



**Australian Government**  
**Department of Agriculture**

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The Hon. Warren Entsch MP  
Chair  
Joint Select Committee on Northern Australia  
PO Box 6021  
Parliament House  
CANBERRA ACT 2600

Dear Mr Entsch

Thank you for the opportunity to provide a submission to the Joint Select Committee on Northern Australia's inquiry into opportunities for expanding the aquaculture industry in northern Australia.

The Department of Agriculture plays an important role in supporting aquaculture through national programmes for research, quarantine, aquatic animal health, export food safety, and market access and trade.

Please find enclosed the Department of Agriculture's submission to the inquiry.

Yours sincerely

Ian Thompson  
First Assistant Secretary  
Sustainability and Biosecurity Policy





**Australian Government**  

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**Department of Agriculture**

## **Joint Select Committee on Northern Australia**

Inquiry into opportunities for expanding the  
aquaculture industry in Northern Australia

Submission from the Australian Government Department of  
Agriculture

April 2015

## **Foreword**

The Department of Agriculture (the department) welcomes the opportunity to provide a submission to the Joint Select Committee on Northern Australia's Inquiry into opportunities for expanding the aquaculture industry in northern Australia and seeks to specifically address the terms of reference:

- a) the ability to commercialise new innovation
- b) develop new aquaculture projects and products
- c) seek out new markets.

Aquaculture operations are regulated by local, state/territory and Australian governments. The state and Northern Territory governments have primary responsibility for regulating most of the day-to-day aspects of aquaculture. However, the Australian Government also plays an important role in supporting aquaculture through national programmes for research, quarantine, aquatic animal health, export food safety, environmental management and market access and trade. Responsibility for environmental regulation, including the approval of new aquaculture developments and ongoing monitoring and compliance, is shared between state and Northern Territory governments and the Australian Government Department of the Environment.

The department has limited the scope of its submission to its areas of responsibility.

## Introduction

As populations in Australia and around the world grow, so too does the demand for sustainably sourced seafood.

Seafood demand in Australia has increased considerably over the last three decades and like most countries with an advanced economy Australia's consumer demand for seafood exceeds the potential supply from domestic production. The Australian Government recognises that domestic aquaculture has the potential to significantly expand to help meet growing demand for seafood both nationally and internationally.

The volume of aquaculture production has increased strongly in Australia, and globally an aquaculture revolution is occurring. In Australia, the volume of aquaculture production increased at an average of 11 per cent annually over the 20 years until 2011–12 (ABARES).

In 2012–13 aquaculture accounted for 43 per cent of the gross value of Australia's fisheries production, worth approximately \$1 billion. Australia's aquaculture industry is relatively small by global comparison, accounting for less than one per cent of the estimated US\$138 billion global value of aquaculture production in 2012. However, Australia's strength is in producing safe, sustainable, high quality and high-value products such as oysters, salmon, tuna and prawns.

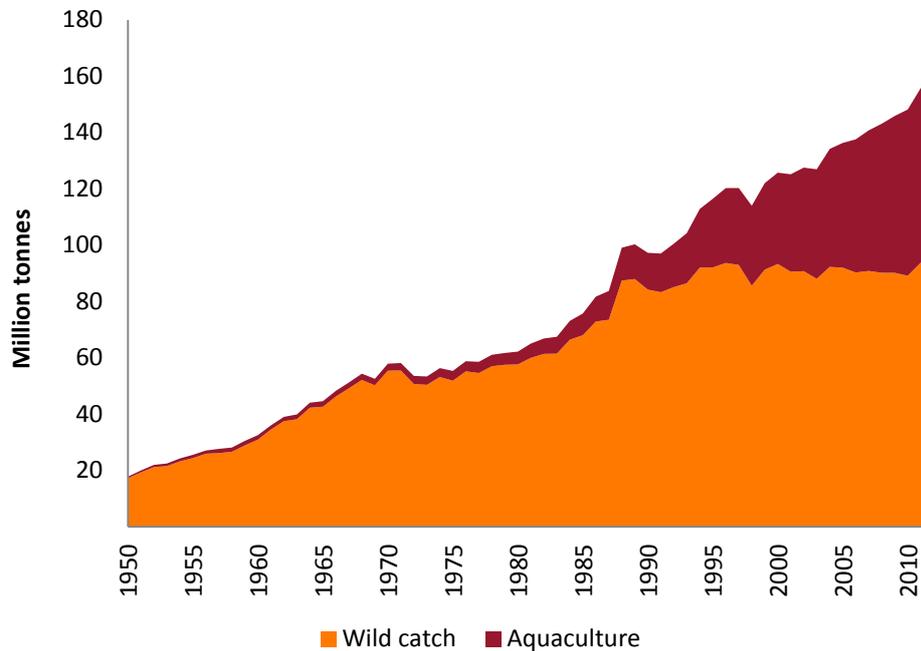
### *Global and national trends in aquaculture*

The Australian Bureau of Agriculture and Resource Economics and Sciences (ABARES) recently presented its analysis of Australia's fishery and aquaculture sector, its current global context and forecasts for growth over the period to 2019–20. The analysis shows that aquaculture continues to contribute most of the growth in global fisheries production (in volume terms). The OECD–FAO estimates that by 2023 world fisheries production will rise to 186 million tonnes, with aquaculture production contributing to most of this growth. Most growth in world aquaculture production has occurred since 1992, with production increasing from 15 million tonnes (15 per cent of world fisheries production) to 67 million tonnes (42 per cent) from 1992 to 2012.

