries, which significantly reduced the volume of salmon being harvested.

5.1.8.4 Viability

While the management, operating and infrastructure costs associated with getting seafood from the source to retailers has increased, the market prices of seafood have remained steady or decreased in some instances. As a result, many participants felt that it is not worthwhile to work their fishing endorsements.

At the moment I'm not prepared to break my back for 60 cents a kilo. This is ridiculous. And the price is getting less and less and less.

(Participant 2, pers. comm., 2012)

I can't see beach hauling going for much longer. Down the track with the fees, what we are getting back out of it, it's worth nothing these days.

(Participant 9, pers. comm., 2012)

With the prawns I might make \$10,000 and that will carry me over. It might pay my fees. But the bread and butter is not easy. A lot of young fellas think you can make good money. But I say to them that you've got to work hard and if I were you I'd be looking for another job. I like fishing but at the moment it's the infrastructure and the water that you need.

(Participant 4, pers. comm., 2012)

I haven't got a deck hand because I can't afford one. They get 20% and then the co-op takes 24%. The prawns would not cover the fuel in the end. Imported prawns are killing the industry. It costs me \$400 a night to trawl.

(Participant 24, pers. comm., 2012)

While these issues may be common to both Aboriginal and non-Aboriginal commercial fishers, participants explained that the Aboriginal commercial fishers felt the impact more strongly because they have a smaller profit margin than non-Aboriginal fishers as a result of their cultural obligations including cultural fishing practices (such as seasonal fishing) and the duty to provide their communities with seafood.

We are commercial fishers. We are bound to our traditional lore, knowledge and our people. We will never say no and we will always share our resources with our people. As a result, economically the value of our business means little. To our community it is our identity, and connection. It's who we are.

(Participant 27, pers. comm., 2012)

5.1.3 Culture

Many fishers past and present state that fishing is their entire identity, it defines who they are and in many cases generations of family before them. Having a commercial fishing licence enables Aboriginal people to derive a living and practice their culture at the same time.

I was born a fisherman. The saltwater runs through my veins, same with my father, my uncles and my boys. It's who we are and we will die fisherman

(Participant 27, pers. comm., 2012).

We need to stay in the industry. It's who we are. Where else can you practice culture for a living?

(Participant 29, pers. comm., 2012)

Throughout history our whole family have been there throughout seasonal runs. Everyone from the community.

These were huge community congregations to pass down our knowledge and our culture.

(Participant 36, pers. comm., 2012)

Aboriginal commercial fishers do not just see themselves as commercial fishers and most do not make a distinction between being a commercial fisher and a cultural fisher. They have different motivations for being in the industry compared with other commercial fishers.

People stay in the industry to ensure that they keep a connection with sea country, no matter how hard life is.

(Participant 14, pers. comm., 2012)

We're all in fisheries because it's culture.

(Participant 8, pers. comm., 2012)

Although in a commercial industry, many Aboriginal commercial fishers do not view themselves as purely businessmen and they continue to fish in accordance with cultural tradition.

Traditionally we fished four to six months a year. I kept that out of respect to my elders and to my country.

(Participant 1, pers. comm., 2012)

Blackfellas have always been conservationists. They are roamers. They went where the food was and conserved their food. They never, ever [over] worked it and we never, ever will. It's our culture.

(Participant 23, pers. comm., 2012)

Aboriginal commercial fishers are a central part of coastal Aboriginal communities and view themselves as supporting the health of their communities by supplying fresh seafood.

We want to make sure that our community can have access to their cultural foods without which they get sick like I did.

(Participant 2, pers. comm., 2012)

It's about our tradition and our culture. If we can't catch anything it's going to kill us. Traditionally we give food to our people, like we have for many years, and this has kept our people alive.

(Participant 34, pers. comm., 2012)

Sharing of the catch is an important cultural tradition practiced by the majority participants. The amount of catch shared with community varies among participants, but in some cases it is a significant portion.

When I was catching sea mullet I was giving stuff away. I've sent fish from here over to the elders on the other side of Lismore. They used to come here and get fish. They'd say, 'Oh we've got a party or a wedding or funeral going on over there.' I'd send a heap of fish over.

(Participant 37, pers. comm., 2012)

You don't know how many people will turn up. They'll take 30, 40 or 50 kilos and they'll share it between family. If you've got fish, you say take what you want. So they take as much as they can carry. Their legs bow out like this!

(Participant 3, pers. comm., 2012)

Sometimes we go fishing and if we don't catch a real lot then the community gets all of it.

(Participant 22, pers. comm., 2012)

If I caught ten boxes of mullet I'd keep them. If you got two truckloads, why not keep some and give it away to the community?

(Participant 28, pers. comm., 2012)

These cultural factors create a challenge for Aboriginal commercial fishers – to operate economically viable fishing businesses while still respecting 'country' and staying true to culture.

This isn't for the money. Last year I made \$1,200 and that's because I fish when the fish run. I can't fish when the fish stop running. That's going against my culture.

(Participant 2, pers. comm., 2012)

Us Kooris have been doing it this way forever. We fish for the seasons and only in seasons. We make sure our stocks get a break and we protect our nurseries. We'd have to break our traditions to make enough money in this modern day. If we have a bad year we have to pick up other work. We go against the economy before we go against our culture.

(Participant 1, pers. comm., 2012)

Many participants strongly asserted that current regulation of commercial fishing, including water closures, rising costs, and the 'priority of shot' rule in the OHF has impacted on their ability to meet family and cultural obligations.

If we can't catch anything and costs are killing us, we can't traditionally give food to our people like we did before.

(Participant 31, pers. comm., 2012)

The community is losing out because we can't access mullet because we can't hold a shot. [When I could hold a shot] I would make sure that the community were fed before I sold a thing.

(Participant 37, pers. comm., 2012)

A number of participants were concerned about the way current fisheries management regulations exclude family and community from cultural fishing practices. This was especially the case in relation to the OHF.

Families used to come down and help us and now, under fisheries legislation, if anyone comes near your net we are fined and that's completely wrong.

(Participant 37, pers. comm., 2012)

This is who our family is. We are bound to the sea and we have fished together traditionally forever. But when fisheries decide to change our industry they divide us in a way that defies our culture.

(Participant 27, pers. comm., 2012)

Fisheries laws make traditional practice illegal. I want my family to be involved. This [fishing] is who we are.

(Participant 1, pers. comm., 2012)

These regulations have a serious impact on the ability of Aboriginal communities to maintain their cultural identity and cultural practices.

We've got to let family be involved. At present family exclusion is the biggest impact on our culture.

(Participant 3, pers. comm., 2012)

Community hauling. Our community misses out and its part of our history. They are wiping out our culture.

(Participant 28, pers. comm., 2012)

We are family fishers. We have been for six generations. But we have no way to teach the seventh.

(Participant 33, pers. comm., 2012)



Community contribution: local children collecting fish to take home to the family on the south coast of NSW. Photo: Jessop family

My father took me to Watson's Bay and out to Foster and other places as a father and cultural man. Now if I go there with my son I'll be hit with a fine.

(Participant 31, pers. comm., 2012)

5.1.4 Consultation

All participants indicated they feel like they have no voice in the commercial fishing industry as Aboriginal commercial fishers. They thought the lack of targeted consultation with Aboriginal commercial fishers is a result of the lack of acknowledgement of Aboriginal people in the commercial fishing industry. Some highlighted the need for broader industry and community education about their dual role as both cultural *and* commercial fishers.

It's our industry as Aboriginal people and it's the community's lifeblood. We have screamed about the impact of fisheries rules yet, I believe, never been truly understood. There's a difference between us and the non-Indigenous fellas. It's our cultural role to support our people. We can't do that if no one listens or understands.

(Participant 32, pers. comm., 2012)

We need a voice. Cultural commercial and commercial are not the same!

(Participant 20, pers. comm., 2012)

While participants have repeatedly engaged with various consultation mechanisms they feel that their contributions are rarely listened to or understood and, as a result, their issues remain unresolved. This was especially so in relation to marine parks and recreational fishing havens.

I had a meeting with them when the marine park first started coming in here. They said to me, "If you don't mark down on the map all these important places where you do your cultural fishing you will lose it and you got no argument against it". I said to them that we had done meetings with fisheries before and whatever we told them what we wanted, those were the first things to be forgotten. So I marked it down on the map anyway and we still lost important beaches.

(Participant 27, pers. comm., 2012)

We marched from government house down to the offices in downtown through a wall of cameras. It was a protest meeting about fishing. I went to the court case; it was an environmental court challenge. The issue was the closures they were putting in place in the river system. [There was no consultation with blackfellas]. Never come near me in 50 odd years. Fisheries took this amateur down there and he detailed where the closures would go.

(Participant 12, pers. comm., 2012)

In relation to Section 8 closures under the NSW FMA 1994 the situation is even worse as there is no statutory requirement for consultation.

It takes a signature of a person we don't even know and have never met and our rights to access our land and water are gone. Section 8 closures and recreational fishing havens are killing our business and limiting our access for communities.

(Participant 28, pers. comm., 2012)

Participants also expressed a serious lack of confidence in the NSW MAC system. Criticism ranged from the MACs being a 'tick a box' exercise for government to say they have consulted with the industry, to MAC members acting in their own self-interest rather than on behalf of all fishers.

Well the thing of it is, I felt that it's only an avenue there to make fisheries management legal. The voice? We're not getting a proper voice.

(Participant 23, pers. comm., 2012)

They never did anything for us. They represent themselves. They don't even call a meeting to ask whether we want to go to one. They're supposed to represent us.

(Participant 25, pers. comm., 2012)

While participants acknowledged that there is a dedicated Aboriginal position on the MACs, they felt the single Aboriginal voice was lost among the numerous non-Aboriginal voices on the MACs.

What they did was put one Indigenous person into the MAC and he had to speak for everybody. He just got shot down.

(Participant 36, pers. comm., 2012)

I like the idea of an Indigenous MAC but doubt that it would yield power. I think the Indigenous member would be overridden within the MAC because there is very little power and a voice that is not understood.

(Participant 3, pers. comm., 2012)

A number of participants also stressed the importance of the Aboriginal MAC member having knowledge of the commercial fishing industry to be an effective advocate for their interests.

You have to have someone on the MAC that knows about it all. So we definitely need somebody. We definitely need a voice. We need a voice. We need it Indigenous. We need culture, history and someone that's got a bit of know-how.

(Participant 37, pers. comm., 2012)



Aboriginal commercial fishers from throughout NSW gathered for a forum at Tweed Heads with DPI representatives and researchers, 2012. Photo: SCU research team

Overall participants felt that there was a need for a better mechanism for Aboriginal participation in decision-making processes. Some suggestions included a commercial Aboriginal fisheries advisory council or an individual Aboriginal advocate acting as a conduit between Aboriginal commercial fishers and DPI.

5.1.5 *Environment*

Participants identified a number of environmental factors that impact on both their participation in commercial fisheries and their community's access to resources, now and in the future. Several participants felt that some fishing management approaches have led to a concentration of fishing effort, which is impacting the carrying capacity of the environment.

There are too many people accessing the same resources. Amateurs and commercials, heaps heavier impacts since marine parks.

(Participant 8, pers. comm., 2012)

Current regulations force us to fish on top of each other. We have so little water that the pressure not only placed on the resource but on the entire environment surrounding that access is placed under pressure. We worry about this because it is changing our systems.

(Participant 33, pers. comm., 2012)

A number of participants were concerned about the impact of pollution, especially those fishers located in regions with mines.

Environment is the key. If your water quality is pristine you've got no dramas. Mining is a massive impact here. We can see the changes. We want to be part in making this better. At present internal [mining] guys do the water quality testing. We need to be involved. This is affecting our community.

(Participant 32, pers. comm., 2012)

Boat cleaning and sand dredging for quarries is sending our waterways milky and fertilisers from farms are giving our fish lesions.

(Participant 20, pers. comm., 2012)

The impact of pollution on Aboriginal commercial fishers was described by some participation in environmental and cultural terms.

This is our river. You can feel your river. It's not just a seeing thing, you can feel it. I know there's something wrong and I can feel it. Something is not right.

(Participant 31, pers. comm., 2012)

The poor quality of water in some regions has already pushed some Aboriginal aquaculture operators to relocate their businesses off traditional country to more pristine regions, in order to remain viable in the industry.

We have been oystermen our whole lives. But a big threat to our industry has been pollutants. This is the sole reason that we have moved off country to operate our business. The waters of the north are no longer pristine and to be viable in this industry we needed to head south.

(Participant 30, pers. comm., 2012)

Weather, currents and swell size dictate access to resources in all NSW fisheries, while extreme weather events can impact on participation in the industry for extended periods of time.

Floods during seasonal runs can mean a short or poor season. These seasonal runs are what ocean haul fishers rely on. This is the same with swell. If the swell is out of control we can't get to the fish, even when they are running.

(Participant 11, pers. comm., 2012)

Drought is a part of the inland game, but a 10-year drought is something else. Followed by two years of black water, which poisoned our entire fish population. This was a direct result of poor land use management. This kept us out of the water continuously for 12 years.

(Participant 15, pers. comm., 2012)

Participants in the aquaculture industry reported that flood and heavy rain events had resulted in mass kills.

If there is heavy rain or big swell the river mouth can shut for up to six months. That's a loss of revenue for us. Not only that, we can lose our entire stock.
(Participant 29, pers. comm., 2012)

Yet participants observed that they do not receive any compensation or support in extreme circumstances, unlike other primary industries.

We get nothing compensation wise when it's not our fault. Every other primary industry can access compensation as a result of extreme weather for prolonged periods.
(Participant 16, pers. comm., 2012)

Participants emphasised the interconnection between Aboriginal cultural practice and the environment. They feel that to protect the environment we need to protect their connection to the environment.

We have to argue there's an impact on sites but not just sites, whenever it comes to environmental issues people look at the impact on sites but to me that's one part of it. The other part is culture. The living part of culture is being connected to environment.
(Participant 12, pers. comm., 2012)

5.1.6 Shares

The majority of participants were unsatisfied with the implementation of share management fisheries in New South Wales and were also concerned about how shares are being used to manage fishing effort generally. Concerns were particularly focused on the marginalisation of Aboriginal fishers when endorsements and shares were first allocated. All participants said they felt disadvantaged by the share allocation and appeals processes. Many felt that the shares they were allocated were not enough to meet their community's needs and others felt they did not get what they were entitled to.

I didn't get a full licence when I was told to because I thought it was my right as an Aboriginal to fish. Then when I was forced to I was only able to get one share for worms. I've had a very hard time telling my people that I can't get pipis for them when it's my family cultural obligation.
(Participant 18, pers. comm., 2012)

Several fishers also reported being unaware that share management was being brought in, until they were informed by compliance officers that it was illegal to continue their usual activities without a licence and sufficient shares.

I refused to get a licence because I am a Goori and it was my right to take our resources. After a while I got warnings from the local fisheries officer so I went and got one.
(Participant 8, pers. comm., 2012)

5.1.8.1 Endorsements and provisional share allocation

When share management was introduced, endorsements were issued and provisional shares allocated in each fishery on the basis of a fisher's validated catch history. Endorsements were issued based on what fishers had been catching. Shares were allocated based on how much fishers had been catching. Aboriginal commercial fishers reported numerous issues associated with validating their catch history and described being disadvantaged in the administrative and legal processes associated with validating catch history.

When it came to the court appeals, in some areas we were lucky because unlike a lot of other Aboriginal commercial fishers our catch history spoke for itself. But I remember others that fished with us, that couldn't read or write, had nothing to fight with. And their families fished for generations like us. They got dribs and drabs but nothing that could keep them going.
(Participant 24, pers. comm., 2012)

Many participants described having limited understanding of the full scope of the management changes that would determine their future access.

When the industry changed we didn't see it coming nor did we have any idea of the impact it would have on us. We are fisherman plain and simple. We are not businessman and the thought of paper and trying to read something so complex makes my belly churn. We spent our childhoods on the beach, not in school and we learned our traditional ways, not white ways.

(Participant 3, pers. comm., 2012)

Lack of documentation was a particular issue in relation to hand gathered species, especially the pipi which many participants referred to as a culturally iconic species. Some participants were at a loss to understand how so many Aboriginal fishers missed out on hand-gathering endorsements.

None of our Indigenous fishers down here in Region 7, when the share management came in, not one got a hand gathering endorsement. We live off pipis.

(Participant 13, pers. comm., 2012)

There wasn't a blackfella along the coast that didn't collect pipis. It's our bread and butter. Back then we were the only ones that ate them. I can't for the life of me understand how our fellas missed out on endorsements.

(Participant 23, pers. comm., 2012)

Participants indicated that many Aboriginal fishers were not registered in the commercial sector because they were operating in the OHF as crew members, where they were not required to hold a commercial licence and so were not required to report their catch. These fishers had no way to validate their catch history.

A few Aboriginal commercial fishers were under the impression that Aboriginal people were exempt from holding a commercial licence in some fisheries, especially those related to hand gathering, and therefore were not reported as commercial operators or recording catch data. Many Aboriginal commercial fishers distributed catch to the community and sold portions of the catch informally through roadside stalls. These fishers also had no way to validate their catch history.

An issue for some licensed Aboriginal commercial fishers was the format of the daily catch and effort recording sheet, which was not set up to record specific data on hand gathered bait species. Several participants explained that they reported the hand gathered bait species in the "other" category and so had no way to validate species such as pipis. Another issue with the daily catch and effort record was that it did not allow fishers to record the disposal of catch other than by commercial sale. This meant that the disposal of catch for personal and community use went unrecorded.

One participant spoke of being refused a hand gathering endorsement because he had no recorded history of selling pipis. The participant asserted that he always collected pipis, but had not reported it because his catch was primarily used for personal and community purposes. The participant appealed the decision but was unsuccessful despite the tribunal accepting the participant's evidence that he had been collecting pipis for cultural reasons.

Some of the hand gatherers with no validated catch history were, however, given a one share hand-gathering endorsement. In one case, this endorsement was restricted to beach worms only.

They said cause I didn't have history all I could have was one share to catch worms. I didn't even know what history was. I used to make sure the community always had pipis and after that day I had to say no. It almost killed me.

(Participant 18, pers. comm., 2012)

There's a couple of boys with one share. With a one share you can't sell because it's not a full endorsement. But a lot of these guys are Indigenous. They fell behind when people got catch history and also they're Indigenous and went "We don't need a licence, we're indigenous" and stood by it. When it came to it and they got fined, the boys went "No, we can do it". We are Indigenous and this is our cultural right". So they ended up with one share. Now it's not worth anything. There are still some in certain fisheries that have got trap and line, that have got 10 shares and their licence needs to be more. They fall in that grey area before they put the shares up and they can still use them until time comes when they have to pass them on and they're not worth anything. Not transferrable.

(Participant 24, pers. comm., 2012)

Aboriginal commercial fishers were also disadvantaged in the catch validation process by their practice of distributing a portion of catch to their community, which was not reported, and resulted in some fishers just missing out on endorsements because they fell below the minimum catch required to be issued an endorsement.

We missed out on abalones and lobster because we took them according to culture, which meant we only reported half because we made sure the community was fed first and there was no ticker box for that. We were taught to protect [the resource] because that's the thing that looks after us.

(Participant 1, pers. comm., 2012)

Other Aboriginal commercial fishers, who had also been operating without commercial licences, were able to find some evidence to validate their catch history. These fishers were generally people who conducted some external sales in addition to providing for their community. Through the appeals process these fishers were able to establish that they had sold certain species and their catch was estimated. These Aboriginal commercial fishers were allocated shares, usually below the minimum share level. In these cases, where fishers were allocated less than the minimum shares, they were still granted access to the fishery as "original entitlement holders". However this access entitlement cannot be transferred or assigned. For a new owner to utilise these shares they would need to buy up to the minimum level. Many participants complained that this meant their shares were of little economic value.

