



**Australian Government**

**Department of Agriculture,  
Water and the Environment**

# **House of Representatives Standing Committee on Agriculture and Water Resources**

**Inquiry into the Australian aquaculture sector**

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## Foreword

The Department of Agriculture, Water and the Environment (the department) welcomes the opportunity to provide a submission to the House of Representatives Standing Committee's inquiry into the Australian aquaculture sector and seeks to specifically address the terms of reference:

- a) the nature and current status of Australia's aquaculture sector
- b) opportunities and barriers to the expansion of the aquaculture sector
  - i. including ability to access capital and investment
- c) opportunities to streamline and increase the effectiveness of the current regulatory frameworks that govern aquaculture activities in Australia.

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 department.

# Introduction

As the global population continues to grow, so does global demand for food. This includes demand for seafood. With growth in wild-catch fisheries plateauing, alternative seafood production sources must increase to meet global demands. Aquaculture represents an opportunity to meet the increasing demand for sustainably sourced seafood, both in Australia and globally.

Although Australia has a relatively small aquaculture industry in a global context, representing less than 1% of the global value of the USD \$250 billion global aquaculture industry, our competitive advantage lies in our reputation of high quality, high value, sustainably sourced, healthy seafood products. This reputation relies on continued investment in animal health and marine biosecurity to protect the domestic industry and its reputation internationally.

This submission outlines the current status of the aquaculture sector in Australia, opportunities and barriers for the expansion of the sector and opportunities for streamlining environmental protection regulation at the Commonwealth level.

## Status of the sector

### Domestic production

The aquaculture sector in Australia is currently worth an estimated \$1.5 billion a year (2019–20, GVP) (ABARES, 2021). Production takes place completely in state and territory waters.

The latest breakdown of value by product type identifies that the single largest contributors to gross value in Australia (2017–18) were: salmonids in Tasmania (\$838.2 million), tunas in South Australia (\$126 million), prawns in Queensland (\$74.7 million), pearls in Western Australia (\$52.6 million) and oysters in New South Wales (\$51.8 million) (Steve, Mobsby & Curtotti, 2020).

**Table 1 - Aquaculture GVP by state 2017–18 (Steve, Mobsby & Curtotti, 2020)**

State	Value of aquaculture production (2017–18)	Main products
New South Wales	\$70.7 million	Prawns, oysters
Victoria	\$48.3 million	Abalone, salmonids
Queensland	\$114.2 million	Prawns, barramundi
South Australia	\$205.7 million	Tunas, abalone, oysters
Western Australia	\$79.2 million	Pearls
Tasmania	\$873.5 million	Salmonids, oysters
Northern Territory	\$25.6 million	Barramundi
Total	\$1.417 billion	

In 2017–18, Australia produced a total of 271,106 tonnes of fisheries products, of which 97,672 tonnes were aquaculture. Of the total fisheries production, 50,741 tonnes were exported. While exported products only represented around a fifth of production by volume, they accounted for around half of the gross value of production for fisheries in 2017–18. (Steven, Mobsby, Curtotti, 2020)

**Table 2: Volume of fish and fish product exports for 2019–20 – top ten markets**

Country	Export volume in 2019–20 (tonnes)
China	25,157
Japan	12,205
Vietnam	4,866
Hong Kong	2,638
Thailand	2,507
United States	2,005
Taiwan	2,001
Indonesia	1,012
Singapore	1,001
New Zealand	538

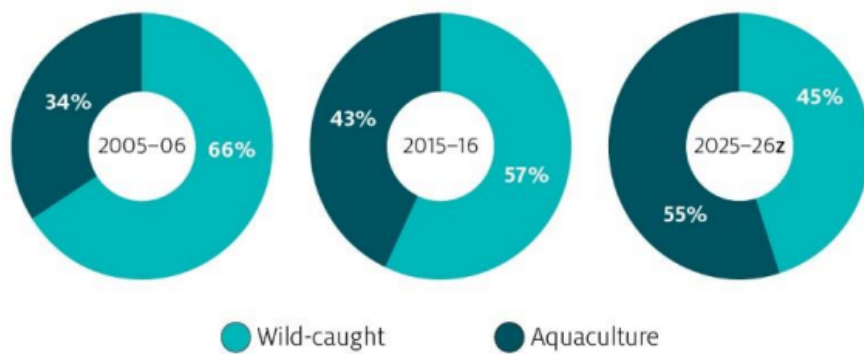
## Growth and outlook

In line with the global rise in aquaculture production in the past two decades, Australia’s aquaculture sector has steadily increased its real value and proportional share of fisheries and aquaculture production volume and GVP. Globally, aquaculture production grew at an average of 5.3% per year from 2001 to 2018, and its share of total fish production grew from 25.7% in 2000 to 46% in 2016–18 (FAO, 2020).

