

Seafood Industry Australia

Biosecurity position paper

Developed: February 2023.

Finalised: April 2023.

Purpose

The paper is built on the fundamental principle that effective biosecurity practices underpinned by up-to-date science implemented collaboratively between industry, government and other stakeholders is essential from both a risk mitigation perspective as well as providing industry with confidence to expand and grow. It recognizes that Australia's position must be based on the principles and international responsibilities described in the Biosecurity Act 2015 – namely to manage biosecurity to ensure a very low level of risk consistent with the Appropriate Level of Protection (ALOP). Australia's ALOP is expressed as providing a high level of sanitary and phytosanitary protection aimed at reducing risk to a very low level, but not to zero (Agriculture.gov.au, 2015).

It also recognises the need to balance ALOP with Australia's obligations under the World Trade Organisation (WTO) and World Organisation for Animal Health (WOAH). Meaning, that even though WTO members can determine their own ALOP, flow on impacts to trade must be considered (Agriculture.gov.au, 2015).

This policy paper covers three broad areas of biosecurity management:

1. Consultation
2. Regulation, legislation and policy development
3. Resourcing

Background

SIA

[Seafood Industry Australia](#) (SIA) is the national peak-body representing wild catch, aquaculture and post-harvest sectors of the Australian seafood industry. We are committed to a vibrant and prosperous future for our industry, and by **2030 we believe the Australian fishing and aquaculture sectors can achieve \$6 billion in annual gross value**. This supports the Australian Government's goal of growing Australian agriculture to \$100 billion by 2030.

Growth of our industry delivers increased jobs and investment in all areas of Australia including the regional, rural and remote seafood communities we typically operate in. Every year, Australian seafood places more than 1.5 billion meals of the highest-quality, healthy and sustainable seafood on the table for Australian families and international customers. The growth of our industry will foster development in not only our domestic operations and post-harvest businesses, but in the domestic and international trade and tourism sectors, transport and logistics, retail and hospitality, manufacturing and capital works, and drive innovation focused on renewable energy, blue carbon, and the circular economy.

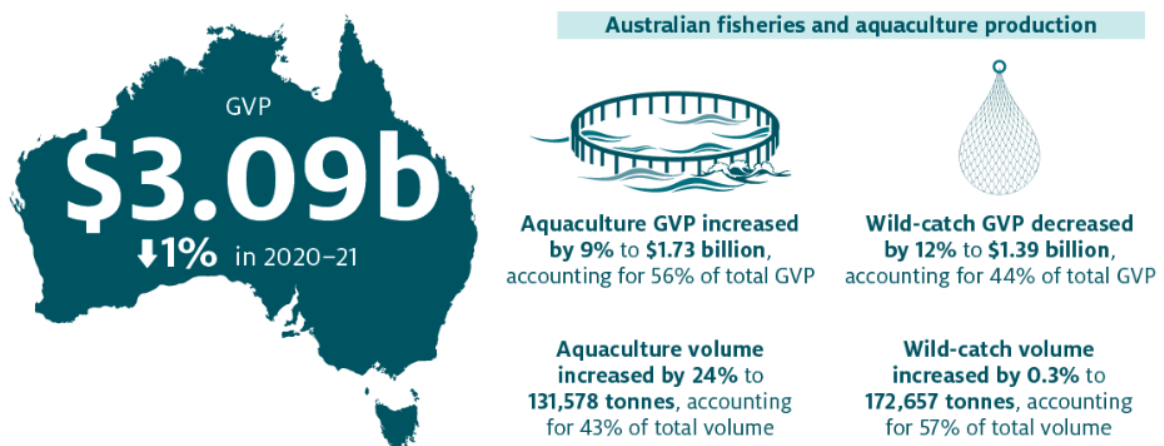
Importance of the Australian Seafood Industry

Currently valued at more than \$3.09 billion and directly supporting 17,000 Australian families, the Australian seafood industry plays a key role securing Australia's food base, creating and maintaining jobs, boosting economic activity, and generating valuable export income for Australia and our rural

and regional communities. Australian seafood accounts for 10% of the national agricultural production.

