AUSTRALIAN Prawn Farmers ASSOCIATION

Parliament of Australia
House of Representatives Committee

Inquiry into the Role of Science for fisheries and Aquaculture

Submission from Australian Prawn Farmers Association

Introduction

Australian Prawn Farmers Association (APFA) was established in 1993 as a mechanism to support the developing and pioneering industry of prawn farming. Compared to other traditional terrestrial sectors and the fishing industry this farming method has only been in Australia for 26 years.

Currently prawn farms are operational in Northern NSW and in clusters at the Gold Coast, Bundaberg, Mackay, Ayr, Townsville and Cairns. All farms are reliant on estuaries for their intake water and are regionally based.

Since inception this industry has been very well supported by Australia's most respected research agencies such as Fisheries Research Development Corporation (FRDC), CSIRO Food Futures Group, Queensland Department Agriculture Fisheries and Forestry (QDAFF), Australian Institute Marine Science (AIMS), Department Agriculture Fisheries and Forestry (DAFF) to name a few.

Everything prawn farmers do has been underpinned by millions of dollars worth of research and has covered topics in relation to key environmental issues, domestication, genetics, disease resistance, water quality, sustainable feed, spatial analysis, seasonal forecasting, energy auditing, value adding and better feed conversion ratios.

Australia's prawn farmers are the only group within the seafood industry to have a compulsory levy for research and development. This levy combined with leveraged dollar support from FRDC and Seafood CRC continues to benefit the industry with research.

Despite all the research that has been done proving that our industry is sustainable, does not harm the environment and is a valuable contributor of quality secure food, the sustainable development of the industry is severely constrained by the complexity and inconsistency of policies and policy decisions. The most recent example being the totally ad-hoc introduction of the punitive constraint of zero net nutrient and suspended sediments in prawn farm discharges. The permissible discharges from this industry were already the strictest in the world and there was no justifiable biological or ecological reasons for introducing a prohibitive constraint that has not been imposed on any other primary industry in Australia. The industry is acknowledged as a global leader in environmental management. The simple solution to this unjustifiable constraint is to revert to world's best practice in discharge water quality. The industry operated for 20 years with the strictest discharge standards in the world with absolutely no adverse environmental impacts on the GBR lagoon.

Terms of reference

a) The relationship between scientific knowledge of fish species, ecosystems, biodiversity and fish stock sustainability

APFA as an industry has developed relationships with scientists, research agencies and research funding agencies.
The Australian government Productivity Commission, Assessing Environmental Regulatory Arrangements for Aquaculture. Productivity Commission Research Paper 2004 (1) – reviewed the regulatory burden for aquaculture and reported
"***aquaculture production is subject to an unnecessarily complex array of legislation and agencies"***
This was 2004 and despite the millions of dollars worth of research, policies and regulations have not been reduced, in fact the industry has had more imposed.

No new prawn farm has been commissioned for 13 years. This has not been from lack of interest. One farm has had an application that has taken 13 years to get through the regulatory maze and to date no sod of soil has been turned to start this new development.

This farm owner was convinced by the then Queensland government in 1996, that the site known as Guthalungra was suitable for aquaculture development. The abattoir at Bowen had just ceased to operate and 300 workers were out of work. If the farm owner knew what he knows now he would have taken his investment dollars off shore where Vietnam, Thailand or China would have welcomed him with open arms. The very state government authorities who had convinced him to invest in this new opportunity then took seven years to approve the new development. The farm owner has spent in excess of $3 million to get to the current stage, countless EIS's the project was given State significance, Queensland Co-ordinator General (2) at the time deliberated, handling of the paperwork by several government agencies slowed the process – they did not have to respond within any limited time frames.

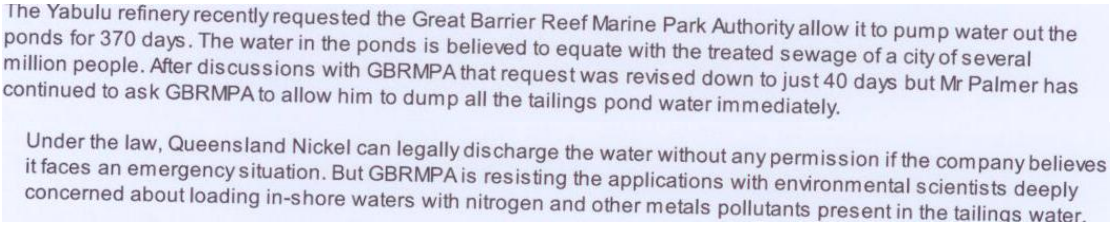
The Commonwealth government commissioned Australian Institute of Marine Science (AIMS) to undertake an independent review of the Guthalungra proposal and found that there was low risk to the Great Barier Reef World Heritage area. This was disregarded – perhaps it was not what they wanted to know!!!

