

SUBMISSION NO. 47

Inquiry into the Role of Science for Fisheries and Aquaculture



Commonwealth
Fisheries
Association

The Chair
The Hon. Dick Adams MP
House of Representatives Standing Committee on
Agriculture, Resources, Fisheries and Forestry
Parliament House
CANBERRA ACT 2600
Inquiry into the Role of Science for Fisheries and Aquaculture

Dear Chair

Re: Submission by the Commonwealth Fisheries Association (CFA) to the Inquiry into the Role of Science for Fisheries and Aquaculture

Attached is our submission – with specific comments on the key issues which we note the Committee has raised in the Public Hearings so far.

The contribution of the fishing sector is substantial where knowledge of, and funding research on, the marine environment is concerned. Fishers contribute substantially towards research through direct financial and in-kind contributions, commissioned research and knowledge. For example, the Australian fishing industry contributed over \$38m between 2005-2010 to the Fisheries Research and Development Corporation alone with the greatest proportion of funding allocated to natural resources sustainability.

Local ecological knowledge held by people engaged directly with their ecosystems, including commercial fishing, is recognised as a valuable asset for understanding environmental change, as well as for ecosystem management and conservation. Experienced fishers have a wealth of information that can be quantitatively incorporated into data collection. The benefit to the Australian community of this expertise is not well recognised.

Supporting the fishing industry means supporting marine and fisheries science.

Yours sincerely

Trixi Madon
CEO

Inquiry into the Role of Science for Fisheries and Aquaculture

Submission by the Commonwealth Fisheries Association (CFA)

The Commonwealth Fisheries Association (CFA) notes that a range of other submissions from government agencies have provided to the Committee detailed information on the investment in scientific research, including the fundamental role of such research in fisheries management. We will not duplicate that data.

The CFA's submission focuses on looking at solutions to the current and long-term issues facing scientific research in Commonwealth fisheries. We would be pleased to submit more detail on specific issues.

Background to CFA

CFA is the peak organisation for the commercial fishing industry in fisheries managed by the Australian Fisheries Management Authority (AFMA) – ie Commonwealth-managed fisheries.

CFA's Members cover all the major Commonwealth fisheries including the Northern Prawn Fishery, the South East and Great Australian Bight (GAB) Fisheries, the Antarctic Fisheries, the Southern Shark Fishery, the Scallop Fishery, the East and West Coast Tuna Fishery, and the Southern Bluefin Tuna (SBT) Fishery as well as the smaller fisheries.

Many CFA Members also have a close relationship with:

- (1) State-managed fisheries, through holding of licences in State fisheries.
- (2) State-managed aquaculture, through ownership of aquaculture operations – including the Southern Bluefin Tuna (SBT) industry, which captures wild SBT (live) under AFMA management and grows out those tuna under State management.

Key Issues

In this submission we raise:

- (1) The sustainability performance of Commonwealth fisheries.
- (2) The cost to science resulting from the duplication between *the Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the *Fisheries Management Act 1999* (AFMA).
- (3) The implications for science of the outcomes of issues such as the Commonwealth Marine Bioregional planning process, and the *Margiris* debate.
- (4) The cost to science of the funding required meeting fisheries management requirements, such as observers and monitoring quota systems.
- (5) The impact of climate change on investment in science.

Summary of situation of Commonwealth fisheries

The current and prospective situation is:

- (1) The volume and value of Commonwealth fisheries production is recovering in key fisheries. The major challenge is the Australian dollar (\$A).
- (2) All Commonwealth fisheries compulsorily pay a research levy of 0.25% of Gross Value of Production (GVP) to the Fisheries Research and Development Corporation (FRDC); this levy is collected via AFMA. Industry considers this to be a very good investment, and many fisheries would like to, and do, to pay an amount additional to the base levy.

CFA is currently exploring options for best maximising the value from collection of funds for research.

- (3) Commonwealth fisheries also contribute significant funding for science via levies to AFMA for AFMA research projects. Industry believes that over recent years there has been, what it considers, a gradual cost shifting from the Commonwealth government funding to the industry as AFMA's available funds for research decline.
- (4) A substantial amount of funds that were traditionally directed to scientific research is now going to wider ecosystem research, observers and monitoring quotas. There needs to be a re-balancing of priorities.

