



Australian Government
Productivity Commission

Marine Fisheries and Aquaculture

Productivity Commission Issues Paper

February 2016

The Commission has released this issues paper to assist individuals and organisations to prepare submissions.

It contains and outlines:

- the scope of the inquiry
- the Commission's procedures
- matters about which the Commission is seeking comment and information
- how to make a submission.

The Issues Paper

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- the scope of the inquiry
- the Commission's procedures
- matters about which the Commission is seeking comment and information
- how to make a submission.

Participants should not feel that they are restricted to comment only on matters raised in the issues paper. The Commission wishes to receive information on all issues which participants consider relevant to the inquiry's terms of reference.

Key inquiry dates

Receipt of terms of reference	23 December 2015
Submissions due	31 March 2016
Release of draft report	Mid-August 2016
Public hearings	September 2016
Post-draft submissions due	October 2016
Final report to Government	22 December 2016

Submissions can be made

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The Productivity Commission

The Productivity Commission is the Australian Government's independent research and advisory body on a range of economic, social and environmental issues affecting the welfare of Australians. Its role, expressed most simply, is to help governments make better policies, in the long term interest of the Australian community.

The Commission's independence is underpinned by an Act of Parliament. Its processes and outputs are open to public scrutiny and are driven by concern for the wellbeing of the community as a whole.

Further information on the Productivity Commission can be obtained from the Commission's website (www.pc.gov.au).

Terms of reference

Inquiry into the Regulation of Australian Marine Fisheries and Aquaculture Sectors

I, Scott Morrison, Treasurer, pursuant to Parts 2 and 3 of the *Productivity Commission Act 1998*, hereby request that the Productivity Commission undertake an inquiry into the regulatory burden imposed on the Australian marine fisheries and aquaculture sectors.

Background

Commonwealth, State and Territory governments are responsible for the management of Australian fisheries within their respective jurisdictions. Regulations are used to implement controls, such as limits on catch or effort levels, and regulate fishing methods in order to manage Australia's fisheries in a way that meets social and economic considerations and ecological sustainability objectives.

Except where agreement is reached to the contrary, state/territory laws apply to coastal waters (up to three nautical miles) and Commonwealth laws apply from those waters out to the limit of the Australian fishing zone (200 nautical miles). As most recreational and traditional Indigenous fishing activity occurs in waters within state/territory jurisdiction, state/territory administrations generally manage these forms of fishing activity.

As a result, Australia's commercial fisheries are governed by a total of eight jurisdictions (the Commonwealth, states and the Northern Territory), with each jurisdiction developing specific regimes for fisheries management, fisheries research, reporting and environmental protection.

In addition, there are 59 separate arrangements under the Offshore Constitutional Settlement that determine how cross-jurisdictional stocks are to be managed.

There are also four joint fisheries authorities. This regulatory environment oversees an industry that has a gross value of production of \$1.3 billion per annum. It is also an industry that has been the subject of a large number of recent inquiries and reviews at many levels.

While Australia's fisheries are regarded as sustainable, reliable and safe, there is scope to improve the management of fisheries through effective and coordinated regulatory and management arrangements. This includes the streamlining of regulations, rationalising jurisdictional and offshore constitutional settlement arrangements through improved cross jurisdiction and multi-jurisdictional regulatory regimes, information and service sharing, and harmonisation of environmental, management and compliance arrangements.

While aquaculture is within scope, it was the subject of a Productivity Commission research paper in 2004 which examined existing planning and environmental regulatory arrangements. The Commission should use the findings of this research as a basis to

inform its current inquiry rather than commencing a new investigation into issues impacting the aquaculture sector.

Scope of the inquiry

The inquiry will identify opportunities to increase productivity and cut unnecessary and costly regulation, including where regulations are poorly coordinated between jurisdictions.

The inquiry will therefore consider whether there are opportunities to improve fisheries regulations without compromising fishery policy and environmental objectives.

Consideration would be given to regulatory simplification, streamlining and consistency of arrangements across multiple jurisdictions, alternative more efficient regulatory models, the practices of the various regulators and removing unnecessary restrictions on competition.

In doing so, the inquiry will consider the value of strengthened relationships and effective and coordinated management of our fish stocks with a view to reducing the regulatory burden incurred by business, and consumers.

In undertaking the inquiry, the Commission is to have particular regard to impediments to increasing productivity and market competitiveness of the Australian fishing and aquaculture industries, including:

1. The extent to which enhanced and improved use of cross jurisdiction and multi-jurisdictional regulatory regimes, information and service sharing can improve the economic efficiency and the ecologically sustainable use and management of fisheries resources.
2. The extent to which harmonisation or integration of environmental, management and compliance arrangements could improve the effective and efficient operation of the fishing industry and delivery of fisheries policy and environmental outcomes.
3. The extent to which accreditation schemes or recognition of equivalency could reduce the regulatory burden and increase productivity.
4. The extent to which greater use of cost recovery arrangements is applicable and informs the cost of delivering fishery production, conservation and other community service obligations.
5. The extent to which fisheries management regimes align with and protect the interests of the wider community (in particular, the balance between commercial, recreational, indigenous fishing and conservation interests, and consumers' interests).

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6. The extent to which fisheries management regimes support greater participation of Indigenous Australians, provide incentives to Indigenous communities to manage their fisheries, and incorporate their traditional management practices in the fishing industry.
 7. The degree to which cross jurisdictional regulatory arrangements are transparent, accountable, proportionate, consistent, effective and targeted.
 8. The degree to which cost effective and practical non-regulatory mechanisms could be expanded to achieve fisheries management outcomes.

The primary focus of this review will be on Commonwealth, state and territory regulation of wild capture marine fisheries. This will include the interaction of fisheries specific regulation within Commonwealth and State/Northern Territory jurisdictions.

It will also need to have regard to the role of the *Environment Protection and Biodiversity Conservation Act (1999)* and other fisheries- related environmental legislation that are directly relevant to Australian marine fishing.

Process

The Commission is to undertake an appropriate consultation process including holding hearings, inviting public submissions and releasing a draft report to the public.

The Commission will consider the submissions and reports of all recent relevant inquiries and government responses. The Commission is to take into account the initiatives at the jurisdictional level relevant to the scope of the inquiry.

The final report should be provided within twelve months of the receipt of these Terms of Reference.

Scott Morrison
Treasurer

[Received 23 December 2015]

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1 What is this inquiry about?

This inquiry is about the regulation of Australian marine fisheries and aquaculture. Regulations are used to implement controls, such as limits on catch or effort levels, and regulate fishing methods to manage Australia's fisheries in a way that addresses economic, social and ecological sustainability objectives.

The inquiry will focus on opportunities to increase productivity and competitiveness and the scope to improve fisheries regulation without compromising economic, social and environmental objectives. In doing so, the Commission will give particular attention to the contemporary issues and challenges facing the fishing and aquaculture industries, including:

- the changes in marine environments (including, for example, that posed by climate change) that are impacting upon fish stocks, fish behaviours and fish habitats
- the challenges of understanding complex marine environments and species interactions and, in turn, the need to make fisheries management decisions at various levels of uncertainty
- the way that fisheries resources are best used, including how they are allocated among various users - commercial, recreational and Indigenous - and how those allocations are managed, so that their value to Australians is maximised both in the present and over time
- the challenges of managing fish and ecosystems that span multiple Australian jurisdictions.

As such, the inquiry will consider, among other matters:

- the interaction of environmental and fisheries management regulation, including how fisheries resources are measured, allocated and controlled
- whether regulations are transparent, proportionate, consistent, effective, targeted and promote accountability
- ways to improve cross jurisdiction and multi-jurisdictional regulatory arrangements (for example, via information and service sharing)
- scope to increase the use of accreditation schemes to reduce regulatory burden
- optimal cost recovery from industry
- how to balance commercial, recreational and Indigenous fishing, conservation, and consumers' interests
- how fisheries management does or can support the participation of Indigenous Australians, affect incentives for managing their fisheries, and incorporate their traditional management practices in the fishing industry
- non-regulatory instruments that may improve fisheries management outcomes.

Inquiry scope

The primary focus of the inquiry is on Commonwealth, state and territory regulation of wild capture marine fisheries. This includes the interaction of fisheries-specific regulation within the Commonwealth, state and Northern Territory jurisdictions, and the role of the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) and other environmental legislation that is applicable to Australian marine fishing.

The Commission will also examine regulatory arrangements for aquaculture. In doing so, it will draw on previous reviews of the sector, including its 2004 report assessing environmental and regulatory arrangements.

Matters out of scope for this inquiry include:

- inland waters except for aquaculture in those waters
- non-fishery uses of the marine environment such as sand mining
- the management of marine animals protected from fishing (such as whales and turtles) except where these are impacted by fisheries or management arrangements (such as by-catch arrangements).

How you can contribute

The Australian Government has asked the Commission to release a draft report, and to provide a final report to Government within twelve months (December 2016). The Commission is seeking submissions by 31 March 2016 and will hold public hearings to elicit feedback on the draft report. It may also convene roundtables on selected topics. Details on how to make a submission are provided in attachment A.

This paper sets out some of the issues and questions the Commission has identified as relevant to the inquiry. Those providing submissions are not expected to address all of these issues and are welcome to provide information on other issues they consider relevant to the inquiry.

The Commission's approach

In preparing its report, the Commission will conduct its own analysis of data and draw heavily on input from participants through consultations, public hearings and written submissions. Where relevant, the Commission will draw on previous research from Australia and internationally, reviews and initiatives.