I pay the same as what other fellas that have unrestricted hand gatherers licences pay. But when I go out of the business it's worth nothing to me or my family.

(Participant 18, pers. comm., 2012).

Unless you've got those 125 shares you can't get your licence without it. If it's your licence it's alright but as soon as you [sell it] you have to chase up another 75 if you've only got 75.

(Participant 28, pers. comm., 2012)

I got eight endorsements but six are below the minimum shares. I can still access three of them but once it leaves my name someone will have to buy up to use them. Our fellas can't do that.

(Participant 14, pers. comm., 2012)

Some participants felt that they could not meet the criteria for shares and endorsements because there were cultural aspects to their fishing (such as seasonal fishing and target species diversification) that disadvantaged them.

I don't like the way they brought out the criteria there before. Because when we used to go out fishing we used to go fishing for a half day and if we didn't catch fish we'd come home and grab our diving gear and go catch lobsters. They brought out a criteria where you had to have 600, or whatever it was, and we missed out by 17 kilos.

(Participant 27, pers. comm., 2012)

Participants also described having issues with the period in which catch history was validated. Catch history was validated over a period of three consecutive years. Some Aboriginal commercial fishers had small reported catch histories over this three year period, and so missed out on shares and endorsements, because they had other cultural obligations more important to them than their fishing during that period.

I missed out on the catch history caper. I caught heaps of fish either side but was on walk-about for a year in the middle. How is that right? We've been doing it our whole lives.

(Participant 31, pers. comm., 2012)

I went up to Cairns for a few years and when I came back I missed out on a few months.

(Participant 32, pers. comm., 2012)

One participant highlighted the unfairness of this process given the long history of Aboriginal people in fisheries.

The people who have history in the game, traditional fishing, most of them are Koori fishers who have been in the game for over 30 years. They haven't missed out on a catch history. It's built up.

(Participant 12, pers. comm., 2012)

In some cases of provisional share allocation, Aboriginal commercial fishers reported being allocated the minimum shares despite having a large catch history that they believe should have entitled them to more shares. One participant decided not to contest their allocation on advice from a local fisheries officer who informed them that they had received the maximum shares in this fishery and they would never need anymore.

The fisheries swore that in the Estuary General fishery that we were getting the maximum shares. That we would never need anymore. Now we sit on the minimum shares and we had huge catch history. I contested other things, I would have made sure that I contested this.

(Participant 3, pers. comm., 2012)

Participants sitting on minimum shareholdings are now concerned about fisheries proposals that would link shares to effort and/or quota.

5.1.8.2 Splitting family fishing businesses

When shares were introduced, a number of Aboriginal commercial fishing families that had operated one fishing business were forced to split into multiple fishing businesses. Several participants reported problems with way these businesses were structured and the shares allocated between family members.

They broke [the father-son licenses] up but they are all still on the same business. So some of them said you can't have father-son licenses anymore so we will put you into the one business or they separated them into a business each. They then had to pay for a business each. They were not given. So a lot of them said "No, we are not having a business each. We will have one business with two lots of shares". There are still a fair few of those around. Most of the Indigenous licenses were all families.

(Participant 9, pers. comm., 2012)

This became a particular problem in the OHF, where former skippers were allocated more general ocean hauling shares than crew. Former skippers were also allocated the general ocean hauling net shares, which other general ocean hauling shareholders are reliant upon to access the fishery. This restricted and divided once equally shared, family operated businesses. This also meant that family members who only hold general ocean hauling shares are reliant on the presence of the family member with the general ocean hauling net shares to derive an income.

When share allocation came in, well before, me and my two cousins worked a business all equally. Then when they allocated [shares] they split them up all uneven. So my cousin ended up with more shares than my other cousin and I. That was not their decision to make. Our family has fished together equally for generations. They made one of us worth and responsible for more from that day on because they made him the skipper we could no longer fish the beach without him. That's not how our culture works. We share roles.

(Participant 27, pers. comm., 2012)

Several Aboriginal commercial fishing families challenged the division of their family business and were able to have their businesses structured so that each family member had equal shares and equal entitlements.

In the provisional part when they brought in shares they only gave us one business. Well I went straight back to them. We were operating as father and son. We went through the whole appeals stuff. It went straight over my head. I'm just a fisherman, but my wife was clued in. We told them our case and as a result we got two equal shared businesses. Though we were sure we were entitled to more shares than we got.

(Participant 24, pers. comm., 2012)

5.1.8.3 Future changes

Participants were very concerned about the possibility of future increases to minimum shareholdings. Several expressed the opinion that Aboriginal people should be exempted from having to buy up shares to retain access, on the basis of their longstanding history in fishing.

To make fisherman have to buy more shares, who were allocated the right shares from the word go, to stay in the fishery, with our kind of history that is just not right.

(Participant 36, pers. comm., 2012)

What we don't want is the shares to be increased and you've got to go with it. For a traditional fisherman that's been in the game a long time he shouldn't have to buy more shares to stay fishing.

(Participant 12, pers. comm., 2012)

They already made the decision of giving people shares and that was the decision. They got away with catch history because they didn't want to handle it. So now they shouldn't be able to increase it. People have been in the game all their life. Those who have been in there should have got 125 shares with each endorsement. That's what you're supposed to have.

(Participant 34, pers. comm., 2012)

Several participants commented that the minimum shareholding has already been raised in some fisheries, such as OTLF.

They keep raising the bar for endorsements. I am continually eroded, ripped off and out priced. I seem to meet the bar and then the bar rises again.

(Participant 24, pers. comm., 2012)

They keep raising the bar. I have had four court cases but never felt like I was truly heard. I have paid ten thousand dollars for extra shares just to make sure my son and I would be all right. But I often questioned why there is no security in it. Fisheries could shut it down tomorrow or the pipis might disappear again. Then what we are left with is a licence that's not worth a cent. I lost trap and line and ocean prawn trawl. All that's left is hand gathering and prawn trawl.

(Participant 24, pers. comm., 2012)

Some participants felt that the share allocation system does not suit Aboriginal commercial fishers, who are not interested in growing bigger, but just want access to the resource. Participants expressed serious concerns about the economic viability of the "Aboriginal fleet", some felt that buy-outs are the way out for the current generation of fisher.

Buying up shares suits the big boys, not the little fella, the battler.

(Participant 20, pers. comm., 2012)

Unless we can get some kind of representation and some action the deadline is the buy out. Could be months away or could be years. That will be the time when Indigenous fishermen will no longer fish in these rivers.

(Participant 33, pers. comm., 2012)

There were also serious concerns about the fairness of current proposals in accordance with the Pymont Pact that would link shares to effort or quota.

You can't have quota control on a fishery for the simple reasons you don't get a standard price for your fish. You would starve to death. If you were only allowed to catch five tonne of mullet and you only got a dollar a kilo, you would starve to death.

(Participant 20, pers. comm., 2012)

If we went back to the quota system I would not catch mullet when they're cheap as dirt. I'd wait until the summer months and catch my quota then. [What about your income?] Well then I'll go on the dole.

(Participant 36, pers. comm., 2012)

Participants stressed the importance of Aboriginal commercial fishers understanding future changes in the industry and the impact these changes will have on their businesses and communities.

We need to understand things that are going on in our industry. Fully understand them. When they are going to happen and how, exactly, they will affect our business and, as a result, our communities. We never know anything until we are getting a fine for it.

(Participant 22, pers. comm., 2012)

5.1.7 Opportunities

Participants identified a large range opportunities and suggested numerous strategies to sustain and improve Aboriginal participation in the commercial fishing industry. One of the key opportunities identified by participants is formal acknowledgement of Aboriginal commercial fishers within the commercial fisheries framework, including recognition of the historical contribution made by Aboriginal people to the commercial fishing industry.

First thing we need is to be in the Act. They say they don't know who we are. We have had meetings held by fisheries just for Aboriginal commercial fishers. There are papers on it and they say they don't know. That's a joke. We need to be in the Act to be heard.

(Participant 37, pers. comm., 2012)

See the Aboriginal people, the fishermen, taught most of the [non-Aboriginal] fisherman. They learned from the old fishermen and now they've just sort of pushed them aside.

(Participant 21, pers. comm., 2012)

Many also felt that acknowledgement should extend to the value of their ongoing contribution to Aboriginal communities in New South Wales, especially in terms of cultural continuity, social cohesion and health.

The value of us as fisherman is to our people; that's what fisheries don't understand. We may not be big players and show big numbers to them, but we keep our people fed and healthy and that stuff we talked about at the start of this about keeping us together. When you share food you keep the people connected.

(Participant 32, pers. comm., 2012)

Participants would also like to see more recognition of the value of Aboriginal knowledge and practices associated with management of aquatic biological resources and environmental conservation.

I think we need to be involved in research, these species are very important to our people. I have a lot of trouble trusting industry research. I realise that I'm no scientist but show me a scientist that knows more about this area and our target species. Our people sustainably managed stocks for thousands of years. Surely that's evidence that we got something right.

(Participant 23, pers. comm., 2012)

My father worked with a small team of researchers conducting the first kind of aquaculture trials; it was based in the dam just around the corner. They bred local species to restock the river. They used his local knowledge to do it and they had a lot of success. This was good for our whole family; it generated another income and they imparted knowledge of science and government systems that was helpful to our business. We have been involved in a lot of research on the inland species, I think this is a great avenue for Indigenous people we have a lot of knowledge to share and it makes sense to use it to manage our resources.

(Participant 15, pers. comm., 2012)

Many participants highlighted the potential benefits of fisheries adopting some cultural management tools to ensure the sustainability of commercial fisheries.

It was good industry once. Now it's completely screwed up. They have ruined our industry on resources, like depletion of stocks. Take depletion of stocks in the lobster industry. They let people into that industry that worked the stocks as hard as they can because they want the money. They don't diversify. Like before we diversified through season lobstering, prawning and hauling. A lot of the time we left one fishery to fish another just for passion, not for the money, but for the passion of it. By doing that you are also giving those fisheries a break. But it stopped getting a break because other [non-Aboriginal] blokes were still working it. But we never had full effort hitting the stocks.

(Participant 2, pers. comm., 2012)

In developing strategies in relation to Aboriginal commercial fishers, participants felt the starting point is for DPI and the broader public to recognise the cultural dimension to their fishing activities, which puts them in a different position, in some respects, to other commercial fishers.

The problem is they think that Aboriginal people are on the same playing field.
(Participant 20, pers. comm., 2012)

For us [Aboriginal commercial fishers] there is a lack of understanding in fisheries of cultural practice and its value to its people and the environment.
(Participant 23, pers. comm., 2012)

One area where participants felt that DPI could provide them with some relief is in relation to management fees, which could be charged on a proportional basis for seasonal fishers rather than annual basis.

The fees are too high for seasonal fisheries. Hard to keep running in a culturally appropriate way because fisheries ensures there's no future in it. But we can't turn our backs on who we are.
(Participant 1, pers. comm., 2012)

The role that Aboriginal commercial fishers play in contributing some of their catch to their communities has led to the idea that DPI could reimburse Aboriginal commercial fishers a portion of their management fees based on that fact.

Some also suggested DPI stop increasing costs and allow more flexible payment options for Aboriginal commercial fishers.

I would like to see a moratorium on costs.
(Participant 17, pers. comm., 2012)

I had a big argument with the licensing bloke. You can't give people an ultimatum. A fisherman and his family, he might be one income in that family and its fishing you know to support the family. He could have bad weather. He could be a month behind and that builds up like no tomorrow. If you can't pay the licence and he asks for grace and it's not given, I said "I'll go over your head". He said, "I don't care who you go to".
(Participant 34, pers. comm., 2012)

Some participants felt that if they must pay fees it would be beneficial if they were used to support ongoing participation of Aboriginal people in commercial fisheries.

I don't mind paying the fishing fees if they go into the Aboriginal fishing sector because they are our fisheries [resources].
(Participant 36, pers. comm., 2012)

One participant suggested fuel subsidies for shore-based fisheries.

I don't understand why with the rising cost of fuel our fuel isn't subsidised like boat-based fisheries?
(Participant 23, pers. comm., 2012)

Participants felt that a good starting point for addressing the disadvantage experienced by Aboriginal commercial fishers is for DPI to work with them to develop mutually acceptable consultation policies and processes in relation to Aboriginal people.

Consultation. Knowing first hand and having a say in decisions that are going to affect you. That would give us opportunities.
(Participant 14, pers. comm., 2012)

All participants agreed that they need to strengthen their voice within the commercial industry. Some participants supported the idea of a state wide Aboriginal cultural commercial fisheries management advisory committee.

We need, at least, an Indigenous advisory committee.
(Participant 8, pers. comm., 2012)

We've got to have a voice. [You would have to] get the right people to do it. If we got enough commercial fishers and recreational fishers and someone that knows what they're doing and a good voice on it. I definitely think it would be good. We do need it. See the other people have got it. It's our place and our culture; we've got to have something. That's what's wrong in the first place; because we never had one.
(Participant 3, pers. comm., 2012)

But many stressed that for this type of advisory committee to be effective it would need to be coupled with strategies to improve the understanding of Aboriginal cultural commercial fishing within DPI and among other industry stakeholders.

Education about our cultural commercial ways needs to happen with the fisheries too. They don't understand us. Education and acknowledgement is the key to our survival in the industry.
(Participant 31, pers. comm., 2012)

Another proposal was that there be a full-time Aboriginal cultural commercial fishing lobbyist or advocate. The role of this person would include staying abreast of emerging issues in the industry, to visit commercial fishers and explain proposed changes, to collect their feedback and feed this back to fisheries.

Well it would if we had someone with the experience who could afford to be there. You'd have to have some sort of funding. Have to have someone there all the time, like yourself. Got to be at every joint down in Sydney. A full-time lobbyist.
(Participant 33, pers. comm., 2012)

Some also suggested the need for access to legal advice on fisheries issues.

We need a lawyer.
(Participant 37, pers. comm., 2012)

Beyond consultation and negotiation, all Aboriginal commercial fishers asserted that increasing access to fishable water would improve their economic viability and ability to sustain cultural identity and connection to country.

If you have the opportunity for access for even for so many months of the year, that's an opportunity.
(Participant 19, pers. comm., 2012)

The thing they have to make it more sustainable for us is to give us more water.
(Participant , pers. comm., 2012)

When access stops you lose the opportunity to pass your history on.
(Participant 5, pers. comm., 2012)

Loss of fishable water through marine parks, aquatic reserves, recreational fishing havens and other closures was identified by all participants as significantly impacting on Aboriginal commercial fishers and their communities. Some participants suggested fisheries undertake research into the social, economic and cultural impacts of closures on Aboriginal communities and Aboriginal commercial fishers.

There should have been a review five years after our river was closed. There should be a review and research into the effects of these closures on the community and the Aboriginal commercial fisherman.
(Participant 4, pers. comm., 2012)

We can't monitor it anymore because we're closed out of those water systems. [We need research on] the impact on the loss of wages and health. Our people get fish from it. We provide food for them.
(Participant 34, pers. comm., 2012)

There should be a review and research into the effects of these closures on the Aboriginal community and Aboriginal commercial fishermen.
(Participant 22, pers. comm., 2012)

Moving forward participants emphasised the critical importance of DPI negotiating with Aboriginal commercial fishers before traditionally fished waters are closed to them.

We need to be able to negotiate with fisheries on closures. They not only affect us but our people. There are areas that are so important to us culturally that are of little value to anyone else. If we let this go they will continue to cut the links to our ancestors.
(Participant 28, pers. comm., 2012)

Some participants suggested that the weekend closure mechanism comprise a small window of time for fishers to be able to fish outside of the public glare, for example, early in the morning before the public get to the beach.

We should be allowed to work from the break of day till 9am and if we haven't got fish by then we will be out of there. If we have got fish by 8.30, then we haul them out of there. Then if you haven't got any, day light saving has started and you go back at 5pm and you have the afternoon and can catch fish on dark. They don't have to lift it, but we should be able to fish from morning time and afternoon time. We miss a lot of fish on the weekends, aye?
(Participant 12, pers. comm., 2012)

Some participants suggested exploration of the possibility that Aboriginal commercial fishers be permitted to fish within recreational fishing havens, but they realise that since the establishment of the havens they must now negotiate with the recreational fishing sector.

What they said to us was that if we could get the [recreational fishers] to agree to it, that you can work in the [recreational] fishing havens. But if you've got one [recreational] guy saying no and the rest saying yes, that one person holds power and that's completely wrong.
(Participant 37, pers. comm., 2012)

Others suggested establishing Aboriginal fishing areas to preserve Aboriginal access to traditional marine resources.

I don't understand why we can't have Aboriginal protected areas like the [recreational fishers] to make sure we protect our culture.
(Participant 8, pers. comm., 2012)

Participants also expressed considerable support for the idea of Aboriginal community licences, although many highlighted the fact that Aboriginal communities have pitched this idea at many previous fisheries consultation processes.

Our people have been talking about community licences for years. It needs to happen to keep our people healthy and connected to country. We need to make sure that connection is not lost in the future.
(Participant 19, pers. comm., 2012)

It was suggested community licences, and support for cultural commercial fishing practices more generally, could be justified as part of a broader strategy for improving the health outcomes for Aboriginal people.

Some kind of community licence is what we need. I'm not sure how you could do that fairly but that is what is needed in communities throughout the state. The community need access not just for food and income, but for knowledge and connection to continue. Without all three our people get sick and so many of our young fellas just get lost when they lose the connection and ways.
(Participant 14, pers. comm., 2012)

You've got an aging population sitting in their lounge rooms for most of the year. Then they come down on the beach and give us a hand and they forget about how sick they are because they get involved and enjoy themselves.
(Participant 21, pers. comm., 2012)

Another opportunity for DPI to support cultural practices is by changing the regulations in relation to effort control in the OHF to allow communities to re-establish their previous cultural practices involving family and community.

You guys need to change the rules when it comes to family helping on the beach; it goes against everything our people believe in. I can't say no to them on the beach. This has cost us money in court. Although they say we are guilty I will never say I am guilty for practising my culture. It's my right.
(Participant 27, pers. comm., 2012)

Participants unanimously agreed that Aboriginal participation in the industry and the security of Aboriginal community's access to traditional marine resources will be lost for current and future generations, unless mechanisms are put in place now to ensure continued access.

A trust that holds shares would be great. All of us have battled to stay in the industry to make sure our communities still have access. This would ensure that.

(Participant 14, pers. comm., 2012)

Many Aboriginal commercial fishers expressed a preference to sell their shares to Aboriginal people when they retire, but felt that younger Aboriginal people lack the resources to buy shares. To address this issue, participants proposed establishment of an Aboriginal fishing trust to acquire shares on behalf of the Aboriginal community. The trust would be able to buy shares from retiring Aboriginal commercial fishers.

There's not many Aboriginal fisherman left and their license should be kept in like a trust. So if an Aboriginal fisherman wanted to get out of the game he could get out with a bit of dignity. They can be bought by the trust and that license would be there for another Aboriginal fisherman who wants to come into the game.

(Participant 23, pers. comm., 2012)

It was suggested that the government could also transfer to the trust shares acquired by the government, for example through buy-outs.

We need some kind of trust where the shares that the industry buy out or fishers hand in can be kept to ensure our communities always have access to fisheries resources.

(Participant 33, pers. comm., 2012)

While the trust could address the financial barriers for younger Aboriginal people seeking to enter the fishing industry, participants stressed that other strategies are needed to ensure young Aboriginal people have the necessary skills to work as commercial fishers. Presently, participants said effort restrictions prevent older fishers from passing their cultural commercial knowledge and skills to young Aboriginal fishers.