Australian seafood provides a healthy, sustainable source of protein to both domestic and international consumers. In 2022, the [Australian Fishery Status Reports](#) confirmed our wild-catch sector is amongst the most sustainable commercial fisheries in the world, with no solely Commonwealth managed fishery being subject to overfishing for the seventh consecutive year.

Australia's aquaculture industries are rapidly growing and provide fresh, high-quality, sustainable seafood year-round, while continuing to meet and exceed regulatory requirements. Australian seafood is one of the best managed and most sustainable protein sources in the world. The release of the [Australian fisheries and aquaculture statistics 2020-21](#) showed aquaculture had become the largest sector of the domestic seafood industry, accounting for 56% of total GVP, and 43% of total volume.



Note: 2020-21 figures are preliminary. Wild-catch and aquaculture figures may not sum to total GVP and volume presented due to rounding and adjustment for Southern Bluefin Tuna caught in the Commonwealth Southern Bluefin Tuna Fishery as an input to farms in South Australia.
Source: ABARES

Setting the biosecurity scene

Biosecurity has never been a hotter topic in Australia.

The Biosecurity Collective, a collaborative initiative across Australian industries, Research and Development Corporations (RDCs) and representative bodies, have announced that this is the [Decade of Biosecurity](#). They aim for transformational change to build a stronger biosecurity system (The Biosecurity Collective 2022).

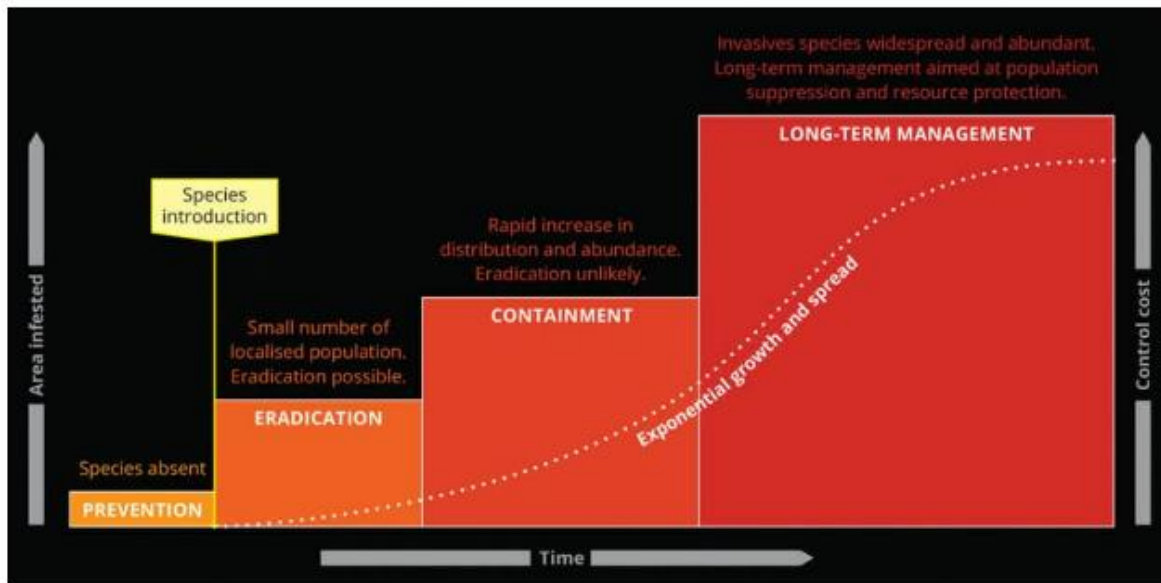
In 2022, a [National Biosecurity Strategy](#) (NBS) was released with a stated shared purpose of developing a *risk-based system underpinned by science that protects Australia's people, our environment, economy and lifestyle from the biosecurity threats of today and tomorrow* (National Biosecurity Strategy (NBS) 2022).

The maintenance of a comprehensive and effective biosecurity system is vital for the protection of Australia's agriculture and fisheries sectors. A plethora of international and domestic examples exist of biosecurity breaches resulting in the devastation of rural industries, export bans, reduced market access and national revenue, and long-term impacts on the world's food security. It is estimated that **invasive species have cost the broader agricultural industry and government \$390B in damages in**

the last six decades (National Biosecurity Strategy 2022). On top of this is foregone growth and missed market opportunities.