Once finally approved the Federal government then had to be involved as the development triggered the EPBC Act by discharging allowable nutrient limits into the Great Barrier Reef (GBR) area.

In 2010 the then Federal Environment Minister Peter Garrett conditionally approved the development with a condition, not imposed on other agriculture or mining sectors whose farm chemicals or mining sediment are allowed to run into the GBR, the stumbling condition was - Nil net discharge.

This was appealed, despite science contrary to the decision, global experts baffled by the decision, SEWPAC could not be swayed. It was a very anti competitive decision. It seems that mining facilities are treated differently.

The Townsville Bulletin on 25th June 2012 (3) reported that the Clive Palmer owned nickel mining company Yabulu, sought permission to discharge mining pond tailings into the GBR for 370 days, which was akin to releasing treated sewerage of a city of several million people.....the article goes on to say that under Queensland law, Queensland nickel can legally discharge the water without any permission....



The Yabulu refinery recently requested the Great Barrier Reef Marine Park Authority allow it to pump water out the ponds for 370 days. The water in the ponds is believed to equate with the treated sewage of a city of several million people. After discussions with GBRMPA that request was revised down to just 40 days but Mr Palmer has continued to ask GBRMPA to allow him to dump all the tailings pond water immediately.

Under the law, Queensland Nickel can legally discharge the water without any permission if the company believes it faces an emergency situation. But GBRMPA is resisting the applications with environmental scientists deeply concerned about loading in-shore waters with nitrogen and other metals pollutants present in the tailings water.

Aquaculture development and lack of it in Australia is not based on any sound science principles but merely politics.

Free trade v fair trade mentality and locking up our environment at the cost of producing food in poorer countries just as long as it does not happen in our backyard.

Why do Australian governments and people find it so acceptable to import the majority of our seafood needs? They would baulk at any suggestion to import 70% of our beef, lamb or chickens!!!!

Australian aquaculture is underpinned by sound science but the politicians and regulations do not reflect and support development and expansion of the industry.

b) Fishery management and biosecurity, including but not limited to

- **The effects of climate change, especially relating to species dispersion, stock levels and impacts of fishing communities**

- **Pest and disease management and mitigation**

The current mining boom and the proliferation of ships coming into Australian waters is a major concern for prawn farmers. Ballast water from these ships can carry organisms that have the potential to wipe out our industry.
Prawn Farms are reliant on intake water from estuaries which feed from and into oceans where these ships sail, the threat of diseases and viruses from ballast water is real but largely an area not touched by science.

The importation of raw prawns into Australia is another potential disease pathway. The raw prawns have to be covered by a marinade which is easily washed off. Imported prawns are often sold cheaper than Australian produced and anecdotal evidence suggests buying imported prawns from a supermarket is cheaper than buying bait and using for fishing.

- **Minimising risks to the natural environment and human health**

Australian prawn farmers are highly regulated. Water quality is constantly tested, monitored and measured to strict regulations. The surrounding environment is critical to the success of prawn farming. Research conducted many years ago reported that settlement ponds where nutrients settled before discharging the water was the best environment solution. Prawn farms are often responsible for cleaning up background nutrients created by other agriculture sectors and they discharge water cleaner than intake.

- **Cooperation among Australian governments on the above**

The current system does not work for prawn farming. Government agencies do not confer on issues they frustrate and do what they do best create bureaucracy.

They have not come out and defended the position of seafood against the NGO's and the retail duopoly. Prawn farmers are regulated to be sustainable yet we are being questioned by NGO's and retailers. Do the retailers impose the same condition on imported seafood??

Prawn farmers find themselves more and more a trade exposed industry, unable to break through the bureaucratic barriers to achieve results let alone development. If potential investors ring APFA for advice about establishing prawn farm in Australia – they are advised not to bother as it's too difficult to get through the regulations.

Expanding mandatory country of origin labelling to restaurants and fish and chipperies where product substitution is rife, will give consumers choice and confidence to know they are getting what they think they are paying for.