If there was an avenue for the next generation to get into the industry or community licences we as the existing commercial fishers could run workshops on traditional commercial practice.

(Participant 14, pers. comm., 2012)

Participants proposed using traineeships or "father-son" licences as mechanisms to facilitate this process.

It would be great if we had traineeships or even the father-son licences back. The next generation needs a way in.

(Participant 10, pers. comm., 2012)

It's the only industry that doesn't have traineeships. We need new blood. We need this. The whole industry is aging. People don't live forever. For our mob this is where we pass down generations of knowledge. It's really important for our culture.

(Participant 12, pers. comm., 2012)

Education was also suggested by many participants as a mechanism to improve their own understanding of the industry and fisheries management.

Their needs to be industry based training so we can manage change and the impacts on our people.

(Participant 3, pers. comm., 2012)

While building the capacity of Aboriginal commercial fishers is important, many participants stressed that fisheries managers and other non-Aboriginal fisheries sectors must also increase their capacity in relation to the connections between the Aboriginal cultural and commercial fishing sectors.

We really need industry training to survive. The problem is this industry never stops changing. You think you are on top of it but something changes and you can't get ahead. The other side is that you can get training, but for our mob to be understood it takes training from the other side. Our fishing practices and the way that we

think about our business and its importance to the community holds no value to management if they don't increase their understanding too.

(Participant 20, pers. comm., 2012)

Many participants thought that education should be extended to the broader community as a strategy for generating support for Aboriginal cultural commercial fishing initiatives.

I guess when I think about it its all about politics and voters so really to change anything we need to educate them.

(Participant 32, pers. comm., 2012)

Some participants are already implementing strategies to improve their economic viability. Some described making use of local farmers markets and setting up their own retail outlets to sell direct to public.

We also sell to a local market we sell out of here to Canberra, Melbourne and everywhere. I've got the shop and everybody rings me up when they want something.

(Participant 3, pers. comm., 2012)

We've got boats and we'll go out and catch a couple of boxes of bream and we only target the good fish and sell straight to the public.

(Participant 4, pers. comm., 2012)

We started a local farmers market stall this year and its great. People ask questions, thanks us for our contribution and look happy to see us, for the rest of the world that's normal, but not for fisherman. No freight, cash on the day, it's not huge quantities but it's the only day of the week we are guaranteed income. It's also generated more income local's call and place orders or call into the harbour.

(Participant 7, pers. comm., 2012)



Aboriginal commercial fishers operating in the Estuary General Fishery in Northern NSW, 2011.

Photo: SCU research team

6 Discussion

One of the main objectives of this project was to determine how many Aboriginal people participate in commercial fisheries in New South Wales. Such information can be used by fisheries managers as a base line to predict the impacts of future fisheries management changes or to set targets for Aboriginal participation. While a total of 46 Aboriginal people were identified as having worked in the New South Wales commercial fishing sector over the last 10 or so years, anecdotal evidence collected late in the project suggests that there may be more, particularly in the aquaculture sector. The research team is fairly confident that all of the Aboriginal commercial fishers working in the New South Wales wild catch sector, 36 in all, have been identified. Not all of these could or would participate in this project. Some were not contactable and two declined to participate.

Problems associated with identifying all Aboriginal commercial fishers and getting them to participate included suspicion about the motives behind the research and scepticism that their contribution would lead to any real change. In some cases, the feelings are based on the belief that Aboriginal commercial fisher contributions to requests for input on management in the past have had little impact. There are also still feelings of antagonism towards fisheries management relating to past prosecutions against Aboriginal people for offences under the FMA, which the communities feel were unjust. Resolution of these problems is required so that the type of research carried out in this project has the best chance of contributing to a process for meaningful change. This can be achieved by building on the current project's attempts to create links between Aboriginal commercial fishers and DPI while building capacity on both sides.

It is difficult to estimate the proportion of Aboriginal people (licensed and unlicensed) as a percentage of all the people engaged in the New South Wales commercial fishing sector, but we can get an approximate estimate of the percentage of the total number of New South Wales fishing businesses held by Aboriginal people, and this is 2.2%. Aboriginal and Torres Strait Islander people made up approximately 2.2 % of the total population of New South Wales in 2008 (Office of Aboriginal Affairs, 2008). These figures potentially provide a starting point for further refinement, through discussion with Aboriginal people, about DPI setting targets for Aboriginal participation in the commercial fishing industry.

The predominance of Aboriginal commercial fishers in the EGF and the OHF no doubt reflects the long history they have had in these fisheries (see Egloff, 2000). It also reflects the even longer cultural associations that Aboriginal people have had, and continue to have, with various culturally iconic species such as sea mullet, abalone and lobster to mention a few (Schnierer, 2011).

EGF and OHF shares are held in all of the Regions except 2 and 5. The majority are in Regions 4 and 7. Understanding why there are no Aboriginal commercial fishers in these fisheries in regions 2 and 5 is worthy of more investigation considering that there are Aboriginal communities in these regions. If there was interest shown by communities in regions 2 and 5 to enter the EGF and OHF, then understanding the factors behind the current situation might help DPI, in conjunction with Aboriginal organisations like the New South Wales Aboriginal Land Council to develop strategies to address this anomaly.

A small number of Aboriginal owned fishing businesses in the EGF and OHF are below the current minimum shareholding requirement set out in the respective fisheries plans. As they are 'original entitlement holders' they can still operate within the fishery (see Ocean Haul Share Management Plan 2006 and Estuary General Share Management Plan 2006). However if these management plans were to be changed by dropping the exception for original entitlement holder, then those Aboriginal commercial fishers below the minimum would be put under pressure to either buy shares to reach the minimum or to sell out. These Aboriginal commercial fishers also feel that any linking of shares to effort or catch as has been proposed (see NSW Department of Primary

Industries, 2009) will immediately disadvantage them, creating yet further pressure on their ability to stay in the commercial sector.

The majority of Aboriginal owned fishing businesses in the EGF currently meet the minimum shareholding requirement, while this is the case for a much smaller number in the OHF. If minimum shareholdings were to be used to facilitate restructuring of the industry as has been proposed (see NSW Department of Primary Industries, 2009) then a large number of current Aboriginal owned fishing businesses could be put under pressure to either buy shares to reach the minimum or to sell out. Some Aboriginal commercial fishers in the OHF are above the minimum shareholding requirement and so are better placed to deal with any upward movement of the minimum shareholding bar.

The small participation rates in fisheries such as the EPTE, OTLF and OTF may be the result of a combination of lack of history in those fisheries, economic capacity and experience. One Aboriginal owned fishing business holds less than the minimum shareholding for an endorsement in the OTLF and while the fisheries management plan makes allowance for the original entitlement holder, this allowance only lasts for a transitional period of 2.5 years (OTL Share Management Plan 2006). This transitional period has been extended a number of times including more recently to the 30 June 2013 (Official Notices, Department of Trade and Investment, Regional Infrastructure and Services 2012 NSW Government Gazette No. 67). As yet this Aboriginal owned fishing business has not purchased enough shares to reach the minimum of 40. Another Aboriginal commercial fisher holds less than minimum shareholding for an endorsement in the OTF and while the respective fisheries management plan makes allowance for the original entitlement holder, this allowance only lasts for a transitional period that has now expired (Ocean Trawl Share Management Plan 2006). This means that this Aboriginal commercial fisher cannot operate in the OTLF unless he purchases enough shares to reach the minimum.

The lack of Aboriginal commercial fishers in the current abalone and lobster fisheries represent an inequity for Aboriginal people as these species are a culturally iconic species that have been fished for thousands of years, particularly in coastal southern New South Wales. There were at least three licenced Aboriginal commercial fishers in the abalone fishery and two in the lobster fishery in the mid 1970's before the species became valuable on the export market. One Aboriginal commercial abalone fisher reported that he lost his licence after a period of a couple of years away from the fishery and could not get it back when he returned. When the abalone fishery was capped in the 1980s a special allowance was made by the government of the day to give a number of commercial licences to Aboriginal fishers. At least two were taken up but then later sold and the others were handed back to the government. This episode is still talked about with some disappointment today by Aboriginal communities in coastal southern New South Wales.

When the abalone and lobster fisheries moved to share management in the late 1990s a number of Aboriginal commercial fishers missed out on endorsements because either they did not have enough recorded catch history or they had no physical records of catch history. One former Aboriginal commercial fisher indicated that when they fished for abalone and lobster it was not uncommon for them to give some of their catch to community and this could amount to a large proportion of the catch especially for significant cultural events. These community contributions were not recorded.

The lack of an Aboriginal presence in both of these fisheries could be addressed by the development of some Aboriginal community commercial fishing licences as proposed by participants during this project. As both fisheries are quota managed, a proportion of the quota could be made available to Aboriginal communities, especially those with a history of fishing these species, to be fished commercially. The licence would remain with the community and could not be sold off.

Aboriginal commercial fishers, in general, expressed dissatisfaction with the initial endorsement and share allocation processes used during the move from restricted to share managed fisheries in New South Wales, as it resulted in them receiving less than what they felt they were entitled to. They believe that the processes used were insensitive to certain cultural factors that had impacted their ability to meet the requirements set for the validated catch history period.

6.1 Barriers and opportunities identified by Aboriginal commercial fishers

Aboriginal commercial fishers believe that their ability to access commercial fisheries in New South Wales has been progressively restricted, particularly over the last 30 years, as a result of a shift from open to closed access fisheries in the late 1970's, the introduction of caps on fishing effort starting with the abalone fishery in the 1980s and progressing through to the introduction of share management in the mid 1990's and the beginnings of structural adjustment in the mid 2000s. Apart from an allowance made by the New South Wales government for Aboriginal fishers to get some abalone licences in the 1980s, Aboriginal commercial fishers believe that, on the whole, they have not been treated fairly with each of these shifts in management.

During the project participants identified a variety of issues they felt impacted their ongoing ability to participate in the commercial fishing sector. These included issues around access, cost, culture and tradition, consultation, shares, environment, capacity, awareness, management, opportunity, value, training and compensation. Most of the issues have been identified previously over a period of 25 years through government inquiries, reviews, studies, briefing papers and policy documents (see Appendix 9 for comparisons). Participants also suggested a range of options to address these barriers and these have been included in a discussion paper to assist DPI in developing strategies (see Appendix 10).

A recurrent theme permeating the opinions and ideas presented by Aboriginal commercial fishers during this project was the need for recognition by fisheries management, other stakeholders and the broader community of the primacy of Aboriginal people in relation to fishing. Aboriginal people were the first fishers in this state and they assert they never gave up their right to catch fish for consumption, barter or trade. While some countries like New Zealand and the United States have gone a long way to resolving Indigenous fisheries related issues through treaties, this has not happened in Australia. This alone, Aboriginal commercial fishers assert, should be sufficient to warrant special measures to be taken by DPI to support their ongoing participation in commercial fishing. However Aboriginal commercial fishers believe that the idea of primacy, when linked to the role they have played in the development of the New South Wales commercial fishing industry, adds further weight to the argument for DPI to take special measures to protect and preserve their participation in commercial fishing.

6.2 Aboriginal commercial fisher annual catch and community contribution

Anecdotal evidence from previous research had indicated that some Aboriginal commercial fishers donate a proportion of their commercial catch to their local Aboriginal communities, particularly during seasonal runs of species like the sea mullet, *Mugil cephalus* (Schnierer, 2011). In the development of this project the researchers, as well as other Aboriginal project advisors, felt that an attempt should be made to estimate the proportion of commercial catch donated to local Aboriginal communities. This data was collected with a view to providing evidence of the special connection between Aboriginal commercial fishers and their local communities, and to highlight cultural attributes of Aboriginal commercial fishing practices. The information obtained from Aboriginal commercial fishers in relation to community contribution showed that the line between commercial fishing and cultural fishing is blurred in the minds of most, if not all, Aboriginal commercial fishers.

As there are no official records kept of the size of the community contribution, researchers asked Aboriginal commercial fishers to estimate the amount as a percentage of their annual catch. Over 90% of the Aboriginal commercial fishers indicated that they contributed on average about 9.8% of their annual catch to their communities. In an attempt to convert that percentage into an amount in kilos, the research team sought permission from participants to view their catch history records held by DPI. Six participants gave written permission for this to happen, but others were undecided and a further seven were reluctant to give permission. More work needs to be done by researchers and fisheries managers to build the kind of trust that is needed for these statistics to be made available for analysis.

6.3 Cultural commercial fishing

Most participants described their fishing activity as ‘cultural commercial fishing’, defined by them as an evolution of their traditional ways of harvesting resources for their communities for trade and barter. Unlike non-Aboriginal commercial fishers, culture defines the fishing techniques of many Aboriginal commercial fishers, including the species targeted and geographical areas fished. The act of fishing is itself an important cultural practice and a key part of the cultural identity of Aboriginal fishing communities. Fishing is also an action that supports their own, and their peoples, subsistence needs, as well as their community’s cultural cohesion, spiritual identity, cultural connection and economic independence.

While participants were aware of the legal distinction between commercial, recreational and cultural fishing under the FMA, they nonetheless asserted themselves as ‘cultural commercial fishers’. This research has highlighted the cultural bias inherent in this distinction and the ways in which this distinction between cultural fishing and commercial fishing conflicts with Aboriginal views and practices.

Aboriginal commercial fishers do not see a difference between their cultural practices and their right to derive a living – this distinction has been imposed on them by non-Aboriginal Australia and its legal regime. While the NSW FMA 1994 recognises “Aboriginal cultural fishing” it fails to recognise the right of Aboriginal fishers to derive a living from a resource, which is perceived as their own. Aboriginal cultural fishing is defined as:

“...fishing activities and practices carried out by Aboriginal persons for the purpose of satisfying their personal, domestic or communal needs, or for educational, ceremonial or other traditional purposes, and which do not have a commercial purpose.”

This definition does not reflect Aboriginal notions of cultural fishing and creates conflict between Aboriginal people and fisheries managers and as between Aboriginal people. For example, some Aboriginal fishers explain that cultural obligation dictates that some members of the community are responsible for supplying large numbers of people with specific species, requiring harvest rates that the FMA defines as commercial. By defining cultural fishing as non-commercial, the FMA also serves to further segregate those Aboriginal fishers that have documented cultural commercial practices prior to and post colonisation.

6.4 Disadvantage experienced by Aboriginal commercial fishers

Aboriginal commercial fishers are not the same as non-Aboriginal commercial fishers – Aboriginal commercial fishers fish according to cultural practice which disadvantages them in a commercial fishing system which limits the number of participants in the industry on the assumption that all those actually in the industry will always operate as so to maximise their own profits.

As a consequence of some Aboriginal cultural fishing practices, such as community contribution, seasonal harvesting and traditional boundaries, Aboriginal commercial fishers cannot maximise their profitability in the same way as non-Aboriginal commercial fishers. For example, many participants described the cultural obligation of distributing seafood to the community as their first priority. The proportion of catch distributed to the community depends on the season and the needs of the community but, at times, can account for whole catches or boxes of product. As a result Aboriginal commercial fishers are not as economically viable, which is a heavy burden when paying ongoing fees and running costs.

Cultural practices not only impact on the ongoing economic viability of Aboriginal commercial fishers, but they also disadvantaged many Aboriginal people in the original share allocation. For example, Aboriginal commercial fishers traditionally only harvested species as they ran (seasonal harvesting), a practice still adhered to by most participants today. Fishers also only target species when they are fat, as they did in the past, and they do not fish in nurseries or in areas in periods of spawning. Culture dictates sustainable practices to ensure there is always fish in the future. For those who only fished seasonally prior to share allocation this often meant they fell under the bar and were not issued an endorsement. Others who fished in many different fisheries for short time frames throughout the year, to ensure that fishing effort was not concentrated and to allow species time for species to restock to ensure future harvests, also missed out on endorsements. Those Aboriginal commercial fishers operating in single fishery or restricted fishery who observe seasonal harvesting practices, described

struggling to make enough income to pay ongoing fees and running costs - for many it has been years since they made a profit.

Another way in which cultural practice disadvantaged Aboriginal commercial fishers was the division of the coastal fisheries into regions by DPI to control fisher effort and reduce conflict. Previously, Aboriginal commercial fishers fished according to traditional boundaries. During seasonal runs Aboriginal commercial fishers from all areas fished together to ensure their communities had a sufficient supply of resources. The division of the coastal fisheries into regions significantly impacted on Aboriginal commercial fishers by splitting traditional country, resulting in divided families, loss of access to traditional country and loss of income.

6.5 Why more difficult for Aboriginal commercial fishers to engage in this sector?

Aboriginal commercial fishers engagement in the commercial sector has been difficult since share allocation was enacted. There has been a lack of recognition of Aboriginal commercial fishers and their contribution and differing needs within the sector. Without this recognition Aboriginal commercial fishers feel that their voice will never be understood or truly valued in the industry. While some Aboriginal commercial fishers have been part of advisory committees, port meeting and made submissions, they nonetheless feel their voice has been, and continues to be, overlooked or poorly understood.

Aboriginal commercial fishers described a range of factors which disadvantaged them during share allocation and which continue to disadvantage them in current structural adjustment processes. Many Aboriginal commercial fishers feel they were not issued the correct shares at allocation as a result of two factors unique to Aboriginal commercial fishers. The first was that many Aboriginal commercial fishers did not report their catch because they believed that, as Aboriginal people, they were exempt. The second factor was that prior to allocation they fished seasonally in multiple fisheries. As a consequence many Aboriginal commercial fishers have been allocated shares that are below the minimum share holding required for an endorsement.

These issues have disadvantaged fishers throughout structural re-adjustment processes and are issues that could have been better remedied if the true value of their participation and needs were better understood and acknowledged.

6.6 Two way exchange of information

Two-way exchange of information is a critical method of building trust with Aboriginal research participants who are often affected by “research fatigue”. Aboriginal people are among the most researched people and community members receive numerous competing requests to participate in consultations and research projects on a voluntary basis. Research projects that ensure Aboriginal participants and communities benefit from their participation are likely to have increased participation as well as a greater level of engagement by those who participate.

The level of engagement between the researchers and participants in this project was a direct result of the researchers efforts to provide information, advice and support to Aboriginal commercial fishers. Initially, the researchers acted as a conduit between the participants and DPI, by taking questions from fishers directly to DPI and then responses from DPI back to the fishers. This eventually transitioned into direct engagement between participants and DPI through a series of Aboriginal commercial fishing forums conducted by the researchers as part of project extension.

The three final extension forums were held to ensure a clear two-way exchange of information between participants and DPI. This was the first opportunity these Aboriginal commercial fishers had to educate and inform DPI on their practices, issues and possible solutions. Industry managers, in turn, also asked and answered questions and informed participants on the restructuring which is to come. Clear communication between these two groups was only possible due to the 12 months of constant, open, face-to-face and phone consultation with participants by the research team. The need for the final extension forums was generated by participants and industry to try and address the problems that are happening now.

6.7 Costs

The concerns that Aboriginal commercial fishers have in relation to costs are similar to the complaints made by many other non-indigenous commercial fishers. The difference for Aboriginal commercial fishers is that excessive and rising costs tend to place a greater burden on their business which are not always structured to maximise profits because of cultural practices, such as seasonal harvesting, observance of traditional fishing boundaries and distribution of catch to the community. The impact of costs is not viewed only in terms of the viability of fishing businesses, but in the context of these businesses providing economic independence which allows Aboriginal commercial fishers to engage in cultural fishing practices which are part of their identity.

In relation to many of the management fees there is also a perception of injustice. For example, many Aboriginal commercial fishers questioned why they must pay to access something which their resource as Aboriginal people.



