Australian Government
Department of Agriculture, Fisheries and Forestry

Measures to prevent the importation of illegal, unreported and unregulated seafood: final report

Cataloguing data

This publication (and any material sourced from it) should be attributed as: DAFF 2025, *Measures to prevent the importation of illegal, unreported and unregulated seafood: final report*, Department of Agriculture, Fisheries and Forestry, Canberra. CC BY 4.0.

This publication is available at agriculture.gov.au/agriculture-land/fisheries/iuu/illegal-fishing.

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Acknowledgements

The authors acknowledge and thank the following stakeholders for their contributions to this report: Alistair Graham, Australian Marine Conservation Society (AMCS), Asia-Pacific Development, Diplomacy & Defence Dialogue (AP4D), Deakin University, EU IUU fishing Coalition, Food and Beverage Importers Association (FBIA), Fair Catch Alliance (FCA), Fisheries Research and Development Corporation (FRDC), Gilles Hosch, GS1 Australia, Institute of Food Technologists (IFT), Japan Fisheries Agency (JFA), McKell Institute, Minderoo Foundation, Marine Stewardship Council (MSC), Directorate- General for Maritime Affairs and Fisheries – European Commission (DG MARE), MRAG Asia Pacific, National Fisheries Institute (NFI), National Oceanic and Atmospheric Administration (NOAA), Neighbours of Fish Farming, Queensland University, Seafood Industry Australia (SIA), Dr Sophie Scamps MP, TRAFFIC, Uniting Church of Australia, University of Technology Sydney, Western Australian Fishing Industry Council (WAFIC), World Wildlife Fund (WWF), along with various other contributors including those within government.

Acknowledgement of Country

We acknowledge the continuous connection of First Nations Traditional Owners and Custodians to the lands, seas and waters of Australia. We recognise their care for and cultivation of Country. We pay respect to Elders past and present, and recognise their knowledge and contribution to the productivity, innovation and sustainability of Australia's agriculture, fisheries and forestry industries.

Credits

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Contents

Summary ..... **v**

Introduction **1**

1 Scope **2**

2 Assessing the problem **5**

Snapshot of Australia's seafood imports 6

Review of IUU fishing risk in Australia's seafood imports 9

Stakeholder views on IUU fishing risk 14

3 Actions to address IUU fishing **16**

Australia's response 16

Further action 20

4 Market-based approaches **21**

Catch documentation schemes 21

Trade restrictive enforcement measures 23

5 Policy options **25**

Objectives 25

Policy options 25

Evaluating welfare impacts 28

6 Findings and recommendations **29**

Recommendation 1: Review Australia's import tariff codes 29

Recommendation 2: A seafood traceability program for high-risk species 30

Recommendation 3: Support expansion of multilateral CDS 33

7 Costs and benefits **34**

Recommendation 1: Review Australia's import tariff codes 34

Recommendation 2: Introduce a seafood traceability program for high-risk species 34

Recommendation 3: Support expansion of multilateral CDS 37

Appendix A: Additional material **38**

References **50**

Figures

Figure 1 Common types of IUU fishing 3

Figure 2 Top 20 imported seafood commodities, by volume, Australia, 2018 to 2022 7

Figure 3 Value of seafood imports, by country and product type, Australia, 2018 to 2022 8

Figure 4 Top 50 seafood imports, by country and product, Australia, 2018 to 2022 10

Figure 5 Process for assessing IUU risk for identified source fisheries 11

Boxes

Box 1 Complexity of IUU fishing concept 3

Box 2 Environmental, economic and social costs of IUU fishing 5

Box 3 Characteristics of supply chains at risk of IUU product entering 12

Box 4 Stakeholder views on IUU fishing risk 14

Box 5 Approaches to combating IUU fishing 16

Box 6 Australia's role in regional forums that combat IUU fishing 17

Box 7 Global instruments, agreements and guidelines that combat IUU fishing 18

Box 8 Unilateral Import Control Schemes in key market states 21

Box 9 Evaluations reveal concerns regarding the effectiveness of unilateral CDS 23

Box 10 Trade restrictive measures implemented by the EU and US 23

Box 11 Stakeholder feedback on draft report policy options 26

Box 12 McKell Institute report – Security Net: Fortifying Australia's import regime against IUU fishing 28

Box 13 IUU fishing risk of squid, sharks, sardines and surimi 32

Box A1 Stakeholder feedback on policy options 42

Box A2 Convention on International Trade in Endangered Species of Wild Fauna and Flora 43

Box A3 Global Dialogue on Seafood Traceability 44

Box A4 Illegal logging import controls 49

Tables

Table 1 Proposed key data elements 31

Table A1 HTISC Codes 38

Table A2 Description of Key Data Elements 46

Table A3 Comparison of multilateral and unilateral catch documentation schemes 48

Summary

The Australian Government has committed to consider a framework that addresses the importation of seafood from fisheries that involve illegal, unreported and unregulated (IUU) fishing practices. The Department Agriculture, Fisheries and Forestry presents this final report for government consideration based on analysis of seafood products, formal public feedback, and extensive consultation with a range of domestic and international stakeholders.

IUU fishing is a pervasive global problem that undermines the integrity of fisheries management systems, causes social and environmental harm and results in lost revenue for coastal states (FAO 2001; Agnew et al. 2009). Australia has a strong and multifaceted approach to combating IUU fishing. However, without some form of import regulation, there remains a risk that some IUU seafood is entering our market. Quantifying the magnitude of this risk is complex, given the nature of some seafood supply chains and intrinsic data constraints.

In developing the recommendations outlined in this report, we considered the costs and benefits to all stakeholders of potential new regulation, and the efficacy of existing market-based approaches.

We make 3 recommendations for consideration:

1) Review Australia's import tariff codes and related data reporting requirements to provide additional information on imported species, including whether seafood products are sourced from aquaculture or wild-source fisheries.
2) Introduce a seafood traceability program for high-risk imports and explore options to facilitate information sharing with importing jurisdictions that apply similar schemes. In the first instance, this program could apply to squid, shark, surimi and sardines.
3) Support the expansion of multilateral catch documentation schemes (CDS) and the eventual establishment of an internationally coordinated CDS.

We conducted preliminary costings of these recommendations that indicate stakeholder costs would be relatively low.

Introduction

The Australian Government is considering a framework that addresses the importation of seafood from fisheries that involve illegal, unreported and unregulated (IUU) fishing practices.

IUU fishing is a key contributor to global overfishing. It threatens marine ecosystems, puts food security and regional stability at risk, and is linked to human rights violations and organised crime (WWF 2023a).

Australia employs a multifaceted approach to combat IUU fishing. We apply strong and effective legal and regulatory systems to deter illegal fishing within Australian waters and to prevent the landing of illegal catch at Australian ports. However, IUU fishing is a cross-boundary issue and international cooperation remains essential to successfully combating the problem. Australia therefore takes an active role in bilateral, regional and multilateral forums including helping countries within our region build their capacity to combat IUU fishing.

Australia adheres to a range of existing seafood traceability systems applied by market States like the United States, Japan and the European Union. We also adhere to schemes that apply to specific species: southern bluefin tuna and toothfish. However, Australia does not currently apply an import control scheme to prevent seafood imports that might be subject to IUU fishing practices.

A key consideration in implementing seafood import control schemes is how to balance the benefits and costs to consumers, industry, governments and the broader community. Benefits may include protection of marine ecosystems, preventing human rights violations and ensuring a level playing field between domestic and international fishers (Fair Catch Alliance 2023; Garcia et al. 2021; Ma 2020; Minderoo 2021; USITC 2021). However, import control schemes, especially those implemented unilaterally, may impose a high compliance cost on industry, have a limited impact on preventing IUU fishing, disproportionately impact small-scale fishers, pose trade risks and increase seafood prices (Hosch 2016; Hosch & Blaha 2017; Song et al. 2020; USITC 2021).

In April 2023 we published a discussion paper to guide our considerations. We received 20 submissions and engaged directly with a range of stakeholders across industry, academia, government and not-for-profit sectors. In December 2023 we published a draft report seeking further stakeholder feedback. We received 11 submissions and continued our engagement with stakeholders, including the McKell Institute, which conducted a similar assessment and submitted its ‘Security Net’ report as part of our consultation process. This final report considers the views outlined in these submissions and from additional stakeholder engagement activities, and further analysis of Australian seafood imports.

1 Scope

IUU fishing is a broad term that captures a wide variety of activity. It can occur within zones of national jurisdiction, within areas of control of regional fisheries bodies or in unregulated areas of the high seas. We have adopted the internationally accepted definition of IUU fishing as outlined in the Food and Agriculture Organization of the United Nations' (FAO) *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (IPOA-IUU).

Illegal fishing refers to fishing activities:

- conducted by national or foreign vessels in waters under the jurisdiction of a state, without the permission of that state, or in contravention of its laws and regulations
- conducted by vessels flying the flag of states that are parties to a relevant regional fisheries management organisation but operate in contravention of the conservation and management measures adopted by that organisation and by which the states are bound, or relevant provisions of the applicable international law
- in violation of national laws or international obligations, including those undertaken by cooperating states to a relevant regional fisheries management organisation.

Unreported fishing refers to fishing activities:

- that have not been reported, or have been misreported, to the relevant national authority, in contravention of national laws and regulations
- undertaken in the area of competence of a relevant regional fisheries management organisation which have not been reported or have been misreported, in contravention of the reporting procedures of that organisation.

Unregulated fishing refers to fishing activities:

- in the area of application of a relevant regional fisheries management organisation that are conducted by vessels without nationality, or by those flying the flag of a state not party to that organisation, or by a fishing entity, in a manner that is not consistent with or contravenes the conservation and management measures of that organisation
- in areas or for fish stocks in relation to which there are no applicable conservation or management measures and where such fishing activities are conducted in a manner inconsistent with state responsibilities for the conservation of living marine resources under international law.

Although the concept of IUU fishing is relatively clear, its application for estimating IUU fishing risk or implementing policy responses to prevent IUU fishing imports is not straightforward. Although some forms of IUU fishing are well defined, other areas are considerably more complex (see Box 1 and Figure 1). These situations often require interpretation of what is and is not considered IUU, which can have a significant impact on final outcomes. Our treatment of IUU fishing is discussed further in the context of examining risk within our supply chain (Chapter 2) and in the Recommendations (Chapter 6).

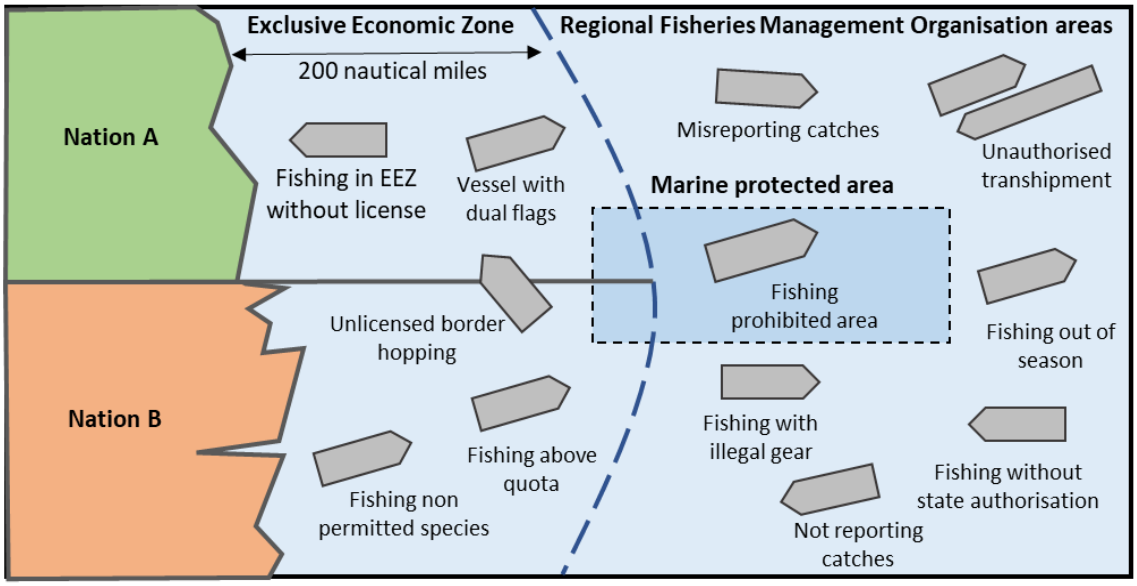
Box 1 Complexity of IUU fishing concept

Determining what constitutes IUU fishing is often complex, necessitating a thorough understanding of regulatory frameworks and practices that apply across different regions, countries, and fisheries. Some aspects of IUU fishing are well defined, while others are more complex. These require consideration of the circumstances and judgement calls about what classifies as IUU. For example:

- Should catches from fisheries within an international convention's jurisdiction but that lacks catch or effort management measures be classified as IUU?
- Should a legally acquired product imported into Australia, sourced from a vessel previously involved in illegal activities (e.g. illegal shark finning), be deemed an IUU fishing product? Similarly, if a vessel fishes in a closed area for a part of a trip, should the trip's entire catch be considered IUU fishing product?
- Is a vessel's catch deemed 'unreported' if the vessel operator submits necessary catch and effort data past the deadline?
- Does a vessel's catch become 'illegal' if the vessel adheres to catch regulations and provides required data to authorities, but its markings, due to fading or flaking, fail to comply with local regulations?
- How should catches be classified if they're harvested in zones under territorial dispute? Can catches be deemed 'unregulated' or 'unreported' when the sovereignty itself is a matter of debate?
- How should illegal actions not directly related to the fishing operation, such as human labour rights abuses, vessel safety and compliance violations or involvement in organised crime, be classified?