There should be a review of free trade v fair trade – why is it so acceptable to import over 70% of our seafood requirements. This is a hypocritical attitude to lock up our environment and turn a blind eye to regions where we import our seafood from. As long as it doesn't happen in our backyard.

What happens 20 – 30 years from now when the countries where we are importing from say – you cannot have our seafood anymore because we need it to feed our own population?

Precautionary principle that stifles development needs reconsidering if Australia is serious about feeding its population into 2050 and beyond.

c) Research, development and applied science of aquaculture, including:

- **Transitioning from wild fisheries to aquaculture in individual species**

Australian prawn farmers have achieved this with the help of key research and funding agencies. Black tiger (P.monodon) and banana prawns (F.merguiensis) are now commercially grown in biosecure, environmentally responsibly and sustainable farm conditions. Continued improvements in genetic lines and research for sustainable feed options now and into the future are already underway. This industry

is still in its infancy compared to traditional terrestrial or fishing sectors but remains at the cutting edge of science and technology.

- **Improving sustainability and lifecycle management in practices and outcomes**

Australian prawn farmers addressed this issue with research started over ten years ago for domestication. Evidence that results have been achieved from research refer to Queensland DPI/DEEDI (now known as DAFF), annual report to farmers reports 2002-03 (4) year there were 6164 spawners purchased. In the 2009-10 (5) annual report spawners purchased were 2471, a huge reduction on the need for wild caught broodstock.

Further proof that the research for domesticated animals is working a major farm who partnered with the research agencies now boasts a fully stocked farm with domesticated generation 8 family lines. Prawn farmers and their research partners are adopting and undertaking research for animals that are genetically improved, disease resistant and faster growing animals. This reduces pressure on wild stocks and ensures the industry is sustainable and self sufficient.

Current feed conversion ratios of 1.5/kg for prawns are more efficient per hectare than any other farmed animal.

Prawn farmers adopted the settlement pond concept early- extensive CSIRO/AIMS studies confirmed that by conditioning water before discharge prawn farm's have negligible environmental impact. Using settlement ponds, farmers have adopted reduced/minimal discharge practices over the last two decades- and now use aerators rather than seawater exchange as the primary means of controlling pond water quality.

The APFA also recently supported a CSIRO/Industry study of "microbial-floc" technology- a technique allowing prawn farms to operate without exchanging seawater for long periods. APFA is in the process of extending findings to interested farmers for wider adoption beyond the participating farm. Farms are able to operate even more efficiently using this method by capturing nutrients from feed in the pond food-web but there are other advantages- farms use less energy for pumping and can isolate themselves from flood waters during the wet season.

While progress has been made in this area- for prawn farmers to meet the imposed "nil net discharge" condition they need a higher level of control in "zero exchange" farming than currently possible for the species of prawns farmed in Australia. APFA have attempted to obtain Federal R&D funding twice to address the "nil net discharge" environmental condition imposed by the Government but continue to be frustrated by the seemingly contradictory low priority given this work by Government environmental R&D grant schemes like Caring for Country.

APFA recently received a Farm Ready grant to better prepare farmers for the impacts of climate change. This confirmed that increasingly isolating Australia's sustainable prawn farms from the ocean makes them highly dependent on energy for aeration, and the project examined options for powering farms using renewable energy in line with future developments in the carbon economy. Following the project

a study of seasonal weather forecasting was also begun to help farmer's manage production in the face of changing weather.

- **Pest and disease management and mitigation**

Australian prawn farmers are continuously concerned about ensuring major diseases, that wipe out overseas fisheries do not enter Australian waterways. Import conditions on imported prawns that use free trade and precautionary principles need to be strengthened to protect not only farmed species but the wild caught fisheries as well.

AQIS failing food reports (6) show prawns rejected earlier this year for vibrio cholera. Other diseases such as white spot (WWSV) Yellowhead, Taura or IMNV need to be vigilantly tested for not the current rate of testing 25% of shipments under current ALOP principles.

- **Governance arrangements relating to fisheries and aquaculture, including the implications for sustainability and industry development**

Current governments and agencies do not seem to review or accept well documented research on aquaculture. Policies do not match the science or industry practices. There is no support from Australian governments for aquaculture, investors are not encouraged to invest if it takes more than 13 years to get through government red tape. It has recently been highlighted to the APFA that there is a lot of latent effort in this industry – that is farms have been established, licences to operate exist but they are no longer operational.

- **Current initiative and responses to the above matters by state, territory and Australian governments**

Tasmania and South Australia have Aquaculture Act's, which seem to support the industries in each state.