Participants including DPI representatives and Aboriginal commercial fishers at the NSW far south coast Aboriginal commercial fishers forum, 2012. Photo: SCU research team

7 Benefits and Adoption

The sectors that will benefit, the nature of those benefits and a description of the adoption of the research by beneficiaries are presented in Table 8. The beneficiaries and benefits from this research compare closely with those stated in the original application. The level of adoption of the benefits ranges from partial to full, with some adoption requiring a period of time to be fully realised.

Table 8 Estimated status of adoption of benefits flowing to beneficiaries from the FRDC research project number 2010/034.

Beneficiaries	Benefits	Adoption
Aboriginal commercial fishers	<ul style="list-style-type: none"> • A report that can be used by Aboriginal commercial fishers in negotiating fisheries policy and management development. • Established a connection between key DPI staff and Aboriginal commercial fishers, which enables direct communication. • Development of a discussion paper for DPI to be used to help DPI in its policy development in relation to Aboriginal commercial fishers, especially in relation to the current structural adjustment program. • A better understanding in DPI staff of the connection between cultural and commercial. • Increased awareness of fisheries management structures and processes. • Research findings that can be used to raise awareness. 	<ul style="list-style-type: none"> • First draft final report endorsed by the participants for submission to the FRDC. • Some Aboriginal commercial fishers have used this study to provide input into the recent review of commercial fisheries in New South Wales and Marine Park science audit. • Development of the discussion paper has empowered Aboriginal commercial fishers to communicate their unified views to DPI. • Aboriginal commercial fishers are making use of the direct line of communication they have with DPI to advocate their interests. For example, Aboriginal commercial fishers have set dates for cross-cultural exchanges with the Director of Commercial Fisheries and the Director of Recreational and Aboriginal Fisheries and other high-level fisheries managers. • Research findings used by some Aboriginal commercial fishers as evidence of cultural practices in legal proceedings. • Some Aboriginal commercial fishers investigating opportunities to raise broader community awareness of cultural commercial fishing practices.

Beneficiaries	Benefits	Adoption
Indigenous communities more widely	<ul style="list-style-type: none"> • The broader community will have a better understanding of the importance of Aboriginal commercial fishers to communities and their cultural maintenance. • Support from broader community for strategies aimed at ensuring ongoing participation. • Support from broader community for future potential economic opportunities. • Provides support for communities' claim that cultural fishing encompasses commercial fishing. • Evidence-based information strengthening advocacy for the Aboriginal Fishing Advisory Council in development of fishing policy. • Identifies avenues that Aboriginal organisations could support to ensure the continued participation of Aboriginal communities in the commercial fisheries industry. 	<ul style="list-style-type: none"> • Some local Aboriginal land councils have been supporting the research through identification of potential Aboriginal commercial fisher participants. • The National Indigenous Sea Country Workshop has adopted elements of the findings into a statement of support for the rights of Aboriginal fishers in New South Wales.
Aboriginal Organisations: New South Wales Aboriginal Land Council and Native Title Services New South Wales	<ul style="list-style-type: none"> • An evidence-based report that strengthens their advocacy in support of Aboriginal commercial fishers. • Better understanding of Indigenous participation in the commercial fishing sector, providing a basis for future consideration in policy and program development and implementation. • A report that identifies how research can be used to strategically identify opportunities. 	<ul style="list-style-type: none"> • Adopted need for research project. • First draft final report endorsed by the Aboriginal organisations for submission to the FRDC.
Recreational and commercial fishers	<ul style="list-style-type: none"> • A report that builds better understanding of the Aboriginal cultural/commercial sector enabling a more united sectoral approach to development of broader fishery policy. • Reduction in conflict between the recreational and commercial sectors and Aboriginal cultural/commercial sector as a result of increased understanding. 	<ul style="list-style-type: none"> • Recreational and non-Aboriginal commercial fishers have provided strong support for the need for this research project through, for example, the New South Wales Fisheries Research Advisory Body.
Government Agencies: DPI Office of Aboriginal Affairs, Office of Environment and Heritage & FRDC	<ul style="list-style-type: none"> • Better understanding of Indigenous participation in the commercial fishing sector, providing a basis for future consideration in policy and program development and implementation. 	<ul style="list-style-type: none"> • DPI is now developing a more direct line of contact with Aboriginal commercial fishers. • DPI using discussion paper to modify their policy. For example, catch records have been modified to capture data on distribution of catch to community. • FRDC has adopted an R&D strategy that emphasises the need for more research into Aboriginal commercial fishing across Australia. • New South Wales marine park audit committee recommended a socio-economic evaluation of the impact of marine parks on communities in New South Wales, in particular, Aboriginal communities and provided strong support for the appointment of an Aboriginal liaison officer in DPI.

Beneficiaries	Benefits	Adoption
Conservation non-government organisations	<ul style="list-style-type: none"> • Better understanding the role of Ab- original participation in commercial fishing resulting in support for the maintenance of Aboriginal commercial fishing operations, particularly in aquatic environments targeted for conservation measures. 	<ul style="list-style-type: none"> • Results of research made available to fisheries and conservation advisory committees.
Researchers and consultants	<ul style="list-style-type: none"> • Identifies priorities in fisheries research. • Assists researchers in the development of more competitive research applications. • Better understanding of the research methodologies to use in Indigenous communities. 	<ul style="list-style-type: none"> • A number of EOI to the 2012/13 FRDC funding round relating to Aboriginal commercial fishing.
Australian society	<ul style="list-style-type: none"> • An evidence-based report that provides guidance to government in the development of policy that helps Australia to achieve international best practice in the development of fisheries policies that address Indigenous concerns. • A report that provides data to assist governments to develop successful evidence-based fisheries policy. • More culturally sensitive environment and resource management tertiary curricula. 	<ul style="list-style-type: none"> • FRDC has adopted an R&D strategy that emphasises the need for more research into Ab- original commercial fishing across Australia. • Principal Investigator fed results into development of a National Harvest Strategy. • Principal Investigator fed results into development of a wild harvest fishing strategy in Victoria. • Teaching curriculum in Southern Cross University fisheries management course on Aboriginal commercial fishing issues.



Aboriginal commercial fishers on the far south coast of NSW sorting the last catch of the day.
Photo: Jessop family

8 Further Development

Recommendations for further development include

1. NSW DPI to Implement strategies outlined in the Draft Discussion Paper entitled 'Proposed changes to fisheries management to ensure economic viability in the New South Wales Aboriginal commercial fishing fleet and future avenues of employment for community members.' (See Appendix 10.)
2. Develop a range of communications to build awareness, including; conference and journal papers, non-technical papers, news articles, powerpoint presentations, DVDs, educational material etc. targeting fisheries managers, other stakeholders, Indigenous communities, and the broader public.
3. Identifying participants from the project and providing information about the FRDC scholarship and leadership programs.
4. Continue working with Aboriginal commercial fishers to complete the data set on catch history, to build a complete baseline data set for New South Wales Aboriginal commercial fishers.
5. Use this project (2010/304) as the basis for a national project to identify Indigenous Australian participation in commercial fishing across Australia (state, territory and commonwealth level) in order to assist various fisheries agencies to develop strategies to support Indigenous participation in commercial fisheries.



Beach haul crew in the OHF on the far south coast of NSW rowing out to 'shoot' a patch of fish.

Photo: Jessop family

9 Planned Outcomes

This project contained five planned outcomes and two types of outputs (Table 9). The first outcome has increased the level of understanding in both New South Wales fisheries managers and Aboriginal commercial fishers of each other's "ways of doing business", providing the opportunity for better engagement and the development of more culturally sensitive policy. The achievement of this outcome is not complete but there has been significant positive progress. The second outcome establishes a quantitative basis against which ongoing Aboriginal participation as fishers in the commercial sector can be monitored and evaluated. This outcome has been achieved. The third outcome provides a basis a rational for the need to special strategies aimed at maintaining Aboriginal commercial fisher participation. This outcome has been achieved to a degree but there is still some way to go to ensure adoption is fully realised. The fourth outcome has not been fully realised and will require ongoing engagement.

Table 9 The planned outcomes and outputs as set out in FRDC research project number 2010/034.

		Status
Outcomes	(1) Better understanding of the impact of fisheries management changes on continuing Indigenous involvement in commercial fisheries which would: (i) help indigenous commercial fishers to plan to adapt to those changes; and (ii) help NSW Fisheries to ameliorate the impact of proposed management changes on Aboriginal commercial fishers.	Partially achieved
	(2) Better understanding of the number of Aboriginal commercial fishers, this would allow DPI to better target support strategies to maintain their contribution	Achieved
	(3) Better understanding of the contribution of Aboriginal commercial fishers to indigenous communities.	Achieved
	(4) Better understanding of the rationale behind DPI's implementation of changes to fisheries management.	Partially achieved
	(5) Basis for a much larger study at the national level of indigenous commercial fishing participation (i.e. this could be a case study for a national study).	Achieved
Outputs	(1) Written project report	Achieved
	(2) Strategies developed to assist Indigenous commercial fishers to remain in the commercial sector	Achieved

9.1 All project outputs against planned outcomes

There were two main outputs for this project (see Table 9 above). The first output is a written report and this has been achieved. The second output is the development of strategies aimed at securing the presence of Aboriginal people in the New South Wales commercial fishing sector. This second output has been addressed firstly by the development of a discussion paper to be used by DPI to inform policy development and, secondly, by making the results of this project available through a wide range of activities including review of fisheries and environ-

mental policy at the state, national and international levels, other relevant research and projects, and by raising public awareness (Table 10).

Table 10 A list of outputs and the outcomes addressed for FRDC Project no. 2010-304 and the outcomes to which they relate.

Outputs	Outcome(s)
Written project report	1, 2, 3, 4, 5
Strategies developed	1, 4
<ul style="list-style-type: none"> • Three <i>initial</i> one-day Aboriginal commercial fisher forums to develop recommendations and strategies for DPI aimed at sustaining the participation the industry (28/2/12, Ulladulla, 16/3/12, Tweed Heads, 27/3/12 Port Macquarie). • Three <i>further</i> one-day Aboriginal commercial fisher/DPI forums to further develop the recommendations and strategies in the Discussion Paper (2/8/12, Ulladulla, /8/12 Port Macquarie, /8/12, Tweed Heads). • Discussion paper titled “Proposed changes to fisheries management to ensure economic viability in the New South Wales Aboriginal commercial fishing fleet and future avenues of employment for community members” based on the two Aboriginal commercial fisher ACF and four Aboriginal commercial fisher/DPI forums. 	
Aboriginal commercial fisher capacity building	1, 2, 3, 4
Ongoing provision of advice and support to Aboriginal commercial fishers during the life of the project (54 face-to-face meetings and at least 840 phone calls to fishers).	
Input to fisheries policy development	1 to 5
<ul style="list-style-type: none"> • Ongoing provision of information on Aboriginal commercial fisher approaches and concepts to high level DPI fisheries management staff (53 teleconferences). • PI attended the National Harvest Strategy Workshop hosted by PIRSA (Adelaide, March 2012) and provided comments on Aboriginal cultural and commercial fishing. • PI attended the two-day Future Fisheries Strategy Expert Panel hosted by Victorian DPI (Melbourne, February 2011). • PI participated in a stakeholder reference group to undertake a strategic review of Victoria’s fisheries management framework and attended three one-day Stakeholder Reference Group meetings in July, August and September 2011. The purpose of the Reference Group was to provide advice to Victorian DPI on a strategic review of the overall arrangements for management of Victoria’s wild harvest fisheries into the future. • PI provided input into the Victorian DPI <i>Future Fisheries Strategy: Proposal for Reform</i> (October 2011). • PI addressed the full board of the New South Wales Aboriginal Land Council to inform them of the project and seek their input and support for the project. • PI provided regular updates to the Aboriginal Fishing Advisory Council on the emerging research outcomes. • PI provided New South Wales Fisheries Research Advisory Body with a list of the Aboriginal Fishing Advisory Council’s Aboriginal fishing research priorities. 	
Inputs to Independent Review of New South Wales Commercial Fisheries Policy, Management and Administration (“Independent Review”)	1, 4
<ul style="list-style-type: none"> • Submission by PI and CI to ‘Independent Review’ addressing each of the terms of reference (28/10/11). • Conducted a series of three workshops for Aboriginal commercial fishers prior to each port meeting run by the “Independent Review” Panel to help coordinate Aboriginal commercial fisher input at the port meeting (16/11/11 Coffs Harbour, 17/11/12 Newcastle, 24/11/12 Ulladulla). • Assisted five Aboriginal commercial fishers to develop individual submissions and submission process to “Independent Review” particularly those without internet access. • PI and CI attended port meetings with Aboriginal commercial fishers to advise, build confidence and capacity. 	

Outputs	Outcome(s)
<p>Input into environmental policy development</p> <p><i>Independent Scientific Audit of Marine Parks in New South Wales ('MP Audit')</i></p> <ul style="list-style-type: none"> • Submission by the PI and CI to the 'MP Audit' (available at http://www.marineparksaudit.nsw.gov.au/imagesDB/wysiwyg/MarineParksAudit_Indigenous_SSchnierer.doc). • CI facilitated the development of a group submission by eight Aboriginal commercial fishers that a segment was published. • Assisted three Aboriginal commercial fishers to draft a submission to the MP Audit. • Participation by PI at a Workshop for Aboriginal people hosted by the 'MP Audit' Committee at the New South Wales Parliament House (December 2011). • PI's submission circulated to the New South Wales Aboriginal Land Council and Native Title Services New South Wales. • Input by PI into the Aboriginal Fishing Advisory Council's written response to the Minister about the findings of the report of the "MP Audit", specifically highlighting the impact of marine parks on Aboriginal commercial fishers. • PI reviewed the joint New South Wales Aboriginal Land Council and Native Title Services New South Wales response to the Report on the "MP Audit" and provided feedback. • PI participated in three teleconferences with representatives of the Aboriginal Fishing Advisory Council, New South Wales Aboriginal Land Council and Native Title Services New South Wales to develop a comprehensive response from the Aboriginal community to the report on the "MP Audit" highlighting Aboriginal commercial fisheries. 	1,4, 5
<p><i>Commonwealth marine parks planning</i></p> <ul style="list-style-type: none"> • PI completed an online submission to the <i>Draft Temperate East Marine Bioregional Plan</i>. • PI and CI attended stakeholder meetings held at Tweed Heads, the purpose of which was to develop stakeholder action plans. 	
<p><i>International biodiversity policy development</i></p> <ul style="list-style-type: none"> • PI provided input through an international expert working group into the development of a work plan on Article 10 (c) of the United Nations (UN) Convention on Biological Diversity (CBD) Montreal. • Registered for a side-event at the next Conference of Parties to the UN CBD. Presentation on Aboriginal Fishing in areas containing marine parks and the resulting impacts. 	
<p>Input to shaping advice for Indigenous fishing and aquaculture research and development FRDC</p> <ul style="list-style-type: none"> • PI participated in multiple meetings of an FRDC funded Indigenous reference group set up to develop advice for the FRDC on Indigenous research funding priorities (attended forums in Brisbane, Cairns x 2, Gove and numerous telephone conferences). • PI participated in the two-day National Indigenous Forum to assist in shaping advice for Indigenous fishing and aquaculture research – development and extension (March 2011). • Then the Indigenous Reference Group to FRDC took the issues raised at the forums and developed 11 principles for the FRDC to guide research priorities. Circulated to all state based research bodies. • Through Indigenous Reference Group PI provides advice on Indigenous research applications to the FRDC. 	1, 4, 5
<p>Input to fisheries research</p> <ul style="list-style-type: none"> • PI completed the Fisheries R&D Corporation Strategic Communications Survey for FRDC Project 2011/409 "Strategic Media Training for the Australian Seafood Industry". • PI completed the Two-Way Communication Interview Survey for FRDC Project 2011/400 "Two-Way Communication Project – Improving Two-Way Membership Communication in Peak Industry Bodies (Commercial, Recreational and Indigenous) of the Fishing and Seafood Industry". • PI and CI provided input into a large number of national EOI for the 2012/2013 FRDC funding round. 	1,5
<p>Input to National Indigenous Sea Country Planning Project (NISCP), North Australian Indigenous Land and Sea Management Alliance Ltd</p> <ul style="list-style-type: none"> • PI participated in an advisory group that developed the agenda for NISCP Workshop, which led to inclusion of an agenda item for fishing and commercial fishing. • PI gave presentation, including Aboriginal commercial fishing in New South Wales, at the NISCP Workshop at Mary River, Northern Territory May 2012. • PI reviewed and provided input into the Workshop Report of the NISCP Workshop, specifically on Aboriginal cultural and commercial fishing. 	1, 5

Outputs	Outcome(s)
<p>Public awareness</p> <ul style="list-style-type: none"> • PI issued a media release on the purpose of the project, which was picked up by the Northern Star (17/6/11), Coffs Coast Advocate (11/06/2011) Indigenous Times and ABC Radio. • PI gave a pre-recorded interview to ABC Mid-North Coast (9/6/2011) and ABC North Coast Rural Report (8/6/2011) and 4zzz Brisbane radio (8/6/2011) on the project. • PI was interviewed by a reporter for an article on Aboriginal commercial fishing in New South Wales in the Koori Mail. • PI wrote an information paper on the Aboriginal Fishing Advisory Council and Aboriginal cultural/commercial fishing for an article in Tracker Magazine produced by the New South Wales Aboriginal Land Council. • PI and CI provided three letters of support in legal cases describing the link between cultural and commercial fishing for Aboriginal people. • Specifically tailored lecture at Southern Cross University on Aboriginal commercial fishing and two lectures given by past and current Aboriginal Commercial Fishers. 	1, 4

10 Conclusion

The conclusions are presented in relation to the original project objectives, which were:

1. Case study of Indigenous commercial fisheries focusing initially on New South Wales as a basis for a national study.
2. Determine the number of Indigenous commercial fishers in New South Wales.
3. Estimate the percentage of commercial catch made available to Indigenous communities for personal consumption.
4. Identify management changes likely to impact Indigenous participation in commercial fisheries and how they will impact.
5. Develop strategies to ameliorate the impacts of management change on Indigenous participation in commercial fisheries.

10.1 Conclusions in relation to objective 1

The research team was able to complete a case study of Aboriginal participation in the NSW commercial fisheries sector, which now provides a better understanding of the complexities associated with this type of research. Issues associated with trying to identify which commercial fishers are indigenous, gaining the trust of ACF to provide relevant data, maintaining ongoing contact with ACF participants and building capacity all represent significant hurdles to be overcome to ensure that a project of this nature can achieve its outcomes. What this study has shown that if considerable effort is put in by the researchers a platform can be built on which a more productive future engagement between ACF and fisheries management possible. While there would be benefit in conducting a national study it might more beneficial to use this study as a basis for doing a series of studies at the state and territory level where opportunities for capacity building with ACF could be tailored to suit the specific management regimes.

10.2 Conclusions in relation to objective 2

This objective has been achieved. A total of 45 Aboriginal people were identified as having worked in the New South Wales commercial fishing sector over the last 10 or so years. Of those 45, 37 are current and eight are former commercial operators. Of the 37 current Aboriginal commercial fishers there are 29 individuals with fishing businesses, five who are nominated fishers on other fishing businesses, one who is an unlicensed crew member, and two who hold aquaculture permits. There are a total of 33 fishing businesses in all, three individuals holding more than one business.

The research team made contact with 37 of the Aboriginal commercial fishers identified and 34 of those consented to participate in the project, while three current fishers declined. Of the 34 Aboriginal commercial fishers, 31 are current and three are former operators. Twenty-eight Aboriginal commercial fishers operate in share management fisheries and two in restricted fisheries. Aboriginal commercial fishers operate in six out of the 10 New South Wales commercial fisheries, however they are not evenly represented in those six with the majority being found in the EGF and OHF. There is no Aboriginal representation in the Abalone or Lobster Fisheries.

