

INQUIRY INTO COMMERCIAL FISHING IN NEW SOUTH WALES

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Date received: 9 December 2016

Commercial Fishing in NSW

(a) The history of commercial fishing in NSW...

At the time I took up the position as the first Director of the NSW Fisheries Research Institute in 1986 fisheries management in this State continued to be prescribed by the philosophy that it was impossible to seriously overfish any marine fish resource; as stocks declined it was believed fishers would simply move to exploit other species or areas. This philosophy had been comprehensively discredited elsewhere in the world by 1958! In 1986 in NSW there were virtually no restrictions on the number of licences, the total catches that could be taken or when, where or how any license holder could fish: there was extremely little active fisheries management in NSW and accordingly, there was only one fisheries manager in the Department.

By 1994 (the year listed as the benchmark for this review) the over-arching philosophy had completely changed and effort and catch regulations were being implemented in most commercial fisheries. However, from 1996 progress with implementing modern natural resource management principles and effective fisheries management were set back by a series of Ministers and senior officials who fostered cronyism at the expense of scientifically informed and efficient management. Continued support for the short-term interests of selected fishers completely dominated the long-term needs of optimum sustainable harvests in the interests of the State's seafood consumers. Inept, and biased, application of the principles of effort and catch controls, quota management and share allocation resulted in distorted allocations to individuals. Total allocations were commonly grossly excessive. These earlier ill-informed and biased allocations continue to thwart efforts for efficient management. As a result of two decades of poor management, including distortion of the principles of property-rights management, many individual fishers continue to have unrealistic perceptions of the rights of the catching sector and the responsibilities of Government to seafood consumers (more than 90% of the NSW population).

(b) The value of the commercial fishing industry to the New South Wales economy

Unfortunately published valuations of the commercial fishing industry continue to be dominated by inappropriately narrow parameters that describe only the monetary dimensions of the sale of products and employment opportunities that result from the capture and sale of seafood. These characteristics do describe one dimension of fishing, however, assessment of the real value of the commercial fishing industry must give much greater weight to the social dimensions of the health, lifestyle and heritage values that

relate to public access to fresh local seafood delicacies (such as Sydney rock oysters and lobsters) and staple foods (such as mullet and flathead). These products and the activities that surround their consumption are at the core of the public's appreciation of the magnificence of the NSW coastal environment and the lifestyles it supports. They are major contributors to the heritage value of coastal life in NSW. The consumption of fresh, local seafood is a major cultural issue for the majority of Australians, not just indigenous Australian, even though its special significance to indigenous peoples must be acknowledged.

For too long NSW commercial fishers have based arguments for the continuation of commercial fishing on the security of the relatively extremely small number of jobs in the catching sector. Much of this mis-direction of philosophy, or at least its lack of evolution, can be traced back to the consequences of the inept management of the late 1990s and 2000s. As such the victims of it are entitled to compensation for the impacts of earlier mis-management. However, future valuation of fishing in NSW must be based on the efficient generation of optimum sustainable catches from the total resource in the interests of seafood consumers, not the restrictive employment opportunities or dollar value of sales from the continuation of individual 'cottage' industries. Further reform of the rules that govern resource use and the allocation of access (access rights) by individual fishers are definitely necessary. This reform must be concentrated on the efficient generation of optimum supplies of seafood to the people of NSW (the true owners of the fisheries 'property right'), not the maintenance of inefficient access to the resource.

(c) The scientific research underpinning fisheries management.

In spite of the complexities of the ecosystems that support fisheries resources the science that underpins sound management of fishing is extremely straightforward and simple. Almost all problems that are caused by excessive or inappropriate fishing can be solved by identifying the exact cause of the problem and targeted management of it: destructive fishing practices are simple to identify and their prohibition is easy to prescribe; overfishing can almost always be rather simply addressed by restriction of either fishing effort and/or catch. The science of assessing whether or not overfishing is occurring and how it can be prevented or corrected is also relative straight-forward; however, the collection of sufficient appropriate data to enable the necessary assessments can often be problematic.