The gross value of aquaculture in Australia has grown from \$605 million in 1998–99 to an estimated \$1.5 billion in 2019–20. Increased production has largely driven this growth. Over the same period, the value of wild-catch fisheries has remained steady – with about \$1.6 billion in 2019–20.

The gross value of aquaculture in Australia is expected to rise to a projected \$1.9 billion per year in 2025–26. The projected figure takes into account inflation.

In Australia, aquaculture’s share of seafood production has risen from 34% in 2005–06 to 43% in 2015–16 to a forecasted 55% in 2025–26. More recently, the composition of species produced in the aquaculture sector has broadened – with increased emphasis on prawns, abalone, oysters and finfish varieties, including barramundi and kingfish.



**Figure 1 - Share of total fisheries production (z: ABARES projection)**

## Impacts of COVID-19

The COVID-19 pandemic caused large-scale disruptions to domestic and international market supply and demand for the wild-catch fisheries and aquaculture industries.

In the short-term, the effects of COVID-19 are expected to result in the first recorded annual contraction of the global aquaculture sector in approximately 60 years in 2021 (FAO 2021). Despite variation between aquaculture commodities, a variety of challenges including uncertainty, logistical supply chain issues, export cancellations and labour challenges have contributed to this decline (FAO 2021; van Senten, Engle & Smith 2020).

In 2021–22 the aquaculture sector will likely be challenged by reduced demand for high-value commodities in export markets and lower domestic prices resulting from the ongoing impacts of COVID-19.

Over the medium term, two factors will likely contribute to the continued growth of Australian aquaculture. Firstly, favourable supply-side conditions are expected to result in growth in the salmonid aquaculture gross value of production and expected higher production of aquaculture abalone, prawns and oysters. Secondly, resumption of favourable demand-side conditions is expected as the economic and public health shocks of COVID-19 begin to dissipate and consumer confidence returns.

## Department of Agriculture, Water and the Environment's role

Existing aquaculture operations are regulated by local, state and NT governments (the Australian Capital Territory has no aquaculture operations). Some states have aquaculture legislation, others regulate aquaculture under broader fisheries legislation. State and territory regulation covers licensing, land use and planning and food safety. The Australian Government plays an important national role in supporting aquaculture operations through national programs for market access and trade, research, biosecurity, aquatic animal health,

export food safety and, environmental management through the *Environment Protection and Biodiversity Conservation Act 1999*.

## **National Aquaculture Strategy**

Recognising that aquaculture is well positioned to play an increasingly important role in the economy of Australia and meeting demand for seafood globally, the Australian Government, together with State and Territory Governments, released the National Aquaculture Strategy (the Strategy) in 2017. The Strategy articulates a national vision for unlocking the industry's potential, identifying priority areas for the industry and the Commonwealth, State and Territory Governments to address and outlining a range of achievable actions. The Strategy has a headline objective of growing the value of Australia's aquaculture production from \$1 billion to \$2 billion per year by 2027.

The Strategy identifies eight strategic actions to achieve this:

- Regulatory framework — removing unnecessary burden on business.
- Research, development and extension — maximising the benefits of innovation.
- Market access — developing and improving access to domestic and international markets.
- Biosecurity — understanding and managing risks to protect Australia's aquaculture.
- Public perception — improving knowledge of aquaculture as a safe and sustainable industry.
- Environmental performance — identifying opportunities to adopt cost-effective strategies.
- Investment — encouraging and promoting investment in our aquaculture industry.
- Training and education — ensuring future employment needs are met.

Despite the impacts of COVID-19, the value of the Australian aquaculture industry is on track to reach the strategy's target of a value of \$2 billion per year by 2027. The Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) estimates the value of Australian aquaculture was \$1.5 billion in 2019–20 and projects growth to \$1.9 billion in 2025–26 (ABARES, 2021).

### ***Aquaculture in Commonwealth waters***

Currently, aquaculture only takes place in inshore waters and is managed in varied ways by state jurisdictions.