In Australia, the volume of aquaculture production almost doubled over the period 2003–04 to 2013–14, in contrast to the significant decline in the volume of catch in the wild-catch sector. As a result, aquaculture's share of production grew from 17 per cent in 2003–04 to 34 per cent in 2013–14 (ABARES 2015). Since 2002–03 the real gross value of aquaculture production has increased by 12 per cent (\$108 million), in real terms. The largest increase over this decade came from the production value of salmonids and edible oysters. The value of production of salmonids rose by \$343 million (222 per cent), while the value of edible oysters increased by \$14 million (17 per cent).

Globally, total production for wild capture fisheries has remained steady for some ten years. In the same period aquaculture production, particularly in Asia, has increased dramatically (Figure 1).

**Figure 1. Global fisheries production from wild-catch and aquaculture, 1950 to 2012**



Source: *Fisheries and aquaculture statistics 2012*, Food and Agriculture Organisation (2014)

### The ability to commercialise new innovation

Innovation, and the ability to commercialise innovation is essential to the expansion of the Australian aquaculture industry. Globally, work is underway to develop new techniques and innovations to improve the sustainability, efficiency and profitability of the aquaculture industry.

New innovations in prawn aquaculture, such as using Biofloc technology, domesticated and selected stocks, and pathogen-free seed-stock can all be commercialised and will in turn increase aquaculture production nationally. Currently there are limited opportunities for the application of domesticated lines of tiger prawns and banana prawns in northern Australia due to the small number of farms.

Selective breeding of barramundi for improved growth under commercial conditions is also likely to become possible if large scale operations are able to establish. Currently the application of this approach has been stifled because the small scale of the industry limits markets for selected stock.

Industry expansion would create opportunities to commercialise innovative water conservation or multiple water use aquaculture technologies, necessary to meet legislative requirements for discharged water quality and addressing water availability demands in the monsoonal climate.

## **Develop new aquaculture projects and products**

Opportunities to develop new aquaculture projects across northern Australia may in some cases be limited by environmental considerations, infrastructure deficiencies (such as electricity and transport), extreme weather events and unfavourable public opinion for proposed projects close to developed/urban areas. With improvements in access and availability of essential infrastructure, particularly reliable transport, aquaculture opportunities in northern Australia can be realised. The use of aquaculture zones (such as in Western Australia and Queensland) and more streamlined approvals processes can also assist in reducing red tape and encouraging investment in aquaculture.

### *National aquaculture strategy*

In developed countries it is common for domestic seafood production to be unable to keep up with demand. The European Union (EU), the United States and Japan are all net importers of seafood products.

In 2013, following over a decade of flat-lining of its aquaculture production, the EU released *Strategic guidelines for the sustainable development of EU aquaculture*. These guidelines support the reform of the EU's *Common fisheries policy*, which identified four priority areas for aquaculture: reducing administrative burdens, improving access to space and water, increasing competitiveness, and exploiting competitive advantages due to high quality, health and environmental standards. These guidelines were developed to help meet growing demand for seafood and recognise that aquaculture can contribute to the overall goal of filling the gap between EU consumption and production of seafood in a way that is environmentally, socially and economically sustainable.

Recognising the Australian aquaculture industry's potential to expand, the Australian Government has committed to working with industry to develop a national aquaculture strategy. The strategy will encourage the growth of an efficient, innovative and sustainable domestic aquaculture industry.

The first step in fulfilling this commitment was developing the National Aquaculture Statement which was released by the Parliamentary Secretary to the Minister for Agriculture, Senator the Hon. Richard Colbeck at World Aquaculture Adelaide on 8 June 2014.

The national aquaculture strategy will identify common priorities for industry and government as well as actions that can be undertaken to achieve those priorities.

Under the *Fisheries Management Act 1991* the Australian Fisheries Management Authority has jurisdiction over 'fishing' activities. However, the definition of fishing under this Act does not include aquaculture. This means that there is currently no legislative framework to regulate aquaculture in Commonwealth waters. While industry is not currently looking to expand into Commonwealth waters it is expected that in the future, technology will make it more efficient for them to do so. A framework for regulating aquaculture in Commonwealth waters would provide greater certainty for investors and allow for further expansion of the industry, particularly off the coast of Western Australia.

The national aquaculture strategy will also seek to clarify a framework for regulating aquaculture in Commonwealth waters.

### *Access to agvet chemicals*

The Australian Government has also committed to improve access to minor use agricultural and veterinary (agvet) chemicals for farmers by providing \$8 million over four years to allow a greater number of minor use chemicals to be registered.