Stakeholders also noted the importance of differentiating between the varying levels of severity within practices considered IUU fishing. At one end of the spectrum are major infractions, such as distant water industrial fishing operations knowingly violating regulations. At the other end, there are subsistence artisanal fishers operating in under-managed areas. Addressing these issues often requires a nuanced perspective. In some instances, punitive international action may be necessary, while in others, capacity building support becomes essential.

Figure 1 Common types of IUU fishing



Source: Adapted from NOAA 2021a

We considered all pertinent fish-related tariff categories (Appendix A), ensuring consistency with prior assessments of Australia's seafood imports conducted by ABARES and FRDC (Tuynman & Dylewski 2022; FRDC 2021). Although the term 'seafood' is used throughout this report, the reference includes consumable and non-consumable fish products and considers wild-caught and aquaculture imports. However, some finished pet food products are not considered due to unavailability of data regarding fish content.

Some stakeholders proposed expanding the scope of this review to address broader sustainability considerations and labour rights issues. We acknowledge these concerns, but this report adheres to the scope of the Australian Government commitment to consider a framework that addresses the importation of seafood from fisheries that involve IUU fishing practices. Labour rights issues may be considered in the future or as part of the post-implementation review described in Chapter 6.

Finally, this review does not directly consider issues regarding seafood labelling. Although interrelated in relation to seafood traceability, this review focuses on market-based measures to prevent IUU-derived imports into Australia. The Department of Industry, Science and Resources is responsible for food labelling regulations and is working to extend the application of country-of-origin labelling to the food services sector by implementing the Australian-Imported-Mixed (AIM) model in 2025 (DISR 2023).

2 Assessing the problem

IUU fishing is a global problem and a key contributor to overfishing. It undermines sustainable fisheries management and threatens the food and income security of coastal communities around the world. The interrelated set of environmental, economic, and social impacts associated with IUU fishing are presented in Box 2.

Box 2 Environmental, economic and social costs of IUU fishing

Environmental costs of IUU fishing

- Undermines sustainable management of fish stocks – IUU fishing compromises the accuracy of fisheries data and assessments, which are fundamental for determining whether fish stocks are being sustainably managed.
- Depletion of fish stocks – IUU fishing can result in a higher fish mortality rate, depleting fish stocks, and reduced rates of stock growth and long-term economic yields.
- Ecological impacts – by over-harvesting a specific stock, IUU fishing can have flow-on effects on the prey, predators and competitors of that stock and their ecosystem. The methods and equipment used in IUU fishing can also result in habitat destruction and excessive bycatch.

Economic costs of IUU fishing

- Reduced profits – IUU fishing has economic impacts for fishers and consumers. In the short term, it can result in more abundant and affordable supply of fish for consumers. However, the medium- and long-term impacts include fewer and lower quality fish, higher costs of fishing and higher prices for consumers.
- Market distortion – legitimate fishers are disadvantaged when competing with the unfair practices of IUU fishers, resulting in loss of market share for legal operators and trade distortions caused by the different cost structures of IUU fishing operators.
- Tourism impacts – IUU fishing can contribute to imbalances in ecological systems, with negative impacts on coastal area tourism.
- Reduced access to fisheries markets – IUU fishing can undermine the ability of fishery managers to ensure sustainable management of stocks, making the product less attractive to corporate buyers.

Social costs of IUU fishing

- Reduced employment – IUU fishing can have negative impacts on employment in the medium and long term, particularly in communities heavily dependent on fishing.
- Community impacts – fishing communities can suffer from IUU fishing through unfair competition. This can lead to more community fishers engaging in IUU fishing to compete for resources. As a result, these fishers suffer from an increased risk of detection and punishment, further risking their economic security.
- Labour rights abuses – fishing vessels engaged in IUU fishing have been linked to labour abuses, including labour exploitation and modern slavery (which includes forced labour and human trafficking).
- Food security – IUU fishing can threaten the long-term availability of affordable and nutritious seafood. This can have significant food security implications, especially for small-scale fishers and individuals in developing countries who rely on fisheries for protein and livelihoods.

Sources: Agnew et al. 2009; Cabral et al. 2018; Tinch et al. 2008; Widjaja et al. 2020

Data limitations and variation in IUU fishing across regions complicates efforts to quantify the global cost of IUU fishing. Previous research estimates the total value of IUU fishing losses worldwide is between US$10 billion and US$23.5 billion annually, representing between 11 million and 26 million tonnes or approximately 20% of all global fish catch (Agnew et al. 2009). More recent studies found the loss in annual economic impact due to the diversion of fish from the legitimate trade system is between US$25.5 billion and US$49.5 billion, while losses to countries' tax revenues are between US$2.2 billion and US$4.3 billion (Sumaila et al. 2020).

Although the high global costs of IUU fishing are widely acknowledged, the extent to which Australia's seafood imports contribute to IUU fishing is not well understood. Australia has robust legal and regulatory systems that hold its fishers to account, deter illegal fishing within Australian waters and prevent IUU fishing operators from landing catch at Australian ports. Despite this, concerns exist that some imported seafood may include produce sourced using IUU fishing practices, which could inadvertently contribute to the problem.

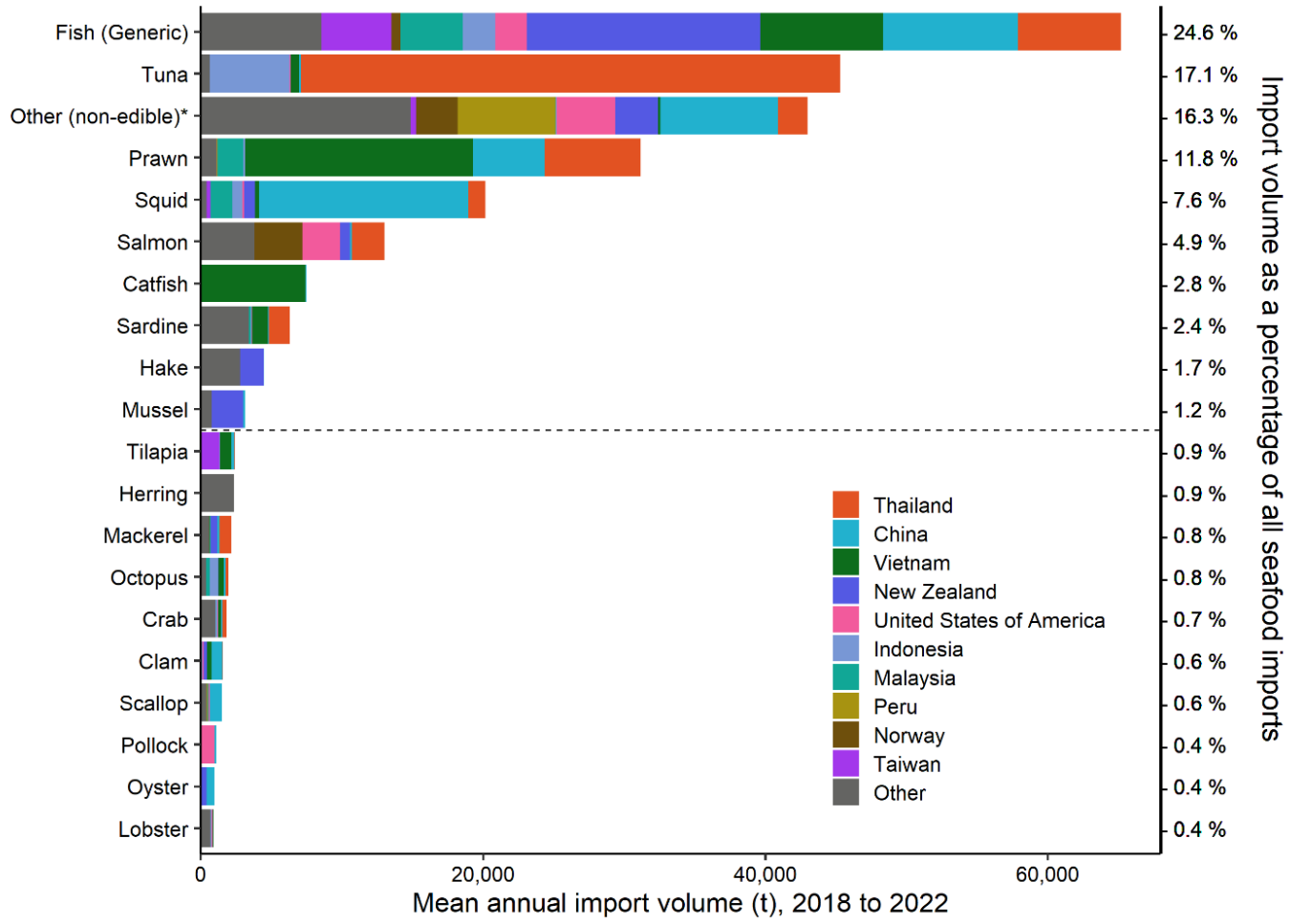
Snapshot of Australia's seafood imports

Australia imports a significant amount of seafood to meet the gap between domestic consumption and supply and to cater to consumer preferences for a diverse range of seafood products (FRDC 2021). Approximately 62% of seafood consumed in Australia (by weight) is imported. These imports mainly consist of lower-value products such as canned or frozen finfish but also include higher-value products like prawns and salmonids (Department of Agriculture 2015; Tuynman & Dylewski 2022).

From 2018 to 2022, Australia imported seafood from 133 countries, with an average annual import volume of 273,846 metric tonnes (mT) and an average value of $2.22 billion per year.

By volume, the top 10 imported seafood products account for over 90% of total edible seafood imports by volume to Australia, with 5 main product types accounting for over 77%. Fish (Generic) was the predominant product category, accounting for 24.6% of the total by volume, followed by tuna at 17.1%, prawn at 11.8% and squid at 7.6% (Figure 2).

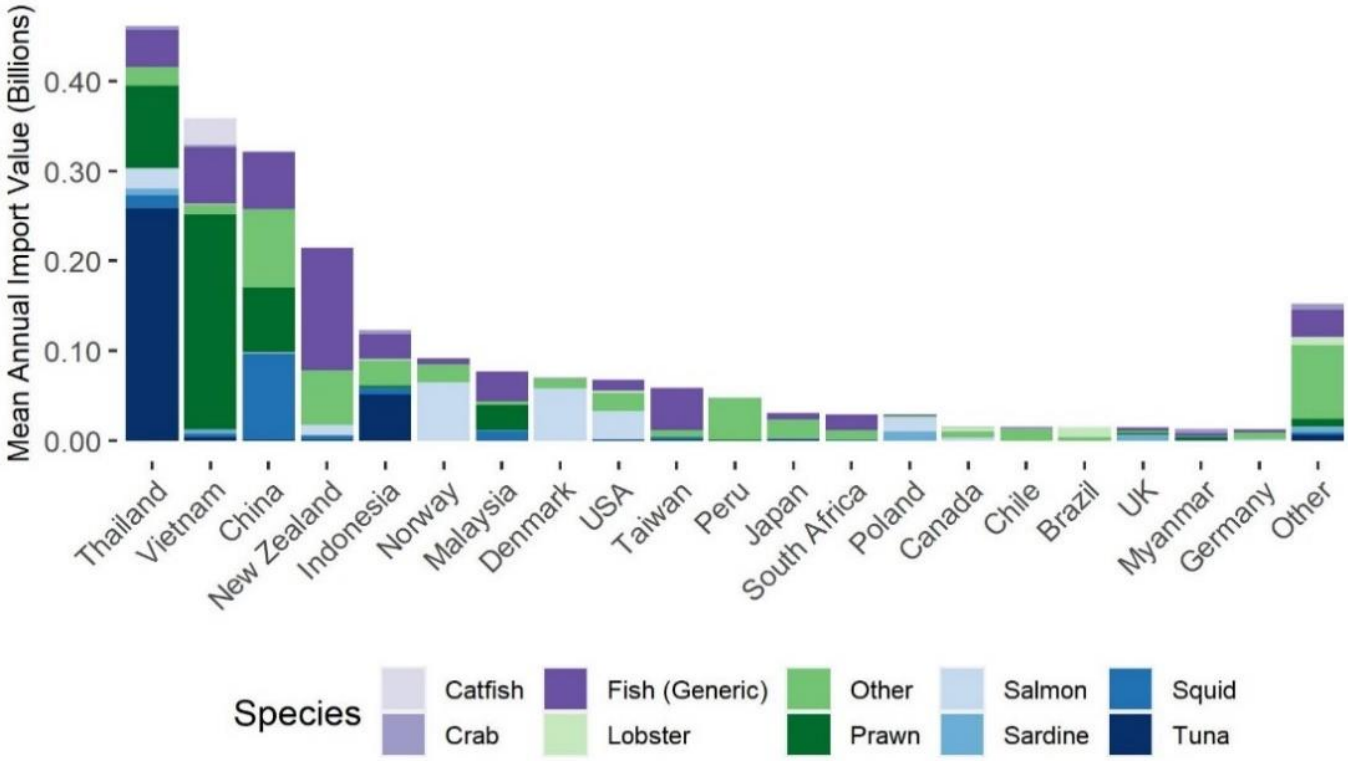
Figure 2 Top 20 imported seafood commodities, by volume, Australia, 2018 to 2022



Note: Fish (Generic) captures several product types, and fish species are not easily identifiable. Squid includes cuttlefish. Dashed horizontal line separates the top 10 species groups comprising >1% of total imports. 'Other (non-edible)' comprises >99.995% non-edible commodities.
Source: ABS 2023

Examining the value of imports reveals a different set of results (Figure 3). The top 10 countries accounted for 83.1% of total seafood imports, with 5 main product types accounting for 73.2% of all seafood imports. Fish (Generic) was the largest category, accounting for 22.4% of the total imports by value, followed by prawn at 20%, tuna at 15% and salmon at 10%.