The earlier an incursion is stopped, the higher the return on investment, as indicated by the Generalised Invasion Curve (Figure 1) below. Preventing an invasive species from arriving is far cheaper than attempts to eradicate or contain. Strong and effective biosecurity measures are needed throughout the pre-border, border and post-border landscape and this is a shared responsibility for federal and state governments, industry and other stakeholders.

Figure 1: Generalised Invasion Curve



[The invasion curve explained \(invasives.org.au\)](https://invasives.org.au)

Biosecurity within the aquaculture and wild caught interaction is complex. Pests and diseases within shared waterways are extremely difficult to control, isolate and eradicate meaning that the economic, environmental and social consequences as a result of incursions of exotic disease and pests carry well beyond the farm gate for example to impact recreational fishing, First Nations' cultural values, food security, and our natural ecosystems.

Australia's aquaculture and wild caught fisheries sectors have already faced numerous biosecurity breaches including the detection of White Spot Disease (WSD) an internationally notifiable crustacean disease in Queensland in 2016. The virus is highly contagious and infected all operational prawn farms in the area within a few months. Unfortunately, the introduction of WSD in 2016 has since been attributed to a breakdown in border biosecurity (FRDC 2021).

A number of risks impact the aquaculture and wild caught fisheries sectors including;

- Increasing international trade is resulting in increased movement of people, equipment, goods and vessels thus providing more channels and opportunities for pathogens, diseases and invasive species to spread.
- Shipping and illegal fishing practices increase the likelihood of the introduction of marine pests such as Asian green mussel (*Perna viridis*), a serious threat to aquaculture, native species and Australia's ability to export seafood (National Biosecurity Strategy 2022).
- Our changing climate and subsequent warming waters are impacting increasing the spread of diseases, pathogens and invasive species.

- Almost 70% of seafood consumed in Australia is imported, much of it uncooked. The application of appropriate sanitary measures for high risk imported goods is essential to mitigate risk.
- Policies, regulation, procedures and enforcement programs relating to imported product and translocation of breeding stock and genetic material are not keeping pace with changes in the sector and in some cases do not appear to be practical or science based and are inhibiting industry growth. For example, it is more difficult to move prawns between some Australian states than to import them.
- The more intensified nature of some aquaculture systems makes the sector more susceptible to disease outbreaks.
- Limited access to infrastructure and qualified personnel to undertake biosecurity related processes (i.e. access to dry docks with capacity to clean larger international vessels).

The State of World Fisheries and Aquaculture 2020 report stated that pests and diseases are spreading throughout the world at an increasing rate and a global trend is emerging where it's likely that every three to five years a new pathogen that causes a new/unknown disease will spread and likely cause major production losses (FAO, 2020).

With these risks in mind, the most logical and cost-effective solution to minimise risk and protect Australia's aquaculture and wild catch industries is to implement strong, evidence-based biosecurity policies, regulation and tactics. In addition to mitigating risk, the added bonus of this type of approach is that if we collectively 'get it right' we can help industry develop efficient and risk based growth models that maintain the confidence of the broader biosecurity stakeholders and potential investors.

These initiatives must be supported by targeted capability building programs to ensure all stakeholders have the appropriate skills and knowledge. Implementation requires meaningful collaboration between federal and state governments, industry, importers, the research sector as well as working with the public to educate them on best practice and biosecurity impacts.

It is heartening that NBS also highlights and strongly supports these initiatives via six priority areas (National Biosecurity Strategy (NBS) 2022):

1. Shared biosecurity culture - We will enhance our culture of biosecurity action so that everyone understands its importance and plays their part
2. Stronger partnerships - We will strengthen and expand partnerships and networks between all stakeholders at local, regional, national and international levels.
3. Highly skilled workforce - We will develop and sustain a highly skilled workforce to ensure we have the right capability and capacity, in the right place, at the right time.
4. Coordinated preparedness and response - We will boost our system's adaptability and its capacity to prevent, detect, manage, respond to and recover from outbreaks.
5. Sustainable investment - We will ensure funding and investment is sufficient, co-funded, transparent, targeted to our priorities and sustainable for the long term.
6. Integration supported by technology, research and data - We will create a more connected, efficient and science-based system to facilitate more timely, informed and risk-based decisions

At an aquatic level, the NBS is supported by [AQUAPLAN](#), Australia's National Strategic Plan for Aquatic Animal Health which was developed with government and industry. It outlines a strategic vision and seeks to guide investment to strengthen the national aquatic animal health system. Effective implementation of the tactics outlined in AQUAPLAN is essential to strengthening Australia's biosecurity system.