2 Australian fisheries

Fishing activity in Australia falls into one of four categories: commercial; recreational; Indigenous customary; and, illegal. A key regulatory function is determining the optimal

allocation of access rights between legitimate users. Ideally, the resultant allocation would see fisheries realising their highest-value uses. But information on the value of different uses is needed to inform such judgements. The value of commercial fishing is more readily determined by the market value of their catch. For recreational fishing and Indigenous customary fishing, however, the true value of the activity is not measured in market terms but rather in the benefits accruing to the fisher — such as their enjoyment of the activity, a connection with nature, the preservation of cultural or family traditions; even the taste of fresh fish.



CAREFISH

CAirns REcreational Fishing Industry StakeHolders

Opening Statement

CAREFISH has been engaged in Fisheries Management and the associated politics for some time, mostly Qld. Clearly we believe it could and should be done better. We have gone to great lengths to identify problems and suggest solutions to authorities in the past, in fact we've done this so much, we are exhausted from it.

It seems all involved recognise that major reform is required to bring Qld fisheries management into 'world's best practice' which makes it abundantly clear that it is not 'world's best practice' and it continues to astound us that this is allowed to continue.

4 Pillars

Sooner or later the talking has to end and actions commence to rectify many issues that harm our fisheries and leave them in a less than productive state. In this document we'll refer to the **4 Pillars** which is what we believe to be the very basic minimum formula required to setting our very precious Fisheries on the right course.

1. **Know the limitations** – start with science led 'Stock Assessments' and construct 'harvest strategies'. Keep vested interest out of it. Stock 'Status Reports' do not suffice.
2. **Introduce Quota** to all harvested stocks – based on abundance and stock repair not depletion, and take social amenity into account. 'Start with the fish, end with the fish' again keep vested interest out of it.
3. **Digitalise the fleet** – VMS on ALL commercial fishing vessels + Electronic 'real time' log books with landing and dispatch data. No exceptions.

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4. **Compliance** – check a lot! Remove the renegade elements that give the industry a bad name. The Australian Seafood Industry Product image **MUST** be pristine.

INFORMATION REQUEST

Are fish stocks allocated and managed in a way so as to ensure a viable and sustainable fishing sector both now and into the future?

No. In Qld nothing remotely like that exists, although some attempts have been made to rectify the poor situation recently with the commissioning of the MRAG review and some species getting quota and or TACC, although these levels have been heavily influenced by industry ie vested industry who complain of poor returns but seem incapable of allowing for rebuilding of stock levels. Past over allocation of endorsements is core here and I refer you to Fisheries Qld Condition 8 which was a WTO report showing for instance gill and small mesh netting endorsements at around a massive 3,500 in 1998.

How should the value of recreational fishing and Indigenous customary fishing be measured and so better inform access allocation decisions?

For a start, values can be counted in dollar terms. Qld has poor data on this but NT has gone to considerable effort to gather sufficiently robust data. Those numbers would be of guidance here in Qld. NSW (UW) also recently released a report of rec fisher expenditure. Health and social benefits also should be considered, Renae Tobin (JCU) has gone into the Socio-economic Benefits of Recreational Fishing with a substantial report released a few years ago..

Do the current access arrangements provide for the realisation of the highest economic value from fisheries?

Care should be taken when considering 'highest economic value' because short term gain almost always leads to long term loss.

The GBR region has a large percentage of green zone ie no harvest. If access was granted to these areas the productivity would obviously increase, however that would be very short lived and the areas would be reduced to low abundance in short order, and this would affect abundance in adjacent areas that are currently open to harvest as recruitment would fall off substantially. These zones MUST be left in-tact.

Also fish stocks are most heavily depleted near harbours, and regional hubs in Qld are on harbours (Cairns, Townsville, Mackay etc). Commercial fishing, particularly net have overharvested for decades, causing social issues and loss of tourism and other business opportunities. Some Net Free Zones have been put in place recently to address this and early observation indicating these successful if fish abundance and social values are the goal.

Is there a reasonable balance between the interests of different users in the current allocations of access to marine fisheries?

Absolutely not. Qld IS NOT such a pretty picture as some would pretend. The age old conflict between commercial and recreational is very strong and for good reason. One

gill net in Qld can be 600m and when set in the middle of high use community waters, can decimate local stocks. There are still well over 300 large mesh gill nets and more than that small mesh nets currently in operation. There are a dozen coastal hubs so that equals approx 58 nets per area. Over allocation is chronic. There were 3500!! in 1998 (see Condition 8 FQ) resulting in depleted stocks all over regardless of so called 'status reports'. There are similar issues in crab and live trout.

Illegal gill netting is also rife in many indigenous circles with authorities reluctant to enforce compliance.

Is there room to improve the process for determining the allocation of such rights? For example, how might competing interests be better reconciled?

Good question. The entire system needs to be reformed as recommended in the QLD Fisheries MRAG review.

Managing the interaction between commercial, recreational and Indigenous customary fishers is a challenge. The sectors compete for the same resource but also share a fundamental interest in the sustainability of fish resources. At the same time, each group is subject to different regulatory requirements and incentives/disincentives to maintain fish stocks. As such, there is a need for continual cooperation and effective dialogue between fisheries managers and commercial, recreational and customary fishers.

INFORMATION REQUEST

Where are there overlaps or conflicts between the rights of access for the different groups of fisheries users? How are such overlaps and conflicts best addressed? How best can the common interests of users be leveraged to improve fisheries outcomes?

Overlaps are everywhere but especially so around coastal hubs where conflict is rife. There wouldn't be conflict if the stocks were in good shape. Sustainability is often talked about as a desired quality in commercial harvest but the Qld system does not encourage it and frankly it barely exists.

We observe this closely. Greed, debt, over-allocation and a depleted resource creates competition that is NOT sustainable or at best 'minimum sustainable' in many situations and this sad situation is almost demanded by the current MSY management model.

New stocks are discovered and often annihilated, a very good example currently is the threadfin in the Brisbane River with the new found stock commercially targeted and harvest increasing from 0 a couple of years ago to a massive 300 tonnes now. There are many similar examples, grey mac at Snapper Is, Sarina and Reynolds Reef near Bowen; Spanish mac which had to be removed from netting harvest because of depletion, coral trout which continues to fall, crab, the list goes on.

Without sensible management, this won't change and the recent move to Net Free Zones is the result, which does not repair the larger problems but does address a few local depletion problems. NT is the stand out example of repairing depletion.

Over allocation is key to this and must be addressed.

Commercial fishing

The commercial fishing and aquaculture sector (including downstream processing and trade) is valued at over \$2 billion a year and directly employs about 14 000 people (ABARES 2015):

- In 2013-14, the gross value of Australian fisheries production amounted to \$2.5 billion, comprising wild-catch fisheries (\$1.5 billion or 60 per cent of total production) and aquaculture production (\$1 billion or 40 per cent of total production).
- Tasmania accounted for the largest share of Australia's gross value of production (30 per cent), followed by Western Australia (20 per cent), South Australia (16 per cent), the Commonwealth (14 per cent) and Queensland (11 per cent).
- Over 8 000 people are directly employed in the fishing and aquaculture sector and a further 5 700 people are employed in seafood processing and wholesaling (ABARES 2015).

Australia's seafood industry is a minor player internationally, producing less than 0.2 per cent of global seafood supply. Australia's fisheries production focuses on high value export species (such as lobster, prawn, tuna, salmon and abalone) with export earnings accounting for 46 per cent of the total production in 2013-14. Australia is a net importer of fisheries products in volume and value terms. Australian imports of fisheries products were valued at \$2 billion in 2013-14, exceeding export earnings of \$1.3 billion for the sector (ABARES 2015).

The profitability of commercial fishing operations can vary considerably from year-to-year. Fluctuations in profitability are driven by a number of factors, including prices (Australian fishers are often price takers in global markets), catch, environmental conditions and input costs. Local regulatory decisions on matters, such as total allowable catch for a fishery and fishing gear controls, can also impact profitability. The management decisions of individual fishers also have a significant bearing on their financial performance.

Relative to other costs (such as fuel and labour), how significant are the costs of complying with fisheries regulation? Do so called 'input controls' (such as limits on boat size and fishing gear) unduly restrict fishing operations, result in lost opportunities and/or discourage investment within the Australian commercial fishing industry?

Of course input controls limit the commercial fishery, that's what they're designed to do. Without them the fishery would be a very sad picture. The commercial fishing industry MUST have tight control over it, it should NEVER be allowed to self regulate.

Australia pats itself on its own back about its fisheries management credential, but in Qld, this is NOT true for many stocks. Stock Status reports are self rewarding, flimsy at best and it is considered acceptable to have a stock run down to 20% of estimated virgin biomass, hardly ideal. SBT is another example down south with that stock regularly flogged to 7% and called sustainable.

Controls have been put in place to try to regulate the harvest, without them there is nothing more certain than stock failures all over.

Are there any other aspects of fisheries regulation (such as uncertainty over the permanency of arrangements) that deter investment?

Regulation has to be nimble, loopholes are discovered and exploited all the time. Sometimes this causes pain elsewhere, such are the consequences leading from opportunistic exploitation. Industry brings this upon itself.

The resource is a public one and if it is manipulated/over exploited, the community expect it fixed.

What are the major challenges and opportunities facing the commercial fishing industry over the next 20 years? What aspects of fisheries regulation need to change for the industry to best meet those challenges and opportunities?

Integrity is a very large problem in this industry. The community watch dubious practices endlessly, fishers even brag about exploits, and that does the industry no favours. Some operators are modern and progressive but many are not, and still live in the past, unfortunately. All fisheries have to move towards world's best practice and try to regain credibility. The renegade element must be removed if the fishery is to progress.

Are there instances of overcapitalisation in fisheries that is driving returns to fishers down to unsustainable levels? Where such a situation exists, what is the best remedy to return the fishery to long term viability?