Aboriginal commercial fishers hold approximately 10,884 shares, or 2.7% of the total shares available, in all share management fisheries in New South Wales. The largest proportion of Aboriginal owned shares is in the Estuary General Fishery where there are 23 Aboriginal owned fishing businesses of which 10% are below and 90% are on the minimum shareholding of 125. There are 18 Aboriginal owned fishing businesses in the OHF of which 17.6% are below, 17.6% are on and 64.8% are above the minimum shareholdings. There is one

Aboriginal owned fishing business in the EPTF on the Hunter River with the minimum shareholding of 100 shares, representing 3.5% of the shares available for the endorsement. There are two Aboriginal owned fishing businesses in the OTLF and, combined, they hold less than 0.5% of the total shares available for the fishery. There is one Aboriginal owned fishing business in the OTF with an inshore prawn endorsement, which is below the minimum shareholding requirement. There are two Aboriginal owned fishing business in the New South Wales Inland Fishery which equates to an 8% share of the fishery. Two Aboriginal commercial fishers are active in the aquaculture industry with a total between them of nine oyster leases stretching over a 12-acre allotment.

This data provides a basis from which DPI, in conjunction with Aboriginal commercial fishers, will be better placed to predict and therefore ameliorate impacts of proposed management changes, for example, changes to minimum shareholdings. The data also provides a basis for setting targets for Aboriginal participation in the commercial fishing sector as well as a basis for monitoring the ongoing participation of Aboriginal commercial fishers.

10.3 Conclusions in relation to objective 3

This project sought to get an estimate of the amount of fish that Aboriginal commercial fishers give to their communities. More than 90% of Aboriginal commercial fishers indicated that they gave some of their commercial catch to the local Aboriginal communities. Aboriginal commercial fishers indicated that this contribution varied seasonally. Estimates of the size of the community contributions ranged from 5% to 20% of the annual commercial catch with the average around 9.8%. In an attempt to estimate an actual weight of the community contribution, the researchers asked participants for permission to access their official DPI catch history data. Only six Aboriginal commercial fishers gave permission, which restricted the ability of the researchers to make a reasonable overall estimate. To further refine the total catch estimates the research team will require a greater level of trust being developed with those Aboriginal commercial fishers that were reluctant to release their catch histories.

There are no formal reporting requirements from DPI for Aboriginal commercial fishers to record the amount of catch given to Aboriginal communities. However, as a result of discussions between participants and DPI staff at forums facilitated by the research team, DPI are moving to modify the commercial catch recording forms to include a space for Aboriginal commercial fishers to record distribution of catch to the community.

10.4 Conclusions in relation to objective 4

Aboriginal commercial fishers felt their ability to participate in the commercial fishing industry was impacted by a range of issues including:

- reduced access to fisheries for Aboriginal people as a result of policy;
- reduced access for Aboriginal commercial fishers to fishable waters as a result of closures (recreational fishing havens, marine parks, Section 8 closures);
- increasing costs, in particular management fees, for Aboriginal commercial fishers;
- a lack of recognition and accommodation of Aboriginal culture and tradition by fisheries management, other stakeholders and broader society;
- a lack of recognition of Indigenous rights to derive a living from traditionally targeted species;
- ineffectual consultation processes and structures that have meant an Aboriginal commercial fishing voice has either not been heard, not understood or not acted on;
- the initial allocation of endorsements and then shares, which Aboriginal commercial fishers felt failed to take into consideration cultural impacts on validated catch history;
- the use of the minimum shareholding to manage effort;
- the lack of information from fisheries management on proposed changes to management that is readily interpretable by Aboriginal commercial fishers; and
- the lack of support from the government during significant environmental episodes, like drought or pollution events, that impact the size of their catch.

There were also serious concerns about the fairness of current proposals that would link shares to effort or quota. Each of these concerns is being addressed through a the discussion paper being developed by Aboriginal

commercial fishers as part of this project and by including high-level DPI staff at forums undertaken throughout the state and facilitated by the research team.

10.5 Conclusions in relation to objective 5

In seeking to address this objective the research team sort ideas from Aboriginal commercial fishers on the sorts of strategies or approaches that they felt needed to be taken to lessen the impact of fisheries management. These ideas included:

- development of opportunities for Aboriginal people to increase their participation in commercial fisheries through for example: the establishment of an Aboriginal commercial fishing trust, or the implementation of an Aboriginal community licencing scheme;
- a review of policies aimed at managing fishing effort to accommodate the ongoing participation of Aboriginal people in the commercial fishing sector;
- special consideration in relation to use of closures particularly over traditionally fished water;
- reduction of management fees based on the contribution that Aboriginal commercial fishers make to the community in terms of catch;
- need for better understanding of Aboriginal commercial fishers cultural obligations by fisheries management staff, other stakeholders and the broader community (cross-cultural awareness);
- more culturally appropriate consultative mechanisms for example: a specific Aboriginal commercial fishers advisory group and/or a dedicated DPI liaison;
- exemptions, in the event of DPI raising the minimum shareholdings for each endorsement;
- special consideration in relation to effort controls that have traditionally involved the whole community (for example in the *ocean hauling* fishery); and
- build the capacity of Aboriginal commercial fishers through, for example, development of training programs for new and existing Aboriginal commercial fishers in areas like business, fisheries management policy, fishing methodologies and leadership.

The development of a discussion paper mentioned in 10.3 will include recommendations based on these ideas.

11 References

- Adams, M. J., Cavanagh, V. & Edmunds, B. (2008). "Bush lemons and beach hauling: evolving traditions and new thinking for protected areas management and Aboriginal people in New South Wales" in D. Smyth & G. R. Ward (Eds.), *Protecting Country: Indigenous Governance and Management of Protected Areas*. AIATSIS, Canberra.
- Altman, J.C., Ginn, A. and Smith, DE. (1993). *Existing and potential mechanisms for Indigenous involvement in coastal zone resource management*. A consultancy report commissioned by the Resource Assessment Commission for the Coastal Zone Inquiry. Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Australian Institute of Aboriginal and Torres Strait Islander Studies (2011). *Guidelines for Ethical Research in Indigenous Studies*, www.aiatsis.gov.au/research/docs/GERAISjune2011.pdf (accessed 6 September 2011).
- Australian Law Reform Commission (1986). *Recognition of Aboriginal Customary Laws*, Report 31, <http://www.alrc.gov.au/inquiries/aboriginal-customary-laws> (accessed 6 September 2011).
- Australia (1991). Royal Commission into Aboriginal Deaths in Custody, *Final Report*, <http://www.austlii.edu.au/au/other/IndigLRes/rciadic/> (accessed 6 September 2011).
- Barnett, B. and Ceccarelli, D. (2007). *As far as the eye can see: Indigenous interests in the East Marine Planning Region*. Report produced by C&R Consulting for the Department of the Environment and Water Resources, Canberra.
- Bennett, M. (2007). "The economics of fishing: sustainable living in colonial New South Wales". *Aboriginal History*, 31:85-102, Australian Centre for Indigenous History, Australian National University, Canberra.
- Bomford, M. and Caughley, J. (eds) (1996). *Sustainable Use of Wildlife by Aboriginal Peoples and Torres Strait Islanders*. Bureau of Resource Sciences, Canberra.
- Callaghan, B. (2003). Developing the participation of indigenous people in commercial fishing: A report prepared for the NSW Indigenous Fisheries Advisory Committee. Bruce Callaghan and Associates Pty Ltd, Balmain.
- Carpenter, H. (1999). Discussion paper - NSW Fisheries Indigenous Strategy. Prepared for the NSW DPI.
- Chase, A. and Sutton, P. (1981). "Hunter-Gatherers in a Rich Environment: Aboriginal Coastal Exploitation in Cape York Peninsula" in Keast, A. (ed) *Ecological Biogeography in Australia*, W. Junk, London.
- Cruse B., Stewart L., Norman S. (2005). Mutton fish: the surviving culture of Aboriginal people and abalone on the south coast of New South Wales. Aboriginal Studies Press.
- Durette, M. (2007). *Indigenous property rights in commercial fisheries: Canada, New Zealand and Australia compared*. CAEPR Working Paper No. 37/2007. Centre for Aboriginal Economic Policy Research, ANU Canberra.
- Egloff, B. (2000). "Sea long stretched between: perspectives of Aboriginal fishing on the south coast of New South Wales in the light of Mason v Tritton". *Aboriginal History* 29:200-212. Australian Centre for Indigenous History, The Australian National University, Canberra.
- English, A. (2002). *The Sea and the Rock Gives Us a Feed: Mapping And Managing Gumbaingirr Wild Resource Use Places*. Published by the NSW National Parks and Wildlife Service.
- Goulding, M. and Waters, K. (2005). *Eurobodalla Aboriginal Cultural Heritage Study South Coast New South Wales*. A Report prepared by Goulding Heritage Consulting Pty Ltd for the Eurobodalla Shire Council, Department of Environment & Conservation, Batemans Bay Local Aboriginal Land Council, Bodalla Local Aboriginal Land Council, Cobowra Local Aboriginal Land Council, Merrimans Local Aboriginal Land Council, Mogo Local Aboriginal Land Council & Wagonga Local Aboriginal Land Council.

- Hawkins, S. (2003). Caught, hook line and sinker: Incorporating Aboriginal fishing rights into the Fisheries Management Act. Aboriginal Justice Advisory Council, NSW.
- International Society of Ethnobiology (2006). *International Society of Ethnobiology Code of Ethics* (with 2008 additions), available at www.ethnobiology.net/ethics.php (accessed 6 September 2011).
- Lowe, D. and Davies, J. (2001). "Bundarra, Berri-werri, and the Bay" in Baker, R., Davies, J. and Young, E. (eds.) *Working on Country*. Oxford University Press.
- McAvoy, T. (2002). "Indigenous fisheries: cultural, social and commercial". *Native Title Newsletter No. 1/2002*.
- National Indigenous Fishing Technical Working Group (2004). *National Principles on Indigenous Fishing*, National Native Title Tribunal, available at http://www.nntt.gov.au/News-and-Communications/Media-Releases/Pages/Fishing_principles_to_guide_Indigenous_i.aspx (accessed 6 September 2011).
- National Oceans Office (2002). *Sea Country – an Indigenous perspective*. The South-East Regional Marine Plan Assessment Reports. National Oceans Office, Tasmania.
- Native Title Report (2007). Commercial fishing: A native title right?
- NSW Department of Primary Industries (2009). Consultation Paper: Commercial Fishing Reforms – The 'Pyrmont Pact' & 'FishOnline'.
- NSW Department of Primary Industries (2012). *NSW Commercial Fisheries Administration Guide*. Available at <http://www.dpi.nsw.gov.au/fisheries/commercial/licensing-forms> (accessed 19 November 2012).
- NSW Department of Primary Industries (2006). *Estuary General Management Plan 2006*. Available at <http://www.legislation.nsw.gov.au/maintop/scanact/inforce/NONE/0> (accessed 19 November 2012).
- NSW Department of Primary Industries (2006). *Ocean Haul Share Management Plan 2006*. Available at <http://www.legislation.nsw.gov.au/maintop/scanact/inforce/NONE/0> (accessed 19 November 2012).
- NSW Department of Primary Industries (2006). *Ocean Trap and Line Share Management Plan 2006*. Available at <http://www.legislation.nsw.gov.au/maintop/scanact/inforce/NONE/0> (accessed 19 November 2012).
- NSW Department of Primary Industries (2006). *Ocean Trawl Share Management Plan 2006*. Available at <http://www.legislation.nsw.gov.au/maintop/scanact/inforce/NONE/0> (accessed 19 November 2012).
- NSW Office of Aboriginal Affairs (2008). Two Ways Together: Report on Indicators 2007.
- NSW Parliament, Legislative Council, Select Committee on Recreational Fishing (2010). *Recreational fishing in New South Wales: Report of Select Committee on Recreational Fishing*. Sydney, N.S.W.
- Resource Assessment Commission (1993). *Coastal Zone Inquiry – Final Report*, Australian Government Publishing Service, Canberra.
- Roberts, A. (2010). *Aboriginal Women's Fishing in New South Wales: A thematic history* Published by Department of Environment, Climate Change and Water NSW.
- Schnierer, S. (2011). *Aboriginal fisheries in New South Wales: determining catch, cultural significance of species and traditional fishing knowledge needs*. Report to the Fisheries Research and Development Corporation, Canberra.
- Stevens, R. (2007). *Report on structural adjustment in commercial fisheries in New South Wales*. Prepared for the NSW Seafood Industry Advisory Council.
- Sutherland, J. (1996). Fisheries, aquaculture and Aboriginal and Torres Strait Islander peoples: studies, policies and legislation. Report for Environment Australia, Canberra
- Tsamanyi, M. and Mfodwo, K. (2000). *Towards Greater Indigenous Participation in Australian Commercial Fisheries: Some Policy Issues 1*. National Policy Office Policy Paper Series, ATSIC, Canberra
- The World Atlas, *Map of Australia*. Available at <http://australia.theworldatlas.net/> (accessed 6 September 2011).

Appendix 1 Intellectual Property

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Background intellectual property (IP)

Item	Nature of right	Description sufficient to identify background IP
1	Know-how	Pre-existing IP relating to Indigenous fisheries owned by A/Prof Stephan Schnierer arising from his culturally embedded knowledge and know-how
2	Know-how	Research methodologies used within the School of Environmental, Science and Engineering at Southern Cross University
3	Know-how	Southern Cross University cultural mapping protocols used within the School of Environmental, Science and Engineering
4	Copyright	Unpublished research project by A/Prof Stephan Schnierer entitled 'A description of the Indigenous Fisheries of New South Wales', Fisheries Action Program Natural Heritage Trust, Project no. NC0958.98, Indigenous Environmental Research Centre, Southern Cross University, Lismore.

Appendix 2 Report on Community Engagement for Project No.2010/304

Background

A key element of the collaborative methodology for this project was to engage Aboriginal commercial fishers in New South Wales in all aspects of the research not just as givers of information but receivers of information.

Indigenous communities and individuals have a right to be involved in any research project focused upon them and their culture. Participants have the right to withdraw from the project at any time. Research on Indigenous issues should also incorporate Indigenous perspectives and this is often most effectively achieved by facilitating more direct involvement in the research. (AIATSIS, 2011)

Before engaging directly with participants the research team gained familiarity with the industry, communities, location and representative organisations in accordance with the ISE guidelines:

Prior to undertaking any research activities, a good understanding of the local community institutions with relevant authority and their interest in the research is required, as well as knowledge of cultural protocols of the community shall be developed. A thorough effort shall be made in good faith to enhance such understandings through ongoing communication and active participation throughout the duration of the research process. (ISE, 2006)

To achieve effective engagement the researchers held meetings with key community members including the chairs of local Indigenous organisations and their members. Once key stakeholders had been identified, discussions took place to devise strategies on how to engage the Aboriginal commercial fishers in the initial stages of the project. The strategies were to include provision of verbal and written information at meetings of organisations and during participant interviews, affinity mini group interviews or at Aboriginal commercial fishing forums.

The project information provided to the Aboriginal commercial fishers was designed to be easy to understand and comprehensive enough for participants to make informed decisions about whether to participate or not. The International Society of Ethnobiology *Code of Ethics (2006)* (ISE Code of Ethics) emphasises the importance of establishing “educated, prior, informed consent” prior to undertaking any research activities. “Educated, prior, informed consent” includes full disclosure to potentially affected communities and mechanisms to ensure mutual understanding of the following:

- the full range of potential benefits (tangible and intangible) to the communities, researchers and any other parties involved;
- the extent of reasonably foreseeable harms (tangible and intangible) to such communities;
- all relevant affiliations of the individual(s) or organisation(s) seeking to undertake the activities, including where appropriate the contact information of institutional research ethics boards and copies of ethics board approvals for research;
- all sponsors of the individual(s) or organisation(s) involved in the undertaking of the activities; and
- any intent to commercialise outcomes of the activities, or foreseeable commercial potential that may be of interest to the parties involved in the project, and/or to third parties who may access project outcomes directly (e.g., by contacting researchers or communities) or indirectly (e.g., through the published literature).

Another important component of the ISE Code of Ethics is incorporation of community input into the types of data collected and data collection methods, during the research development phase. This facilitates ongoing engagement once the research begins.

Indigenous communities must also be involved in setting the terms of the research. The researchers must employ full communication and consultation with potentially affected communities to develop the terms of the research in a manner that complies with the ISE Principles (ISE, 2006). Prior to commencing research activities, the researchers must ensure that approval is granted in the manner defined by the local governance system of each affected community (ISE, 2006).

It must be noted that the protocols relating to consultation about, and approval of, research in Indigenous communities takes both time and resources. It is important to allow sufficient time to allow full and effective consultation to occur in project planning. After full disclosure and educated prior informed consent has been achieved, and before research can commence, an agreement should be reached with the community that:

- addresses foreseeable uses and property ownership issues of the research outcomes, including a clear agreement on rights and conditions related to who holds, maintains, uses, controls, owns, and has rights to the research processes, data, and outcomes (direct and indirect);
- specifies attribution, credit, authorship, co-authorship, and due acknowledgement for all contributors to the research processes and outcomes, recognising and valuing academic as well as cultural and local expertise;
- specifies how and in what forms the resulting information and outcomes shall be shared with each affected community, and ensure that access and forms are appropriate and acceptable to that community. Community data and information management systems, such as local registries and databases, shall be supported to the greatest extent possible; and
- represents what understandings have been reached regarding what is potentially sacred, secret or confidential and how such will be treated and communicated, if at all, within and beyond the direct parties to the research. (ISE, 2006)

It is also important for the researchers to keep in constant contact with participants so as to incorporate recommendations about research methods.

Objectives, conditions and mutually-agreed terms should be totally revealed and agreed to by all parties prior to the initiation of research activities. It is recognized that collaborative research, by design, may be iterative, emergent and require modifications or adaptations. When such is the case, these changes shall be brought to the attention of and agreed to by all parties to the research. (ISE, 2006)

The research team must also endeavour to deliver benefits to the Indigenous participants during the research process.

A researched community should benefit from, and not be disadvantaged by, the research project. Research in Indigenous studies should benefit Indigenous peoples at a local level, and more generally. A reciprocal benefit should accrue for their allowing researchers' often intimate access to their personal and community knowledge. (AIATSIS, 2011)

These benefits can include employment as community liaison officers and capacity building activities. An example of a capacity building could include the dissemination and explanation of information in relation to fishing regulations and legislation that might have otherwise been inaccessible.

Key informant approach

This approach is utilised to obtain information from individuals whose place or role in a community suggest they have knowledge about specific characteristics of that community (Eyler *et al*, 1999). Researchers can obtain specific knowledge about a particular problem by witnessing people's lives and circumstances firsthand (Marshall, 1996; Weinberg, 2002). For this research it was important to identify individuals from the community who were fishers that had a long association with the area. The key informant approach enabled the research team to ask questions of community experts and also learn which questions to ask (Wolcott, 1997).

In this project, the key informants helped to identify potential participants, identify cultural sensitivities, design research methodology and assist with appropriate implementation. Initially the research team identified three key informants to help gain access to other fishers in the state. Two of these were identified through a

previous research project that focused on cultural fishing and the third self-identified through participation in the initial stages of the project. All three key informants were not only a part of the local commercial fishing industry, they had been part of the traditional fishing community all their lives and were also respected and acknowledged by their community.