AQUAPLAN's objectives include:

1. Border biosecurity and trade - Industry-government collaboration and communication on Australia's border biosecurity risk management system are strengthened and technical market access barriers are addressed strategically.
2. Enterprise and regional biosecurity - Integrated enterprise and regional biosecurity programs are strengthened to support the productivity and sustainability of aquaculture and fisheries.
3. Surveillance - Government and industry investment in the national surveillance system is optimised.
4. Diagnostic capability - Australia's national diagnostic network for aquatic animal diseases provides reliable testing capability for known and emerging diseases.
5. Emergency preparedness - Industries and governments enhance their capacity and capability, and understand their roles and responsibilities in mounting rapid, appropriate, and collaborative emergency responses.
6. Veterinary medicines - Improved access to veterinary medicines, chemicals and vaccines strengthens management of aquatic animal health and welfare and supports prudent use of antimicrobials and therapeutics.
7. Research and Innovation - Research priorities are driven by industry and government needs and new knowledge is created, made accessible and extended to industry to improve aquatic animal health and welfare

Consultation and collaboration

Aligning with

- NBS priorities 1) Shared biosecurity culture and 2) Stronger partnerships
- AQUAPLAN objectives 1) Border biosecurity and trade and 5) Emergency preparedness

Position snapshot:

- Early and genuine industry engagement in biosecurity management is essential.
- Recognition of industry insights, data and practical experience by key decision makers is necessary.
- SIA supports collaborative strategic reviews of international trends and science to proactively identify and prepare for industry's next big threats.

An ongoing, robust consultative process must be enacted to protect Australian industries through realistic and effective control measures.

Pest and disease incursions can have significant impacts on businesses, people's livelihoods, their health and their wellbeing; particularly their mental wellbeing. Ongoing uncertainty impacts business confidence and investment so if these concerns can be allayed, the industry is in a stronger position to push forward to develop and grow.

We urge regulators to recognise the unique and valuable insights industry can provide. Particularly in regard to the development and implementation of protocols, cost-effective control methods and data sharing, monitoring and enforcement and protection measures. Proactive industry-led initiatives are in place to help create greater certainty and to allow for more informed business decisions. These should be formally recognised by government and complemented by programs and systems in other sectors impacting fisheries and aquaculture such as shipping, recreational fishing and the broader Australian community. All parties have an important role to play in biosecurity.

Regulation, legislation and policy development

Aligning with

- NBS priorities 1) Shared biosecurity culture, 2) Stronger partnerships and 4) Coordinated preparedness and response
- AQUAPLAN objectives 1) Border biosecurity and trade and 5) Emergency preparedness

Position snapshot:

- Compliance systems must be backed by:
 - Processes to rectify and deter non-compliance.
 - An expansion of post border surveillance and import pathway traceability systems to allow for real time risk management.
- Application of nimble policy, regulation and legislation using current science, technology and information to enable effective coordinated responses to biosecurity threats.
- While still managing perceived risk, regulation, legislation and policies should be streamlined to reduce confusion, bolster business confidence and promote consistent policy implementation.

Regulation and legislation related to biosecurity is complex with many moving parts. Threats can quickly emerge and risk profiles change leaving regulation, legislation, policies and procedures out of date and inadequate to mitigate new hazards. SIA supports regulatory frameworks that work with industry, not against it, providing protection from exotic diseases, pathogens and invasive species.

As a part of an ongoing review process to ensure regulation, legislation and policies are updated based on new research, these documents and processes should be streamlined to allow for more consistent and realistic implementation across and between borders both international and domestic. Simplification and streamlining of translocation policies and regulation to allow for risk assessed transference of genetic material and breeding stock would provide tangible and lasting economic benefits to aquaculture industries.