Over-capitalisation was encouraged by un-restricted allocation with no output controls during the period when the virgin biomass was still being exploited with a 'gold rush' mentality. The trawl industry in Qld is a perfect example, the fleet built to over a

thousand, and most operations went broke over and over and eventually the fleet dispersed after wreaking havoc on the environment (and each other) for decades. Today around 150 work and that's seen as about right for the resource and viability. Still if the fleet rebuilt, like if a large supermarket commenced operation in the sector, history would definitely repeat, the resource is after all finite, nothing surer than that.

Social values are being taken into account more and more now and depleted stocks are focused on by the communities and changes to management demanded, usually via political intervention.

It would be stupid to overcapitalise with the intention of stripping a resource, unfortunately that has happened over and over as first one operator 'gears up' and his competitors soon follow, and management has little power to stop that.

Finally there are several 'investment warnings' in place in Qld to advise fishers of impending structural change. The crab industry has had one in place for around 20 years!

Regulation of commercial fishing

Regulations play a vital role in managing Australia's fishery resources and addressing environmental impacts. Regulation also influences economic prosperity and social wellbeing, but imposes costs on businesses. The aim of regulations is therefore to achieve the intended outcomes at minimal cost.

Australia is considered to be one of the leading nations in fisheries management globally (Neville 2008) and its fisheries are generally regarded as sustainable, reliable and safe (Borthwick 2012, p. 10). However, the regulatory systems that have evolved to manage Australia's fisheries are viewed by some as having become too complex and costly.

As the management of commercial fishing activity has evolved, especially over the past two decades, more attention has been placed on ensuring a viable sector based on sustainably managed fish stocks and their encompassing marine environment.

INFORMATION REQUEST

Are fish stocks managed in way that will ensure a viable and sustainable commercial fishing sector? How effective are harvest strategies, such as the Commonwealth Harvest Strategy, in guiding the management of fish stocks?

Sadly in Qld there are too few Stock Assessments and probably NO real harvest strategies. Some are quota based (which are set too high) but most are input controlled. Almost all stocks here are fully exploited via the MSY model with no real data other than the very unreliable commercial fishers paper log system to base assumptions on. This is NOT world's best practice.

As for Commonwealth fisheries, one look at the Gulf of Carpentaria fish management will show demersal trawl, a fishery that was trialled as an experimental fishery over 20 years ago and is still considered such even today after introducing disastrous stock depletions along the way, allowing for regional depletion after regional depletion by allowing the taking of otherwise undersize and spawning fish such as mangrove jack and various snapper (nannygai).

Tradeable quotas are commonly used to manage Australian fisheries, particularly Commonwealth fisheries and is an approach also being taken up by some state fisheries. When quotas were introduced, they were typically issued on a ‘once-off’ basis to those who had been actively fishing in a relevant area. No further quotas were issued. Hence, for fisheries under such management arrangements, ‘quota’ needs to be purchased from an existing owner to gain access. Quotas entitle fishers to take a share of allowable catch, rather than a specific quantity of fish. As regulators periodically determine the sustainable catch, the actual number or weight of fish that can be taken under a quota varies. Quota holders are generally entitled to trade quota entitlements, but the rules governing quota trading vary by jurisdiction.

INFORMATION REQUEST

Are there regulatory approaches that are better suited to achieving the objectives of fisheries regulation compared to quotas? What, if any, challenges exist in the processes for the initial allocation of quotas (for states) and subsequent determinations of allowable catch? Is quota trading functioning effectively?

Most Qld stocks are still MSY based/Input controlled. Some stocks are quota/TACC controlled but we believe the maximum levels agreed to are set by vested interest from within the industry and not based on science. Coral trout is a good example. The fishery reported a 400t harvest up to the late 80’s, all dead fish. The live transport formula was figured out into the early 90’s and the harvest skyrocketed (without precaution) to peak in 2001 at 2100t. It was well known at the time that there was a very strong black market so the 2100 t reported was certainly a lot less than actual.

Reporting criteria tightened around 2004, but the slide in harvest had already well and truly begun and the numbers fell around 100t pa. It has stabilised ‘*perhaps*’ now at around 700-800t, but it is known that considerable poaching in ‘green zones’ exists and the number 200t is bandied around, propping up the figures.

The industry obviously knew well it had problems with over harvest and over allocation, so applied a TACC of first 1350t, (well above the harvest around 900t) then dropped it to (about) 1250t (again way above the still falling harvest, now around 800t) and then decided to go to quota. BUT the same stakeholder group who decided/advised the previous ineffective levels placed the quota at 1000t (way above the still falling harvest, now at 700t) and then recently dropped it to around 850 t (still well above

harvest) The TACCS may as well have been a million tonnes! They have allowed the fishery to deplete itself. The fishers themselves have done this to everyone's detriment including (amazingly) their own.

This has social ramifications especially in places like Cairns where the reef is closer to the coast and therefore more accessible to the rec fishers in smaller boats and where coral trout are considered part of the local recreational fishery. It's also where the live trout trade started, and the Cairns region was the first to be depleted, and continues to be so.

Clearly there **MUST** be **SENSIBLE** upper limits on harvest in a shared resource. Sustainability is a word spoken, but not practiced, there's too much money in it and as fishery after fishery sends itself broke, the harvest is intensified regardless of unviable CPUE, in an attempt to pay mounting bills.

Input controls and regulation of the equipment employed by fishers are also used in the management of fisheries — generally by the states and the Northern Territory. These controls aim to minimise or manage potential environmental damage from fishing (for example, damage to seagrass beds from trawling operations) and/or to limit fish takes within identified sustainable catch levels.

INFORMATION REQUEST

Under what circumstances should regulators place restrictions on the fishing boats, trawlers, fishing equipment and technology that are used to capture wild fish stocks?

Sadly ALL sectors must be tightly regulated. Controls have been put in place, usually too little too late, to stop or slow down the flogging of the various resources. It used to be open/no regs, look at where that has led?

A perfect example is the so called factory trawler ships where it seems everyone but the owners and the government despise. The potential for mass regional depletions of entire schools of fish should be obvious and equally obvious the problem of killing of protected species, which should not have had to be proven, as is the case.

How should restrictions be determined (e.g. on scale/size of tool or operations, or with respect to different types of operations, such as 'factory fishing')?

It should be obvious that ALL harvest considerations should be started and finished with the resource at the forefront of thought.

Take gill net for example; if you allow larger boats in, then you're allowing larger and better refrigeration. You're allowing the operators to sleep in comfortable bunks with the TV going instead of being 'in attendance' of the net, keeping an eye out for interaction with protected species, which is very common (and almost never reported).

They can then sit on an area for longer periods and strip it more effectively before moving to the next spot, and this practice certainly occurs, and some renegade operators even threatening entire communities if they complain. This is occurring in Qld right now and authorities have NO CONTROL over this disguising behaviour.

Most regs were written when the fishery was truly artisanal, but it is not that now for instance in gill net in QLD the boats are getting larger, often ex trawlers, and carry mechanical net haulers that can carry and handle the full allowable complement of net (600m) and can cause great regional depletion quickly.

Factory ships are the end game of being able to take massive hauls from local areas in very short time. Note the public reaction to the Geelong Star, it is not unfounded.

How well do current restrictions contribute to achieving the regulatory objectives for fisheries?

If restrictions were adhered to they would be reasonably effective. However we have little confidence this is so. Compliance runs on a shoestring budget, log books are considered a joke, both from within and outside the industry. No reliable logbook data + no landing data + no sales data + no cross checking = large scale sorting and no confidence, little credibility.

Output controls include, among other things, total allowable catch limits. Input and output controls are regularly applied concurrently. For example, a fishery may be managed by a combination of tradable catch quotas, gear restrictions and seasonal closures.

INFORMATION REQUEST

Is there scope to reduce or get a better mix of input and output controls while achieving the same regulatory objectives?

We see this as being very unlikely, the industry has a very long history of sorting. Great care should be taken to not open loopholes as many regulations were installed to close loopholes and stop or slow over exploitation. The only possibility of reforming this industry sits with the strict implementation of the '4 Pillars' as previously described.

Are there tensions between the use of different control regimes in the management of particular fisheries and/or fisheries in proximity to each other? What are the costs and benefits associated with each approach? Is any approach 'superior' in meeting the regulatory objectives with minimal regulatory burden or does a combination of these various approaches work more effectively?

We think output control ie quota should be on all fisheries, but input controls must keep the industry working within some sort of acceptable boundaries. A move to world's best practice is advised including quota (and some fisheries like Qld net needing regional quota) along with digitalising the fleet with VMS as well as electronic catch/landing/dispatch records that are computer checked and randomly and regularly physically checked. This would give the public some confidence and hopefully restore integrity.

There are a range of regulatory measures used to minimise by-catch — fish and other marine species caught unintentionally, or undersized or the 'incorrect sex' of the target species — as well the discarding of unwanted catch. Problems with by-catch often involve protected species such as turtles, dolphins and sea lions.

INFORMATION REQUEST

Are current approaches to managing by-catch and discards in commercial fishing effective?

Prawn trawl has made some improvement with TED's but bycatch is still massive often 95% of the haul, even more. Very strangely, Qld has no solid data on the percentage bycatch in trawl even after years of observer programme in place, and that's disturbing. Regardless, enough of us have worked on them so we know.

In attendance regs were applied on gill net a decade ago but are mostly ineffective for instance a Qld N2 net has an in attendance reg set at 800 mtr from any part of the net. That's way too far for a start but add to that the net (max 600m) can be split into 3 provided they are set no more than a nautical mile apart, so the operator can be 800m

from one end and 2.6 km from the other end. What chance does protected species bycatch have? Utterly none. Nets are almost always set at night as well!