The sustainability performance of Commonwealth fisheries

CFA sees it as important the Committee comments on the sustainability performance, and the central role that science has played in that. As other submissions have noted – the Commonwealth Harvest Strategy Policy (HSP) is a legal requirement rigorously implemented by the regulators. By definition, the outcome of the HSP is a sustainable catch/effort. CFA acknowledges that some fisheries have been over-fished in the past; however, fishing catch/effort restrictions are demonstrably turning that situation around.

The successes are obvious – for example, the South-east quotas are actually increasing. As the Australian Bureau of Agriculture and Resource Economics (ABARES) has noted, there are some remaining uncertainties – for example, in Southern Bluefin Tuna (SBT), where Australia is only one voice in a globally-managed stock. Even in SBT fishery, the scientific models have led to quota increases in 2011 and 2012.

The HSP is currently being reviewed by the Commonwealth Government to ensure that it is world's best practice.

These internationally noteworthy successes should be celebrated. Australia is recognised around the world for high quality fisheries management (eg UN FAO, Status of Fisheries, 2012).

The Committee has shown an interest in the Precautionary Approach. This is being rigidly implemented through the HSP. The reality of management of marine resources means that it will always be "risk-based" –Australia actively pursues a manage-at-low-risk objective in natural resources management. This is underpinned by science.

Sustainability is also a term that can be applied to the state of the fishing industry. In this regard the profitability of fisheries and industry members that operate within those fisheries, along with environmental sustainability is also a core objective of fisheries policy and management in Australia. It is acknowledged that a significant proportion of research funds are expended on environmental aspects of managing fisheries. It is also more recently acknowledged that there must be increased focus on research on other aspects of fisheries management and this includes those matters relating to maintaining the viability of a fishing industry. The fishing industry, as with many other sectors, are facing multiple challenges including high Australian dollar, lower fish prices, increasing costs of labour, fuel and other inputs. Targeted research, development, extension and adoption on profitability projects, including utilisation of various fish species, market development and value adding help industry (and managers) achieve this aim. CFA has welcomed the recent Government support for the Productivity Commission recommendation that will allow the FRDC to broaden the scope of activities which it can fund, including marketing.

The cost to science of the duplication between the EPBC Act and the Fisheries Management Act

As other submissions have noted, there is considerable duplication between the fisheries provisions in the EPBC Act and Fisheries Management Act. This may have been justified at the time when the EPBC Act was introduced, due to the concern in the 1990's about the sustainability of Australian fisheries. However, given the advances and improvements in fisheries management since that time, CFA considers this duplication can no longer be justified. CFA believes this situation could have been addressed more strongly by the Hawke Report (review of the EPBC Act) and has actively called for this situation to be addressed as a priority. CFA acknowledges and welcomes informal cooperation between government agencies; however, this will not fully address the structural issues without legislative change. CFA also believes that there needs to be more equitable/increased government contributions towards fisheries management to redress the costs of research and administration associated with the EPBC Act.

The reality is that duplicating all the sustainability requirements in both Acts means less money on science, and more on fulfilling all the duplicative requirements. Even within the EPBC Act itself, most Commonwealth fisheries must satisfy three separate provisions in the Act – when the objectives of these are essentially the same. Again, we believe the Hawke Report provided the opportunity to address this issue.

CFA has requested AFMA to quantify the cost of meeting all these EPBC requirements and will consider cost/benefit of industry taking a greater role in directly managing the response to those requirements. We also note that the Committee has requested AFMA to provide data on the costs to State fisheries.

Precautionary Fisheries Management

Commonwealth fisheries are managed under a strong ecologically sustainable development (ESD) and eco-system management framework provided by the *Fisheries Management Act 1991* and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) – this includes the precautionary principle. A precautionary management is not of itself a bad thing, however, when it leads to reducing industry's financial turnover considerations necessarily turn to questions of the ongoing ability of industry to financially support the same, or increasing, levels of science. The level of science must reflect the size of the industry. Science and management are inexorably linked, for example, in the Gillnet Hook and Trap (GHAT) fishery that as science and precaution in management has increased the industry gets smaller that there is a tipping point at which this science/management cannot be paid for. In established fisheries the ever-increasing level of science required cannot continue to be borne by industry at present levels. The HSP is data/cost hungry. An example in the South East Trawl Fishery (SETF) is that AFMA can now no longer levy costs to pay for the science required. The industry association now spends as much on science (through novel funding) as the fishery manager. The future of the relationship between science, industry and management must be examined and the public good component of fisheries (as a community resource) research revisited.