Figure 3 Value of seafood imports, by country and product type, Australia, 2018 to 2022



Note: Fish (Generic) captures several product types, and fish species are not easily identifiable. Squid includes cuttlefish. Value is provided in $AUD.
Source: ABS 2023

Australia's seafood imports are dynamic and diverse, and involve a range of small-scale to large entities. In 2021, the seafood import market consisted of about 1,260 importers who collectively procured over 85,000 consignments from a network of more than 2,700 global suppliers, with the importing of these consignments facilitated by approximately 265 customs brokers. Although the import market showed a degree of concentration, with the top 10 importers accounting for nearly half of the total import value, there were about 600 smaller-scale importers, each with an import value of less than $100,000.

Imported seafood enters Australia via air and sea routes, through over 40 entry ports. Most seafood arrives via seaports (85%) on container vessels. The remaining 15%, primarily high-value or fresh products, enters via air. Although multiple ports facilitate seafood importation, the bulk is managed by 3 main ports. In 2021, Sydney port received 44% of all seafood imports, followed by Melbourne and Brisbane ports with 29% and 14% respectively. To be granted border clearance, imports are screened for biosecurity and food safety purposes (Appendix A). Once an imported food product has received border clearance, all domestic food regulations apply.

Although offering a broad perspective of Australia's seafood imports, this analysis is subject to some data limitations, including:

- For numerous product types, species or genus specific information remains undocumented in Australia's trade datasets. For instance, the 'fish (Generic)' category encompasses vague

products like 'frozen fish fillet other', often without any additional descriptors to identify the species being imported or other taxonomic information.

- There is no formal requirement for importers or brokers to use species-specific Harmonized Tariff Item Statistical Code (HTISC) codes, resulting in misclassifications. For example, our analysis of the 'commodity description' free-text field in Australia's customs data revealed multiple instances where seafood products were categorised under generic categories rather than more appropriate species-specific codes.
- There are no indicators to distinguish between wild-caught and aquaculture seafood. Although production methods are documented for a subset of products – mainly those posing biosecurity or food safety risks – production method information is often confined to scanned transactional documents, limiting its utility for broader analysis.
- The declared country of origin is often not the country (or region) from which seafood products were originally harvested. Rather, exporting countries often denote the last link in the supply chain where value-add occurred (e.g. processing or packaging of product).

Review of IUU fishing risk in Australia's seafood imports

To assist our assessment of IUU fishing risk in Australia's seafood imports, MRAG Asia Pacific was engaged to undertake a review. Broadly, the aim was to:

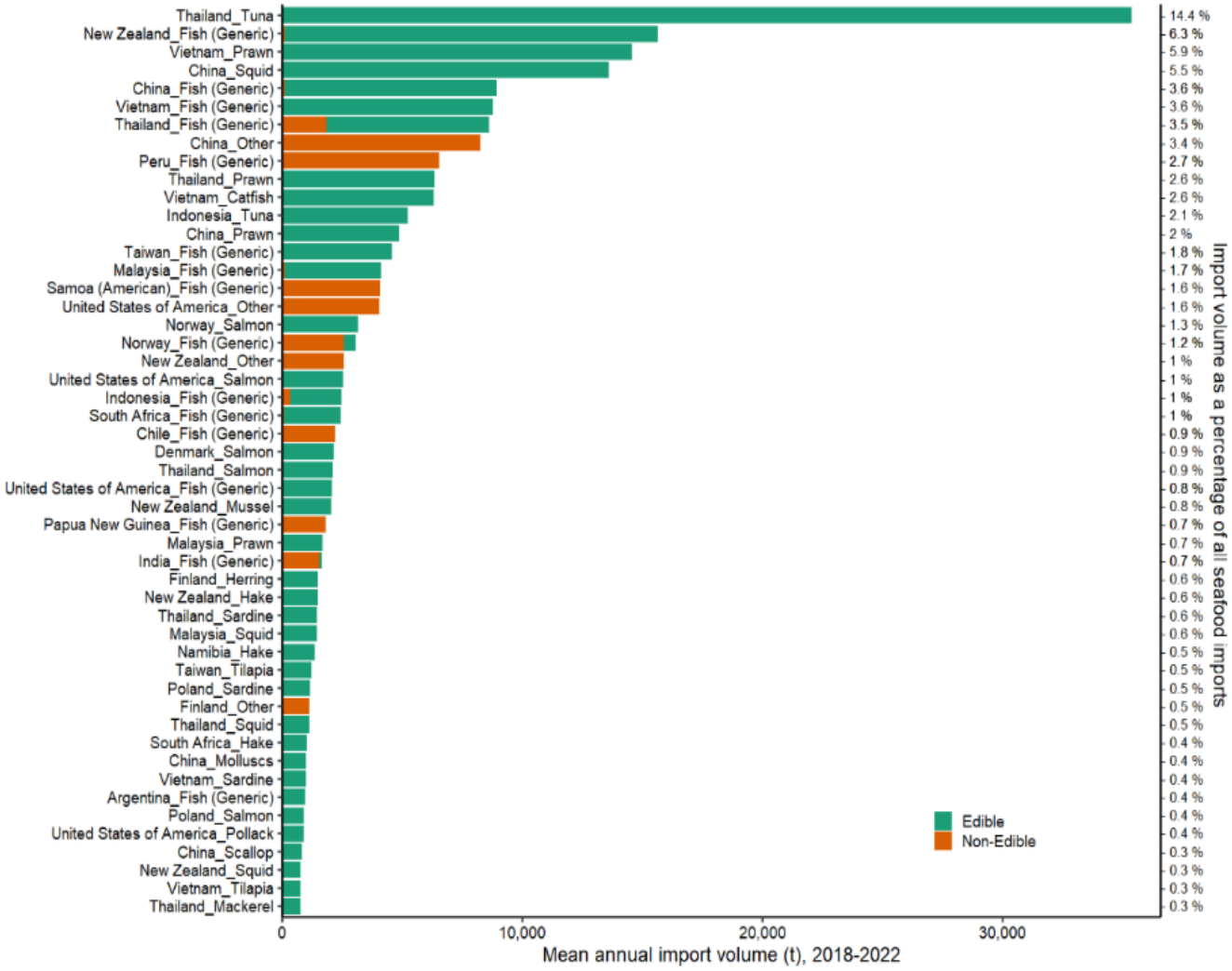
- examine the source fisheries and aquaculture facilities from which Australia's seafood imports are harvested
- provide qualitative reasons why certain supply chains may be more at risk of IUU fishing
- examine the relative risk of IUU fishing and subsequent importation into Australia across the main wild-catch source fisheries and regions
- consider data and methodological challenges and how issues can be addressed.

MRAG's report supports this final report and is summarised in this section.

Identifying source fisheries and farms of imported product

An essential first step in evaluating the risk of IUU-derived product entering Australia is to identify the species being imported and the source fisheries and aquaculture facilities from which they are harvested or produced. Australian Bureau of Statistics (ABS) data based on importer customs declarations were used to identify the top 50 import country by commodity combinations by volume for the most recent complete 5-year period (2018 to 2022). These combinations accounted for 86.1% of total imports (Figure 4).

Figure 4 Top 50 seafood imports, by country and product, Australia, 2018 to 2022



Note: Fish (Generic) captures several product types, and fish species are not easily identifiable. Squid includes cuttlefish. Error bars indicate ± 1 standard deviation from the mean.
Source: ABS 2022

For each of these combinations, a mix of public data (e.g. public fisheries production and trade data, and peer reviewed journals) and non-public data (e.g. industry advice, customs declarations) were used to identify the likely species being imported, the production method and, for wild-catch fisheries, the likely source fisheries (where possible). Despite verifying assumptions to the extent possible within the given time frame, it's extremely difficult to robustly estimate the volume and value of IUU-derived seafood entering the Australian market with certainty.

In this initial review, finished pet food, cosmetics, and supplements were not examined due to the difficulty in determining the marginal contribution of seafood inputs to overall import volume, as well as likely sources of raw materials.

Process for assessing IUU fishing risk

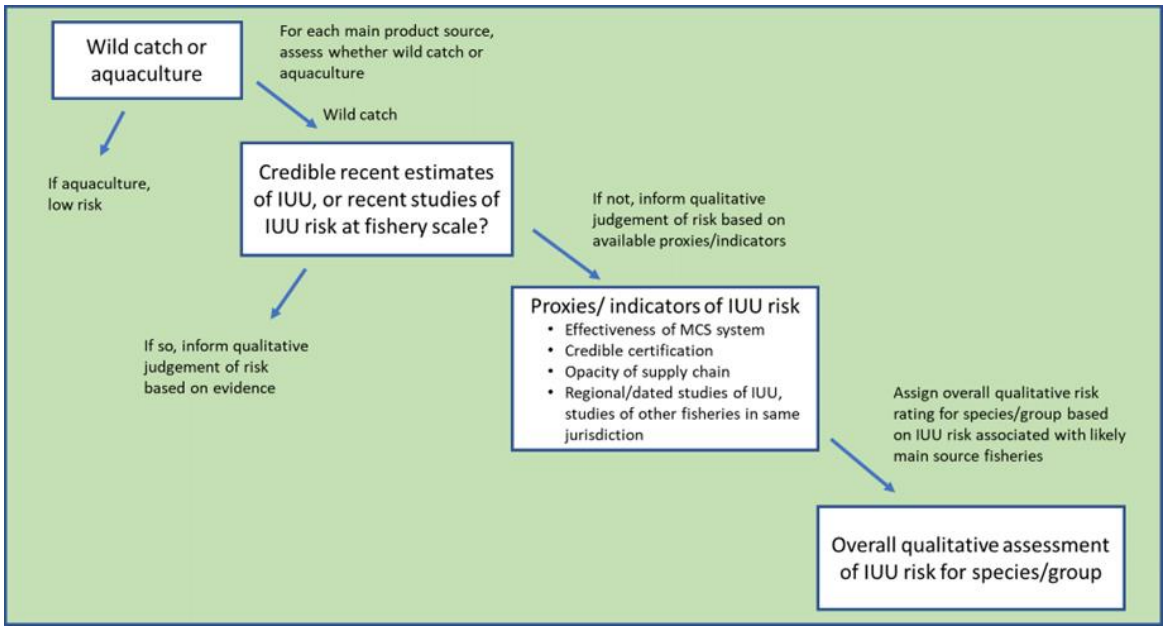
We placed a focus on examining the risk of illegal and unreported fishing when assessing IUU fishing risk, as well as unregulated fishing conducted in high seas areas where no RFMO exists. Less focus was placed on unregulated fishing conducted within a state's domestic waters in a manner

inconsistent with state responsibilities under international law, given the challenges in defining this aspect.

The top 10 imported species or species groups by volume in the 2018 to 2022 period were examined in assessing the likely risk of IUU-derived seafood entering Australian supply chains, using the factors influencing IUU risk listed in this chapter. MRAG conducted a risk-based assessment using the process outlined in Figure 5 for each of the top 10 species or species groups by volume imported into Australia during 2018 to 2022.