There was a report put out by Halliday that tried to persuade readers that there is little bycatch in gill net. We believe that report is flawed and suspect vested interest unfortunately, besides we've worked net as well and know what gets in them. No tricking us.

Qld also has a foolish practice of allowing inshore netting in the barra closed season provided the net is dropped in size to 100mm. This guarantees undersize barra etc are gilled and killed.

Are these approaches sufficiently focused on preventative measures rather than dealing with by-catch once taken?

No, all nets are dangerous to everything large enough that they can't swim through them. They ARE NOT SELECTIVE one little bit regardless of what some would have us believe.

A productivity context

Productivity indicators can be useful in understanding the performance of a sector — that is, how well a sector is using its resources. A productivity increase might be observed in fewer resources being used to produce the same or a greater quantity of output, or using existing resources more creatively to produce higher quality or more valuable goods.

In the commercial fisheries sector, productivity is influenced by a number of dynamic and interacting factors, including stock levels and values, regulatory controls on resource (input) use and allowable catch, environmental factors and changing technology.

A key question for this inquiry is understanding how regulation affects the use of resources available to fishers and incentives to innovate and improve efficiency.

INFORMATION REQUEST

What are the key influences on, or barriers to, innovation and productivity improvement in the commercial fisheries sector? Where does regulation most affect resource use and incentives to improve? What management settings should be changed or implemented to maximise productivity growth?

Let's be clear, wild catch production **CAN NOT** grow. It is **NOT A GROWTH INDUSTRY**. It is already fully or over exploited and that depletion has occurred due to efficiency. Data is insufficient to believe otherwise. Little or no precaution is evident to date and many stocks are under way too much pressure.

Production can not increase from the low base of minimal stock sustainability thanks to the models that exist today. Production could increase by opening closed areas, and removing controls, but how long would that last? It would be devastating to the stocks if recruitment potential from protected areas were to be harvested. The current over-allocation and competition would ensure that.

The only way production could increase would be if the bio mass increased, and then the resource could carry higher levels of harvest, but this would require a reduction in harvest for some time whilst stocks recovered, and this would be fought tooth and nail by the commercial sector, as well as by shadows in government seeking to score political scalps.

But the proposition is sound and some simple math can be applied here. Say an exploited stock had an estimated virgin biomass of 1000 tonnes. If it was considered the stock could be maximum harvested down to 20% without collapsing the stock (MSY) and then annually harvested at 10% of that, then yield would be 20 tonnes pa. On the other hand, if the stock was only allowed to fall to 60% (or allowed to rebuild to that) and then harvested at 10%, then the yield would be a much more **productive** 60 tonnes. This would also resolve the social rebellion when communities discover their shared resource has been decimated for the commercial gain of a few.

The only way to achieve that would be to put each fishery on quota (science based, not vested interest based) with the total catch less than current harvest and monitor CPUE and other data with the goal of recovering the stock to a certain point over a certain time. Again there would have to be confidence that the reporting criteria was robust. As it recovers, slight increases in production could be achieved until reaching an optimum point.

Recreational fishing

Recreational fishing is a pastime enjoyed by many Australians. In the most recent national survey, Campbell & Murphy (2005) found that over three million Australians participated in recreation fishing sometime during 2000–01. Recreational fishing also makes an economic and social contribution to Australia, especially in regional areas. Spending related to recreational fishing was estimated to exceed \$1.8 billion in 2000–01 (Campbell & Murphy, 2005)

The rules for recreational fishing in marine areas are set and enforced by state and Northern Territory governments (even when the fishing is in Commonwealth waters). Those rules differ across jurisdictions, but can include fishing licences, bag and size limits, areas where fishing is not permitted and seasonal closures. The purpose of recreational fishing rules is to contribute to the sustainable management of fish stocks.

The costs of overseeing recreational fishing include employing fisheries officers and installing signage and notices indicating where fishing is permitted, along with size and catch limits. State and territory governments also fund conservation projects, re-stocking of fish and the maintenance or installation of some facilities for recreational fishers (such as gutting tables and boat ramps).

INFORMATION REQUEST

Are controls such as licences, bag limits and size limits effective?

Yes

Is there scope to reduce the burden (time or monetary costs) of fishing rules on recreational fishers while achieving the same regulatory objectives?

Unlikely, although there is room for small improvements

How well is recreational fishing recognised in current fisheries management and regulatory arrangements (including in relation to access rights)?

Fishery Authorities have traditionally come from primary industry bases. Still agriculture is part of the minister's portfolio in Qld and traditionally primary industries have had 'tonnes and taxes' administration, often economists and administrators with bureaucrats having little knowledge of marine resources, and NO regard to social integrity.

This seems to be slowly changing, and nowadays we are consulted. Still, the relationships built over decades with industry are difficult to loosen and most often carry more weight. Stakeholder working groups now usually carry at least one recreational and one environmental delegate, although there are usually half a dozen commercial operators to contend with.

How does the regulation of commercial fisheries affect recreational fishers? What are the main sources of tension between recreational fishers and other fishery users?

Unfortunately we have little confidence that commercial fishers will treat a shared resource with a view to social wellbeing. Nothing could be further from that.

We have no problem with indigenous harvest but those who don't subsist off the sea should not have any need to hunt protected species. The black market trade in this is not OK. Allowing indigenous fishers to use gill nets is also NOT OK as is the case in Qld and that causes much tension.

What, if any, tensions exist between the controls on recreational fishing across jurisdictions and fisheries?

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Given the services provided by state and territory governments to support recreational fishing, do recreational fishers get good value from licence fees?

No. Not salt water in Qld at least. Qld has a pseudo rec fishing licence (PPV/RUF) which over the years has been reallocated to general/core fisheries business and this is a very large bone of contention and a very strong reason why a Rec Fishing Licence in Qld would be fought, due to lack of trust. This is a long story.

Don't forget GST on rec fish related expenditure, as that is massive.

Indigenous fishing

Indigenous communities have a strong connection with the marine environment. Customary fishing generally applies to an Indigenous person or community that has a traditional connection with the area being fished and involves fishing for personal, ceremonial, educational or non-commercial needs.

The *Native Title Act 1993* (Cth) provides for native title holders to continue their tradition of hunting and fishing on lands and waters where they have a connection. It recognises that states and territories are free to make their own laws that regulate customary fishing, so long as these laws are not in conflict with the fishing rights provided for in the Native Title Act.

Around Australia, there has been an increase in fishing ventures that are owned or operated by Indigenous groups. These activities may extend beyond customary practices and, taken up more broadly, have the potential to provide economic and employment opportunities for Indigenous communities.

INFORMATION REQUEST

Is there sufficient awareness and understanding on the part of fisheries regulators and the broader community of Indigenous fishing rights? Do current fisheries arrangements adequately recognise Indigenous fishing rights?

We believe these rights are abused by some and that authorities are reluctant to engage in fear of being branded racist and what would seem reluctance on the part of magistrates to support compliance when they do act.

Should there be any limits on the fishing methods or gear that can be used in the exercise of customary fishing rights?

Yes. Customary fishing should use customary methods. Gill nets are not traditional gear. Otherwise if an indigenous person wants to go fishing recreationally, they should have the same regulations as everyone else, this would reduce conflict in the community.

No-one has a problem with subsistence harvest where hunger is an issue. We don't see much of that these days though.

How might the scope for economic and community gain from fishing ventures by Indigenous communities best be facilitated? What are the barriers that need to be overcome?

An opportunity exists to teach traditional hunt methods (without killing protected species) and the making of traditional apparatus both to the indigenous community (to ensure continuity of culture) and also to outsiders, who are very interested.

NOT GILL NETS.

The regulation of customary fishing is separated from that of commercial and recreational fishing to reflect customary fishing access rights. However, like commercial and recreational fishing, the sustainability of fish stocks is generally recognised as a priority in customary fishing management.

INFORMATION REQUEST

Is there adequate consultation and engagement with Indigenous people in relation to the management of fisheries?

We sit on multiple committees and indigenous are always invited. They often turn up to one meeting and indicate they are interested, but don't often attend any more meetings. This is unfortunate.

Do current fisheries management arrangements provide incentives for Indigenous communities to be involved in fisheries management? If not, how could this be improved?

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Illegal fishing activities

A challenge for fisheries regulation is to address illegal fishing activities. Illegal fishing activities can include recreational fishers selling fish, commercial fishers exceeding their quotas and people fishing without a licence.

To address illegal fishing, all jurisdictions attempt to monitor fishing activities and enforce regulations. These efforts include employing sea patrols, aerial surveillance and catch inspections. However, finite resources and the size of the Australian Fishing Zone (which includes waters in such disparate locations as Heard Island, Christmas Island, the Torres Strait and Macquarie Island) mean that the level of enforcement activity is not as high as some would like. Australia is also involved in coordinated international efforts to reduce illegal, unreported and unregulated fishing. These efforts typically include information sharing and denying access to ports, as well as multilateral initiatives such as 'Operation Nasse'.¹

¹ Australia, New Zealand and France worked together for Operation Nasse. The operation comprised four weeks of patrolling and surveillance in the Southern Pacific Ocean for the purpose of monitoring compliance with the conservation requirements of the Western and Central Pacific Fisheries Commission.

INFORMATION REQUEST

What is the scale and scope of illegal fishing? What form does illegal fishing activity most often take?

We suspect black market sales are fairly established in all sectors. The largest scale is definitely in the commercial sector we feel, as these opportunities would be more frequent and would have established over long term.

We believe live trout operations poach green zones and within the industry 200t pa is spoken about with some consistency. The 4 Pillars should rectify it.

Rec fishers also poach, sell and use illegal apparatus like gill nets. It's good to see penalties on the rise, which is evident in Qld lately and should clear out the mugs.