Investigating options for the use of Commonwealth waters for aquaculture is a long-term commitment of the Australian Government, which was highlighted in the 2015 White Paper on developing Northern Australia, "Our North, Our Future".

This will require appropriate arrangements between the Commonwealth and states, trials and relevant approvals before any commercial production can begin.

A strategic and robust science-based approach will underpin and support the economically sustainable development of any aquaculture in commonwealth waters.

## ***Measures to support growth***

The Australian Government is committed to supporting the agriculture industry – the farming, fishing and forestry sectors – reach its goal of \$100 billion in farm gate output by 2030. The \$850 million Agriculture 2030 package in the 2021–22 budget, builds on previously announced measures and reaffirms the commitment to giving industry the right foundations to achieve this target. Ag2030 measures are about removing the handbrakes to growth, tackling emerging trade challenges early, protecting our country from pests and disease, supporting industry resilience and productivity, boosting innovation and human capital availability. The 2021-22 Ag2030 package includes:

- \$400.1 million to strengthen biosecurity
- \$29.8 million to grow the agricultural workforce
- \$15.0 million to improve trade and market access

The aquaculture industry is also expected to benefit from previously announced these measures, which include:

- In the 2020–21 Budget, the Australian Government announced the \$328 million Busting Congestion for Agricultural Exporters package which includes reforms to slash unnecessary red tape to get products to export markets faster and support jobs in rural and remote Australia.
- Finalising free trade agreement (FTA) negotiations with the European Union and United Kingdom to provide further opportunities for seafood exports; and getting the most out of existing agreements.
- A total of \$781.1 million committed to International Freight Assistance Mechanism (IFAM), after a further extension of \$112.8 million in March 2021.
- Access to capital through loans to farm and agri-businesses from the Regional Investment Corporation.

Additionally, the Australian Government is investing \$72.7 million to help Australian farming, forestry and fishing exporters to expand and diversify their export markets through the Agri-Business Expansion Initiative (ABEI). The program will provide rapid support to some of the sectors most impacted by trade disruptions, and includes \$42.9 million to scale up support to over 2,000 agri-food exporters through Austrade's services.

Another element of the ABEI is the \$18.4 million expansion of the Agricultural Trade and Market Access Cooperation (ATMAC). The expanded ATMAC involves government working in partnership with industry associations to improve Australia's access to overseas markets, including through export market strategy development, feasibility studies, competitor analysis or sector or market analysis, information exchange, research and development and targeted relationship development.

The department works with the seafood industry to prioritise its market access work which seeks to either gain new access, improve existing access requirements and maintain the

current access for Australian seafood. This engagement occurs primarily through the department's Seafood Export Consultative Committee, which meets two times per year.

## **Biosecurity and agvet chemicals**

### ***Maintaining biosecurity***

Biosecurity has played a critical role in reducing risk and shaping Australia to become one of the few countries in the world to remain free from the world's most severe pests and diseases – including in the aquatic environment. While our geographical isolation has played a key role in maintaining this status, our isolation as an island nation is rapidly changing as the barriers of time and distance become less relevant and international travel and trade increase. Maintaining this status is important for the aquaculture industry to ensure growth and profitability.

### ***Aquatic animal health***

Under Australia's arrangements for managing aquatic animal health, the state and territory governments are responsible for managing aquatic animal health within their jurisdictions. The Australian Government works with state and territory governments and aquatic animal industry sectors to coordinate consistent national programs and policies for managing aquatic animal health. These programs and policies cover all aspects of our aquatic animal health management system including surveillance, laboratory diagnosis, enterprise and regional biosecurity planning, emergency aquatic animal disease preparedness and response, and trade.

Most of Australia's aquaculture sectors have experienced serious impacts from aquatic animal diseases. The impacts may be due to endemic diseases known to occur in Australia, new diseases that are thought to have emerged within Australia, and some diseases that are thought to have arrived from elsewhere in the world.

Experience in Australia and internationally demonstrates that aquatic animal diseases are one of the greatest threats to the productivity and growth of aquaculture. Optimal investment in aquatic animal health management and working with our trading partners to develop and implement compliance with aquatic animal health trade standards can provide a competitive advantage for the Australia aquaculture industry, support industry productivity and protect investment.

### ***AQUAPLAN***

Australia's systems for managing aquatic animal health are highly regarded internationally. They have been built over more than two decades through successive national strategic plans for aquatic animal health known as AQUAPLAN, an industry–government collaboration to develop a national strategic approach to aquatic animal health.