For each likely source fishery of these top 10 species or species groups, available information on production method, IUU fishing assessments and proxies for IUU fishing risk were collated. This informed the generation of an overall qualitative judgement of IUU fishing risk, using the process outlined in Figure 5.

Figure 5 Process for assessing IUU risk for identified source fisheries



The first step was to determine if the product was derived from a wild-catch fishery or aquaculture facility. Aquaculture products were considered a low risk for IUU fishing. However, it was acknowledged IUU fishing risk may be present in aquaculture inputs, including feed or broodstock harvesting. For products likely sourced through wild-catch fisheries, the source fishery was identified by using:

- the exporting country
- the HTISC code applied to the product and product type
- publicly available trade information
- discussions with a selection of importers on their source fisheries and locations
- MRAG's knowledge of seafood supply chains.

The next step was to examine whether recent, credible studies estimating IUU fishing or examining IUU fishing risk were available for each of the main wild-catch source fisheries. These were ideally

consistent with recommended principles and approaches for undertaking IUU estimation studies and based on data directly from the fishery. If studies existed, these were used as a primary information source to inform the overall level of risk.

Where no recent, relevant, data-driven studies existed, other information on factors influencing IUU fishing risk were used to inform a qualitative assessment of likely risk. Key factors considered include:

- **Production method** – aquacultured products have been considered low risk. However, the extent to which IUU-derived fish may be used in the production chain (e.g. broodstock, feed) has not been considered.
- **Effectiveness of MCS arrangements** – for wild-catch fisheries, the effectiveness of monitoring, control and surveillance (MCS) is a key factor influencing overall IUU fishing risk.
- **Evidence of IUU fishing** – although largely a function of MCS effectiveness, a demonstrated history of IUU fishing occurring in the fishery (in the absence of corrective measures) signals higher risk of IUU fishing.
- **Opacity of the supply chain and product traceability** – opaque and complex supply chains don't necessarily equate to IUU fishing; however, they cloud the verification of legality and create opportunities for illegal products to be mixed with, or substituted for, legal products.
- **Credible eco-certification arrangements** – fisheries that have been independently certified against a credible, third-party certification scheme and then traverse a certified chain of custody, are lower risk for IUU fishing.

Box 3 Characteristics of supply chains at risk of IUU product entering

Supply chain characteristics identified by MRAG that create opportunities for mixing, substitution or obscuring source include:

- fisheries landing into countries that are not a Party to the Port State Measures Agreement and/or are not fully implementing its requirements
- fisheries using transshipment operations which don't provide the documentation called for under the FAO Voluntary Guidelines on Transshipment
- fisheries which allow transshipments or landing of a portion of the haul (making it difficult to trace the origin and pathway of products from a given fishing trip)
- use of cold store facilities for raw or processed products where rigorous lot identification and chain of custody procedures are not followed
- processing arrangements which cannot demonstrate strict segregation of different lots of materials
- processing arrangements that are not subject to government monitoring of yields (undertaken to verify that the full amount of imported raw materials were processed and re-exported under tariff-free arrangements)
- fish products which reach their destination for processing or consumption as containerised goods without undergoing formal landings or export procedures from the point of containerisation
- fisheries with catch certification systems that allow certificates to be issued after the point of first landing where legal provenance is most easily verified.

Governance arrangements were given a lower weighting as they are not always seen as a robust proxy for IUU fishing risk. For example, Pacific Island Parties to the Nauru Agreement receive relatively low scores on several World Bank Governance Indicators, but they have implemented strong and cost-effective MCS arrangements in their purse seine fisheries.

Several other factors are linked to IUU fishing risk – for example, if the product is transhipped at sea or caught by vessels using 'flags of convenience'. However, the extent to which these contribute to IUU fishing risk can be captured through a detailed assessment of MCS effectiveness in the source fishery.

The outcomes of this process for the top 10 species-groups by volume in the 2018 to 2022 period are discussed in the following section.

Results

Tuna, prawns, salmon, catfish, hake and mussels were considered lower risk overall, although some individual sources may be higher risk.

Most of Australia's tuna imports are canned skipjack and yellowfin sourced from the industrial purse seine fishery operating in the western and central Pacific Ocean. The fishery has strong MCS measures in place, with 11 separate fisheries in the area certified against the Marine Stewardship Council (MSC) Fishery Standard. Although risk cannot be neglected in these supply chains, they are considered low risk. Additionally, other sources indicate higher risk due to uncertainty of supply chains and strength of fisheries management measures.

Prawns, catfish and mussels imported into Australia are predominantly aquacultured and considered lower risk.

Salmon imports were broadly of 2 groups:

1) Atlantic salmon and trout farmed in Europe (e.g. Norway)
2) Pacific salmon likely originating in Alaskan, Russian (and perhaps Canadian) wild-catch fisheries.

Farmed production was considered lower risk, while a substantial proportion of wild-caught salmon is likely to be sourced from Alaskan fisheries that are MSC-certified and have strong MCS measures in place. Although several Russian salmon fisheries are MSC-certified, the overall IUU situation is more complex. Most hake products imported into Australia are likely to originate from the MSC-certified New Zealand, South African and Namibian hake fisheries.

Squid and sardines were considered higher risk overall and both groups contain a large number of species harvested across a wide range of fisheries and jurisdictions, some of which are lower risk. Discussions with importers indicated that the majority of squid volume imported into Australia is likely to be jumbo flying squid ('gigas'), with smaller volumes of other species, including Japanese flying squid ('pacificus'), neon flying squid ('bartrami'), arrow squid and Argentine shortfin squid ('Illex'). Several studies have estimated high rates of illegal fishing for some squid species, some high seas squid fisheries remain largely unregulated, and IUU has been acknowledged as an issue in some RFMO convention areas in which squid species imported into Australia are harvested.

Among the sardine fisheries, while products sourced from MSC-certified herring and European sprat fisheries from the North Atlantic and Baltic Sea are lower risk, the available evidence indicates products sourced from tropical sardine fisheries may be higher risk.

In addition to the species discussed previously, around 34% of Australia's seafood is imported under generic HTISC codes for which there is often limited visibility of species, production method and source fishery. In practice, 'fish (Generic)' likely includes products sourced from well-managed fisheries and simple supply chains for which IUU risk is low (e.g. third-party certified whitefish products, imported as 'frozen fillets – other'), as well as products with raw materials sourced from higher risk fisheries or supply chains. Of the products imported under generic HTISC codes, surimi products sourced from uncertified, tropical sources may be at higher risk of incorporating IUU-derived product. Additionally, shark products are often imported under these HTISC codes, adding complexity to mapping supply chains.

Importantly, the categorisation used for the review means sources rated 'lower risk' will include some sources that are either low or very low risk. A categorisation of 'higher risk' does not mean that product from these sources is IUU – simply that available information indicates there is a higher relative risk that IUU-derived fish may be present.

Overall, MRAG concluded more information is required on imported species and source fisheries. However, having a precise estimate should not be a pre-requisite for further action.

Stakeholder views on IUU fishing risk

In response to our discussion paper and draft report, stakeholders provided views on IUU fishing risks in Australia's seafood imports (Box 4).

Box 4 Stakeholder views on IUU fishing risk

Stakeholders held differing views on the relative risk of IUU fishing product in Australia's imports.

- The Australian Marine Conservation Society (AMCS) and TRAFFIC note that while it's difficult to undertake quantitative risk assessments using public data, Australia is importing high-risk species from high-risk countries. Particular concerns were raised regarding tuna, squid, sharks and prawns.
- The Food and Beverage Importers Association (FBIA) note key imported seafood products are low risk for IUU fishing, such as farmed product or product that comes with eco-certifications. Where this is not the case, FBIA members apply tools to minimise the risk that any IUU fishing products enters their supply chains.
- The Marine Stewardship Council (MSC) note there is a high level of industry self-regulation, particularly among major Australian supermarkets, but drew attention to IUU risk related to tropical surimi products.
- The Minderoo Foundation note Australia faces considerable risk, particularly due to inadequate policies to deter IUU fishing products and lack of control of IUU fishing practices applied by some of Australia's key trade partners. Analysing risks associated with high-volume species, they note tuna, prawns, squid, and generic categories carry significant risk.
- The University of Queensland identified that Australia imports at least 11 globally threatened species, but specific trade flows with elevated IUU fishing risk were not identified.

- The World Wildlife Foundation (WWF) note that while Australia's strong regulatory framework and monitoring systems are deterrents for illegal fishing within Australian waters, seafood imported into Australia may be at risk of being caught by IUU fishing practices. They also note that the lack of good quality data limits the ability to accurately estimate and identify IUU derived seafood.
- Several stakeholders extended their assessment of risk to capture broader sustainability considerations and labour abuse concerns. However, as noted in Chapter 1, these issues are not in scope for this review.

Summary

Despite different views regarding the overall level of IUU fishing risk in Australian seafood imports, there was broad agreement that risks are present and data limitations prevent an accurate estimation of IUU fishing related inflows.

The main impediment to accurately assessing IUU fishing risk is the lack of detailed information allowing the identification of source fisheries, aquaculture facilities, and supply chains. To assess IUU fishing risk, more information is required on the source fishery and each link in the supply chain between the harvester and the first point of landing in Australia. Information on source fisheries is required to assess the effectiveness of the MCS system, while information on supply chains is required to assess the risk of mixing or substitution of legal and IUU fishing product.

Some importers and industry participants collect this information and take preventative action (Chapter 3). However, there is limited information to verify that appropriate data collection processes and IUU fishing risk mitigations are being broadly and consistently applied across all industry actors.

In considering mechanisms to address IUU fishing imports, including through improved data collection, it's important to consider the costs and benefits of potential new regulations and any transitional and distributional impacts. These factors are considered in Chapter 6 and Chapter 7.

3 Actions to address IUU fishing

IUU fishing is a complex, multidimensional issue that spans international borders. Successfully combating the problem requires collective and sustained action at domestic, bilateral, regional and multilateral levels.

Efforts to combat IUU fishing primarily focus on the actions of flag states, coastal states and port states to regulate the utilisation and conservation of marine fishery resources, or by market states that trade in fishery products (Box 5).

Box 5 Approaches to combating IUU fishing

Flag states

International law requires all states to exert jurisdiction and control over vessels flying their flag. The failure of flag states to fulfil this responsibility is a major contributor to the problem of IUU fishing. The responsibilities of flag states include implementing a system of registration for ships flying their flag, maintaining a national record of their vessels, and implementing an authorisation system for vessels to fish. They must also ensure that vessels operating under their flag are properly controlled.

Coastal states

When a fishing vessel enters the waters of a coastal state, the primary responsibility for controlling its activities shifts from the flag state to the coastal state. To govern fisheries in their waters, coastal states establish monitoring, control, and surveillance systems. These systems involve various measures such as tracking vessels' movements and monitoring their activities, aerial or at-sea surveillance, and deploying observers on fishing vessels. Additionally, coastal states may undertake physical inspections of catch, gear and documentation.

Port states

Port states can prevent the entry of IUU-caught fish into the market by enforcing port state measures. These measures are a set of requirements that foreign vessels must comply with to access ports within the port state. They include prior notification of port entry, use of designated ports, restrictions on landing or transhipment of fish, supply and service restrictions, documentation requirements, and port inspections.

Market states

IUU fishing products often enter international trade, allowing market states to combat the issue through trade-related measures. Two such measures are catch documentation schemes (CDS) and trade sanctions, which can be applied by a single country or multilaterally by regional fisheries bodies.

Sources: EPRS 2022; FAO 2001

Australia's response

Australia employs a multifaceted approach to combat IUU fishing, including taking direct domestic action and engaging in bilateral, regional, and global cooperation. We have strong legal and regulatory systems to deter illegal fishing within Australian waters and to prevent IUU fishing operators from landing catch at Australian ports. We also take an active and collaborative role in regional and international forums and work to strengthen the capacity of neighbouring countries to combat IUU fishing.

Domestic action

By global standards, Australian fisheries are well-managed. Our legislative and regulatory regime is comprehensive and includes mandates and powers to deal with IUU fishing. Key elements of Australia's fisheries management arrangements that aim to prevent IUU fishing include:

- the requirement for all fishing operations to be authorised by the appropriate jurisdictional fishing authority
- robust MCS arrangements, which include catch reporting, electronic monitoring, observer programs and vessel monitoring systems
- comprehensive IUU fishing enforcement operations on land, air, and water
- restrictions on foreign-flagged fishing vessels in Australian waters and landing at our ports
- independent auditing to ensure domestic fisheries meet management objectives
- regulation of fish sales to the point of first purchase and first receivers/fish processors.

For further information, see Australia's Second National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing and Australia's National Compliance Strategy 2022–26.

Bilateral action

Australia cooperates with other countries bilaterally on fisheries-related issues, including combating IUU fishing. We have several annual agriculture and fisheries-specific bilateral meetings that include discussion on efforts to combat IUU fishing, for example the Indonesia–Australia Fisheries Surveillance Forum.