Prior informed consent

Prior informed consent (PIC) is a prerequisite in qualitative research involving people (Konza, 2005). The Australian Institute of Aboriginal and Torres Strait Islander Studies *Guidelines for Ethical Research in Indigenous Communities (2011)* (AIATSIS Guidelines) clearly state that research concerning Indigenous communities:

...should be carried out with appropriate consultation about the aims and objectives and meaningful negotiation of processes, outcomes and involvement. Relevant communities and individuals should be involved at all stages of the research process.

These themes and principles were used to guide the design, approach and conduct of this project, with a special emphasis on maintaining respect, recognition and involvement for Indigenous participants through clear consultation and negotiation processes.

Research fatigue

Research fatigue is widely recognised within the Australian Indigenous community, who have been exposed to western inquiry concerned mainly with the history of white colonisation and the self-interests of the scientific movement (Humphery, 2001). Within the last three decades in particular the term 'research' in itself has developed negative connotations for Indigenous people, some of whom believe that researchers are simply intent on taking knowledge (Smith, 1999). These perceptions have potential implications for this research and for future studies on Indigenous culture in Australia.

The AIATSIS Guidelines aim to address these issues by ensuring that Indigenous people have more control to participate in research, culturally sensitive methodologies are employed and the research offers benefits to communities (Humphery, 2001). These principles were adopted in developing relationships with project participants, creating greater access to knowledge and collaboration throughout the project.

Use of traditional knowledge

The ethical use and distribution of traditional knowledge and respect for intellectual and cultural property is another important consideration. Indigenous cultural and intellectual property rights are part of the heritage that exists in the cultural practices, resources and knowledge systems of Indigenous peoples, and that are passed on by them in expressing their cultural identity (AIATSIS, 2011).

Research into traditional culture can have both positive and negative impacts for Indigenous communities (Harmsworth, 1998; Mackay, 2009; Rose, 2005). Sharing of knowledge can bring benefit to communities through greater appreciation of Indigenous knowledge and culture by the broader population (Parlee and Berkes, 2006). However, a potentially negative impact has been the inappropriate dissemination and handling of unique and sometimes sacred knowledge. Without Indigenous consent or control over the publication of research findings important knowledge can be misused and exploited by third parties in an inappropriate way (Drew, 2005).

Description of approach used in this project

The Department of Primary Industries (DPI) was contacted and a meeting was held (7/03/2011) to discuss the project and identify further local and government organisations including the Aboriginal Fisheries Advisory Council (AFAC). The researchers then gave a presentation on all aspects of the project to a full meeting of the AFAC (28/03/2011). A PowerPoint presentation was developed with the following content:

1. Project context

- This project is designed to collect data on Aboriginal commercial fishers, which can then be used as a basis to develop specific strategies designed to keep them in the industry in the face of rapidly changing management environment.

- As traditional harvesters of Australia's fish stocks they have rights used as a basis to develop specific strategies designed to keep them in the industry in the face of a rapidly changing management environment.
 - As traditional harvesters of Australia's fish stocks they have rights to a component of commercial catch but their special needs at present are not being addressed sufficiently by management agencies.
 - General fisheries management structures and processes in New South Wales.
 - The 2010 changes to the *Fisheries Management Act 1994* (NSW) (NSW FMA) recognising Aboriginal Cultural Fishing.
2. Project details
 - Aims, objectives and possible research methodology.
 - The source of project funding – Fisheries Research Development Corporation (FRDC).
 - Project funding agreement between Southern Cross University (SCU) and FRDC.
 - Southern Cross University's ethical research protocol and an outline of the SCU Human Research Ethics Authority for the project.
 3. Project Benefits
 - Participant owned database for use in future negotiations with DPI.
 - Use of research results to stimulate further research or generate development projects.
 - Greater awareness of governmental fisheries management processes.
 - Enhanced capacity to participate in fisheries management advisory structures.
 4. Process for participation
 - Opportunity for attendees to provide comment and input on the project.
 - Individual nomination to participate.
 - Identification of other individuals and organisations to contact.
 - Future project information sessions.

Outcomes from meetings with the DPI and AFAC included a formal expression of support for the project and the suggestion to contact coastal local Aboriginal Land Councils in New South Wales, Fishing Co-ops and key industry representatives.

In order to promote the project, the attendees suggested making a local media release. This was then placed in regional and national papers such as the Koori Mail. The DPI also agreed to send a copy of the project information sheet out to all inland commercial fishers.

The presentation outlined above was condensed and presented by a research team member at:

- Indigenous Fishing Forum in Cairns (30/03/11);
- Indigenous Reef Advisory Committee meeting in Townsville (6/04/2011);
- Victorian Future Fisheries Strategies Workshop (26/05/2011);
- UN CBD Expert Workshop on Article 10(c) (31/05/2011);
- NSW AFAC Regulations working group (7/06/2011);
- Indigenous Reference Group FRDC in Cairns (29/06/2011); and
- Meeting with the Director of Commercial Fisheries (4/07/2011).

Teleconferences were held with DPI staff on 7 April 2011 and 8 July 2011, to clarify survey instrument design and also appropriate ways in which to structure consent forms to satisfy the requirement of the department to aid in providing access to records. The PI also outlined aspects of the project in an interview conducted by ABC radio (8/06/2011).

Coastal Local Aboriginal Land Councils (LALC) were contacted by the researchers at the suggestion of the attendees. The LALC included: Awabakal, Baryulgil Square, Batemans Bay, Bega, Birpai, Birrigan Gargle, Bodalla, Bunya, Cobowra, Coffs Harbour, Eden, Forster, Grafton Ngerrie, Illawarra, Jali, Jana Ngalee, Jerrinja, Karuah, La Perouse, Merrimans, Mogo, Nambucca Heads, Nowra, Tweed Byron, Ulladulla, Unkya, Wagonga and Yaegl. The local Aboriginal land councils were provided with the project information sheet and also the project press release. These organisations provided some information on potential participants and also passed project information onto members that may have been interested.

Aboriginal commercial fishers that had been previously identified in cultural fishing projects also helped identify Aboriginal families that they operated with around the state before zoning was implemented. They also

highlighted workshops, port meeting and other forms of consultation that had been targeted at or attended by Aboriginal commercial fishers.

Participant identification field trip

The first participant identification trip was conducted for the New South Wales coastline from 10 - 18 July 2011. All local Aboriginal land councils contacted via phone and email were visited in person, and identified participants were met and informed of the project and gave consent. These participants also helped to identify other participants and also provide valuable input into methodological approaches. Six participants took part in face-to-face surveys on this first trip and, as a result of feedback, an additional question was added to the questionnaire instrument. Surveys took between 30 minutes and three hours, this was dependent on the participant's engagement and level of trust. Seven participants were interviewed in the first field trip.

The research team gave a project progress presentation to the New South Wales Aboriginal Land Council in Parramatta on 20 July 2011. A full presentation about the project and elements of Aboriginal fisheries based research was given to Southern Cross University students studying a degree of Marine Science at the National Marine Science Centre Coffs Harbour on 29 July 2011.

Issues with identification

There is no formal database identifying Aboriginal people in the commercial fishing industry. One of the objects of this research was to build this database, which would then provide DPI with a means of predicting the impacts of management changes.

Problems encountered with identification included:

- many Aboriginal commercial fishers are isolated from other members in the community because of their workload. They are not necessarily associated with the local Aboriginal land councils or other Aboriginal organisations;
- Local Aboriginal land councils are over researched and often do not want to pass on details;
- some local Aboriginal land councils details are out of date, it was difficult to get through to people and in some cases local Aboriginal land council offices were unmanned; and
- contact was hard because many Aboriginal commercial fishers do not use phones or cannot maintain a constant phone number.

While the project set out to identify all the Aboriginal participants in the commercial fishing sector, it is possible that we may have missed some in both wild caught and aquaculture fisheries.

It would be a larger project to identify all people who previously were in the industry, as it is very labour intensive and in some case purely based off luck that participants were identified. Though our results did indicate that in the past there were a lot of Aboriginal commercial fishers that contributed to the industry on a seasonal basis and in fisheries in which their names were never recorded. As a result of having "flown under the radar" a lot of these Aboriginal commercial fishers have been out of the industry since share management came in. Towards the later stages of data collection the researchers also become aware of more Aboriginal people in aquaculture, though due to time requirements these avenues were not explored.

Participant survey and interview field trip (Mid-coast and South-coast)

The second data collection field trip was undertaken from 25 August to 7 September 2011. This trip focused on participants from the Victorian border to Taree. Participants were part of one to one surveys, individual interviews and affinity mini group interviews. Surveys and interviews took between 30 minutes to two hours. Interviews were semi-structured with the outcomes based around further depth of explanation of survey questions and historical timelines. In this field trip 23 participants contributed.

The project team gave a project update to the Aboriginal Fishing Advisory Council and the project steering committee after the second lot of data was collated on 19 September 2011. A meeting was also held to report initial project findings to the Director of Commercial Fisheries at the National Marine Science Centre Coffs Harbour on 29 September 2011.

Participant survey and interview field trip (Inland NSW, north and far-north coast)

The third data collection field trip started in Swan Hill on the Victorian border and continued up north through western New South Wales and finished in Tweed Heads. This trip was conducted from 19 - 28 October 2011. Ten participants took part in surveys, individuals interviews and affinity mini group interviews. Members of the Aboriginal Fishing Advisory Council and the Department of Land and Heritage aided the research team in their search for inland participants.

Reviews and Audits

As a result of the initial data it was determined that the project team be involved in aiding participants with submissions for both the *Independent Review of Commercial Fishing Policy, Management and Administration* and the *Scientific Audit of Marine Parks*. In regards to submissions for the Scientific Audit of Marine Parks, researchers met with participants heavily affected by Marine Parks and helped with the writing process. Five participants made submissions from southern and northern coastal New South Wales. The views of participants that did not have the time lodge a submission were submitted through the research team with their permission. The project team was later invited to the New South Wales Marine Park Audit Indigenous Workshop at Parliament House Sydney on 2 December 2011 where a further submission was made with the combined voices of participants.

The independent fisheries review team held four port meetings as part of their commercial fisher consultation. The research team met with inland participants to help them construct a submission on 21 October 2011. The project team was in attendance at the Coffs Harbour, Newcastle and Ulladulla port meetings during November 2011. The project team met with participant's in the days prior to the meeting to help with submissions. Submissions and comments were made at the port meetings. Participants were present at both the Newcastle and Ulladulla Port meetings.

Forums

New South Wales south coast

The First Indigenous Commercial Fishing Forum was held in Ulladulla on the New South Wales far south coast on 28 February 2012. All current Aboriginal commercial fishers operating in Sydney and south were invited. The forum was held at the Ulladulla Community Centre and was attended by six Aboriginal commercial fishers, the project team and, at the request of participants, a high level DPI representative. The aim of the forum was to:

- allow Aboriginal commercial fishers to see who is left in the industry;
- combine their voices for clear views on current factors that impact them; and
- devise strategies to overcome these impacts in the future.

The forum ran from 9am to 4pm and was informally structured to allow maximum participant participation. The role of the DPI representative was to listen and elaborate on issues the Aboriginal commercial fishers found difficult to understand. The forum was video taped and audio recorded with the consent of all present.

New South Wales mid coast

The second Indigenous Commercial Fishing Forum was held in Port Macquarie on 27 February 2012. All current Aboriginal commercial fishers from Sydney north to Kempsey were invited. The forum was held in the local community centre and was attended by five Aboriginal commercial fishers and the project team. Forum aims were consistent with those of the South Coast forum. The forum was audio recorded with the permission of all present.

New South Wales north and far north coast

The third Indigenous Commercial Fisher Forum was held at Fingal Heads in far northern New South Wales, in a marquee set up on the property of one of the participants on 16 April 2012. All current Aboriginal commercial fishers from Kempsey north to the New South Wales – Queensland boarder were invited. Five fishers attend plus the project team. The forum aims were consistent with those of the previous forums and were audio and video taped with the permission of all involved.

The key findings from the forums were developed into a working Draft Discussion Paper. Which fishers endorsed and the project steering committee had recommended. As a result, both the participants and steering committee agreed that in light of all the current changes presently occurring within New South Wales commercial fisheries, there was a need for more forums. This would give participants a unified voice and a seat at the table to attempt to move their aspirations forward. High level DPI staff would also be in attendance to help participants understand current and future structural changes and also so that participants could build DPI staff capacity the address Indigenous needs. It was decided that the best way to bring fishers and DPI staff together was in the same format as the previous three forums.

Affinity mini group interviews

Affinity mini group interviews were identified as a useful methodology to utilise throughout this research. This was due to the fact that all participants had gained their fishing knowledge through family connections. The wealth of history and involvement in one activity meant that gathering family members could reveal a greater depth of information. As a result, the research team formed a group of interview questions for spontaneous and also planned group interviews (see Appendix 7). Participants would regularly bring other family members along to meetings, unannounced, and the interview questions ensured that the input of all members related to the issues raised and outcomes set for this project. The research team also arranged group interviews before and after forums and also during review and audits proceedings. A total of six group interviews were conducted.

Aboriginal commercial fisher and DPI forums

The first Aboriginal commercial fisher and DPI forum was held in Ulladulla on 2 August 2012. The second forum was held in Port Macquarie on 27 September 2012. The third was held in Tweed Heads on 28 September 2012. All current Aboriginal commercial fishers were invited to attend, as were appropriate high-level DPI staff members. The aim of the forums were:

- to assist Aboriginal commercial fishers to gain a greater understanding of past and current policy changes and how they will effect them;
- to increase the capacity of DPI staff to deal with the impacts of policy change on Aboriginal commercial fishers and address their future needs to remain in the industry;
- two way exchanges between industry and fishers, this occurred through DPI presentations on legislation, policy and reasons for change. Followed by questions from both groups to clarify the meaning of such changes on the ground.
- to work through the draft discussion paper; and
- to give Aboriginal commercial fishers a voice.

These forums were well structured but still contained a level of informality that participants were comfortable with. Forums were undertaken over the course of a day. All members received copies of the Draft Discussion Paper and the days itinerary well in advance, to ensure all present were on the same page and the day's objectives could be met. In attendance were between five to eight Aboriginal commercial fishers, two to four DPI staff and the project team. The forums were audio and video recorded with permission of all in attendance.

Outcomes of community engagement process

A total of 277 meetings were held with a range of Indigenous organisations, groups and individuals (Table 1). In total, four Aboriginal organisations, six government organisations, three non-government organisations, 11 conference/committee/working groups and a number of individuals were engaged in the project.

Table 1 Number of meetings with organisations and phone conferences with groups and individuals as part of the community engagement process for FRDC project no. 2009/038

	Meetings
Organisations	
New South Wales Aboriginal Land Council (NSWALC)	9
Aboriginal Fisheries Advisory Council (AFAC)	7

	Meetings
Local Aboriginal Land Councils (NSWLALC)	32
Native Title Services Corporation (NTSCORP)	7
United Nations Conservation of Biological Diversity (Workshop on Article 10 (c) and 8 (j)) (UN CBD)	2
ABC Radio (Interview)	2
Local Fishing Co-operatives	6
Government organisation	
New South Wales Department of Primary Industries (NSW DPI)	33
New South Wales Department of Aboriginal Affairs (NSW DAA)	6
Victorian Future Fisheries Strategy (VFFS)	3
Southern Cross University (Fisheries and Marine Science Students)	5
NSW Department of Lands (NSW DL)	2
NSW Department of Heritage (NSW DH)	3
Forums/Conferences	
Indigenous Fishing Forum Cairns	1
Victorian Future Fisheries Strategy (VFFS)	4
Indigenous Reef Advisory Committee (IRAC)	2
Indigenous Reference Group FRDC (Cairns, Gove and Brisbane)	3
NSW Coastal Conference (NSWCC)	1
NSW Marine Park Audit, Indigenous Workshop	1
Stakeholder Advisory Group SE Area Programme, Climate Change, FRDC	1
PIRSA Workshop on National Harvest Strategy	1
NAILSMA Sea Country Planning Workshop	2
National Indigenous Sea Country Workshop Report	1
Abstract 2012 NSW Coastal Conference	
Organisations Total	134
Individuals	
Community liaison Officers	56
Participants	87
Individuals and organisations total	277

A total of 301 hours were spent organising and conducting each of the three data collection methods (Table 2.)

Table 2 Time spent (hours) and number of phone calls made to organise and conduct each of the three data collection stages (questionnaire/interviews, affinity mini group interviews, Indigenous commercial fishing forums and capacity building) of the project.

Activity	Hours	Phone
Organising and conducting individual interviews (questionnaires)	157	692
Organising and conducting affinity mini group interviews	12	30
Organising and conducting Indigenous Commercial Fishing Forums	89	112
Capacity building meetings	43	51
Total	301	885

The level of engagement and capacity building undertaken during this project was the key reason why this research project was ultimately successful in collecting data. The amount of time spent in face-to-face contact with participants and members of the broader community built trust between the community and the researchers. It also gave participants the opportunity to ask questions and take an interest in the project without judgement from the broader community. In this information exchange, Aboriginal commercial fishers gained confidence.

Appendix 3 Press release

Research seeks to support Indigenous commercial fishers

Southern Cross University researchers are calling on Aboriginal commercial fishers to take part in a new study aimed at better understanding the affect of fisheries management in New South Wales on Indigenous participation in the state's commercial fishing sector.

The 12-month study, which is being carried out in consultation with the NSW State Aboriginal Land Council, NSW Industry and Investment (Fisheries) and NSW Office of Aboriginal Affairs, will examine how fisheries management is affecting the ability of Aboriginal fishers to remain in the sector. In particular, the researchers aim to determine the adjustment process being undertaken for the NSW commercial sector as a result of the 'Pyrmont Pact' - a restructure of the commercial fishing industry announced by the former Minister for Primary Industries in 2009.

Southern Cross University's Associate Professor Stephan Schnierer is the principal researcher for the study, which is being funded by a grant from the Fisheries Research and Development Corporation in Canberra, on behalf of the Australian Government.

"The research is important because it will determine how we can maintain an Indigenous presence in the NSW commercial fishing sector in the face of ongoing changes to fisheries management approaches," said Professor Schnierer.

"We need to make sure that commercial fishing opportunities are available to Aboriginal people - particularly when one considers that many of the species taken commercially today have been harvested by their people for thousands of years.

"The study will seek to determine the number of Aboriginal commercial fishers operating in NSW waters, the factors impacting ongoing Aboriginal participation in the commercial fishing sector and develop strategies to help remove any negatively impacting factors."

Appendix 4 Participant consent forms



Participant Consent Form

Project Title: *Impact of management changes on the viability of Indigenous commercial fishers and the flow on effects to their communities: Case study in NSW.*

Researchers: Stephan Schnierer (Principal Researcher); Hayley Egan.

- I agree participate in the research project specified above under 'Project Title'. Yes No
- I understand all the information provided by the researchers about my participation in this project. Yes No
- I agree to participate in this project by providing information to the researcher via questionnaires and/or face-to-face interviews. Yes No
- I agree to allow any interviews to be audio-taped/video taped Yes No
- I understand that my participation in this project is on a voluntary basis. Yes No
- I understand that I can cease my participation in this project at any time. Yes No
- I understand that my identity, whilst participating in this project, will be kept anonymous and that information identifying me will be removed when the data is analysed. Yes No
- I understand that all information gathered in this research is confidential and will be kept secure for 7 years at SCU and after that, before disposal, the permission of the communities will be sought regarding disposal of research material Yes No
- I am aware that I can contact the researchers at any time to seek clarification about this project and my participation. Yes No
- I understand that this project was approved by the SCU Human Research Ethics Committee. Yes No

Participants name: _____ Date: _____

Participant's signature: _____

Contact number: _____

Please tick this box and provide your email or mail address below if you wish to receive a summary of the results:

Email: _____

Appendix 5 Questionnaire



Indigenous Commercial Fisheries Survey



Name:

Address:

Phone:

E-mail:

Age:

Gender:

Commercial Fishing Status: Current/Former

Number of years in the industry:

In which zone do/did you fish?