We think seafood retailers should also be held accountable via documentation and some industry education would help. The 4 Pillars would leave them more open to prosecution if their store didn't add up to their purchase records. Some examples would shift the way most shonkies do business.

When illegal nets are reported, they should be investigated. Cairns has a very poor record for this compliance.

Some Indigenous trade protected species meat.

Where does illegal fishing activity cause most damage to the environment and detriment to the interests of legitimate fisheries users? Where should monitoring and enforcement actions be focused?

EVERYWHERE IT EXISTS!

Simple to start by investigating every complaint made by the community.

[Redacted]
[Redacted]
with the author's consent

Commercial poaching of live trout in green zones is believed to be endemic. GBRMPA know all about it. It won't stop without VMS on the dories. The areas are usually remote, easy to see the spotter plane that follows a regular schedule and easy to avoid prosecution.

Non reported harvest provides poor data and is illegal but rarely investigated with fisheries management saying it was low on their priorities. Management must have reliable data, *again see 4 Pillars*.

How could the enforcement of fisheries laws be made more effective without adding to the overall regulatory burden? Should penalty regimes be strengthened?

Yes, and for commercial it should mean loss of permit and gear for serious or repeat offenders. Commercial poaching would stop dead in its tracks (as it did in trawl) if VMS were introduced on ALL commercial fishing vessels.

What sort of role, if any, is there for non-government bodies, such as the Sea Shepherd, in combating illegal fishing?

If gov were doing it Sea Shepherd wouldn't have to. It's a job for authorities with the required training and backup.

How best might Australia protect its interests from illegal fishing activity in Antarctic waters? What factors should be balanced against the cost of any increase in effort to reduce illegal fishing in this remote area?

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3 The management of fisheries

Unmanaged (or 'open access') fisheries result in adverse impacts on the longer term sustainability and viability of wild fish stocks. In an open access environment, the incentive facing each fisher is to maximise their catch – often at the expense of other fishers. This can lead to overcapitalisation (too many boats/fishers) and lower economic returns to each fisher. The result can be significant environmental damage, depletion of the fish stock and even the collapse of the fishery, as individual fishers are not incentivised to undertake activities that will maintain the fishery ecosystem or reverse any environmental degradation.

Governments have intervened through a range of policy instruments and legislation to better manage access and prevent adverse outcomes for fisheries and the marine environment. The management of fisheries is a highly complex task:

- marine environments are individualistic, interconnected and subject to natural variation and climate change;
- fish stocks are difficult to quantify and there may be considerable uncertainty surrounding estimates;
- the interpretation of scientific, economic or other evidence may be contested and evidence is often imperfect;
- economic objectives may clash with environmental and social objectives; and
- stakeholders may have polarised interests and competing views.

Under these conditions, the prioritising of management objectives and options usually requires 'on balance' judgements.

Multi-jurisdictional governance

Australia's fisheries are regulated by the Commonwealth, states and the Northern Territory. These jurisdictions have differing objectives and priorities. For example, the promotion of 'social/community benefits' is included as an objective in the primary legislation of some jurisdictions but not in others.

INFORMATION REQUEST

Are the underlying objectives of fisheries management regulation clear and widely understood?

Mostly yes with recreational, but more complex and cumbersome with commercial regs

What should be the main objectives of fisheries management and regulation?

Look after the resource first and last. An abundant system would have much less argument in the community. Always remember it is a shared resource and social expectation must be catered for. It has been said that Fisheries Management manages people not fish. This is a mistake.

If social objectives should be included as objectives of fisheries laws, what priority should they be afforded relative to the other objectives of fisheries regulation?

That question should not be "*if*" social objectives were to be included! Absolutely social objectives should be included.

It should be in the prime direction from the Minister **"To Manage the Fishery in a sustainable, economical and socially acceptable manner."** It has to start with policy and be evident throughout.

Pursuant to the Offshore Constitutional Settlement (OCS), each state government and the Northern Territory is responsible for the marine fisheries that lie solely within the waters adjacent to its coastline and within three nautical miles of the low water mark. The Commonwealth has jurisdiction for fisheries that lie between three and 200 nautical miles off the low water mark.

Most Australian fisheries that span the waters of the Commonwealth and a state (or states) and the Northern Territory are managed according to agreements made under the OCS. These OCS agreements typically allocate the management of a fishery to a single

jurisdiction under a single set of regulations.² These agreements (of which there are 59) are typically supported by Memoranda of Understanding between the parties.³

For some fisheries spanning a number of jurisdictions, however, there are no agreements or the agreements do not include all parties. As a result, activity within these fisheries is managed by multiple jurisdictions according to jurisdictional borders.

As most recreational and traditional Indigenous fishing activity occurs within state/territory waters, the states and Northern Territory manage these forms of fishing activity within their respective jurisdictions and also, subject to the Commonwealth's agreement, within the Commonwealth waters adjacent to their jurisdiction.

At its inception the OCS was heralded as integral to the resolution of cross-jurisdictional issues. However, concerns have regularly been raised in relation to the operation and effectiveness of agreements made under its auspices (for example, DPIE 1989, DAFF 2003 and Borthwick 2012).

² As at February 2016, there are also three joint-management authorities to manage fisheries that straddle multiple jurisdictions — Queensland Fisheries Joint Authority; Northern Territory Fisheries Joint Authority; and, Western Australian Fisheries Joint Authority (AFMA 2016).

³ There are no Memorandums of Understanding in place for agreements between the Commonwealth and New South Wales.

INFORMATION REQUEST

For what species, fishing methods and/or in which locations do regulatory overlaps, conflicts and/or duplication arise across Australian fisheries? What costs arise as a result? How might these overlaps, conflicts and areas of duplication best and most cost-effectively be addressed?

Sectors don't start arguing for no reason, some event usually starts it off. In the case of multi-jurisdictional management, the competition between those departments can give rise to poor decisions and start disputes.

A couple of examples in Qld.

- Demersal trawl is a commonwealth fishery method used in the Gulf of Carpentaria. Essentially it allows for a large gill type net to be trawled around looking to capture fish. This experimental fishery was allowed to commence some decades ago and surprisingly it was allowed to harvest undersize fish. Fish that had a state regulated size limit were legally harvested undersize by the commonwealth fishery. The demersal trawlers learned that particular coastal species like mangrove jack left their state waters during their spawn and entered commonwealth waters. These areas were directly adjacent river systems. The school head to sea to spawn and they are targeted by demersal trawlers, undersize and all, and therefore runs the risk of reducing the spawning stock of the river substantially, or even completely. Nannygai (small and large mouth) are also targeted and depletions are reported. These undersize fish turn up in fish markets, particularly supermarkets, and cause issues and confusion when purchasers see the undersize fish legally for sale.
- GBRMPA is the overriding Authority in the GBRMP. State waters usually run out 3 nm off the mainland but in the GBR the state line is extended out to the outer GBR line as far as state fisheries are concerned. The area is jointly managed by both the commonwealth and the state, but the state has jurisdiction over fishing and GBRMBA has minimal and we believe inadequate input/authority. Any other business operating commercially within the GBRMP requires a GBRMPA permit, EXCEPT most all fishing businesses, eg one would need a GBRMPA permit to hire a surfboard, but not to run a trawler. The difference in environmental impacts between these two activities should be obvious. GBRMPA have almost NO management control over the commercial fishing fleet operating within its jurisdiction, and that causes many problems, particularly because Qld fisheries are so inadequately managed.

So sometimes it is important that there are multi agencies. Another example is the federal dept of Environment oversees the accreditation of permits for wild caught animal sold into export, and this includes fish. It is known as WTO (Wild Trade Operation) and the federal dept has the power over the state to dictate the terms of the

accreditation.

The federal Environmental dept has made many recommendations and requirements to FQ over the years, many have NOT been implemented. This should not be acceptable, and different permits get extension after extension even without implementing contingent reforms. There has been talk of that process being scrapped. We do not believe the state should self regulate at this time, and WTO accreditation should remain at federal Environment level. We believe the conditions should be adhered to, or the accreditations revoked

The multi-jurisdictional governance arrangements for fisheries could also be perceived as resulting in ‘over regulation’ of the sector relative to its economic value. Australia’s wild caught fishing industry currently has 8 fisheries regulators for an industry that accounted for around 0.1 per cent of Australia’s GDP in 2013-14.

The number of regulators largely stems from Australia’s federal political system, but the differences in regulatory approach may lead to overlap (or gaps) and higher than necessary administration and compliance costs.

INFORMATION REQUEST

Are there too many authorities responsible for Australia’s marine fisheries? If so, what supervisory arrangements would be most effective for Australian fisheries?

See previous answer re WTO. It would be nice if they could all work together, openly and constructively, that’s for sure. The commonwealth should be able to monitor the states and ‘guide’ them, that is not to say the commonwealth is perfect though.

Again, we do not believe the Qld state should self regulate at this time, and WTO accreditation should remain at federal Environment level. We believe the conditions should be adhered to, or the accreditations revoked. Unfortunately FQ has a long way to go before it could be entrusted with self assessment.

Are there other countries that provide useful lessons for governance arrangements in Australia?

Australian authorities repeatedly say our management is pretty good, if fact world’s best, we hear it over and over. Whilst it is one thing to award oneself an “A”, it is entirely different to actually deserve it. It would be foolish if an electrician self assessed and gave himself “A’s” then proceeded to electrocute himself repeatedly. Same with fisheries. It’s vital to achieve world’s best practice, not to falsely pat our own back, but to get it right.

Independent experts have made international assessments though, and these should be

respected, and lessons should be learned, and questions should be asked of those who proclaimed the “A’s” in the first place.