Regional action

Regional fisheries bodies, including RFMOs and regional fisheries management arrangements (RFMAs), are key actors in promoting sustainable fisheries and combating IUU fishing. They offer a platform for collaboration on the conservation, management and development of fisheries (FAO 2023b). They typically have the authority to establish catch and fishing effort limits, as well as control obligations, technical measures, trade sanctions, and other enforcement measures to combat IUU fishing (DG MARE 2023b). Additionally, they have increasingly adopted and enforced conservation and management measures that combat IUU fishing, such as port state measures, CDS, IUU fishing vessel lists and compliance monitoring (EU IUU Coalition 2019; FAO 2023b). Australia's participation in regional fisheries forums is detailed in Box 6.

Box 6 Australia's role in regional forums that combat IUU fishing

Australia participates in a range of forums that establish regional, and subregional management arrangements for migratory, straddling, pelagic and demersal fish stocks. These include the Convention on the Conservation of Southern Bluefin Tuna (CCSBT), the Agreement for the Establishment of the Indian Ocean Tuna Commission (IOTC), the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, the South Pacific Regional Fisheries Management Organisation (SPRFMO) and Southern Indian Ocean Fisheries Agreement (SIOFA). Many of these focus on IUU fishing as a major threat to the effective management and conservation of regional fish stocks and seek to identify IUU fishing vessels operating within their respective

areas of competence. As a member of CCAMLR and CCSBT, Australia participates in the CDS applying to Patagonian and Antarctic toothfish, and southern bluefin tuna.

In 2007, Australia and Indonesia were instrumental in establishing The Regional Plan of Action to Promote Responsible Fishing Practices Including Combating Illegal, Unreported and Unregulated Fishing (RPOA-IUU). The RPOA-IUU consists of 11 members (8 ASEAN member states, Timor-Leste, Papua New Guinea and Australia). Its objective is to enhance and strengthen the overall level of fisheries management in the region and promote adoption of responsible fishing practices. The Coordination Committee meets annually to renew the strategic directions and priorities for fulfilling RPOA-IUU objectives. The RPOA-IUU has been recognised as a best-practice model for regional cooperation in combating IUU fishing.

In all regional forums, Australia advocates for strengthened fisheries management and conservation arrangements, the development and adoption of new measures to combat IUU fishing and urges countries to fully implement key international instruments aimed at combating IUU fishing.

CCAMLR 2017; DAFF 2023b

Global action

Significant effort has been made to develop an international framework that promotes responsible fisheries management (Box 7). Australia is a party to virtually all binding global instruments, agreements, and guidelines to prevent IUU fishing. Australia engages with a range of relevant multilateral forums, including the UN, FAO, Organisation for Economic Co-operation and Development, Asia-Pacific Economic Cooperation (APEC) and the World Trade Organisation (WTO). Further, Australia complies with requirements applying to trade in aquatic species outlined in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (Appendix A).

Box 7 Global instruments, agreements and guidelines that combat IUU fishing

Several global instruments, agreements and guidelines are relevant to combating IUU fishing.

- **United Nations Convention on the Law of the Sea (UNCLOS) (1982)** – defines the rights and duties of states with respect to their use of ocean space and resources. It designates areas of national jurisdiction, in which it gives coastal states responsibility over natural resources. For the flag states whose vessels fish beyond these areas, it introduces the obligation to effectively exercise jurisdiction and control over them and to cooperate with other states.
- **United Nations Food and Agriculture Organisation (FAO) Compliance Agreement (1993**) – promotes compliance with conservation and management measures on the high seas. It strengthens the responsibility of the flag states, which must maintain a system of authorisation for their high seas vessels and ensure that they don't undermine conservation and management measures. It also aims to prevent fishing vessels reflagging under flags of non-compliance.
- **United Nations Fish Stocks Agreement (1995)** – an implementing agreement under UNCLOS, addresses the management of highly migratory stocks travelling across coastal state waters and high seas, and of stocks straddling the 2 areas. It defines the duties of flag states, including those related to registration and record of vessels, control, compliance and enforcement, as well as cooperation in the framework of RFMOs, along with port state measures.
- **FAO Code of Conduct for Responsible Fisheries (1995)** – contains a series of voluntary guidelines providing principles and standards applicable to the management of all fisheries. It includes provisions on the duties of all states and promotes responsible trade of fishery products.

- **FAO's International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (IPOA-IUU) (2001)** – was the first global instrument tailored to combat IUU fishing. The plan assigns responsibilities to different states, including flag states, coastal states, port states and market states, with specific measures to be taken. The plan also encourages states to cooperate regionally, to harmonise policies and activities and to support RFMO measures.
- **FAO Agreement on Port State Measures (2016)** – is an international legally binding agreement that aims to prevent IUU fishing vessels from using ports and landing their catches, and thus to block products derived from IUU fishing from reaching national and international markets. The agreement also determines the role of flag states in the implementation of port state measures.
- **WTO Fishing Subsidies Agreement (2022)** – prohibits countries from subsidising vessels engaged in IUU fishing, fishing overfished stocks, or fishing on the unregulated high seas.

Other supplements to this global framework include the FAO Voluntary Guidelines for Flag State Performance (2014), Guidelines for CDS (2017) and the Global Record of Fishing, Refrigerated Transport and Supply Vessels.

Sources: EPRS 2022; FAO 2016a; FAO 2023a; WTO 2022.

Industry action

It's important to acknowledge self-regulatory practices implemented by industry (including importers, wholesalers, and retailers) and other third parties. For example, independent eco-certification and chain of custody programs, such as those implemented by the MSC, set sustainability standards and maintain a chain of custody for certified products. Such programs foster consumer trust in certified seafood and encourage consumers to demand that the seafood they purchase can be traced to legitimate operations (Longo et al. 2021). Additionally, major retailers have competitive market incentives to mitigate the risk of selling products associated with IUU fishing and have a history of collaboration with non-government organisations (NGOs) and fisheries management authorities to conduct their own risk assessments (WWF 2023b).

In response to our discussion paper, the FBIA explained these types of mitigations are undertaken by all responsible seafood importers, not just major retail chains. FBIA noted industry action on this issue involves the application of an array of tools and approaches, and often intersects with efforts to combat modern slavery. These efforts include undertaking risk assessments, audits and product certifications, as well as signed product specifications and supplier attestations that products are not linked to IUU fishing practices or involve labour abuses.

The Ocean Disclosure Project (ODP) is a reporting framework for seafood companies to voluntarily disclose wild-caught seafood. ODP supports traceability by requesting non-confidential information such as sustainability efforts, sourcing maps, and key performance indicators including number of certified fisheries (ODP 2024). Their aim is to increase transparency and ensure global supply chains are free from IUU seafood. To our knowledge, only one Australian company currently participates.

The Global Dialogue on Seafood Traceability (GDST), initiated in 2017, has set global standards for seafood traceability. Built using GS1 traceability principles, the GDST standards were developed through a consensus-based drafting process involving over 60 global companies and associations. These standards, first published in 2020, aim to promote interoperability among seafood traceability systems, specify key data elements for all seafood products, and enhance the verifiability of information in these systems. Although GDST's purview is wide-ranging, its core objective is to

combat IUU fishing and promote the responsible and ethical sourcing of seafood. However, domestic industry adoption has been limited. More information on the GDST is provided in Appendix A.

Further action

Australia adheres to several multilateral traceability schemes and agreements applying to trade in aquatic species – including RFMO CDS and trade in species listed under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (see Chapter 4 and Appendix A). However, we don't have a unilateral import control scheme aimed at preventing IUU fishing product from entering the country. The European Union (EU), United States (US) and Japan are major seafood importers implementing such schemes.

Australia's limited use of market-based measures to date and our reliance on legislation which is focused on food safety and biosecurity to regulate the entry of seafood into the country (Appendix A) has led to concerns we may be susceptible to importing IUU fishing-derived product (OECD 2021).

4 Market-based approaches

Market-based approaches to combat IUU fishing fall into 2 categories:

1) Catch documentation schemes (CDS)

2) Trade restrictive enforcement measures (TREMs).

Catch documentation schemes

In this review, we have applied a broad definition of CDS to include any process that aims to ensure traceability of seafood through the supply chain. This could encompass traditional CDS (those requiring catch and trade certificates for product exchange) and other traceability mechanisms (for example third-party certification) that disclose information about how seafood is caught and moved through the supply chain. These are similar in their objective to prohibit the entry of illicit products into the market. Key data elements (KDEs) that a CDS may encompass are identified in Table 1.

CDS can be unilateral (adopted by individual market states) or multilateral (such as those implemented by RFMOs). The EU, US, Japan and South Korea have each implemented unilateral CDS (Box 8 Unilateral Import Control Schemes in key market states). These are 4 of the world's largest seafood importers and possess significant market power. Three regional bodies operate multilateral CDS – CCAMLR, CCSBT, and the International Commission for the Conservation of Atlantic Tunas (ICCAT). Several other regional bodies are in various stages of planning and implementing CDS (Ma 2020). Among them is the voluntary ASEAN CDS, developed by Southeast Asian Fisheries Development Center (SEAFDEC).

Comparative analysis of multilateral and unilateral CDS

There are important differences between unilateral and multilateral CDS (Table A3). Multilateral schemes offer comprehensive protection to specific fish stocks; are based on RFMO rules which have standing in international law; apply to all fishers, traders, and processors dealing with products from a specific fishery; and are typically backed by strong enforcement mechanisms that cover domestic and international trade. In contrast, unilateral schemes seek to regulate what may enter an end market, not how or what comes out of a fishery. They are established under national law and compliance is established by looking backwards into the supply chain (Hosch 2016). Due to the increased effectiveness of CDS when states collaborate, the FAO (2022b) prefers multilateral schemes.

Box 8 Unilateral Import Control Schemes in key market states

European Union

The EU is the world's largest seafood importer, importing US$56.5 billion of seafood in 2020. The EU introduced a Catch Certification Scheme (CCS) in 2012 to prevent IUU fishing product from entering its market. All marine wild caught fish exported to the EU must be accompanied by a catch certificate. Fishing vessel operators from exporting countries must provide importers with documentation that demonstrates products were caught in compliance with national fishing laws. These certificates are required to be validated by authorities in the country to which the vessel is registered or flagged. The certificates also document other steps in the supply chain, including product processing. EU importers must ensure that seafood products are

accompanied by catch certificates and have been legally caught according to a risk-based approach. The current system is paper based. However, an amending regulation entered into force in January 2024 and requires use of the digital 'CATCH' system from 10 January 2026. The use of CATCH will be compulsory for the submission of catch certificates and associated documents for EU importers and authorities of EU Member States. This is an important transition, with CATCH centralising collection, handling, storage and exchange of information and documents.

United States

The US is the second largest seafood importer in the world, importing US$22.4 billion of seafood in 2020. The US introduced the Seafood Import Monitoring Program (SIMP) in 2018. The SIMP is a traceability program that requires US importers to provide and report chain of custody data on 13 imported fish products which are identified as vulnerable to IUU fishing or seafood fraud. Unlike the EU CCS, the US model places the onus on importers to collect and record traceability data. This data is submitted through a data portal managed by the US' National Oceanic and Atmospheric Agency (NOAA). Audits are conducted on importers to verify harvest and landing information. In November 2023, in response to extensive feedback, NOAA withdrew its proposed expansion of species included in SIMP. SIMP's digital collection of information over several years allows the US to analyse and detect risk within seafood supply chains, and to take appropriate action to counter IUU-fishing.

Japan

Japan is the world's fourth largest importer of fishery products by value, importing US$13.8 billion of seafood in 2020. In December 2022, Japan introduced a CDS applying to 4 species: squid and cuttlefish, Pacific saury, mackerel and sardine. The CDS is based on the EU CCS and requires that imports of these species are accompanied by a catch certificate issued by the competent authority of the flag state.

South Korea

South Korea is the fifth largest importer of fisheries products by value, importing US$5.4 billion of seafood in 2020. South Korea implemented a CDS in 2017 that applies to 3 fish species: bobo croaker, longneck croaker and Pacific saury. Like the EU model, import consignments for these species require a catch certificate that is validated by public authorities of the flag state. The catch certificate requires a reduced set of KDEs compared to the schemes implemented by the EU, US and Japan. South Korea also manages a seafood traceability system; though its core objective is centred around addressing food safety issues, necessitating only a narrow selection of key data elements, which limits its effectiveness as a tool to combat IUU inflows.

Sources: DG MARE 2023a; European Commission 2009; JFA 2020; NOAA 2022, 2023a, 2023b; Statista 2020; EJF 2023.