Fisheries management is extremely simple if the manager, usually government(s), has sufficient conviction to pursue it diligently. The impacts of fishing are not irreversible; not a single species of marine fish has ever been documented to have been fished to extinction anywhere in the world; all Australian fisheries that had been overfished but have subsequently been the subject of concerted management efforts have at least begun to recover. It is extremely significant for the consideration of fisheries management anywhere

in Australia to note that in less than a decade overfishing has been completely eliminated in Commonwealth managed fisheries: in 2004 almost 40% of Commonwealth managed fisheries were being subjected to overfishing and by the end of 2014 the percentage had been reduced to zero.

It is also most significant to this Review that while the fisheries in Commonwealth waters (the offshore waters that are relatively much less polluted and impacted by habitat destruction) are effectively conserved fisheries resources in inshore areas, including NSW State waters, are in numerous instances continuing to decline. In many cases the impacts of pollution and habitat destruction clearly outweigh the influence of conservative management of fishing.

While the science and management of the direct effects of fishing on biodiversity and ecosystems are simple the assessment and management of other impacts on fisheries resources are not. NSW has a relatively high total human population that is concentrated in coastal areas; anthropogenic impacts, such as climate change, pollution and poorly managed coastal development (for example 'flood mitigation and port and airport development), on ecosystems and the fisheries resources they support are in many cases extreme. Moreover, unlike the impacts of fishing, most of these impacts are not being effectively managed. For all intentional purposes their impacts differ from those of fishing in that they are not reversible, at least not under current approaches to their management.

(d) Current arrangements for the assessment of fisheries....

Current arrangements for the assessment and management of commercial fishing per-se are less than perfect, but they could be rendered adequate with stringent implementation of the proposed reforms and greater whole-of-Government support for the pursuit of optimum sustainable supply of seafood. The arrangements for the assessment and management of recreational fishing are much less adequate while the arrangements for the assessment and management of the non-fishing impacts (such as pollution and habitat destruction) on fisheries resources are grossly deficient. This is not the fault of the NSW DPI Fisheries Resource Assessment Unit, but rather the failure of the whole of Government to take a risk analysis and threats-based approach to the management of the entire NSW marine estate. Fishing is the only threat to fisheries resources that is demonstrably not irreversible yet it remains the only threat that is being adequately directly addressed throughout the marine estate. Even in the State's marine parks fishing remains the primary issue being actively managed, even though the threat from fishing is minimal and where it is a problem there are more effective ways of managing it than from blanket closures to all types of fishing.

(e) The NSW Government's Commercial Fisheries Business Adjustment Program...

- (i) The Draft Productivity Commission Report makes a number of recommendations that address some deficiencies in the NSW fisheries management process, such as the need for better assessments of recreational fishing and the amalgamation of the State and Commonwealth fish-trawl fisheries. It is most unfortunate, however, that the Productivity Commission report completely overlooks the major issues that should impact fisheries management in Australia, principally the sustainable supply of quality seafood for the 90% of the population of this country that need and eat it. I have elaborated on the major problems with the Report in a submission to the Productivity Commission (appended to this submission). In that submission I point out that the public's perception of fishing has been grossly biased by several underlying false assumptions about the impact of fishing, including that of "large costs of irreversible environmental degradation from overfishing". This statement is fundamental to the attitude that underpin much of the Productivity Commission report and it is fatally flawed. I also provided to the Productivity Commission a summary of why it is imperative that much greater efforts are made to increase Australia's production from sustainable and well managed fisheries (as attached below). I believe this Standing Committee's outlook on the whole of the Productivity Commission's Draft Report would benefit from consideration of the submission by the Sydney Fish Market to the Commission. This submission is available on line.
- (ii) The implementation of the restructure to date has been far too slow. The restructure is essential and the longer it takes to be fully implemented the more access to resources will be lost to competitors for these resources.
- (iii) As discussed above the social and cultural impacts of poor, or overly restrictive, management of, commercial fisheries have been grossly misrepresented. The cultural, health, life-style and heritage values of public access to optimum quantities of quality fresh local seafood have been very seriously understated (see the attached submission to the Productivity Commission).
- (iv) The economic modelling has been far too narrow; for example the secondary economic benefits of the health benefits from eating fresh seafood (the NHMRC has determined that Australians need to eat 40% more seafood than they currently do) and the cultural benefits of full appreciation of our coastal resources in their entirety have not been adequately assessed.
- (v) Australia is amongst the world's most conservative fisheries managers. From the perspective of promoting optimum supply of seafood for our seafood consuming public we have been excessively conservative. At the same time we continue to fail to protect the coastal environments that support our