What the ALOP exactly looks like needs to be discussed and agreed between stakeholders to both honour Australia's obligations under the WTO and OIE and to ensure industry's concerns are addressed.

Resourcing

Aligning with

- NBS priorities 1) Shared biosecurity culture, 2) Stronger partnerships, 3) Highly skilled workforce, 4) Coordinated preparedness and response, 5) Sustainable investment and 6) Integration supported by technology, research and data
- AQUAPLAN objectives 1) Border biosecurity and trade, 2) Enterprise and regional biosecurity, 3) Surveillance, 4) Diagnostic capability, 5) Emergency preparedness, 6) Veterinary medicines and 7) Research and Innovation

Position snapshot:

- SIA advocates for the implementation of mandatory, scientifically proven biosecurity procedures for imported products
- Recruitment, retention and training of key personnel within the biosecurity workforce must be prioritised by government and research institutions
- Ongoing and effective communication and extension programs must be maintained targeting key stakeholders.

- Ongoing investment into emerging technology, traceability systems and tools must be prioritised by research institutions.
- Investigation into application of a combination of increased government funding and of a biosecurity levy (for air and sea freight, conveyance or containers) applied on imported product ready for human consumption is supported.

The most cost-effective preventative measure for sound biosecurity is strong border protections. SIA supports the NBS's stated purpose; *utilisation of a risk-based biosecurity system underpinned by science*. To this end, SIA advocates for the implementation of mandatory, scientifically proven biosecurity procedures for imported products. This includes robust monitoring of compliance and safe disposal of potentially contaminated product, giving businesses all along the supply chain greater confidence in the system and making investment into the industry more attractive.

The NBS and AQUAPLAN provide a clear call to action to increase capability and capacity building as an essential component of effective biosecurity. This is multifaceted, with ongoing support and development needed within the science community to secure long term access to subject matter experts. On-ground training and support for seafood producers and their staff is needed to make sure sound biosecurity practices are implemented daily via effective biosecurity plans and to help identify anomalies early. Biosecurity training would also be beneficial for seafood retailers, importers, processors and wholesalers so risks and responsibilities are understood by all parties.

A well-resourced biosecurity workforce is essential to the effective implementation of activities such as surveillance and diagnostics and SIA recommends governments prioritise recruiting and retaining these personnel.

An ongoing communication and extension program is needed for other key stakeholders including the recreational fishing sector, boaters and international shipping to impress upon them, their biosecurity responsibilities.

Technology plays a critical role in the monitoring and detection of pests and diseases. SIA strongly supports ongoing investment into tools, science and resources to speed up detection and improve containment/eradication practices. As traceability technologies and systems develop this will assist with biosecurity management.

Regarding a sustainable biosecurity funding mode, the basic principle that risk creators must proportionally pay for biosecurity measures should apply. Almost 70% of seafood consumed in Australia is imported (ABARES), much of it uncooked. Whole and eviscerated uncooked or frozen fish contain a substantially higher pathogen load and importation represents an increased biosecurity risk (Oidtmann et al. 2017). The equivalent importation of whole or gutted uncooked cattle, pig or poultry is not permitted due to biosecurity risks (Australian Barramundi Farmers Association, 2022). For this reason, imports are considered by industry to be a significant risk creator to biosecurity.

With the above in mind, the seafood industry supports investigation into application of a combination of increased government funding and of a biosecurity levy (for air and sea freight, conveyance or containers) applied on imported product ready for human consumption. This aligns with SIA's submission in 2022 to [Department of Agriculture, Fisheries and Forestry](#) (DAFF) around options for long-term, sustainable funding to strengthen Australia's biosecurity system. A copy of SIA's submission is available [here](#).

Implementation of a biosecurity levy is not a new idea; a Biosecurity Imports Levy was recommended by [the 2017 Independent review of the capacity of Australia's biosecurity system](#) and in 2018 it was estimated that a [\\$10.02 biosecurity charge](#) per 20-foot container, and a \$1 per tonne levy on bulk imports coming via the sea would generate \$325 million over three years ([Sullivan 2020](#)). It's recommended the scope of this program should be expanded to capture air freight as much imported seafood which is ready for human consumption arrives via air. Policy changes in this area will obviously need to follow the standard Cost Recovery Guidelines traditionally used by Department of Agriculture, Fisheries and Forestry (DAFF).