Evaluations of the EU and US CDS (Box 9) reveal concerns about the efficacy of unilateral CDS. Such schemes can impose significant compliance costs on industry and prove expensive to administer and enforce (FishWise 2022; Hosch & Blaha 2017). Additionally, they may disproportionately impact small-scale fishers and small island developing states, exacerbating existing challenges faced by these groups (Song et al. 2020).

The EU IUU Coalition (2020) noted:

> There is a real risk of a proliferation of non-harmonised unilateral trade instruments to combat IUU fishing … For fishers and supply chain actors that currently or may in the future seek to sell or process catch for multiple markets, the costs of complying with different systems could be considerable.

However, while multilateral approaches are generally considered more effective than unilateral approaches, there are trade-offs. Multilateral schemes can be complex and time-consuming to negotiate, develop, and implement, which may lead to delayed action. Additionally, they generally

have limited coverage of species and geographic areas compared to unilateral schemes (FAO 2022a; Hosch 2018). Further, risks that new unilateral schemes will compound compliance costs can be minimised when harmonised with existing schemes (EU IUU Coalition 2020).

Box 9 Evaluations reveal concerns regarding the effectiveness of unilateral CDS

A 2021 review conducted by NOAA found that 'as currently implemented, SIMP does not prevent or stop IUU fish and fish products from entering US commerce.' The review highlighted that a key challenge for SIMP in identifying IUU products lies in the sheer volume of imports and the necessity for detailed knowledge of the fisheries laws in the exporting countries. However, by more effectively using traceability data, mapping supply chains, compiling country-specific fisheries registers and applying tools such as predictive analytics, SIMP shows potential in preventing future illegal shipments.

Research commissioned by the EU Commission found that, in the 4 years following the implementation of the EU CCS, no significant impact on seafood trade was detected. More recent evaluations recognised improvements in traceability due to the EU CCS. However, its effectiveness was called into question, given that only 48 import consignments out of 580,000 received by EU member states were denied entry during the 2018–19 reporting period. Key criticisms of the EU scheme include its reliance on paper-based documentation, inconsistent enforcement across member states and lack of a centralised data repository.

In contrast, evaluations of multilateral schemes found they were effective. For example, the CCSBT and ICCAT CDS have been recognised as important factors in combating IUU fishing and supporting the recovery of bluefin tuna populations in their respective fisheries.

Sources: EU Court of Auditors 2022; EPRS 2022; Hosch 2016, 2018; NOAA 2021b.

Trade restrictive enforcement measures

Trade restrictive enforcement measures (TREMs), including 'trade sanctions' or 'trade embargoes', are another type of market-based measure aimed at preventing trade in IUU fishing derived seafood. Unlike CDS which seek to prohibit market access on a shipment-by-shipment basis, TREMs are intended to incentivise behaviour change at a country or operator level by imposing sanctions, import restrictions or other penalties on countries or operators that take insufficient measures to combat IUU fishing. They are typically punitive in nature (Hosch 2016).

TREMs can also be implemented unilaterally or multilaterally. For instance, several RFMOs including ICCAT have adopted resolutions that allow their members to impose TREMs on states that fail to comply with international fisheries law and CDS requirements. The EU and US have regulatory frameworks in place to apply unilateral TREMs. These measures can be in response to non-compliance with a CDS, or they can be applied in response to other deficiencies not related to the operation of a CDS (Box 10).

Box 10 Trade restrictive measures implemented by the EU and US

European Union

The EU has established regulations that allow for trade bans on seafood products from countries that they determine are non-cooperative in combating IUU fishing. The regulation, known as the EU carding scheme, rates countries based on their level of cooperation in addressing IUU fishing and assigns a green, yellow, or red card. Green cards are issued to countries that comply with international rules, yellow cards to those not fully cooperating, and red cards to those failing to take sufficient measures. A yellow card prompts

recommendations for improvement, while failure to comply may result in a red card and a trade ban being imposed. Up to May 2022, a total of 27 countries had at some time been issued a yellow card and 6 countries had been issued a red card.

There is evidence this carding scheme has incentivised some countries to improve their fisheries management systems and take stronger measures to prevent IUU fishing. However, the extent to which that translated into actual reductions in IUU fishing is unclear. A report by the EU parliament found the 'EU carding system has proven useful, but it often impacts countries with only minimal EU fish trade and loopholes exist'. Other criticisms of the EU scheme include lack of transparency regarding the criteria used to determine compliance, inadequate support for capacity building, and a disproportionate burden imposed on developing states.

United States

The US has identified countries involved in IUU fishing since 2009 in biennial reports submitted to Congress by the Secretary of Commerce. In preparing identification decisions, the US considers 3 years of data for IUU fishing, bycatch, and shark catch on the high seas. This is followed by a 2-year consultation process and flagged countries are required to take corrective action to address identified shortcomings. A certification decision is then made based on information provided during consultations. If a negative certification is issued, it could result in US port restrictions for fishing vessels of that nation or import restrictions on certain seafood products. In the 2021 Biennial Report to Congress, NOAA identified 7 nations with vessels engaged in IUU fishing activities and announced a negative certification for Mexico because it had not taken sufficient action to address concerns raised in the 2019 Biennial Report.

US TREMs are also designed to target operators directly, rather than imposing country wide sanctions. In 2022, The US Department of the Treasury's Office of Foreign Assets Control sanctioned several individuals and companies allegedly involved in human rights abuses and IUU fishing while operating in distant waters.

Sources: Coit & Spinard 2021; EPRS 2022; European Court of Auditors 2022; Hosch 2016; USITC 2021; US Treasury 2022.

When considering whether Australia should impose unilateral trade sanctions against non-cooperating countries or operators, it's important to consider a range of issues, including Australia's international trade law obligations and its market characteristics. The relatively small scale of our seafood imports and our limited market power compared to the EU and US, for example, may limit the incentives for countries to take corrective action in response to any measure we might impose. Unilateral trade restrictive measures may lead non-cooperating countries shifting trade to other markets or may result in detrimental impacts on our broader two-way trade relationships.

5 Policy options

Objectives

There are various objectives and principles seafood import controls should strive to achieve. These objectives and principles, adapted from the *Codex Alimentarius: Food Import and Export Inspection Certification Systems*, serve as a framework for creating effective and efficient seafood import controls, and are intended to inform government decision-making regarding potential policy responses (FAO 2022b).

- **Fit for purpose** – effective in providing an acceptable level of protection.
- **Risk-based** – based on scientific assessments, with application proportionate to the level of risk.
- **Non-discriminatory** – avoiding arbitrary or unjustifiable distinctions.
- **Efficient** – mindful of costs and not unnecessarily restricting trade.
- **Harmonised** – promoting cooperation and adhering to internationally agreed standards.
- **Equivalence** – recognising functional equivalencies between different systems.
- **Special requirements** – acknowledging the special requirements of developing states.
- **Control and inspections** – limited to those necessary for establishing compliance.

Policy options

Through this review, we considered a range of market-based policy options that could be implemented to strengthen Australia's import controls and help prevent the product of IUU fishing from entering the country.

Market-based policy options highlighted in the discussion paper included:

1) Continue with the status quo.
    a) Adhere to multilateral traceability schemes and trade agreements, and industry or third party led traceability and risk assessment frameworks.
    b) Continue collaborating closely with regional partners on combating IUU fishing through non-market related approaches.
2) Require importers to obtain an international fisheries trade permit and gather and retain seafood traceability data to verify a product's legality before entry into Australia (US system).
3) Implement a scheme requiring that seafood imported into Australia be accompanied by catch and trade certificates attesting to the legal origin of the products. The flag state of the catching vessel would be required to validate the catch certificate (EU system).
4) Introduce codes of conduct that require industry to manage compliance and enforcement, and to verify the legality of seafood products they import/sell.

5) Make it an offence to import IUU fishing product and require importers and processors to collect information, assess and mitigate risk, and keep records, which is similar to Australia's approach to combating the importation of illegal timber (Box A3).
6) Encourage the expansion of multilateral CDS systems and the establishment of an internationally coordinated CDS.
7) Introduce a procedure for identifying countries or operators that trade in IUU fishing product that may lead to punitive measures.

Based on feedback (Box A1), 3 policy options were proposed in our draft report:

1) Review Australia's import tariff codes.
2) Introduce a seafood traceability program applying to high-risk imports.
3) Support the expansion of multilateral CDS.

Although stakeholders broadly supported these proposals, suggestions for strengthening and clarifying were received (Box 11).

Box 11 Stakeholder feedback on draft report policy options

Review Australia's import tariff codes

- This was broadly well supported by stakeholders. However, improved data collection, including making it compulsory and publicly available, as well as the need for clear timelines for implementation were proposed.
- Some noted the inherent challenges of the current system in identifying key species and the need to be able to distinguish between wild-caught or aquaculture produced seafood.

Introduce a seafood traceability program for high-risk species

This was broadly well supported by stakeholders. However, refinements were suggested, including that:

- collection and submission of data, including KDEs, should capture products that may undergo additional processing on land (e.g. processed frozen fish fillets that are battered or crumbed, that add complexity to supply chains through undergoing several 'events' of processing in different locations etc).
- databases for CDS should be publicly available and stored in a central data repository.
- clear timelines around implementation should be provided, for example a phased approach including a transition period followed by period without enforcement before being fully implemented.
- additional species should be considered, for example tuna and prawns, noting these are imported into Australia in large volumes.
- provide additional detail regarding the expected level of required government resourcing.

Support the expansion of multilateral CDS

- This was broadly well supported by stakeholders. They noted ongoing work by Australia via multilateral forums such as RFMOs. Stakeholders suggested the need for more clarity around the steps Australia would take to support this, including how it would be implemented and costed.

Across the submissions, several other reoccurring themes were identified. These themes are identified in the following sub points and were also discussed in the report submitted by the McKell Institute (Box 12).

Labour issues

- Several stakeholders noted the framework could be extended to address labour issues given the link to IUU fishing. Labour issues in the seafood supply chain merit consideration, however this report focusses on the government's IUU fishing election commitment based on the accepted IUU fishing definition. There may be an opportunity to consider labour issues in the post-implementation review described in Chapter 6. Labour issues in Australia's supply chains are also subject to consideration through broader government work that focusses on all import sectors.

Due diligence model

- Stakeholders raised the need for regulatory controls that require industry to conduct due diligence of imports to mitigate IUU fishing risk. The due diligence model is applied to illegal timber imports (Box A3), though its application to the seafood industry is less straightforward. Seafood supply chains are dynamic, complex and opaque, making risk evaluations more challenging. Additionally, variable catch areas and perishability of seafood create time-sensitive constraints that hinder the feasibility of comprehensive due diligence checks. Notably, the EU and US regulations adopt a due diligence model for timber but a traceability-focused approach for seafood.
- Furthermore, analysing supply chains for IUU fishing risk would be challenging for small and medium-sized businesses. However, we acknowledge the importance of industry awareness and risk mitigation where reasonable. A key aspect of Recommendations 1 and 2 is increasing industry awareness of supply chains through collaboration with government.

Including more species to be considered high-risk

- Stakeholders indicated that species such as tuna and prawns should be considered high risk for IUU fishing due to the large import volumes and that tuna may be caught in areas where IUU fishing is prevalent. To ensure a targeted and effective approach, we suggest including only the high-risk species identified in the review: squid, shark, sardine, and surimi. Depending on program success, more species could be added in future.

To be considered in implementation phase

- Several stakeholders expressed the importance of government allocating appropriate resources to deliver on each proposal. This is discussed in Chapter 7 and is critical to ensure supply chain analysis and education or outreach to stakeholders.
- Several stakeholders indicated the need for clear and transparent implementation timeframes. This is discussed in Chapter 6.
- Stakeholders proposed that traceability data be made publicly available where possible.

- One stakeholder proposed an expert committee of representatives from government, industry, academia, and NGOs, to advise on the design and implementation of measures to prevent the importation of IUU seafood.

Box 12 McKell Institute report – Security Net: Fortifying Australia's import regime against IUU fishing

The McKell Institute conducted a similar assessment on measures to prevent the importation of IUU seafood into Australia and published the report *Security Net: Fortifying Australia's import regime against IUU fishing*.

The report recommends a framework which includes implementing in a staged manner:

1) the introduction of an electronic Catch Documentation Scheme

2) a due diligence model of criminalisation

3) a green light system for cooperating countries.

Our report aligns with Recommendation 1, though we initially suggest a targeted approach applying to a narrow set of products to ensure effective implementation. We recommend that flag state verification should not be required and analysis to detect anomalies and instances of IUU fishing will be important.

As discussed above on recurring themes, we don't currently recommend a due diligence approach for seafood like that used for timber.

Likewise, we don't recommend a green light system which, while more positive, resembles the EU's carding system (Box 10). Australia's limited market power makes it unlikely we could incentivise change using this type of approach, which may instead result in trade redirection and could negatively impact broader trade relationships. Instead, our recommendations focus initially on improving Australia's ability to assess IUU fishing risk in seafood imports through improved data collection, and to support the expansion of effective multilateral CDS, rather than implement a punitive/facilitative trade apparatus.