The implications for science of the outcomes of issues such as the Commonwealth Marine Bioregional planning process, and the Margiris debate

Again, our concerns are:

- (1) That funds not be unjustifiably diverted from science to other issues.
- (2) That there is selective implementation of scientific outcomes.

We note that other witnesses have commented on the Marine Bioregional planning process and rationale. CFA does not in-principle have any objections to Marine Bioregional plans, marine reserve networks, and management. As outlined in the joint industry submissions to Government on those plans it is that commercial fishing has been excluded from significant (@40 per cent) areas of our oceans based on questionable fishing gear risk evidence that it has any significant or irreversible impact on the ecosystem and the enjoyment of that ecosystem by others.

The fishing industry has reviewed the fishing gear risk assessments (FGRA) and identified a number of key shortcomings across policy, methods, and process that we consider undermines the robustness of the assessment in providing meaningful evidence of risk in the marine planning process.

The FGRA outcomes do not accurately portray the real (residual) risks from various commercial fisheries. This reflects, in our view, shortcomings in the FGRA process and has serious implications for the viability and reputation of commercial fisheries. The fishing industry acknowledges government statements that the marine bioregional and reserve network planning process is not a fisheries management exercise. However, we note that the exclusion of some gear types and not others could be viewed as an implicit assumption that an effective fisheries management process exists for those methods as all fishing, as per all other human activities, will have some impact on the marine environment.

Primary shortcomings identified in the FGRA process can be categorised as policy issues, the quality & relevance of the actual risk assessments (technical, and methodological); and process issues. These categories also provide a useful framework to improve the FGRA approach.

Fisheries management is neither a goal nor principle for the marine reserve network planning process. The role of marine reserves and reserve networks in fisheries management is complex and must be carefully considered and appropriately designed to specific species circumstances and clear objectives. The lack of clearly defined objectives in planning and implementing marine reserves and the recognition that marine reserves have at times been 'oversold', promoting benefits in situations where it was not considered either scientifically credible or necessary, has been highlighted internationally in recent years as an issue still to be addressed in marine protection and fisheries management planning. In this regard industry has cautioned against using theoretical or potential 'benefits' for fisheries to support the justification for establishing marine reserves, for example, by recent inclusion of so called 'spill over' benefits used by government. We note that there is a range of international and Australian scientific evidence also pointing out that 'benefits' for fisheries cannot be extrapolated and assumed¹.

This current situation is a very disappointing one. Why would you deprive regional communities of the sustainable utilisation of a renewable resource which has minimal to no impact on anything else? No matter how much compensation may be paid to industry, this is not good public administration.

There is a disconnect between the quality of fisheries science and public perception. To illustrate, on the current *Margiris* issue – CFA's concern is not with this individual proposal. It is about the nature of the debate – and that some sectors of the community are selective about implementing agreed scientific outcomes. In evidence to the Committee, we note that Dr Buxton has clearly outlined the agreed science behind the quota levels and the zones in the Commonwealth Small Pelagic Fishery. That agreed science has allowed the fishery to comply with all the EPBC Act and FMA sustainability tests.

¹ Including European example of 33 years of data for 12 reserves - <http://www.esajournals.org/doi/abs/10.1890/08-2131.1>

As Dr Buxton noted – if you continually update stock assessments in a (currently) lowly utilised fishery, the funds for research have to be diverted from elsewhere. In other words there will be other areas of science which will not be funded. The answer is as has happened in the case of this fishery, that the catch quota be set a very conservative level.

The cost to science of the funding required for AFMA activities such as observers and monitoring quota systems.

The background is that:

- (1) Every significant fishery in Australia is managed by Individual Transferable Quotas (ITQ's), even where the rationale is questionable. Quota systems require a much higher level of monitoring, including observers.
- (2) A major part of the cost recovery by AFMA is now spent on monitoring of quotas and of ecosystems. For example, over 25% of the levy paid by fishers to AFMA now goes to observer work.
- (3) The move to quotas in the Northern Prawn Fishery will be a good model of the actual cost difference between managing by quota and non-quota.
- (4) Australian fisheries operate over very large areas and ecosystems. This results in high costs.