We refer you to the 2008 study by true worlds fisheries experts which shows on page 20 that Australia actually ranks 32nd in sustainability terms amongst the world’s 53 fishing countries with EEZ’s, hardly anything to brag about...

<http://www.seaaroundus.org/doc/publications/books-and-reports/2008/Alder-and-Pauly-comparative-assessment-of-biodiversity-fisheries-and-aquaculture-53-countries-EEZ.pdf>

How can information and reporting be better shared and coordinated across jurisdictions and fisheries? For example, information on stock assessment and statistics relating to catch, by-catch and protected species? In what other ways could the jurisdictions better coordinate the regulatory effort?

It would be nice if they could all work together, openly and constructively

The Commonwealth, through the Australian Fisheries Management Authority (AFMA), is responsible for implementing fisheries arrangements for seven international regional fisheries management bodies. The Commonwealth also works with other nations on matters such as illegal fishing and where our fishing jurisdictions abut — for example, Indonesia (AFMA 2012).

INFORMATION REQUEST

What impact do Australia’s international obligations have on domestic fisheries?

What impact does illegal fishing have on domestic fisheries?

Management and governance models

Co-management

The search for more effective fisheries management and governance models is a continual process driven by the at times conflicting goals of economic growth, social outcomes and preservation of the marine environment. More recent work has pointed to the potential benefits of a co-management approach — an ‘arrangement in which responsibilities and obligations for sustainable fisheries management are negotiated, shared and delegated between government, fishers, and other interest groups and stakeholders’ (Neville 2008). Achieving genuine collaboration and partnerships are crucial to the success of any co-

management initiative. This can be challenging, particularly for fisheries covering a large area, with many fish stocks and where stakeholders hold competing views and priorities.

INFORMATION REQUEST

Where and in what circumstances has the co-management of fisheries been particularly effective or ineffective? What are the advantages and disadvantages of the different co-management approaches of the jurisdictions and/or in individual fisheries?

Qld tried it (around 2010) and failed in several locations. You can not put opposing sectors together and expect them to agree. It's vested interest V's lifestyle, both powerful forces and the sectors have deep historical grievances, mostly unresolved.

Agreements can be achieved though on many issues, but the authority must ride above the stakeholders to catch the inevitable derailments and make decisions, but always they must be based on satisfactory ecological outcomes. With a well set out agenda and rules, we believe regional management could work, but the authority must stay the authority, at least in the foreseeable future.

The 4 Pillars would likely sort out a lot of the mistrust that is endemic over time.

Accreditations

In addition to government regulation, there are a number of private sector accreditations available to fishers, fisheries and fish processors — for example, the Marine Stewardship Council (MSC) accreditation. Private sector accreditation requirements can be important for both exporters where an accreditation may be required to access certain markets and those producing for the Australian market and competing against accredited imports.

Accreditation programs examine fisheries practices to assess the sustainability of the fish stocks and the impact on threatened species. But they potentially overlap with regulatory requirements (notably fisheries management requirements and environmental accreditation).

INFORMATION REQUEST

To what extent do private sector accreditations and certifications overlap with government regulations?

They should exceed or replace, not overlap

What special value is accorded to private sector accreditations? Could private and government accreditation and certification be better differentiated and aligned?

Higher accreditation is resorted to when gov reg is inadequate. We encourage it for all

our fisheries. Government accreditation typically has evolved as a minimum to reduce human conflict, and there lies the fault. Private sector accreditation usually focuses on the resource, and is therefore far more sensible.

The market eventually works this out and trust in government accreditation (self assessment) and associated ‘spin’ is dismissed for what it is worth. This currently exists at state and federal level and increased ‘spin’ does nothing to repair trust.

To what extent can third party accreditation be relied on as an alternative to regulation? Are there reasons accreditation schemes should or should not be used as alternatives to regulation?

Ideally, the gov should eventually figure out its inadequacies and align or exceed private systems. MSC for instance exists because of failed or stalled management. If Aust wants the highest accreditation, ‘world’s best practice’ gov should study the differences and fix their own systems. ‘Spin’ doesn’t work, it has to be real.

Cost-recovery in managing fisheries

Providing affordable and effective fisheries management services is challenging. The review of Commonwealth fisheries (Borthwick 2012) noted the cost to government of managing Commonwealth fisheries is large compared to the value of the industry - management costs exceed \$50 million a year, representing 16 per cent of the gross value of production (\$320 million).⁴ More generally, MRAG Asia Pacific (2014) found that:

- the fisheries management budgets for New South Wales, Queensland, Western Australia and the Commonwealth, were over ten per cent of the gross value of the commercial marine production for their respective jurisdictions;⁵ and
- there are different approaches to cost recovery from commercial and recreational fishers across the jurisdictions. Also, there are differences in the extent to which so-called ‘cost recovery’ funds the overall fisheries management budgets of the individual jurisdictions.

In addition to helping meet administrative costs, applying user-pays principles to services can help to ensure that those services are well-targeted over time and any increases in charges are more transparent and linked to service improvements. The application of charges also has a regulating effect on demand.

INFORMATION REQUEST

⁴ These costs include the broader responsibilities of AFMA such as managing the high seas fishing by Australian fishers rather than the direct management of Commonwealth fisheries.

⁵ The fisheries budgets for the states include some ‘non-core fisheries activities’ such as Queensland’s shark control program.

What groups most directly benefit from the regulation of Australian fisheries? Of those groups, who obtains greater benefits?

Everyone benefits. Without regulation, there would be a very sad fishery indeed.

What aspects of fisheries management costs are and should be recoverable from users? How well targeted and administered are current cost-recovery arrangements? Are there better cost recovery approaches than others in this area?

Government should supply a well provisioned fisheries management regime to look after the shared resource. Taxes should cover that. GST on fishing related expenses are massive + rego's on boats and trailers also should contribute. Admin costs to further the benefit above the core should be user pay.

Should there be a charge on the use of fisheries to provide a return to the community from the use of marine resources?

Yes for commercial gain, there should be fees that are aligned with the cost of admin and compliance, and don't forget GST and other burdens. Also remember the resource is already owned by the community, not the government.

4 Meeting environmental objectives

Fishing activities can have adverse impacts on the environment. They may impact on the sustainability of particular fish stocks, harm protected species (unintentionally or otherwise), or damage fragile marine environments. Governments use regulation to minimise and manage these impacts. Different jurisdictions have adopted different regulatory approaches to manage environmental risks.

Underpinning much of the environmental regulation of fisheries is the concept of the precautionary principle (box 1).

Box 1 **What is the Precautionary Principle?**

Environmental regulation involves uncertainties. Activities that interact with the environment, including fishing, may result in adverse consequences, but often the nature, magnitude and likelihood of this damage is not fully known. Likewise, regulatory actions to prevent or minimise adverse consequences may also be subject to uncertainty.

The Precautionary Principle is a tool available to policymakers to guide their decisions in the presence of uncertainty. While several definitions of the Precautionary Principle exist, the most commonly cited version is the Rio Definition, developed at the 1992 United Nations Conference on Environment and Development. It states:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The Precautionary Principle is well established in Australian environmental and resource management legislation. It is also incorporated into a number of international treaties and agreements which Australia is party (Weier and Loke, 2007). The principle is enshrined in a number of key pieces of legislation that impact on fisheries, including the EPBC Act, the Fisheries Management Act and most state and territory fishery acts. The Precautionary Principle is also explicitly enshrined in the objectives of AFMA as defined in the Fisheries Administration Act.

The presence of the Precautionary Principle across almost all the major pieces of legislation that impact on fisheries underlines its importance in influencing the policies, conduct and priorities of regulators with respect to environmental regulation.

INFORMATION REQUEST

Is the Precautionary Principle adequately defined and consistently applied within the context of Australian fisheries?

NO, IT IS NOT APPLIED TO MANY OF OUR FISHERIES.

Here's one prime example: The experimental fishery of demersal trawl in the Gulf of Carpentaria is still an experimental fishery 20 years after it was given experimental status and allowed to commence.

Essentially it allows for a large gill type net to be trawled around looking to capture fish. This experimental fishery was allowed to commence some decades ago and surprisingly it was allowed to harvest undersize fish. Fish that had a state regulated size limit were legally harvested undersize by the commonwealth fishery.

The demersal trawlers learned that particular coastal species like mangrove jack left their state waters during their spawn and entered commonwealth waters. These areas were directly adjacent river systems. The school head to sea to spawn and they are targeted by demersal trawlers, undersize and all, and therefore runs the risk of reducing

the spawning stock of the river substantially, or even completely.

Nannygai (small and large mouth) are also targeted and depletions are reported. These undersize fish turn up in fish markets, particularly supermarkets, and cause issues and confusion.

Let's talk about precaution. It means taking into consideration indications other than scientific measurement. To date, communities have cried out that this or that stock is being depleted. They go to great lengths to convince authorities and eventually turn to politicians. From our experience it takes from 5 – 10 years to get a message across. What we hear along the way is 'anecdotal, anecdotal, anecdotal'.

Clearly most of us are not scientists and do not have access to scientists who would work for free to prove to an authority what the community can see with its own eyes.

Sometimes we do provide evidence, only to be treated with extreme scepticism by authorities and sometimes even more so by scientists. Meanwhile stocks fail which is outrageous.

The live coral trout fishery in Qld was allowed to throw caution to the wind and went from a 400t fishery (with excellent CPUE) to a very un-precautionary 2100t + fishery and is rapidly heading back to a 400t fishery (now with a lousy CPUE) again at the huge expense of the fish and the coastal communities that can no longer catch their fair share.

Grey mac is another, threadfin is another, crab is another, shark is another, dugong (bycatch) is another, we could go on, how about SBT..., anecdotal??