Evaluating welfare impacts

In assessing the case for additional market measures, it's important to consider a range of economic, social, and environmental factors, and to examine the potential transitional and distributional impacts of any potential policy change. Relevant cost/benefit considerations:

- effectiveness of policy in reducing IUU fishing and associated environmental benefits
- impact on livelihoods, including fishers and those dependent on seafood for their income and wellbeing
- impact on Australian commercial fishers from promoting fair competition
- compliance costs imposed on industry and trade partners
- costs required to administer and enforce policy and assist countries to meet our import standards
- potential impacts on seafood trade flows, seafood prices, and consumption
- associated trade risks, including unintended consequences such as the diversion of legitimate seafood products and impacts on our broader trade interests.

6 Findings and recommendations

IUU fishing contributes to global overfishing, undermines sustainable fisheries management and threatens the food and income security of coastal communities. Despite Australia's multifaceted approach to combating IUU fishing and position as a global leader in sustainable seafood production, our lack of specific IUU import regulations creates a risk of IUU seafood entering our market.

Determining the extent of seafood imports that contain products attributable to IUU fishing practices is complicated given the efforts of IUU fishers to conceal their activities, the complexity of seafood supply chains, and significant data constraints. We also know that the definition of IUU fishing includes a range of practices that can vary in perceived severity. Around 65% of the seafood we eat is imported and, without import regulations to target IUU fishing product, there is a high probability at least some of our seafood includes the product of IUU fishing.

Despite strong self-regulation in some industry segments, other areas have minimal oversight of their supply chains and conduct limited due diligence to assess and mitigate for IUU fishing risks. This is unsurprising given the technical expertise required to undertake appropriate due diligence, the variation in size and sophistication of Australia's seafood importers, and inadequate incentives for self-regulation.

In considering the case for additional action it's important to examine the costs and benefits of potential policy options including reviewing the efficacy of existing market-based approaches and their alignment with international best practice, existing industry measures, Australia's trade law obligations and potential trade risks.

As a result of data limitations, we took a largely qualitative approach, supported with data where possible. Based on this assessment and feedback received on the draft report, we recommend 3 ideas for consideration by the Australian Government:

1) Review Australia's import tariff codes and related data reporting requirements to provide additional information on imported species, including if products are from aquaculture or wild source fisheries.
2) Introduce a seafood traceability program that could be applied to high-risk imports and explore options to facilitate information sharing with other importing jurisdictions.
3) Support the expansion of multilateral CDS and the eventual establishment of an internationally coordinated CDS.

Recommendation 1: Review Australia's import tariff codes

Reviewing Australia's Harmonised Tariff Item Statistical Codes (HTISC) and related data reporting requirements may allow for a more comprehensive classification of Australia's seafood imports and could consider:

- the effectiveness HTISC digits 9 and 10 (managed by the ABS) to provide additional information on imported species, including if products come from aquaculture facilities or wild-source fisheries

- the requirements for importers and brokers to use species or genus specific HTISC codes as opposed to generic codes, and methods to educate stakeholders and enforce requirements
- options to standardise the format for the 'commodity description' free-text field in customs data to provide greater specificity on species, production method and other factors
- the options for a digital system that is interoperable with other systems where possible.

Analysis of Australia's seafood imports (Chapter 3 and Appendix A) shows that species or genus-specific information is often undocumented in trade datasets. This hinders efforts to assess IUU fishing risk and increases the risk of illicit products entering Australia. Further, importers and brokers often misallocate products, compromising the legitimacy and utility of the data.

Incorporating standardised requirements to differentiate between wild-sourced and aquaculture products would allow a better understanding of IUU fishing risk and provide broader insights into our seafood imports, benefiting government, industry, and consumers.

Wider elements, such as the suitability of existing tariff codes for biosecurity and food safety purposes, may also be considered. Additionally, it could consider the implications and potential benefits of adjusting tariff codes in relation to existing seafood labelling requirements and other consumer-oriented factors.

The first 6 digits are internationally standardised by the World Customs Organization and changes to these occur every 4 to 5 years. The seventh and eighth digits are added by the DoHA to allow for different rates of duty applied to particular goods. The ninth and tenth digits (statistical codes) are added by the ABS to satisfy Australian statistical requirements. Importers need to self-assess the correct classification of goods they import.

Recommendation 2: A seafood traceability program for high-risk species

A seafood traceability program could be considered to allow more information to be gathered on seafood supply chains and source fisheries for products assessed as higher risk for IUU fishing. This could be initially applied to a narrower set of products based on risk assessments, stakeholder input, and analysis conducted by other importing jurisdictions. For example, squid, sharks, sardines and surimi products (Box 13).

Under such a traceability program, importers may be required to obtain an import permit (similar to those used for products with biosecurity risks) and collect KDEs to trace product through the supply chain. KDEs could then be entered into a database at the time of their customs filings, for example through the existing Integrated Cargo System (ICS), or another existing department system such as AIMs.

Recommended KDEs (Table 1) have been selected to align with those already collected by other importing states to reduce compliance costs and trade risks. To minimise the compliance burden on small-scale fishers, importers of catches originating from vessels up to 12 m in length or 20 gross tonnes could be permitted to provide aggregated data. Further discussion of proposed KDEs is presented in Appendix A.

Table 1 Proposed key data elements

Category	Key data elements	Australia	EU	US	Japan
Who	Vessel name	Required	Required	Required	Required
	Unique vessel identifier or IMO	Conditional	Conditional	Conditional	Conditional
	Flag state of vessel	Required	Required	Required	Required
	International radio call signal	Conditional	Required	Non-required	Conditional
	Information on export/re-exporter	Required	Required	Required	Required
	Information on importer	Required	Required	Required	Required
What	Product type	Required	Required	Required	Required
	Species name (3 alpha code)	Required	Required	Required	Conditional
	Estimated live weight	Conditional	Required	Non-required	Required
	Processed weight	Required	Required	Required	Required
	Declaration and authorisation of trans-shipment at sea and in port	Required	Required	Conditional	Conditional
When	Harvest date	Required	Required	Required	Required
Where	Catch area	Required	Required	Required	Required
	Authorisation to fish	Conditional	Required	Conditional	Required
	Port of landing	Required	Non-required	Required	Non-required
	Processing locations	Required	Required	Required	Required
How	Fishing methods	Required	Non-required	Required	Conditional

Consideration could be given to a phased approach allowing industry time to adjust their supply chains or reporting processes, familiarise themselves with IT systems, collect KDEs and lodge these into a designated trade system. Importers could be consulted to better understand obstacles to compliance and to offer support. Importer feedback may lead to KDE refinement prior to mandatory implementation.

Similarly, consideration could be given to outreach for exporters and foreign governments, acknowledging that many already comply with similar schemes implemented by the EU, US and Japan.

Flexibility could be afforded to industry in how data is collected. We don't anticipate a requirement for foreign authority verification of KDEs to ensure importers can leverage existing business-to-business traceability systems, including those aligned with GS1 or GDST standards (Appendix A). This would minimise costs on exporting jurisdictions and the risk of trade delays.

Close alignment of the collected KDEs between Australia's proposed traceability program and existing international traceability schemes (Table 1) may allow importers to overcome difficulties in obtaining traceability data. If difficulties are encountered, evidence of compliance with these other schemes (mutual recognition) could be used to demonstrate compliance with the requirements of Australia's traceability program.

A traceability program may be targeted to ensure that the higher risk of IUU seafood in some supply chains is mitigated by ensuring importers report KDEs that demonstrate legitimate provenance of the imported product. Storing these KDEs in a centralised data repository would allow for analysis and

detection of anomalies that may indicate IUU fishing and potential instances of fraud. For example, to detect patterns indicative of IUU fishing activity, vessel analysis could be compared with data sets like IUU fishing lists, global AIS and satellite data interfaces, and country specific fisheries registers.

We consider that a traceability program for high-risk species may not require action to be taken at the border. However, analysis of supply chain actors could trigger a historical data review. Additional information from importers or brokers may be sought, or a supply chain audit undertaken. Any residual uncertainty could be subject to verification from the appropriate foreign government.

Sharing information with other jurisdictions that apply similar schemes would enhance Australia's capabilities and bolster global initiatives to address IUU fishing using market state measures. Therefore, the government could consider investigating data sharing options while ensuring commercially sensitive information is protected. Australia could also demonstrate leadership by advocating for the gradual transition towards a multilateral system with a shared central repository.

The initial focus of stakeholder outreach could be on education and support, and any future evaluation of the program may assess the impacts of penalties in achieving the program goals.

Should such a scheme be implemented, a post-implementation review could be undertaken after a period (e.g. 4 years) to examine performance, consider modifications, and/or ongoing viability. This could also examine elements not initially recommended, such as standardised record-keeping and the viability of consignment verification checks at the border and the use of fraud detection technologies (e.g. isotope analysis, rapid genetic assays, DNA testing or chemical fingerprinting). Currently these options are not recommended due to the potential for trade delays and the impracticalities of detecting IUU fishing products at the border.

Box 13 IUU fishing risk of squid, sharks, sardines and surimi

Squid –Increased IUU fishing risk due to the uncertain nature of sourcing and supply chain complexity. Several studies have estimated high rates of illegal fishing for squid due to weak MCS arrangements, while other studies highlighted discrepancies in catch reporting and vessel identities.

Shark – Supply chains are characterised by uncertainty and opaqueness and are difficult to identify in imports data as they are frequently imported under the 'fish (Generic)' HTISC codes. Between 2018-2022, imports from New Zealand and China under these codes were 2 of the highest volume imports (Figure 2). Targeting shark products will enable a better understanding of supply chains and assessments of IUU risk.

Sardines – Supply chains are complex and opaque, particularly for tropical fisheries. Although these supply chains are diverse and include MSC-certified herring and European sprat fisheries from the North Atlantic and Baltic Sea which may be lower risk, a high degree of uncertainty remains from other import sources, indicating a higher risk that imports might contain IUU-derived product.

Surimi – Currently there is no specific HTISC code for surimi and the product is often imported via 'fish (Generic)' HTISC codes. Although some surimi products may contain raw materials from MSC-certified fisheries, for others the source of the raw materials is less certain. Products are highly processed and supply chains can be opaque, leading to the need for enhanced supply chain analysis to better understand surimi input sourcing.

This higher risk does not automatically equate to IUU fishing practices. However, a lack of transparency creates opportunities for illegal products to be mixed with or substituted for legal products and adds challenges in verifying legality and source. We recognise that other imported seafood products may be at risk of involving IUU fishing practices. Species including tuna and prawns were considered lower risk than those selected, whilst

recognising uncertainty and IUU risk cannot be completely rejected. Pending government consideration, a post-implementation review as outlined in this chapter could explore expansion of species.

Recommendation 3: Support expansion of multilateral CDS

Australia would continue to support the implementation and expansion of existing multilateral CDS and encourage the development of new multilateral evidence-based CDS, where suitable. These efforts would complement Recommendation 2 and are consistent with FAO advice.

Australia adheres to multilateral CDS that apply to southern bluefin tuna and toothfish species. Support for these schemes would continue, such as aiding the transition of CCSBT CDS to an electronic format and advocating for the extension of the CCAMLR's toothfish CDS to SPRFMO and SIOFA zones.

Acknowledging the limited coverage of multilateral CDS and shortcomings of standalone unilateral schemes, Australia would encourage the establishment of an internationally coordinated CDS, integrating existing unilateral and multilateral models where appropriate. Although Recommendation 2 is designed to align with existing unilateral schemes – with plans to investigate collaboration with other states implementing import controls – there is value in a multilateral body such as the World Trade Organisation or FAO establishing a global CDS.

Ideally, this would include an electronic CDS for traceability and monitoring, and a central clearing house for digital certification. The system would integrate with existing trade systems, where feasible, and cover a wide scope of species. The objective would be to create a scheme that enables automated monitoring to ensure the quantity of catch at its origin matches the cumulative imports into final markets (mass balance monitoring).

Given the complexity of negotiating and developing a global CDS, this is a longer-term goal. We would encourage and support related discussions and work closely with like-minded countries to set the groundwork for a global scheme.

7 Costs and benefits

Recommendation 1: Review Australia's import tariff codes

Costs

- If Recommendation 1 is adopted, the review of Australia's trade systems, associated IT systems and consultation on HTISC updates would occur on a business-as-usual basis, aligning with the required World Customs Organization processes.

Benefits

- Provide insights into Australia's seafood trade and exposure to IUU fishing practices, facilitating more precise risk classifications and deeper understanding of import composition.
- Understand the risk of illicit seafood products entering the market.
- Assist efforts to target and enforce biosecurity and food safety regulations, CITES requirements, as well as possible future controls to prevent IUU seafood imports.
- Provide information that could be used to inform product labelling and other consumer-oriented aspects.