seafood resources: the continued decline in the health of the Great Barrier Reef which is our longest-standing and most expensive marine park with the greatest network of fishing closures provides compelling testimony to how we have allowed management to be distracted from identifying and addressing the real threats. The NSW Marine Estate is a coastal area where the terrestrial based threats to fisheries even more heavily outweigh the threats to marine environments from fishing. Strategic reassessment is urgently required.

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8/12/2016

Attachment 1

Productivity Commission supplementary submission (sent as an email to Commissioner Melinda Cilento On 14/10/2016)

Having now had the opportunity to review the Commission's report on Marine Fisheries and Aquaculture I feel compelled to raise with you some issues in relation to that report.

I believe the Report provides very sound comment on most of the individual issues that you have addressed and that your conclusions and recommendations relating to these issues are sound, well researched and well supported. Naturally with my lengthy involvement in fisheries management I have opinions on most of the issues you discuss but I believe you will receive a multitude of comments on these in submissions from interested parties. One submission on your Report, from the Sydney Fish Market, contains considerable relevant detail on many of the issues you raise and the specific recommendations you make. I have therefore, restricted my comments here to the broader, strategic issues of fisheries productivity and future management that I feel have not been adequately addressed, or have even been misrepresented, in your Report.

I am concerned that the Report suffers greatly from not projecting the correct perspective on several of the basic issues that underpin the present and future productivity of Australia's fisheries. These issues are fundamental to the subject of your review and by not correctly addressing them a unique opportunity to correct an ill-informed government and public perception of fishing could be lost.

I cannot avoid the conclusion that the weight of opinion you have been given on the concerns about overfishing, and the impacts of fishing in general, has overwhelmed your consideration of strategic assessment to the extent that your review actually perpetuates several incorrect perceptions.

In summary I think the perceptions the Report projects on, 1. the fundamental issues of sustainability of fisheries resources, 2. the suite of threats to these resources and 3. the needs and opportunities to increase the harvest of these resources, have been inadequately discussed and/or even mis-represented. My summary comments on each of these three points are:

1. The ease with which overfishing has been corrected in Commonwealth managed fisheries in less than a decade provides compelling evidence that the sustainability of the underlying resources has not been irreversibly threatened by commercial fishing as managed in Australia (detail on this issue is given in the SFM submission). Now that the ease with which overfishing by commercial operators can be controlled has been clearly demonstrated, "irreversible environmental degradation from overfishing", or even any impact from overfishing by commercial fishing in a well-managed fishery, should no longer be the priority concern for the sustainability of fisheries resources. In the Report it is stated that because of the "large costs of irreversible environmental degradation from fishing, governments now err on the side of sustainability when making regulatory decisions". These errors are largely because of the misconception about the environmental impacts of fishing, but also because of inaccurate presumptions about the sustainability of fishing and the underlying resources (for detail see the Sydney Fish Market submission). Governments are incorrectly excessive in their regulation of fishing at the expense of correct management of the conservation and productivity of our fisheries resources. If the

interests of optimum yields from our fisheries resources are to be served efficiently this fundamental error must be addressed as a matter of urgency.

2. The threats from other sources, primarily habitat destruction and pollution in its many and varied forms, are far greater than that from fishing (Again detail on this issue is provided in the SFM submission). The relatively small number of threats from overfishing that remain are predominantly from impacts on those species that are subject to intensive recreational fishing. For example in NSW the species that remain of most prominent concern are mullet and snapper, where the recreational catch has been estimated to considerably exceed the commercial catch (the Commission's Report correctly highlights the need for greatly improved management of recreational fishing). Even for these species, and particularly mullet which has a more pronounced dependence on estuaries in the early stages of its life cycle, the negative impacts of habitat destruction or modification, and pollution are significant; they may well be greater than the impacts of fishing, but they remain inadequately assessed and largely unmanaged. Many of the modifications to habitats, particularly forms of habitat destruction, such as construction of harbour developments and airport runways, certainly appear to represent "irreversible environmental degradation"!
3. As discussed in the SFM submission the statement in the Commission's report, "Self-sufficiency (in wild caught seafood) is a fruitless objective...because Australian wild caught seafood production could not be increased to achieve self-sufficiency without creating unacceptably high risk of over-fishing" represents a most unfortunate dismissal of the importance of 'self-sufficiency' to Australia's future seafood production. In doing so it effectively aborts debate on the critical question, how can our limited productivity be increased? Addressing this question is critical to informed consideration of the productivity of Australia's fisheries. The key concern expressed in your Report as the basis for the dismissal of the pursuit of increased productivity, the "unacceptably high risk of over-fishing", should, as discussed above and in the SFM submission, not be a concern at all.