Are you fishing on your sea country?

What endorsements do/did you hold?

Estimate your annual management costs (license fee's etc)?

Estimate your annual catch for each endorsement?

What percentage of your catch would you estimate is/was given to the community?
 5% 10% 15% 20% 25% 30% 35%

What are your top 5 concerns that impact your participation in commercial fisheries?

1.
2.
3.
4.
5.

Have you made submissions to NSW Industry and Investment management processes?

Do you think there should be an Indigenous MAC?
 Yes No Why:

Are there people in your community that want to enter the commercial fishing industry?

What steps need to be taken to ensure Indigenous Commercial Fishers stay in the industry and there is a future for generations to come?

Would you be willing to participate in an interview?
 Yes No

Thank you for your participation!

Appendix 6 DPI catch history consent form



CONSENT for RELEASE of PERSONAL INFORMATION CATCH HISTORY INFORMATION

Please be advised that all information will be used anonymously and that you have the right to withdraw your permission at any time during the course of this research. Information will only be used for the duration of the research project entitled: *Impact of management changes on the viability of Indigenous commercial fishers and the flow on effects to their communities: Case study in NSW*. At the conclusion of the project you will be contacted and will advise the research team if you would like the information returned or disposed of.

I give permission to release the following information on my personal Catch History with the restrictions specified below.

My Fishing Business details are:

Endorsement Number:

Address:

Phone:

Vessel registration:

Restrictions

Please indicate below the level of information that you are willing to release:

Full access

Time restricted

Fishery restricted

Please indicate the time period that you are releasing information for:

Please indicate the fishery:

If you would like to place any other restrictions on your catch information please outline them below:

Signature: Date:

Witness: Date:

Appendix 7 Affinity mini-group interview discussion guide

Affinity Mini Group Interview Questions

1. Outline historical connection and any documents that may be relevant for example:
 - Permits
 - Shareholdings
 - Licences
 - Submissions
 - Court findings
 - Photo's
 - Maps

2. List the main issues that impact ACF participation in the commercial industry.

3. How could these issues be ameliorated?

4. Have you ever been apart of an advisory group and what formal structure would ensure ACF have a voice in the future?

Appendix 8 Distribution of Aboriginal and non-Aboriginal shares per endorsement in NSW Share Management Fisheries as of 2012

Fishery Share classes	Min. shares	ACF shares	All CF shares	%	ACF <Min	ACF =Min	ACF >Min
OCEAN TRAWL FISHERY							
Inshore Prawn	32	16	11,217	0.1	1		
Offshore Prawn	32		10,035	0.0			
Deepwater Prawn	20		656	0.0			
Ocean Trawl Fish Northern Zone	32		2,186	0.0			
Total		16	23,658	0.1	1	0	0
OCEAN TRAP & LINE FISHERY							
Demersal Fish Trap	40	80	8,180	1.0		2	
Line Fishing Western Zone	40	160	13,515	1.2		4	
Line Fishing Eastern Zone	40		3,220	0.0			
School & Gummy Shark	40		765	0.0			
Spanner Crab Northern Zone	40	15	1,760	0.9	1		
Spanner Crab Southern Zone	40		345	0.0			
Total		255	27,785	0.9	1	6	0
OCEAN HAUL FISHERY							
General Ocean Hauling R1	40	120	620	19.4		1	1
General Ocean Hauling R2	40		1,240	0.0			
General Ocean Hauling R3	40	140	1,860	7.5	2	1	1
General Ocean Hauling R4	40	240	4,540	5.3		3	2
General Ocean Hauling R5	40		680	0.0			
General Ocean Hauling R6	40	120	1,520	7.9	1	1	1
General Ocean Hauling R7	40	420	1,720	24.4	1	7	2
Hauling Net General Purpose R1	40	100	320	31.3			1
Hauling Net General Purpose R2	40		380	0.0			
Hauling Net General Purpose R3	40	40	1,680	2.4		1	
Hauling Net General Purpose R4	40	100	1,960	5.1		1	1
Hauling Net General Purpose R5	40		190	0.0			
Hauling Net General Purpose R6	40	60	480	12.5	1		1

Fishery Share classes	Min. shares	ACF shares	All CF shares	%	ACF <Min	ACF =Min	ACF >Min
Hauling Net General Purpose R7	40	390	1,830	21.3			3
Garfish Net Hauling R1	10		10	0.0			
Garfish Net Hauling R3	40		220	0.0			
Garfish Net Hauling R4	40		1,060	0.0			
Garfish Net Hauling R5	40		170	0.0			
Garfish Net Hauling R6	40	30	590	5.1	2		
Garfish Net Hauling R7	40	200	750	26.7	2		2
Pilchard, Anchovy and Bait Net Hauling R1	30	120	230	52.2			1
Pilchard, Anchovy and Bait Net Hauling R2	30		30	0.0			
Pilchard, Anchovy and Bait Net Hauling R3	30	10	160	6.3	1		
Pilchard, Anchovy and Bait Net Hauling R4	30		80	0.0			
Pilchard, Anchovy and Bait Net Hauling R5	30		90	0.0			
Pilchard, Anchovy and Bait Net Hauling R6	30		50	0.0			
Purse Seine Net	40		1980	0.0			
Total		2090	24440	8.6	10	15	16
ESTUARY GENERAL FISHERY							
Handline and Hauling Crew R1	125	250	4,800	5.2		2	
Handline and Hauling Crew R2	125		16,475	0.0			
Handline and Hauling Crew R3	125	250	8,125	3.1		2	
Handline and Hauling Crew R4	125	975	23,800	4.1	1	7	
Handline and Hauling Crew R5	125		6,600	0.0			
Handline and Hauling Crew R6	125	50	6,300	0.8	1		
Handline and Hauling Crew R7	125	1300	4,825	26.9	2	7	1
Meshing R1	125	250	4,550	5.5		2	
Meshing R2	125		13,200	0.0			
Meshing R3	125	125	6,725	1.9		1	
Meshing R4	125	725	20,425	3.5	1	5	
Meshing R5	125		5,300	0.0			
Meshing R6	125	50	6,050	0.8	1		
Meshing R7	125	725	4,025	18.0	3	4	
Prawning R1	125	250	2,725	9.2		2	
Prawning R2	125		12,350	0.0			
Prawning R3	125	125	3,900	3.2		1	
Prawning R4	125	625	18,950	3.3		4	
Prawning R5	125		650	0.0			
Prawning R6	125	50	4,825	1.0	1		
Prawning R7	125	1075	4,050	26.5		7	1
Trapping R1	125		500	0.0			
Trapping R2	125		2,500	0.0			
Trapping R3	125		3,950	0.0			
Trapping R4	125		10,200	0.0			
Trapping R5	125		2,775	0.0			
Trapping R6	125		425	0.0			
Trapping R7	125		750	0.0			
Eel Trapping R1	125		750	0.0			

Fishery Share classes	Min. shares	ACF shares	All CF shares	%	ACF <Min	ACF =Min	ACF >Min
Eel Trapping R2	125		4,975	0.0			
Eel Trapping R3	125		3,575	0.0			
Eel Trapping R4	125		6,500	0.0			
Eel Trapping R5	125		1,375	0.0			
Eel Trapping R6	125		2,300	0.0			
Eel Trapping R7	125	225	1,850	12.2	3		
Mud Crab Trapping R1	125		2,375	0.0			
Mud Crab Trapping R2	125		6,000	0.0			
Mud Crab Trapping R3	125		5,625	0.0			
Mud Crab Trapping R4	125	500	10,450	4.8		4	
Mud Crab Trapping R5	125		1,425	0.0			
Mud Crab Trapping R6	125		475	0.0			
Mud Crab Trapping R7	125		500	0.0			
Hand Gathering R1	125	125	1,677	7.5		1	
Hand Gathering R2	125		127	0.0			
Hand Gathering R3	125	252	2,161	11.7	2	2	
Hand Gathering R4	125	250	3,729	6.7		2	
Hand Gathering R5	125		100	0.0			
Hand Gathering R6	125	50	1,427	3.5			1
Hand Gathering R7	125	125	501	25.0			
Category One Hauling R1	125		1,000	0.0			
Category One Hauling R2	125		3,250	0.0			
Category One Hauling R3	125		1,250	0.0			
Category One Hauling R4	125	250	6,225	4.0		2	
Category One Hauling R5	125		1,775	0.0			
Category One Hauling R6	125	50	2,050	2.4	1		
Category One Hauling R7	125	600	1,450	41.4	3	3	
Category Two Hauling R1	125	250	975	25.6		2	
Category Two Hauling R2	125		3,200	0.0			
Category Two Hauling R3	125	125	2,275	5.5		1	
Category Two Hauling R4	125	375	6,200	6.0		3	
Category Two Hauling R5	125		1,125	0.0			
Category Two Hauling R6	125		1,925	0.0			
Category Two Hauling R7	125		1,125	0.0			
Total		10002	291472	3.4	19	64	3
ESTAURY PRAWN TRAWL							
Hawkesbury River	150		8,490	0.0			
Hunter River	100	100	2,800	3.6		1	
Clarence River	150		15,430	0.0			
Total		100	26,720	0.4	0	1	0
LOBSTER FISHERY							
Lobster	20		9,727	0.0	0	0	0
ABALONE FISHERY							
Abalone	70		3,454	0.0	0	0	0
TOTALS		12463	407,256	3.1	31	86	19

Appendix 9 Summary of issues and recommendations identified in this study indicating whether these have been previously identified in other documents or are new to project 2010/304.

Issues / recommendations	Previous issues and recommendations
ACCESS	
Need for access to sufficient fishable water to remain economically viable.	<p>“Lack of access to country through developments along the coastal margin has also impacted on Indigenous peoples’ ability to maintain a relationship with the sea including resource use.” (<i>Sea Country: An Indigenous Perspective</i>, 2002)</p> <p>“Traditional boundaries versus commercial boundaries: The Advisory Group clarify its views on commercial fishing and traditional hunting and gathering in parks and recreational fishing areas. A paper developing the options will be required.” (<i>Developing the participation of Indigenous people in commercial fishing</i>, 2003)</p>

Issues / recommendations	Previous issues and recommendations
Need for support for Aboriginal people to get into the industry and for current ACF to remain in the industry.	<p data-bbox="571 203 1473 286">“Recognising Indigenous Australians’ Interests in Fisheries. Some commonly voiced aspirations including...to have support for entry into commercial fishing and aquaculture activities.”</p> <p data-bbox="571 297 1425 353"><i>(Fisheries, Aquaculture and Aboriginal and Torres Strait Islander Peoples: Studies, Policies and Legislation, 1996)</i></p> <p data-bbox="571 394 1453 477">“Indigenous peoples in the south-east marine region would welcome positive industry and government support for joint ventures with commercial fisheries and aquaculture where they are regarded as equal partners.”</p> <p data-bbox="571 488 1070 517"><i>(Sea Country: An Indigenous Perspective, 2002)</i></p> <p data-bbox="571 557 1473 613">“Specific initiatives: Link communities to other government agencies which are able to plan and support commercial fishing and aquaculture ventures.”</p> <p data-bbox="571 624 1294 654"><i>(NSW Indigenous Fisheries Strategy and Implementation Plan, 2002)</i></p> <p data-bbox="571 685 1461 804">“Commercial licence transferability: Endorse the goal of retaining Indigenous people in the industry and call for report on how licence transfer arrangements might be used to assist this. The report should also list other strategies, which might assist in retaining or increasing the number of Aboriginal people in the industry.”</p> <p data-bbox="571 815 1398 844"><i>(Developing the participation of Indigenous people in commercial fishing, 2003)</i></p> <p data-bbox="571 875 1426 965">“Principle 6: Governments and other stakeholders will work together to, at minimum, implement assistance strategies to increase Indigenous participation in fisheries-related businesses, including the recreational and charter sectors.”</p> <p data-bbox="571 976 1090 1005"><i>(National Principles on Indigenous Fishing, 2004)</i></p> <p data-bbox="571 1037 1430 1093">“NSW Fisheries should be looking to achieve a minimum number of Aboriginal people employed in commercial fishing.”</p> <p data-bbox="571 1104 1275 1133"><i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i></p> <p data-bbox="571 1164 1473 1247">“Recommendations. Splitting licences and unrestricted devolution of endorsements. NSW Fisheries be asked to prepare a report on financing assistance for new commercial licences for Aboriginal fishers.”</p> <p data-bbox="571 1258 1398 1288"><i>(Developing the participation of Indigenous people in commercial fishing, 2003)</i></p> <p data-bbox="571 1319 1453 1375">“Principle 7. Increased Indigenous participation in fisheries related businesses and fisheries management, together with vocational development, must be expedited.”</p> <p data-bbox="571 1386 1090 1415"><i>(National Principles on Indigenous Fishing, 2004)</i></p>
Commercial boundaries do not reflect traditional boundaries.	<p data-bbox="571 1426 1430 1482">“Recommendation: Review of zones with consideration of Aboriginal territories and marine tenure.”</p> <p data-bbox="571 1494 1275 1523"><i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i></p> <p data-bbox="571 1554 1473 1615">“Recognising Indigenous Australians’ Interests in Fisheries. Some commonly voiced aspirations include...to have customary marine tenure recognised.”</p> <p data-bbox="571 1626 1425 1682"><i>(Fisheries, Aquaculture and Aboriginal and Torres Strait Islander Peoples: Studies, Policies and Legislation, 1996)</i></p>
Need for consultation in relation to proposals to close waters to ACF (e.g. marine parks, RFH, section 8 closures).	NEW.

Issues / recommendations	Previous issues and recommendations
Establish an Aboriginal fishing trust to acquire shares on behalf of the Aboriginal community.	<p>“The inquiry recommends...measures to improve economic development and employment opportunities for Indigenous communities in fisheries and mariculture ventures. Options include the reservation of a proportion of fishing or other licences for Indigenous communities, the purchases of such licences on behalf of indigenous communities by the Aboriginal and Torres Strait Islander Commission...” (<i>Coastal Zone Inquiry</i>, 1993)</p>
Exploration of possibility for ACF to operate within Recreational Fishing Havens (e.g. special permits).	<p>“Recommendations. The Advisory group clarify its views on commercial fishing and traditional hunting and gathering in parks and recreational fishing areas. A paper developing the options will be required.” (<i>Developing the participation of indigenous people in commercial fishing</i>, 2003)</p> <p>“Recommendation 20. That Industry and Investment NSW, in consultation with recreational and professional fishers, investigate and identify locations and circumstances in which limited commercial access to recreational fishing havens could be considered.” (<i>Report on Recreational Fishing in NSW</i>, 2010)</p>
Funding for ACF to access legal advice.	NEW
Strategies so that young Aboriginal people have the skills to be fishers (e.g. traineeships or father-son licences).	<p>“Recognising Indigenous Australians’ Interests in Fisheries. Some commonly voiced aspirations include...to receive appropriate training for commercial activities.” (<i>Fisheries, Aquaculture and Aboriginal and Torres Strait Islander Peoples: Studies, Policies and Legislation</i>, 1996)</p> <p>“Recommendations...opportunities for Aboriginal training and employment in the fishing industry.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p> <p>“Recommendations...Re-introduction of ‘father and son’ or family fishing licences.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997) The <i>Independent Review of NSW Commercial Fisheries Policy</i> (2011) noted, based on submissions, that there should be greater development opportunities in commercial fisheries for young Aboriginal fishers.</p>
Training for ACF on fisheries management approaches.	<p>“Recommendations. Training for Aboriginal commercial fishing industry. NSW Fisheries to report on training opportunities for fishers and crew and promote these opportunities in communities.” (<i>Developing the participation of indigenous people in commercial fishing</i>, 2003)</p>
Section 8 weekend closure mechanism include a small window of time for ACF to fish outside the public glare (e.g. early morning and late afternoon).	NEW
Change ‘priority of shot’ rules in relation to Aboriginal crews in the Ocean Hauling Fishery to accommodate smaller crews.	<p>“Recommendations...Review of ‘priority of shot’ (to accommodate the smaller size of Aboriginal crews).” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p>

Issues / recommendations	Previous issues and recommendations
COSTS	
Management fees, operating costs and infrastructure costs are too high and continually rising.	NEW
Management fees do not reflect the cultural dimensions to Aboriginal commercial fishing including provision of food to community and seasonal nature of fishing.	NEW
Cost of shares is too high for Aboriginal people to buy into the industry and for existing ACF to remain in the industry.	“Recommendations. Assistance with licences and fees. NSW Fisheries be asked to prepare a report on financing assistance for new commercial licences for Aboriginal fishers.” <i>(Developing the participation of Indigenous people in commercial fishing, 2003)</i>
Relief in relation to management fees, which could be charged on a proportional basis for seasonal fishers rather than an annual basis.	“Recommendations...Reductions in costs and fees for Aboriginal commercial fishers (for example, exemption from community contribution in recognition of past ownership.” <i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i>
Reimbursement of a portion of ACF management fees based on contribution of catch to the community.	NEW
Use of fees paid by ACF to support ongoing participation in the commercial industry.	NEW
Fuel subsidies for shore-based fisheries.	NEW
Provide ACF with information on alternative business models (e.g. using local farmers markets).	NEW

Issues / recommendations	Previous issues and recommendations
CULTURE	
<p>Lack of recognition of ACF including history in fishing; traditional fishing and management practices (e.g. regional boundaries imposed on traditional fishing territory boundaries); contribution to development of the industry; contribution to community in terms of food, social cohesion, health and cultural identity and maintenance; and contribution to conservation and sustainable use of resources.</p>	<p>“The inquiry recommends... assessments by all fisheries authorities of Indigenous interests in fisheries for which they have responsibility. Such assessments should include a review of the nature and extent of continuing customary marine tenure and traditional fishing practices in each fishery and how these might contribute to fisheries policy and management; impediments to Indigenous peoples’ participation in commercial fishing; and the impact of commercial fishing on fishing for traditional purposes.” (<i>Coastal Zone Inquiry</i>, 1993)</p> <p>“Recognising Indigenous Australians’ Interests in Fisheries. Some commonly voiced aspirations including... to have traditional knowledge respected and included in management regimes.” (<i>Fisheries, Aquaculture and Aboriginal and Torres Strait Islander Peoples: Studies, Policies and Legislation</i>, 1996)</p> <p>“Principle 1. Indigenous people were the first custodians of Australia’s marine and freshwater environments: Australia’s fisheries and aquatic environment management strategies should respect and accommodate this.” (<i>National Principles on Indigenous Fishing</i>, 2004)</p> <p>“The problems with Indigenous fishing, particularly as they relate to abalone fishing, are sensitive and complex. The present situation in, however, socially damaging to Aboriginal people, as well as being of economic and environmental concern and should not be allowed to continue. Consistent with the aims of the Indigenous Fishing Strategy, appropriate protection of traditional Aboriginal cultural fishing rights should be inculcated into all aspects of NSW fishery policy rather than being dealt with separately or in isolation.” (<i>Report on Illegal Fishing for Commercial Gain or Profit in NSW</i>, 2004)</p>
<p>Lack of recognition and understanding of the commercial / cultural nexus.</p>	<p>“NSW Fisheries need to recognise that fishing is a traditional way of making a living.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p>
<p>Challenge for ACF to retain their Aboriginal identity while still operating and remaining economically viable within a non-Aboriginal management structure.</p>	<p>“Aboriginal people were traditionally multi-species or multi-purpose fishers; this is a tradition that should be facilitated.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p>
<p>Community prevented from participating in cultural commercial fishing practices which is weakening the social bonds that are reaffirmed and maintained through communal fishing practices and preventing transmission of TFK to the next generation.</p>	<p>NEW</p>
<p>The barriers to the next generation of Aboriginal people entering the fishing industry (e.g. costs, lack of training etc) are impacting on the transmission of traditional fishing knowledge and cultural practices.</p>	<p>“Recommendations... Inability to get new fishing licences means that fishing traditions can’t be continued.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p> <p>“Recommendations... Development of seasonal or block licences to allow Aboriginal fishing practices in commercial fishing.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p>