Where is there overlap between Commonwealth and state/territory environmental regulations with respect to wild catch fisheries? How well is the overlap managed and what are the consequences where it is not managed well?

As noted, each state and the Northern Territory has environmental regulations that affect the operation of fisheries within their jurisdictions. Additionally, fishers and fisheries managers must comply with the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act). This Act deals with, most relevantly, strategic assessments, interaction with listed species (endangered and protected species), accreditation of fisheries management plans and exporting requirements of commercial fisheries.

Within Commonwealth environmental approval procedures, there may currently be duplication of processes or the need to obtain multiple approvals for the same action. For example, EPBC accreditation is required for fishing plans for individual vessels at times and for entire fisheries.

INFORMATION REQUEST

Is the process that fisheries are strategically assessed separately under the EPBC Act efficient and effective? Probably not but we see no alternative

If not, how could it be improved - for example, is there merit in and scope for AFMA and/or state/territory fisheries managers to be delegated assessment and approval functions in relation to Part 10 of the EPBC Act, with the Department of the Environment's role then becoming one of monitoring compliance with requirements?

NO! There **MUST** be a watch dog! **AFMA MUST NOT be given self accreditation power. NOR SHOULD VARIOUS STATE AUTHORITIES.** This would be folly in the extreme. AFMA already awards itself 'first in the world' when we know it is more likely 32nd see ...

<http://www.seaaroundus.org/doc/publications/books-and-reports/2008/Alder-and-Pauly-comparative-assessment-of-biodiversity-fisheries-and-aquaculture-53-countries-EEZ.pdf>

It **IS** likely inefficient, but it **IS** imperative. And this **IS** highly disappointing, but fact as far as we're concerned regardless.

Are assessments made under the EPBC with respect to export of produce and interactions with listed species efficient? If not, how could they be improved? What other pieces of Commonwealth regulation govern the environmental impacts of fisheries?

DO NOT GIVE WTO self accreditation TO THE STATES! Already they refuse to comply with past requirements, showing their lack of commitment to sustainability. They manage people, not the resource.

This all needs to be toughened up, not relaxed.

For fisheries located in state or territory waters, are the environmental regulations effective? If not, in what ways could they be improved?

WTO gives the federal authority some power over the state via accreditation. Many recommendations and requirements are never adhered to and extension after extension is given. This needs to be toughened up, not diluted. At this stage we have little faith that QLD would look after the interests of the resource, principally because of long term cost cutting from gov.

If the 4 pillars were employed, perhaps in the future. **Definitely NOT NOW.**

Science and research significantly impact the regulation of fisheries. The relevance and robustness of fisheries-related science and research has been subject to debate between

competing interests. The Commission does not have the expertise to determine the validity or otherwise of the science and research on which such environmental regulation is based, but it is interested to understand how such research is used to inform and assess the effectiveness of regulation.

A range of public and private sector bodies undertake research and data collection relevant to fisheries management, including private companies, universities and government as well as joint industry/government research bodies.

INFORMATION REQUEST

How well does current scientific and research effort support the environmental and ecological objectives of fisheries management?

Not well enough. There are many gaps and science is expensive. Some science is vested and can't be trusted.

How effectively is scientific or research information (and developments in such information) 'translated' or incorporated into policy or regulatory settings?

Usually very slowly if at all.

What is the best way for regulators, fishers and other stakeholders to work together to ensure optimal outcomes from fisheries research?

Transparent consultation.

Are arrangements for funding ongoing research in the fisheries area satisfactory?

NO

How effective are arrangements for sharing information? Is there scope to improve the planning and/or collection of data to better achieve commercial, community and policy objectives?

Yes, of course there is scope to improve. From a community perspective, the sheer volume of data is exhausting to consume. We do it for free, and some like us keep at it, but not many. Take this submission for example, clearly it has taken considerable time to compile all these answers, all for not a single penny. Our group gets sent many similar documents that require careful consideration, study, discussion and compilation, and we run the risk of retribution from those that oppose us. We sit on multiple committees, working groups, etc, all are time consuming. There is NO funding for this work.

A further environmental issue for fisheries, as with other primary industries, is the potential impact of climate change. Some of the changes linked to climate change that are affecting the marine environment, fish stocks and fish behaviours (such as spawning) include changes in ocean currents, water temperatures and bleaching of coral reefs. The

effects of climate change are not expected to be universal across all fisheries and, in some cases, may not necessarily be negative. However, they do pose challenges for both the industry and regulators.

INFORMATION REQUEST

What effects — or likely effects — is climate change having on wild catch fisheries? If these effects are substantial, what management techniques are being, or could be, used to mitigate or adapt to negative impacts?

Resilience is hardly the word that could be attached to the resource if stocks have been harshly harvested down to historical lows, typically 20%. Repair over allocation and over harvest and allow some recovery, the stocks are going to need all the help they can get.

This **MUST** be kept in proportion, in most cases commercial harvest is ten times recreational harvest. Pauly has studied this and clearly articulates the problem,

Google: *Catch reconstructions reveal that global marine fisheries catches are higher than reported and declining*

see figure 4 page 5 *Reconstructed global catch by fisheries sectors*

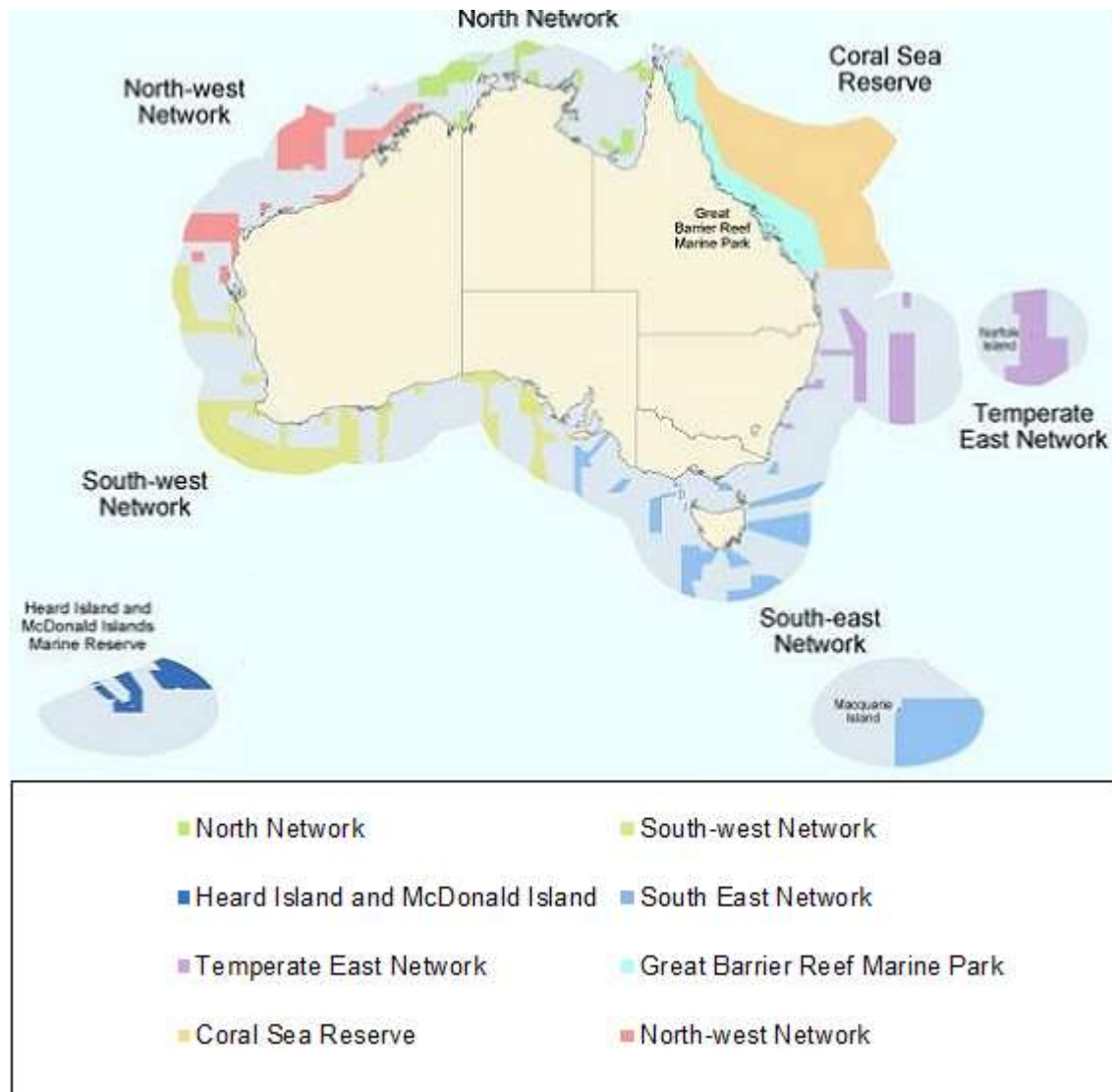
Aside from climate change, are there any developing environmental, technological or socioeconomic trends likely to impact on fisheries over the next 20 years? This is a huge question and can not be adequately answered here at this time

Marine parks and reserves

Commonwealth marine parks and reserves are areas established and managed under the EPBC Act to preserve the health, productivity and resilience of marine ecosystems. Australia has the world's largest network of marine reserves (figure 1) — protecting over 3.1 million square kilometres of the marine environment. In addition to Commonwealth protected marine areas the states and the Northern Territory also have laws dedicated to the declaration and management of marine park areas in their jurisdictional waters.

The declaration of marine parks and reserves can displace commercial, recreational and Indigenous customary access to fisheries (box 2). The impact on fishers varies depending on the nature of the marine area and the fishing constraints put on the protected zone. However, marine reserves can also improve the productivity of fisheries by ensuring places such as breeding grounds are protected and provide benefits to other industries, such as tourism.