Funding for monitoring has to be diverted from somewhere else – and inevitably that will be from the scientific research. The view of CFA Members is that there has to be a re-balancing of priorities back to more science – and more efficient and lower-cost monitoring is achievable. These matters are being discussed with AFMA.

The impact of climate change and seismic surveys on investment in science.

CFA's role is not to debate the science of climate change. However, the implications for oceans policy and particularly fisheries management and marine spatial planning are equally as complex and uncertain. It seems to be the case that climate change fisheries policy and marine protected area policy is largely in direct conflict, with marine protected areas driving for long-term closures, and climate change policy citing the need for flexibility in management arrangements for maximum resilience. Based on the report completed by CSIRO², Government acknowledged the need for fisheries and aquaculture management policies to better integrate the effects of climate variability and climate change in establishing harvest levels and developing future strategies, noting that this will enhance the resilience of marine biodiversity and the adaptive capacity of the fisheries and aquaculture industries.

These potentially competing needs need to be balanced through adequate investment in climate change and fisheries science, as well as through appropriate, policy, design and management of marine reserves. This will allow modification of marine reserves to occur over the long-term, in response to spatial changes to conservation values and marine resource uses such as commercial fishing. Toropova *et al* (2010) recommend that further investment be made, in design and management of marine reserves, so that they are not only 'climate proof' but also to enable them to contribute to future actions to secure livelihoods and reduce societal vulnerability in a changing world³.

² Hobday, A.J., Poloczanska, E.S., Matear, R., 2008. Implications of Climate Change for Australian Fisheries and Aquaculture: A preliminary assessment, Report to the Department of Climate Change, Canberra.

³ Toropova, C., Meliane, I., Laffoley, D., Matthews, E. & Spalding, M. (eds.) 2010. Global ocean protection: present Status and future possibilities: Brest, France: Agence des aires marines protégées, Gland, Switzerland, Washington, DC and New York, USA: IUCN WCPA, Cambridge, UK : UNEP-WCMC, Arlington, USA: TNC, Tokyo, Japan: UNU, New York, USA: WCS.

More recent work by (2011) ABARES on the challenges and opportunities for Commonwealth fisheries of climate change noted a number of management considerations, including:

- The ability of fishers to switch target species (due to changes in distribution and availability as a result of climate change) depends on the availability of suitable quota and the amount of flexibility to trade it. There may also be issues surrounding the asset value of quota.
- Current and future spatial closures and offshore constitutional settlement arrangements may need to be reassessed if species distributions change due to climate change.
- At a local scale, changes in the distribution of target stocks may affect current spatial management arrangements such as marine protected areas and areas with restricted access. These areas are typically based on historical fishing activities and do not necessarily account for changes in future fishing patterns.
- In order for fishers to adapt to climate change, fisheries management may need to provide flexibility for fishers to change their behaviour while ensuring stocks are not at risk and are maintained at an appropriate biomass level.
- Closures, which are based on historical patterns in fishing activities, might limit the flexibility of fishers to move into new areas, if the distribution of species changes.⁴

The fishing industry notes the Australian Government has invested in climate change adaptation policies, programs and research, including the development of national adaptation research plans for key sectors, and implores government to ensure adequate resources are directed at marine and coastal climate change issues, including timely flexibility of marine spatial planning (including in relation to current and future marine reserves and reserve networks) and fisheries policy in the context of climate change.

There is substantial and increasing marine seismic survey activities carried out by the petroleum and exploration industry and government (carbon capture and storage), particularly in southern, western and northern Australia. The impact on fishery resources, on potential mortality and behavioural changes, is of significant concern to the fishing industry around the country. Science is required to better and fully understand the impacts of seismic survey activities, however, this research is extremely expensive and therefore difficult to fund. This means continued impact on fisheries and well as the relationships between industry sectors.

End.

⁴ http://adl.brs.gov.au/data/warehouse/pe_abares99001808/TR11.01FishClimateChange_lr.pdf