If any research was to be undertaken in this area it needs to be how to have a national strategy that supports industry approvals in a timely manner by one authority and identify potential strategic aquaculture areas for our future. Please consider the following:

Queensland is third in Australia for production of farmed Seafood but has experienced no substantial industry growth in over a decade due to the prohibitive legislative and regulatory frameworks that exist within this state. Queensland has an enormous opportunity to increase production in farmed seafood which would greatly contribute to the states food security goals.

South Australia and Tasmania are the two most successful states in Australia for farmed Seafood, both in terms of value and production. The Queensland Industry strongly believes that the greatest contributing factor to this growth in the other states is a robust suite of aquaculture related policies that are underpinned by a specific *act of parliament* that focuses upon promoting, regulating, monitoring and reporting commercial aquaculture activities. An example of this is the South Australian *Aquaculture act 2001*.

Currently, the Queensland aquaculture approval process is handled by multiple departments and agencies in a largely ad hoc fashion.

The Queensland industry is of the strong opinion that the Queensland government should adopt some demonstrated best practice areas of legislation that have made South Australia and Tasmania so successful in farming seafood. These would exist with the Queensland framework in the following areas:

- Identifying a suite of aquaculture zones throughout Queensland. These zones would have been identified by the Department of Agriculture, Fisheries and Forestry as the most conducive area for growing key species such as marine prawns and marine fish. These zones would be both in coastal waters for fin fish and shellfish and for land based pond aquaculture of marine prawns and fin fish which would mimic the *strategic cropping land* initiative.

- Assigning the Department of Agriculture, Fisheries and Forestry as the sole agent to assess aquaculture applications, monitor existing facilities and report outcomes.

- Greatly diminish (through legislation) the role referral state based agencies such as the Environmental Protection Agency play in the licensing and regulatory frameworks of Queensland aquaculture.

- Greatly diminish (through legislation) the role federal based agencies such as the Department of Sustainability, Environment, Water, Population and Communities and the Great Barrier Reef Marine Park Authority play in the licensing and regulatory frameworks of Queensland aquaculture.

- Outline clear processes, time frames and costs of the regulatory framework

- Outline clear roles and responsibilities of the department of Agriculture, Fisheries and Forestry has towards aquaculture regulatory frameworks

- Clearly define specific triggers of federal legislation such as the Environment Protection and Biodiversity Conservation *Act* 1999 and the *Great Barrier Reef Marine Park Act* 1975

- Develop a fair, transparent monitoring and reporting system of farm environmental performance which would exist within the public domain. (7)

- **Any other related matter**

1. Australian Prawn Farmers are constantly frustrated by some educational facilities whose mentality is relevant to 30 years ago when aquaculture was just developing in Australia. These institutions can do more harm than good and unfortunately train potential employees of our industry with antiquated thinking and knowledge. This makes them unemployable in our industry unless major retraining can be undertaken.

All too often these institutions attract funding for research where there is no need, the research touted as needed often treats the industry worse than what current legislation does and is viewed by industry as merely pushing for dollars for self

perpetuation, doing research for research sake, they can exacerbate misconceptions, are deft at matching proposals to suit current funding buckets and provide little to no benefit to industry at all. Industry will get involved and partner with or drive research proposals that are considered necessary.

2. It is difficult for this industry to negotiate with certain government agencies where a culture seems to exist on continued rescue effort funding and certain staff within who are totally opposed to aquaculture regardless of any science.

3. One final point to consider - APFA notes with some disdain the role of ACAIR (Australian Centre for International Agricultural Research) conducting research with developing countries whose practices exceed what Australia is able to produce. A final report entitled "Improving productivity and profitability of smallholder shrimp aquaculture and related agribusiness in Indonesia" reports that "***a Presidential Decree ordered the revitalisation of the shrimp farming sector.....in 2005.....a production target for farmed shrimp in 2009 of 540,000t.....a projected pond area of 262,000ha was to be used to grow these shrimp." (8)***

Compare this to Australia's current pondage area of 900 ha producing up to 5,000t and no support by way of Ministerial decrees – why does Australia support other countries with research that directly competes with its Australian producers?

Finally APFA welcomes the opportunity to make this submission for the review and looks forward to contributing to any further discussions which will take this industry forward. We cannot see why Australian state and Federal governments appear to be turning their backs on domestic seafood production when the science says we can have it all, prawn farms and a barrier reef? The status quo is a slap in the face of Australian research and development activities.

Yours sincerely

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Executive officer

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