Figure 1 Commonwealth marine reserves network



Source: Department of the Environment (2016).

INFORMATION REQUEST

How effective and efficient are regulatory arrangements covering marine parks and reserves? How well coordinated and consistent have the jurisdictions been in designating their respective marine parks? What are the economic, environmental and social impacts of marine park areas?

Box 2 **Marine parks and reserves**

The establishment of marine reserves around Australia is part of the National Representative System of Marine Protected Areas (NRSMPA) agreed between the Commonwealth, states and Northern Territory in 1998. The primary goal of the NRSMPA is to preserve examples of a full range of Australia's marine ecosystems. The preservation of these marine environments supports both scientific research and non-extractive recreational pursuits.

In order to preserve their marine environments, marine parks and reserves need to be of self-sustaining scale and have sufficient protection from potentially damaging human activities. In this regard, they are similar to land-based national parks.

In determining the areas to be set aside for marine parks and reserves, governments sought to minimise the social and economic impacts. For example, the Commonwealth Government sought to minimise any reduction in recreational fishing activity resulting from the establishment of marine reserves. As a result, around two thirds of Commonwealth reserves are zoned to allow recreational fishing.

The activities allowed within marine parks and reserves vary from place to place. In some areas, commercial and/or recreational fishing are permitted while other areas are strict sanctuaries (also known as 'no-take areas'). Non-extractive activities such as diving, snorkelling and whale watching are generally allowed in all marine parks/reserves albeit other controls (such as limits on where ships can lay anchor and permit requirements) may limit the practical extent of these activities.

Sources: Department of the Environment (2016).

5 **Regulation of aquaculture**

Aquaculture has become an increasingly important source of Australia's overall fish production, accounting for nearly 40 per cent of the value of Australian fish production in 2013-14 (nearly 32 per cent in 2002-03) (ABARES 2015). Aquaculture in Australia has typically focused on high value products including salmon, prawns, oysters and tuna.

As aquaculture production has increased, governments have sought to balance expansion of the sector against the potential environmental impacts. Balancing these environmental and economic considerations and potential conflicts with other resource uses (related to the increased demand by the sector for access to land and water) has proved challenging for regulators and policymakers.

INFORMATION REQUEST

Have any jurisdictions been able to successfully balance environmental and economic considerations and potential conflict with other resources uses? How did they achieve this success?

Previous studies indicated that aquaculture was subject to an unnecessary and complex array of legislation covering marine and coastal management, environmental management, land use planning, quarantine and translocation (PC 2004, QCA 2014). Such arrangements can create uncertainty and compliance costs for the sector and stifle investment and expansion. Other factors — for example, climatic, environmental and geographic factors, economies of scale, access to infrastructure and proximity to markets — may also place limits on the further development of aquaculture production.

INFORMATION REQUEST

Are existing regulatory arrangements well-targeted and efficient means for managing aquaculture operations and addressing potential environmental impacts? Have regulatory arrangements inhibited the productivity and competitiveness of aquaculture in Australia?

What, if any, developments have there been in the aquaculture industry since 2004 that the Commission should specifically consider in this Inquiry?

Are there factors outside the regulatory environment that have significantly limited the productivity and competitiveness of aquaculture production in Australia?

What are the major challenges and opportunities facing the aquaculture industry over the next 20 years?

Potential environmental issues associated with aquaculture production — for example, impacts on water quality, the escape of farmed stock into the wild, the use of wild fish both for breeding stock and fishmeal in aquaculture feed, the impact of aquaculture infrastructure on the marine environment and local amenity, and the higher susceptibility of farmed fish to disease and infection — are well known. Managing or eliminating these environmental problems are important for the ongoing development of aquaculture.

INFORMATION REQUEST

Do the existing regulatory arrangements adequately recognise the different sectors and production methods used in aquaculture and their differing environmental impacts and interaction with other resources uses?

Are there technological solutions to the potential environmental problems associated with aquaculture? Where and how has the industry invested to develop solutions? To what extent, and under what funding arrangements, should governments be involved in developing innovative solutions?

The Australian Government has a limited regulatory role in aquaculture. Aquaculture operations are undertaken in state and territory waters and there is currently no regulatory framework in place for aquaculture in Commonwealth waters. The Australian Government's involvement is generally limited to assessments of proposed aquaculture developments that trigger the assessment and approval process under the EPBC Act (for example, a proposed aquaculture development that may impact on a declared marine park

area). Through its biosecurity legislation, the Australian Government oversees the importation of brood stock.

INFORMATION REQUEST

Is a regulatory framework required for aquaculture in Commonwealth waters?

6 Fish processing, wholesale and retail

From a food safety perspective seafood is considered a high-risk food that may potentially cause outbreaks of foodborne illness. The processing and retailing of seafood for human consumption is therefore highly regulated and monitored.

There were about 230 seafood processing and 870 fish and seafood wholesaling businesses operating in Australia in 2014. There are also thousands of retailers of fresh and processed fish —about 9800 supermarket and grocery stores and 4800 fresh meat, fish and poultry retailers were in operation in 2014 (ABS 2015). The majority of processing businesses undertake cleaning, filleting, chilling, freezing and packaging, although some have the capacity for more significant product transformation.

Food Standards Australia New Zealand develops standards to cover the food industry. Compliance with the standards is monitored by state and territory authorities. The food safety regulation of seafood generally begins once the product is landed on the fishing vessel. Seafood business that are covered by food safety regulation include fishers, transporters, seafood processors, handlers, wholesalers and retailers.

There is a range of food safety requirements that seafood business must comply with, including in relation to: handling and processing; temperature control and time that seafood can be stored and displayed; cleaning and sanitising food businesses and equipment; labelling; and transportation. Other regulations that apply to seafood processing and retail businesses include, for example, those dealing with environmental regulatory issues (such as odour management, water consumption, fish-waste management and wastewater).

INFORMATION REQUEST

How effective and efficient are regulatory arrangements covering downstream seafood processing, wholesale and retailing businesses including: food safety; labelling; environmental management and other regulations?

Can fisheries regulation in these areas be improved to increase processing productivity?

Jurisdictions also require businesses involved in the transportation, processing or sale of seafood to maintain records identifying the source of the seafood in their possession as part of efforts to address illegal fishing activities.

INFORMATION REQUEST

How burdensome are monitoring and enforcement requirements for downstream processors? Has monitoring of seafood held by downstream processors been an effective adjunct to the enforcement of fishing regulations? Is there scope to achieve the same (or a better) outcome in a way that imposes less burden on downstream processors?

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Attachment A

How to make a submission

The Commission invites interested people and organisations to make a written submission.

Each submission, except for any information supplied in confidence (see below), will be published on the Commission's website shortly after receipt, and will remain there indefinitely as a public document. The Commission reserves the right to not publish material on its website that is offensive, potentially defamatory, or clearly out of scope for the inquiry or study in question.

When providing a submission to the Commission, you may wish to remain anonymous or use a pseudonym. Please note that, if you choose to remain anonymous or use a pseudonym, the Commission may place less weight on your submission.

Copyright in submissions sent to the Commission resides with the author(s), not with the Commission. Submitters should ensure that they hold copyright in any submitted documents, or that the copyright holder has authorised the publication of any relevant documents on the Commission's website.

How to prepare a submission

Submissions may range from a short letter outlining your views on a particular topic to a much more substantial document covering a range of issues. Where possible, you should provide evidence, such as relevant data and documentation, to support your views.

This is a public review and all submissions should be provided as public documents that can be placed on the Commission's website for others to read and comment on. However, information which is of a confidential nature or which is submitted in confidence can be treated as such by the Commission, provided the cause for such treatment is shown. The Commission may also request a non-confidential summary of the confidential material it is given, or the reasons why a summary cannot be provided. You are encouraged to contact the Commission for further information and advice before submitting such material. Material supplied in confidence should be provided under separate cover and clearly marked 'IN CONFIDENCE'.

How to lodge a submission

Each submission should be accompanied by a submission cover sheet. The submission cover sheet is available on the inquiry web page <www.pc.gov.au/projects/inquiries/current/fisheries-aquaculture>. For submissions received from individuals, all **personal**

details (e.g. home and email address, signatures, phone, mobile and fax numbers) will be removed before they are published on the website for privacy reasons.

The Commission prefers to receive submissions as a Microsoft Word (.docx) files. PDF files are acceptable if produced from a Word document or similar text based software. You may wish to research the Internet on how to make your documents more accessible or for the more technical, follow advice from Web Content Accessibility Guidelines (WCAG) 2.0 <<http://www.w3.org/TR/WCAG20/>>.

Do not send password protected files. Do not send us material for which you are not the copyright owner — such as newspaper articles — you should just reference or link to this material in your submission.

Track changes, editing marks, hidden text and internal links should be removed from submissions before sending to the Commission. To ensure hyperlinks work in your submission, the Commission recommends that you type the full web address (eg <http://www.referred-website.com/folder/file-name.html>).

Submissions sent by email must not exceed 20 megabytes in size as our email system cannot accept anything larger. If your submission is greater than 20 mb in size, please contact the Administrative Officer for the relevant project to organise another method of sending your submission to the Commission.

Submissions can be accepted by email (no hardcopy required) or post:

Email*	fisheries.inquiry@pc.gov.au
Post	Australian Marine Fisheries and Aquaculture Productivity Commission GPO Box 1428 Canberra ACT 2601

* If you do not receive notification of receipt of an email message you have sent to the Commission within five working days of sending, please contact the Administrative Officer listed on the inquiry website.

Due date for submissions

Please send submissions to the Commission by **Thursday, 31st March 2016**.