The fourth iteration of AQUAPLAN is currently under development through extensive collaboration among industry and government parties. The plan is expected to be completed and launched in late 2021.

## ***Marine pests***

Marine pests can have serious impacts on aquaculture including direct predation, competition for resources (space and food), carrying diseases or parasites, and smothering and reduction in water flow through and across fouled surfaces (e.g. pipes and nets). Early detection and management can limit the impacts of marine pests to particular areas or sectors, and effective management can reduce impacts on aquaculture industries through enhancing cleaning and management methods to reduce losses. National marine pest biosecurity management can significantly reduce the risk of entry of new marine pests, and spread of established pests, protecting Australia's aquaculture industries from these impacts.

The department works on these arrangements through a National Strategic Plan for Marine Pest Biosecurity MarinePestPlan 2018-2023. Actions under the plan include developing policy to reduce environmental risks that result from in-water cleaning of biofouling through a National In-Water Cleaning Standard and developing new arrangements for international vessels to meet best practice international standards for biofouling management. Australia implemented the International Convention for the Control and Management of Ships' Ballast Water and Sediments on 8 September 2017.

Additionally, the department is improving diagnostic and surveillance capabilities, including developing a national marine pest surveillance strategy and workplan, contributing to metabarcoding of marine pests and similar native species. The department is undertaking assessment, improvement of, and training in the use of remotely operated underwater vehicles for marine pest surveillance purposes and improving information availability for industries through a redesigned and updated website, emergency marine pest response resources, and information system.

## ***Access to agvet chemicals***

The aquaculture sector reports there is a lack of registered chemical products to treat pests and diseases as the cost of generating the data necessary to support an application to the Australian Pesticides and Veterinary Medicines Authority (APVMA) often exceeds the potential economic return for registrants. This chemical access issue, which affects specialty and emerging industries, is generally referred to as the 'minor use problem'.

Currently, the aquaculture industry relies heavily on veterinary prescription for access to chemicals for pest and disease control. Veterinary prescription has limitations in terms of effective assessment and mitigation of the risks to human health, the environment, or international trade, when compared with the regulatory certainty of APVMA registration or permits.

The Australian Government has provided \$11.86 million in grants over the last six years to Rural Research and Development Corporations (RDCs) to improve access to minor use agricultural and veterinary chemicals. The grants assist RDCs with data generation to support applications to the APVMA for a product registration or a permit.

To date, the government has provided \$300,000 in grants to the Fisheries Research and Development Corporation to improve access to products treating infections and parasites in various aquaculture species. By creating a more certain operating environment, these grants

remove barriers to growth and allow for the development of a robust aquaculture industry in Australia.

The Australian Government has also appointed an independent panel of experts in regulation, agricultural production and veterinary medicines to comprehensively review the regulatory framework for agvet chemicals to ensure that it is contemporary, fit for purpose and reduces unnecessary red tape. The review panel consulted with a wide range of stakeholders, including the aquaculture industry.

The panel's draft report, which was released for consultation on 16 December 2020, noted that the registration costs, data requirements and assessment times can be a barrier for specialty industries' access to uses of veterinary chemicals. To address this, the draft report recommends changes to the regulatory framework to streamline and improve access to safe and effective products for minor Australian industries. A final report will be delivered to the Minister for Agriculture, Drought and Emergency Management in May 2021.

## Regulation

### *Export regulation*

The department administers the Export Control Act and is the regulator for compliance with this Act. This Act provides for the control of the export of fish and fish products and is supported by the Export Control Rules 2021 (the Rules) which set out the operational requirements for exporting fish and fish products from Australia. These Rules outline the operational requirements that exporters must meet to export fish and fish products from Australia.

### *EPBC Act*

Responsibility for environmental regulation, including the approval of new aquaculture developments and ongoing monitoring and compliance, is generally a matter for state and NT governments. In some cases, the department has a regulatory role.

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) sets out requirements for the export of regulated native species. Export of some aquaculture species may require permits or other approvals under the EPBC Act.

The department also has a regulatory role where an operation is likely to affect a matter of national environmental significance such as the Great Barrier Reef or the Commonwealth marine environment. The Great Barrier Reef Marine Park Authority regulates aquaculture projects operating in or discharging directly into the Great Barrier Reef Marine Park.

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