SIA urges governments to work with industry to ensure systems are innovative, effective, practical, coordinated and appropriately resourced. We not only want to protect our industries from biosecurity threats, we want our stakeholders to have the confidence to grow and expand this world leading industry.

References

1. Agriculture.gov.au. (2020). Fishery and aquaculture statistics 2021 - Department of Agriculture. [online] Available at: [Australian fisheries and aquaculture production - DAFF \(agriculture.gov.au\)](https://www.agriculture.gov.au/australian-fisheries-and-aquaculture-production-daff)
2. Agriculture.gov.au. (2015). Appropriate Level of Protection - DAFF. [online] Available at: <https://www.agriculture.gov.au/biosecurity-trade/policy/risk-analysis/conducting/appropriate-level-of-protection>.
3. Ariadna Sitjà-Bobadilla, Birgit Oidtmann (2017), Chapter 5 - Integrated Pathogen Management Strategies in Fish Farming, Fish Diseases, Academic Press, ISBN 9780128045640, <https://doi.org/10.1016/B978-0-12-804564-0.00005-3>
4. Australian Barramundi Farmers Association, 2021, Submission to the House Standing Committee on Agriculture and Water Resources on the Inquiry into the Australian aquaculture sector
5. Australian Prawn Farmers Association, 2021, Submission to the House Standing Committee on Agriculture and Water Resources on the Inquiry into the Australian aquaculture sector
6. Australian Southern Bluefin Tuna Industry Association, 2021, Submission to the House Standing Committee on Agriculture and Water Resources for the Inquiry into the Australian aquaculture sector.
7. Biosecurity 2030. (n.d.). Biosecurity 2030. [online] Available at: <https://biosecurity2030.org.au/> [Accessed 24 Aug. 2022].
8. Bruce, M., Dahl, E. and Thomson, D. (n.d.). African swine fever African swine fever. [online] Available at: https://daff.ent.sirsidynix.net.au/client/en_AU/search/asset/1031661/4 [Accessed 24 Aug. 2022].
9. Curtotti R, Tuynman H and Dylewski M, 2022, Australian fisheries and aquaculture Outlook to 2026–27, Australian Bureau of Agricultural and Resource Economics and Sciences
10. DAFF 2022, National Biosecurity Strategy, Department of Agriculture, Fisheries and Forestry, Canberra, August. CC BY 4.0.
11. Department of Primary Industries and Regions, S.A. (2022). Marine aquaculture. [online] www.pir.sa.gov.au. Available at: https://www.pir.sa.gov.au/primary_industry/aquaculture/marine_aquaculture [Accessed 24 Aug. 2022].
12. Fisheries Research and Development Corporation, 2021, Submission to the House Standing Committee on Agriculture and Water Resources on the Inquiry into the Australian aquaculture sector
13. FAO (2020). The State of World Fisheries and Aquaculture 2020. [online] FAO. doi:10.4060/ca9229en.
14. Invasive Species Council. (2022). The invasion curve explained. [online] Available at: <https://invasives.org.au/blog/the-invasion-curve-explained/>.
15. Lobegeiger R, 2020, Report to farmers, Aquaculture production summary for Queensland 2019-20
16. Oysters Australia. (n.d.). OYSTERS AUSTRALIA STRATEGIC PLAN 2020-25. [online] Available at: <https://www.oystersaustralia.org/strategicplan> [Accessed 24 Aug. 2022].
17. Sullivan, K. (2020) Lobbyists thwart government levy plan designed to tackle pests and diseases, ABC News. ABC News. Available at: <https://www.abc.net.au/news/2020-05-20/biosecurity-levyaxed-designed-protect-farmers-pests-diseases/12267082> (Accessed: November 16, 2022)
18. www.frdc.com.au. (n.d.). White Spot Disease | FRDC. [online] Available at: <https://www.frdc.com.au/white-spot-disease> [Accessed 24 Aug. 2022].