The minor use problem is a market failure where producers of specialty agricultural products do not have access to suitable agvet chemicals. The small size of the Australian market can make the costs involved with registering an agvet chemical or its use in Australia uncommercial. This is particularly the case for smaller industries such as the aquaculture industry, where many chemicals used are generic in nature and unlikely to ever be registered for use in aquaculture. The high cost of registration combined with the wide-spread availability of these products (such as in hardware stores for other uses) provides little incentive for chemical manufacturers to seek registration when they will not have a monopoly over the market.

The department has provided a \$218 182 grant to the Rural Industries Research and Development Corporation to develop a national forum, bringing together grower groups, the chemical industry and government, to establish a list of priorities of uses and chemicals. The department will also explore a range of tools to provide access to those chemicals and uses on the priority list.

Better access to agvet chemicals for minor uses will provide a more certain operating environment for the Australian aquaculture industry.

### *Aquatic animal health*

Over much of northern Australia there is a scarcity of knowledge about diseases that already exist in wild aquatic animal populations and the potential for emergence of new diseases. Current capacity for disease surveillance across the north is extremely limited, yet surveillance for these diseases is critical to support the development of new aquaculture projects and products. Demonstration of freedom from disease, or confidence in knowledge about the disease status of an area, may be the difference between commencement of a project and a decision to move elsewhere.

Development of new aquaculture projects and products also requires effective disease diagnosis and management capabilities. There is only one significant animal health laboratory (Berrimah Veterinary Laboratory, Department of Primary Industry and Fisheries, Northern Territory) remaining in northern Australia. Effective disease management in aquaculture systems is critically reliant on rapid diagnosis and availability of local specialist knowledge. Without improved diagnostic capacity in northern Australia (and the associated skills development), development of new aquaculture projects and products may be stymied.

### *Marine Pests*

The department is undertaking a review of national marine pest biosecurity arrangements that will result in recommendations to improve measures for the prevention of marine pest incursions, guide responses to new pest detections, and minimise the impacts of pests established in Australia. The review report is expected in mid 2015 and is the first element of the department's four-year project to strengthen Australia's marine pest biosecurity arrangements. Strengthened marine biosecurity

will benefit all industries/community sectors that utilise the marine environment, including aquaculture.

### *Improved feed*

Scientists at the CSIRO have developed Novacq, a prawn feed additive that not only increases the growth rate of farmed prawns, it also means farmed prawns can be produced with no fish products in their diet. Similarly, aquaculture feed producer Ridley is working to develop a new fish meal made from fish by-products from processing facilities and markets, rather than from wild-caught fish. If successful, this will provide a more sustainable and cheaper feed option. New efficient feed technologies such as these would have a wide application in improving efficiency and profitability of aquaculture across the board.

### *Indigenous opportunities*

Aboriginal and Torres Strait Islander communities have expressed a strong interest in participating in aquaculture. Aquaculture is an industry that could provide significant benefits to Aboriginal and Torres Strait Islander people, most notably by helping communities achieve economic independence and advancement, providing employment opportunities and food security for isolated communities.

The Australian Government is committed to improving engagement with Aboriginal and Torres Strait Islander communities on fisheries. In particular, the department has two main approaches to fulfilling its commitment to develop more effective communication with Indigenous communities on fishing and aquaculture issues; the first is engagement with Indigenous communities and groups through the Indigenous Reference Group of the Fisheries Research and Development Corporation (FRDC) which focuses on research and development to assist Aboriginal and Torres Strait Islander people derive greater benefits through fishing, both traditional and commercial; the second is the establishment and operation of the department's Indigenous Working Group.

The department works cooperatively with both of these groups to coordinate higher level issues and to promote the opportunities offered by government and non-government organisations.

### **Seeking out and establishing new markets**

There is growing demand in developed countries for ethically and sustainably produced seafood. Capitalising on Australia's clean, green, sustainable production methods will be essential in developing new export markets, noting that Australian products are generally marketed as premium products due to the higher associated labour and transport costs. Development and sustainability of new export markets will therefore depend on the availability of independent certification services, support and capacity within the Australian Government to certify disease and food safety status, and significant infrastructure developments to ensure reliability and cost effective supply.

Aquaculture products on average have a higher cost of production compared to wild-catch fisheries, largely due to higher feed costs and capital requirements. To maintain the sector's competitiveness, it is important for the Australian Government to continue to ensure market access through the elimination of tariffs and other trade barriers.

The Department of Agriculture has supported the competitiveness of the aquaculture sector through the conclusion of three trade agreements with China, Japan and South Korea which provide strong outcomes for seafood. These agreements will complement the market access gains achieved through other free trade agreements such as with South East Asia. The Australian Government also engages in multilateral forums to improve the sustainability and efficiency of international fisheries trade including for aquaculture. These forums include the Food and Agriculture Organization and the Organisation for Economic Cooperation and Development. In addition to this, Australia actively promotes the elimination of fisheries subsidies which contribute to overfishing and overcapacity at the Committee on Subsidies and Countervailing Measures at the World Trade Organization.