Issues / recommendations	Previous issues and recommendations
Community fishing licences.	<p>“The inquiry recommends...measures to improve economic development and employment opportunities for Indigenous communities in fisheries and mariculture ventures. Options include the reservation of a proportion of fishing or other licences for Indigenous communities, the purchases of such licences on behalf of indigenous communities by the Aboriginal and Torres Strait Islander Commission...” (<i>Coastal Zone Inquiry</i>, 1993)</p> <p>“Recommendation 29. That Aboriginal community licences be introduced and that ‘general purpose licences’ be developed to accommodate the indigenous fishing methods of the Aboriginal commercial fishers in the assessment in catch history.” (<i>Report on Fisheries Management and Resource Allocation in NSW</i>, 1997)</p> <p>“Recommendations...Development of community licences.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p>
Establishment of Aboriginal fishing areas.	<p>“The inquiry recommends...measures to improve economic development and employment opportunities for Indigenous communities in fisheries and mariculture ventures. Options include...the establishment of fishing zones adjacent to land owned or controlled by Indigenous people in which communities could operate their own commercial enterprises, participate in joint ventures, or licence access by other marine resource users...” (<i>Coastal Zone Inquiry</i>, 1993)</p>
Regulations in relation to the Ocean Hauling Fishery changed to allow communities to participate.	<p>“Recommendation 32. That Industry and Investment NSW investigate a block licensing system for Aboriginal commercial fishers that will allow their family and community members to assist in beach hauling.” (<i>Report on Recreational Fishing in NSW</i>, 2010)</p>
Cross-cultural training package for NSW DPI, industry and broader public, including education on the dimensions of cultural commercial fishing practices.	<p>“The inquiry recommends...measures to improve relations between Indigenous communities, fisheries agency staff and commercial fishers, including cross-cultural awareness programs for agency staff and the organisation of local and regional workshops to discuss issues of mutual interest and concern.” (<i>Coastal Zone Inquiry</i>, 1993)</p>
Research into the social, economic and cultural impacts of water closures on Aboriginal cultural commercial fishers and their communities.	NEW
CONSULTATION	
Aboriginal aspirations (voice) not heard or not listened to or minimal action or not acted upon.	NEW
Current consultation mechanisms are ineffective and culturally inappropriate.	<p>“The inquiry recommends...representation of indigenous people on advisory committees for all major fisheries and identification of means by which Indigenous communities can participate in the management of local fisheries and marine environments in which they have a traditional interest.” (<i>Coastal Zone Inquiry</i>, 1993)</p> <p>“Recommendations. Aboriginal advisory structures: The Advisory group review representation and present recommendations to NSW Fisheries and through them to the NSW Government for more structured and better support representation.” (<i>Developing the participation of indigenous people in commercial fishing</i>, 2003)</p>

Issues / recommendations	Previous issues and recommendations
Need for sufficient capacity on both sides to make consultation work.	<p>“The inquiry recommends...measures to improve relations between Indigenous communities, fisheries agency staff and commercial fishers, including cross-cultural awareness programs for agency staff and the organisation of local and regional workshops to discuss issues of mutual interest and concern.” (<i>Coastal Zone Inquiry</i>, 1993)</p>
Development of mutually acceptable consultation processes and policies.	<p>“The inquiry recommends that state and Commonwealth natural resource management agencies establish units to provide advice on Indigenous interests as part of policy-making mechanism and consult with representatives of Indigenous organisations and peak industry bodies in establishing these units.” (<i>Coastal Zone Inquiry</i>, 1993)</p> <p>“Recognising Indigenous Australians’ Interests in Fisheries. Some commonly voiced aspirations include...to participate in fisheries management structures (including co-management structures, fisheries patrols and enforcement activities.” (<i>Fisheries, Aquaculture and Aboriginal and Torres Strait Islander Peoples: Studies, Policies and Legislation</i>, 1996)</p> <p>Two NSWALC representatives for membership on the Advisory Council on Commercial Fishing and the inclusion of a person with expertise in Aboriginal culture on each of the eight zonal advisory committees. (<i>Report on the Fisheries Management Amendment (Advisory Bodies) Act</i>, 1996)</p> <p>“Aboriginal commercial fishers are distinctive; they should be represented on committees.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p> <p>“Key issues. Indigenous peoples want to get involved in commercial aspects of marine management but in a way that recognises and respects Indigenous people and their rights.” (<i>Sea Country: An Indigenous Perspective</i>, 2002)</p>
Establish a state wide Aboriginal cultural commercial fishing advisory committee.	<p>“Recommendation 30. That NSW Fisheries establish an indigenous resource Management Committee as a priority including representation from the NSW Aboriginal Land Council; Department of Aboriginal Affairs; Aboriginal and Torres Strait Islander Commission (NSW); Indigenous commercial fishers; Indigenous recreational fishers; NSW Fisheries; and Nature Conservation Council.” (<i>Report on Fisheries Management and Resource Allocation in NSW</i>, 1997)</p>
Increase awareness of Aboriginal cultural commercial fishing within NSW DPI and among other industry stakeholders.	<p>4,9</p> <p>“The inquiry recommends...measures to improve relations between Indigenous communities, fisheries agency staff <i>and commercial fishers</i> [emphasis added], including cross-cultural awareness programs for agency staff and the organisation of local and regional workshops to discuss issues of mutual interest and concern.” (<i>Coastal Zone Inquiry</i>, 1993)</p>
Funding for a full-time Aboriginal cultural commercial fishing liaison to be a conduit between ACF and fisheries agencies.	<p>The Independent Review of NSW Commercial Fisheries Policy (2011) noted, based on submissions, that there needs to be a liaison person that is there just to consult Aboriginal commercial fishers in their area to ensure they are informed and have a voice in the industry.</p>
Funding for a full-time Aboriginal cultural commercial fishing lobbyist / advocate.	NEW

Issues / recommendations	Previous issues and recommendations
ENVIRONMENT	
Declining catch as a result of concentrating fishing effort.	NEW
Impact of pollution.	NEW
No financial support for ACF in response to extreme events (e.g. drought)	NEW
That ACF be involved in any scientific research that relates to their traditional country and/or resources.	NEW
That ACF be involved in scientific research to ensure a two-way exchange of scientific and Indigenous Environmental Knowledge.	NEW
SHARES	
Aboriginal people disadvantaged in the endorsement and share allocation process (including as a result of the cultural nature of their participation in commercial fishing).	<p>“Criteria for new licences don’t take into consideration family traditions.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p> <p>“Aboriginal families should be able to keep and use their licences.” (<i>Discussion Paper on the NSW Indigenous Fisheries Strategy</i>, 1997)</p> <p>Recommendation 29...NSW Fisheries should review catch history requirements for indigenous fishers who have been excluded under current restricted fisheries regulations.” (<i>Report on Fisheries Management and Resource Allocation in NSW</i>, 1997)</p> <p>“Recommendation 33. That Industry and Investment NSW should also investigate the suitability of the licensing system to be inherited by a family member along traditional lines without the family member having to apply for a new licence. These licences should be issued with comparative rights for the member inheriting the licence.” (<i>Report on Recreational Fishing in NSW</i>, 2010)</p> <p>“Not all fishers, however, consider themselves to be beneficiaries of the share management scheme. Indigenous fishers in particular (many long involved in the beach haul sector) believe that they are being driven out of coastal fishing. While NSW Fisheries has indicated aquaculture as an alternative, a number of Indigenous fishers consider that this will only take them further away from their heritage and culture.” (<i>NSW Fishing Industry: Changes and Challenges in the Twenty-First Century</i>, 2004)</p>
Cultural insensitivity of catch history recording mechanism.	<p>“Recommendations. Catch histories. NSW Fisheries staff to conduct a review in house of the impact of catch history on the participation of Aboriginal commercial fishers in the industry. If the catch history approach has been discriminatory in its impact, action to address disadvantage should be proposed in the report.” (<i>Developing the participation of indigenous people in commercial fishing</i>, 2003)</p>
Whether Aboriginal people will be disadvantaged in future proposals that would link shares to effort or quota controls.	NEW

Issues / recommendations	Previous issues and recommendations
NSW DPI ensure at minimum equitable Aboriginal participation in those fisheries where there are culturally iconic/targeted species (e.g. abalone, lobster, mud crabs, estuarine and near shore prawns, pipi, mullet, beach worms etc).	<p>“Recommendations...Earmarking of commercial fishing licences for Aboriginal people.” <i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i></p> <p>“Worming is a traditional activity. Aboriginal people should not be restricted by the need to get a licence.” <i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i></p> <p>“Community approved people should be able to dive for abalone for sale on specific days.” <i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i></p> <p>“Aboriginal people are interested in permits and licences for sea urchins.” <i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i></p> <p>“Relax restrictions on restricted beach wormers to allow further access and allow the gathering of bait species.” <i>(Discussion Paper on the NSW Indigenous Fisheries Strategy, 1997)</i></p>
That ACF be exempt from any future increases to minimum shareholdings until such time as other strategies are developed to ensure ongoing participation of ACF in the industry.	NEW

Appendix 10 Draft Discussion paper

Proposed changes to Fisheries management to ensure economic viability in the NSW Indigenous Commercial Fishing Fleet and future avenues of employment for community members.

Draft Discussion Paper (October 2012)

Part of the solution package outlined in further detail below is the establishment of an 'Aboriginal Fishing Trust'. Such a Trust would have the ability to hold fisheries shares that are no longer in use in any fishery that is culturally appropriate. With these shares community members could participate when needed in seasonal runs and also gain skills and knowledge that may be used for future employment. Such share allocation would work to continue tradition and the transferral of cultural practice, while aiding the economic viability of members that are still in the industry and continue providing community access to fisheries resources.

Without change this will be the last generation of indigenous commercial fishers. Throughout the history of fisheries management it has been unclear who indigenous commercial fishers were or whether they wanted to be identified, so the question was never officially asked. The concerns these fishers raised throughout management restructure have rarely been heard or understood. This has resulted in changes that have not only effected the fishers and their families, but entire communities, practises, access to traditional country and loss of knowledge. The fisherman that are left are strong and resilient but to continue to be economically viable and fulfil cultural obligations they need to be heard and their values need to be understood.

"I was born a fisherman the saltwater runs through my veins, same with my father, my uncles and my boys, it's who we are and we will die fisherman"

(pers. com. Indigenous Commercial Fisher, 2012)

Five key areas have been highlighted by Indigenous Commercial Fishers in NSW. Socio-economic studies have not been undertaken to understand the impact of management changes on Indigenous commercial or cultural fishers and their communities. This would be a resource intensive process but may be required to highlight the true value and impact of such changes.

1. Access – defined as access to traditional fishing grounds and resources

Issue	Action	Timeframe
Recreational Fishing Havens	Access given to areas of proven high cultural significance in seasonal runs assessed and negotiated on a case by case basis	
Marine Parks	Review of Marine Parks Aboriginal consultation on culturally significant areas and renegotiate access where culturally appropriate (through the use of permits, linked to a business or shares not fisher)	
Section 37 Permits	Transferable permits only to Traditional Owner agreed nominated indigenous fisher	
Time closures	Negotiation process with validated requests on a case by case basis	
Priority of shot	Allocation of available share to community crew endorsements. Priority of shot given to Traditional Owners on culturally significant runs	
No acknowledgement of connection to country	Traditional Fishing Area's – for commercial take, training and knowledge transfer	

2. Costs – rising licencing costs, boat registration, fuel, transport, co-operative fee's and other permits

Issue	Action	Timeframe
Management Costs	<ul style="list-style-type: none">• Community Fee exemption• Seasonal Licence Fee's• Re-in burse community catch, training and education	
Operating costs	Fuel subsidy – equivalent to that of boat based fisheries Two year training program	

3. Culture and Tradition – Traditional Fishing Knowledge, Traditional Country, community and family involvement

Issue	Action	Timeframe
Family Licences	<ul style="list-style-type: none">• Floating Skippers Endorsements• Family decides how licences are divided or handed down	
Traditional Boundaries vs Commercial	Permits given on a case by case basis	
Transfer of Knowledge	<ul style="list-style-type: none">• Training• Community involvement• Community crew endorsements	

4. Consultation – Indigenous fishers are united in their opinion that they do not have a say in their industry or the rules and regulations that affect their business, their culture and their communities.

Issue	Action	Timeframe
No voice	Face to face Indigenous Commercial Fishers Liaison, taking the fishers voice to AFAC and the Ministerial Council	
Poorly understood	Industry education package	

5. Shares – Fishers feel they were disadvantaged by the initial allocation process

Issue	Action	Timeframe
Family Licences	<ul style="list-style-type: none">• Floating skippers endorsement• Controlled and handed down by family• Father son licences	
Fishers that only hold 1 share (that allows them the same right as full share holders but this share is incomplete when used by another)	Full consultation with these fishers to ensure they retain there rights into the future	
Share transfer issues	<ul style="list-style-type: none">• Freeing up available shares so that they can be used as crew endorsements• Connecting Section 37 permits to business not name	
Minimum share holdings	Last option for structural re-adjustment, clear consultation in advance and cultural allowance made on a case by case basis	

Appendix 11 List of tables and figures

Figures

Figure 1. The study site New South Wales, Australia (Source: Google Maps 2011).

Figure 2. Fisheries, management regimes with corresponding share and endorsement classes in New South Wales. (Source New South Wales Department of Primary Industries 2012).

Figure 3: Fishing regions and zones in New South Wales. (Source: New South Wales Department of Primary Industries 2012).

Figure 4. The proportion of Aboriginal commercial fishers who own fishing businesses in one or more of the share management fisheries (N=24)

Figure 5. The percentage of all endorsements attached to Aboriginal owned fishing businesses in all New South Wales share management fisheries that are below, equal to or above the minimum shareholdings (N=136).

Figure 6. Shares held by Aboriginal commercial fishers as a percentage of total shares in each share management fishery in New South Wales (N=12,463).

Figure 7. The percentage of Aboriginal commercial fisher fishing business endorsements in the Estuary General Fishery that are below, equal to or above the minimum shareholdings (N=86).

Figure 8. The percentage of Estuary General Fishery shares held by Aboriginal commercial fishers in each fishery region (N=10,002).

Figure 9. Share held by Aboriginal commercial fishers in the Estuary General Fishery as a percentage of the total number of shares in the EGF (N=10,002). HHC=Handline and Hauling, P=Prawning, M=Meshing, HG=Hand Gathering, C1H=Category One Hauling, C2H=Category Two Hauling, MCT=Mud Crab Trapping, ET=Eel Trapping and T=Trapping.

Figure 10. The percentage of Aboriginal commercial fisher fishing business endorsements in the Ocean Hauling Fishery that are below, equal to or above the minimum shareholdings (N=41).

Figure 11. Distribution of Aboriginal owned Ocean Hauling Fishery shares by region (N=2090).

Figure 12. The percentage of shares held in each Ocean Hauling Fishery endorsement as a proportion of the total shares held by Aboriginal commercial fishers in the ocean hauling fishery (N=2090). GOH=General Ocean Hauling, HNGP=Hauling Net General Purpose, GNH=Gar Net Hauling, PABNH=Pilchard, Anchovy and Bait Net Hauling.

Figure 13. The percentage of the overall weight and value of the catch taken in the Estuary General Fishery and Ocean Hauling Fishery for the case study one Aboriginal commercial fisher on the coast of New South Wales for the case study period from 1995 to 2008.

Figure 14. Percentages of total weight and value of catch per fishing area for the case study one Aboriginal commercial fisher on the coast of New South Wales during the case study period from 1995 to 2008. Note, that 'coastal' refers to the waters fished adjacent to beaches.

Figure 15. The percentage of the total weight of catch by fishing method for the case study one Aboriginal commercial fisher on the coast of New South Wales for the case study period from 1995 to 2008. Note: HN= Hauling Net (Beach), MN= Meshing Net, HNGP=Hauling Net-General Purpose and PRN= Prawn Running Net.

Figure 16. The percentage catch composition by weight and value for the case study one Aboriginal commercial fisher on the coast of New South Wales in the Estuary General Fishery for the case study period from 1995 to 2008.

Figure 17. The catch composition by weight for the case study one Aboriginal commercial fishers on the coast of New south Wales in the Ocean Hauling Fishery for the case study period from 1995 to 2008.

Figure 18. Percentages of total weight and value of catch per general fishing area types for the case study two Aboriginal commercial fisher in the New South Wales inland fishery during the case study period from 1984 to 2001.

Figure 19. The percentage of the total weight and value of catch by fishing method for the case study two Aboriginal commercial fisher in the New South Wales inland fishery for the case study period from 1984 to 2001. Note, the catch records contained a large percentage (56%) of entries entitled 'Other or ambiguous' which were not included in the calculations.

Figure 20. The percentage catch composition by weight and value for the case study two Aboriginal commercial fisher in the New South Wales Inland Fishery for the case study period from 1984 to 2001.

Figure 21. The top five issues identified by Aboriginal commercial fishers as impacting their ability to remain in the commercial fishing sector as a percentage of the overall number of issues identified (N=174).

Tables

Table 1. Government inquiries, reviews, studies, briefing papers and policy documents relating to Aboriginal commercial fishing issues.

Table 2. The numbers of Aboriginal people who own fishing businesses, are nominated fishers for a fishing business or are unlicensed crew in the New South Wales commercial wild catch sector (N=38).

Table 3. Number of Aboriginal commercial fisher shares held in each endorsement type for each region in the Estuary General Fishery. The percentage values in the last column and bottom row refer to the Aboriginal proportion of the overall Estuary General Fishery industry held shares.

Table 4. Number of Aboriginal commercial fisher shares held in each endorsement type for each region in the Ocean Hauling Fishery. The percentage values in the left column and bottom row refer to the Aboriginal proportion of the overall OHF industry held shares.

Table 5. List of Aboriginal commercial fishers for which official DPI catch history data was made available. Fisher's names were coded to ensure anonymity. (EGF=Estuarine General Fishery, OHF=Ocean Haul Fishery and OTLF=Ocean Trap and Line Fishery, ME=multiple endorsements, HG=Hand gathering).

Table 6. Aboriginal commercial fishers estimated management and investment costs (n=30).

Table 7. Summary of opportunities for Aboriginal commercial fishers to provide input into fisheries management issues.

Table 8: Estimated status of adoption of benefits flowing to beneficiaries from the FRDC research project number 2010/034.

Table 9: The planned outcomes and outputs as set out in FRDC research project number 2010/034.

Appendix 12 Acronyms

DPI - New South Wales Department of Primary Industries
SIAC - New South Wales Seafood Industry Advisory Council
NSWALC - New South Wales Aboriginal Land Council
AIATSIS - Australian Institute of Aboriginal and Torres Strait Islander Studies
ISE - International Society of Ethnobiology
FRDC - Fisheries Research Development Corporation
SCU - Southern Cross University
AFAC - New South Wales Aboriginal Fishing Advisory Council
IRG - Indigenous Reference Group to FRDC
EGF - Estuary General Fishery
OHF - Ocean Haul Fishery
EPTF - Estuary Prawn Trawl Fishery
OTLF - Ocean Trap and Line Fishery
AF - Abalone Fishery
LF - Lobster Fishery
SUTSF - Sea Urchins and Turban Shells Fishery