I, for one, also do not accept that self-sufficiency in terms of total tonnage of seafood is an un-achievable goal. It should certainly not be so absolutely dismissed without detailed assessment of the opportunities and options. Many of our managed fisheries currently operate at below optimum levels; the quotas in the trawl fisheries that produce much of Australia's premium table fish were not caught in 2015! There are many areas of Australia's huge EEZ that remain greatly underexploited; for example the catches of small-pelagic species off southern Australia, particularly around Tasmania, are well below MSY (a total catch of up to 100 000 tonnes of these species is not out of the question), as are the trawl fisheries off northern Australia, while skipjack tuna (which supports a fishery of almost a million tonnes a year in the waters of our neighbour to the north, Papua New Guinea), which occur at least seasonally around most of Australia, remain completely unexploited (not a single tonne of commercial catch was reported in recent statistics). Even areas that are intensely managed in the interests of 'conservation', such as the Great Barrier Reef, are known to be extremely lightly fished (see the attached summary of comparison of the catches in the GBRMPA with international norms for coral reefs). I do, however, accept that increasing catches from many areas of Australia's EEZ would be difficult to do under the current public and political perception of the "unacceptably high risk of over-fishing". That is why the correct perspective in a report by the Productivity Commission is so critical.

In completely dismissing the issue of self-sufficiency in seafood, discussed above, the Commission effectively removes from its Report consideration of the need to increase productivity from present or future fisheries. As the bases for this dismissal, in addition to the primary "unacceptably high risk of over-fishing" the Report also states, "Australia is not at risk of food insecurity as there is no lack of fish availability. In fact, global fish production (including aquaculture) is outstripping population growth and international seafood prices are declining". These statements diminish the importance of domestic seafood supply; they are only correct under narrow interpretations of the

dimensions of both 'food' and 'fish'. Seafood is much more than just a source of sustenance, even though modern medicine tells us that it is amongst the most vital forms of food; the NHMRC tells us that Australians need to eat 40% more fish.

Obviously Australia is not in immediate danger of having enough food to keep its population alive and yes, it could continue to increase its imports of fish, at least in the short-term. It is also true that domestic consumption of these imports is not price-constrained as they are predominantly low-cost products of aquaculture, mostly from developing countries. But there is more to the Australian public's expectations of seafood 'security' than merely having enough food to keep body and soul together! Most of Australia's population lives on or near the coast and local seafood commands an extremely prominent position in Australian lifestyles. Eating local seafood delicacies has become part of the Australian culture, particularly on priority and ceremonial occasions. Of course many Australians have no choice but to buy 'on price', but it would be a brave politician who ran for office on the platform that Australian seafood consumers should become less discerning about freshness and quality and abandon their preference for eating 'Australian' and the specific endemic seafood products they have grown to love! That is, they should not discriminate, or even differentiate, between fresh wild-caught local seafood and imported frozen aquaculture product!

The Commission elsewhere correctly makes much of the cultural significance to indigenous communities of seafood and fishing, it does not however, adequately acknowledge the cultural significance to non-indigenous Australians of eating or hunting and gathering local seafood delicacies, for example Sydney rock oysters and sand whiting, or even local staples such as mullet and flathead.

The Report makes the point that "Even if the concept of food self-sufficiency was accepted, there is little integrity to an argument that a country be self-sufficient in every food type". Of course there is truth in this statement: all of Australia's major food types, except seafood, are made up of almost exclusively imported species, such as wheat and beef, and yes we will continue to import a considerable amount of seafood. But the issue here is not that we have to be self-sufficient in every type of seafood, or even every broad category of food; we obviously do not. The problem is that we could increase our level of self-sufficiency but we do not attempt to increase our seafood production because of reasons, such as the fear of "irreversible environmental degradation from over-fishing", that are fundamentally wrong. We could

produce a great deal more fresh local seafood to the benefit of all Australian seafood consumers if government and public perceptions about the benefits and threats of doing so were correctly informed.

Although peripheral to the average Australian's current concerns over domestic food security the need for all countries to take optimum yields from their wild fisheries resources is very relevant to global food availability and even security. It is also certainly relevant to the strategic issues surrounding Australia's future policies on fisheries productivity.

Many developing countries are dependent on capture fisheries for food security. Furthermore, well managed capture fisheries represent the most sustainable and environmentally responsible form of food production: most forms of agriculture require extensive land clearing or modification and many inject significant quantities of chemicals (e.g. herbicides insecticides and hormones) that can have deleterious down-stream effects, such as contributing to the high rate of extinction of terrestrial animals and plants and the degradation of many aquatic ecosystems. Even closed-system aquaculture, that is the source of much of Australia's seafood imports, relies on net consumption of protein (commonly between 2 and 15 times of wet-weight consumed to wet-weight produced). The public needs to be informed of the merits (environmental, health and life-style) of well-managed fisheries, not frightened by ill-informed perceptions of the threat of fishing.

Globally capture fisheries are an essential component of food security for an expanding population. They are also vital for the efficient protection of total ecosystems and biodiversity as we struggle to feed a burgeoning global population. Competition between countries in the seafood market is real and many of the countries exporting seafood to countries including Australia could well use it for their own food security: presumably, as they develop they will progressively do so!

It is true that Australia does not have a total food security problem and it can, currently at least, relatively easily meet its seafood requirements in terms of total tonnage, from imports. But these imports are predominantly the outputs from aquaculture in developing countries that do not have Australia's

extremely high standards for fisheries management. In many cases they have inflicted, and continue to inflict, great damage on their coastal ecosystems in order to produce those products. Is the continued increase in seafood imports by Australia a responsible contribution to global food security? Is it appropriate for a country with an exemplary record for fisheries management to import its seafood from countries that do not have at least an equal record? Is it appropriate for the country with the world's third largest EEZ (more than 7% of the world total) to contribute only 0.2% of global seafood supply? Is it appropriate for Australia to condemn our relative contribution to global seafood security to further decline simply because of an ill-informed perception of the "large costs of irreversible environmental degradation from overfishing" from our own well-managed fisheries?

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Attachment on the Great Barrier Reef fisheries yield

GBR catch and catch potential

The total fish catch recorded from the 344,400 km² of the Great Barrier Reef Marine Park is approximately 14,000 tonnes per annum from commercial, recreational and indigenous fisheries combined (GBRMPA, 2011a). Significant parts of this catch come from trawl fisheries and fisheries for pelagic species in non-reef areas. These non-reef areas constitute more than 90% of the Park. There are more than 24,000 km² of reef in the GBRMP and approximately 16,000 km² of these are open to fishing. Estimates from numerous other countries of the harvest that can be taken sustainably from coral reefs vary considerably and include a range from 3 t/km²/year (Bell et al., 2009), 5 t/year (Newton et al., 2007), and 10–20 t/year (Alcala, 2014, citing Russ, 1991) to a high in one year of 36.9 t/year (Alcala and Russ, 1990). Using a conservative estimate of 5 t/km²/year, a sustainable harvest of 80,000 t could be taken each year from the 16,000 km² of the GBR's open reef. The current combined harvest from the whole of the GBRMP of 14,000 mt/year is therefore less than 20% of the yield that international precedents suggest could be taken sustainably from only the reef area of the Park that is currently open to fishing. As this fished reef area is itself less than 5% of the total area of the Park the total harvest that could be taken sustainably from the whole area of the GBRMP would likely be more than an order of magnitude greater than current harvests.

The extreme unlikeliness of the total catch from the GBRMPA being increased to anything like its full potential is indicative of the level of the current disconnect between the public and political perceptions of the merits of MSY and OSY.