Recommendation 2: Introduce a seafood traceability program for high-risk species

Costs

Domestic industry

If Recommendation 2 is supported, we estimate compliance costs for domestic industry may constitute the largest cost. Currently, some of these costs are likely to be passed on to consumers based on the following assumptions:

- The program applies to squid, sharks, sardines and surimi.
- There are high compliance rates during any transition period.
- About 590 importers, 200 brokers and 11,300 seafood consignments would be impacted annually, estimated on historical import data for in-scope products.
- Each importer spends between $204 and $284 on import permits annually to help fund program administration (based on current costs for Category 1 and 2 BICON import permits).
- Importers and brokers allocate between 30 to 60 minutes per consignment at an average hourly wage of $45 to collect and lodge KDEs into the government's trade system (estimated using data entry costs for US importers and ABS data for average wages, noting ABS does not include overhead costs).
- Brokers incur a one-time cost of $1,500 for certified software to upload KDEs into the government's database.

- Some operators may invest in traceability technology to collect and transmit KDEs more efficiently if the investment is offset by time savings in manual collection and lodgement.

Based on these points, costs are estimated to be between $2.17 million and $3.69 million over 5 years. Projected costs for the first year are estimated at $0.67 million to $0.97 million, with annual recurring costs estimated at $0.38 million to $0.68 million thereafter. The average compliance cost per consignment is expected at between $33 and $60, excluding the one-off $1,500 technology investment.

These assumptions may overestimate long-term compliance costs, given these are expected to reduce over time as industry becomes familiar with requirements.

Consumer impacts

- The cost increase of imported seafood paid by consumers is expected to be low because:
  - estimated compliance costs that could be passed on by domestic industry are likely to be minimal
  - price increases attributable to non-compliant product being redirected or from changes in importers buying behaviours are expected to be limited given alternative sources of supply for many fish products (NOAA 2022).
- In the context of price changes, evidence suggests consumer willingness to pay a premium for fishery products of certified origin or from sustainable sources (Asche et al., 2021).

Trade partner compliance costs and capacity building

- Consideration of harmonising with existing unilateral schemes, may limit compliance costs noting:
  - Analysis of trade data from Australia, the US, the EU and Japan, shows countries exporting applicable products to our market already meet related traceability requirements.
  - Since these countries apply standards equivalent or more onerous than our proposed scheme, fishing entities and associated businesses should already possess the capability to comply with our requirements.
- Where needed, the department could consult trade partners to understand capacity constraints. This may include consideration of capacity-building assistance to select countries to ensure traceability systems are compliant with the proposed requirements. This consideration relates to Department of Foreign Affairs and Trade, who administer Australia's official development assistance program.
- Where applicable, costs may be incurred in notifying members of relevant bilateral and multilateral trade agreements and initiatives (e.g. the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and the Indo-Pacific Economic Framework).

Trade impacts

- Any trade risks would be expected to be limited and could be effectively managed through proactive engagement prior to program implementation.

- The majority of countries exporting applicable products to Australia already meet IUU fishing-related traceability requirements.
- Analysis of EU and US trade data before and after their import control schemes were implemented found no significant impacts on aggregate seafood trade flows.
- Australia's relatively small market could make countries less willing to comply. However, this risk is considered minor. By harmonising possible requirements and leveraging existing business data exchanges (without the need for governmental certification), the proposed program minimises administrative costs on exporting countries.
- Any residual compliance challenges and trade risks could be addressed through proactive engagement, including ongoing program socialisation with trade partners prior to implementation.
- The likelihood of encountering a WTO dispute is minimal. The proposed program aligns with existing unilateral traceability schemes, none of which have faced disputes. Australian fishers comply with traceability standards equivalent to, or exceeding, international norms, including through electronic logbooks and catch disposal records.

Benefits

Quantitative assessments of benefits associated with Recommendation 2 are difficult to estimate due to the indirect impact of using market state controls to reduce incentives for IUU fishing. Nevertheless, benefits are anticipated.

Australia's global leadership against IUU fishing

- Australia's proactive stance against IUU fishing using market State measures and advocating for increased collaboration amongst market States could boost our reputation, possibly positioning us to be more influential in regional and global forums, including RFMOs and similar bodies.

Exclusion of unlawfully obtained products

- Implementing a seafood traceability program could enable the exclusion of some unlawfully acquired seafood from our marketplace, reducing incentives for IUU fishing.
- Despite its smaller market size, Australia could maximise its influence through collaboration and information-sharing with key importing states such as the EU, US and Japan. This could lay the groundwork for 'mass balance monitoring', thereby increasing the efficacy of unilateral schemes and minimising the risk of illegal product re-routing.
- As outlined in Box 2, by mitigating IUU fishing, a variety of environmental, social, and economic benefits will be realised over time.

A fair competitive landscape – addressing market distortions

- Through potential exclusion of IUU seafood products, a traceability program may improve the competitive standing of legally operating fishers and importers.
- Any targeted removal of illegal imports could address market distortions and may create an environment where both domestic fishers and legitimate fishers that export to Australia will benefit from heightened competition and increased consumer demand.

- Concurrently, importers and other supply chain actors that already ensure their products are free of IUU seafood could benefit from a more balanced competitive landscape, potentially resulting in a market realignment towards ethically driven importers.

Consumer benefits

- A traceability program could build consumer trust by potentially providing assurances that imported seafood is free from IUU fishing inputs.
- Studies demonstrate a willingness for consumers to pay a premium for verified products. However, further consideration is needed to understand the magnitude of this effect in comparison to costs.
- Vendors could use traceability data to highlight compliance with sustainability and IUU fishing directives from leading retailers. Using standardised KDEs could unify these requirements, lowering compliance expenses and regulatory challenges.

Other benefits

- A traceability program may provide insights into broader sustainability, labour malpractices and organised crime; and the data generated could also inform seafood labelling improvements.

Recommendation 3: Support expansion of multilateral CDS

Costs

- No additional costs are expected in the short term. Proposed actions could occur through existing engagement with multilateral forums.
- Longer-term costs may vary based on the specific initiatives pursued in consultation with relevant member countries.
  - Expanding multilateral CDS may require a financial contribution to facilitate technological advancements and strengthen administration and enforcement.

Benefits

Benefits associated with Recommendation 3 would depend on initiatives pursued and the level of cooperation of other jurisdictions.

Appendix A: Additional material

Harmonized Tariff Item Statistical Codes

Since 1 January 1988, all goods requiring a full customs declaration for import into Australia are classified according to the 10-digit Harmonized Tariff Item Statistical Code (HTISC) of the Combined Australian Customs Tariff Nomenclature and Statistical Classification (Customs Tariff) under the *Customs Tariff Act 1995*. The first 6 digits of the code are taken from the Harmonized Commodity Description and Coding System (commonly referred to as the Harmonized System, or 'HS') – a 6-digit system developed by the World Customs Organization (WCO) for describing internationally traded goods. The seventh and eighth digits are added by the Department of Home Affairs to allow for different rates of duty applied to particular goods. The ninth and tenth digits (statistical codes) are added by the ABS to satisfy Australian statistical requirements. Importers need to self-assess the correct classification of goods they import.

The HS is organised into 21 sections, which are subdivided into 99 chapters. Section and chapter titles describe broad categories of goods. Chapters of relevance in the context of seafood include:

- **Chapter 1** – Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder
- **Chapter 3** – Fish and crustaceans, molluscs and other aquatic invertebrates
- **Chapter 5** – Products of animal origin, not elsewhere specified or included
- **Chapter 15** – Animal, vegetable or microbial fats and oils and their cleavage products; prepared edible fats; animal or vegetable waxes
- **Chapter 16** – Preparations of meat, of fish, of crustaceans, molluscs or other aquatic invertebrates, or of insects
- **Chapter 23** – Residues and waste from the food industries; prepared animal fodder

For analysis, we used FRDC seafood import classifications, which map HTSIC codes to commodity categories. These are set out in Table A1.

Table A1 HTISC Codes

Commodity	HTISC
Abalone	3078100, 3078300, 3078700, 3078900, 3079110, 3079912, 3079913, 3079914, 3079915, 3079916, 16055700, 16059012, 16059020, 16059025, 307810031, 307830033, 307870035, 307890032, 307990031, 1605570047
Algae	12122100, 12122900
Anchovy	3024200, 3024201, 3056300, 3056303, 16041600, 302420002, 302420003, 305630029, 305630083, 1604160054
Aquatic invertebrate	3089000, 16056900, 308900090, 1605690090, 1605900016, 1605900064, 308900091
Bluefin tuna	3019404, 3019507, 3023500, 3023510, 3023511, 3023600, 3023601, 3034500, 3034510, 3034511, 3034600, 3034601, 301940003, 302350034, 302350035, 302350036, 302360037, 302360038, 303450052, 303450053, 303450054, 303460055, 303460056

Commodity	HTISC
Carp	3019302, 3019303, 3019304, 3027301, 3032500, 3032501, 3043900, 3043901, 3046900, 3046901, 302730033, 303250052, 303250053, 304390068, 304390069 304690018, 304690019, 301930007
Catfish	3027200, 3032400, 3032401, 3046200, 302720032, 302720033, 303240051, 303240052, 304620012
Caviar	16043000, 16043100, 16043200, 1604300001, 1604310075, 1604320078
Clam	3077200, 3077900, 3077901, 307720029, 307790029, 307790030
Coalfish	3026300, 3037300, 3047300, 302530021, 303650062, 303650063, 303730017, 304550084, 304730022, 3036501
Cobia	3024600, 3024601, 302460006, 303560059
Cod	3025000, 3025100, 3025101, 3035208, 3036000, 3036300, 3036301, 3047100, 3055100, 3055110, 3056200, 3056202, 302500019, 302510018, 302510019, 303520052, 303600014, 303630060, 303630061, 304710020, 305510024, 305510071, 305530073, 305620028, 305620082
Conch	307880037, 307840034
Coral	5080020, 5080091, 508000015
Crab	3061400, 3061419, 3062400, 3062402, 3063300, 3069300, 16051000, 16051020, 306140004, 306140026, 306240004, 306240011, 306330003, 306930013, 1605100010, 1605100016, 1605100017
Crayfish	3062190, 3062192, 306190050, 306190051, 306290070, 306290071
Crustacean	3061190, 3061191, 3061901, 3061960, 3062901, 3062950, 3063900, 3069900, 16054000, 16054030, 306190026, 306190046, 306190052, 306290009, 306290027, 306290072, 306390007, 306990020, 1605400021, 1605400023, 306190047, 3061961, 3063990
Squid (cuttlefish) [a]	3074100, 3074200, 3074300, 3074900, 3074950, 3074951, 16055400, 307410018, 307420018, 307430019, 307490019, 307490039, 307490040, 1605540044
Eel	3019202, 3026600, 3027400, 3032600, 3037600, 16041700, 301920004, 302660025, 302740034, 302740035, 303260053, 303260054, 303760020, 1604170065, 3032601
Fats and oil	15041000, 15042000, 15043000, 15043010, 15043099, 1504100034, 1504100050, 1504200006, 1504300035, 1516100013, 1516101036, 1516109037
Fish (Generic)	3011100, 3011902, 3011909, 3019903, 3019909, 3019950, 3024900, 3025900, 3025901, 3026900, 3026909, 3027000, 3028900, 3028901, 3029000, 3029100, 3029900, 3035900, 3036900, 3036901, 3037912, 3037919, 3037990, 3038000, 3038950, 3038951, 3041000, 3041909, 3042000, 3042002, 3042909, 3043200, 3044400, 3044900, 3044901, 3045950, 3045951, 3047900, 3048900, 3048901, 3049091, 3049301, 3049500, 3049900, 3049901, 3049919, 3051001, 3052000, 3053000, 3053200, 3053900, 3053901, 3054951, 3055400, 3055990, 3055991, 3055992, 3056900, 3056950, 3056951, 3057200, 3057950, 16041900, 16041920, 16041921, 16042000, 16055900, 23012000, 301100032, 301110037, 301190039, 301990010, 301990029, 301990035, 302290019, 302490001, 302590029, 302590030, 302690026, 302690042, 302700027, 302890049, 302890050, 302900027, 302910001, 302990003, 303590090, 303690069, 303690070, 303790002, 303790023, 303790055, 303800024, 303890079, 303890080, 303900077, 303910090, 303990092, 304100042, 304190058,304200021, 304200022, 304200044, 304200045, 304290091, 304290092, 304320061, 304430072, 304440073, 304490079, 304490080, 304530082, 304590089, 304590090, 304790029, 304830033, 304890039, 304890040, 304900042, 304950073, 304990072, 304990079, 304990080, 305100031, 305200032, 305300033, 305320042, 305390049, 305390050, 305490063, 305490064, 305540074, 305590026, 305590079, 305590080, 305690030, 305690089, 305690090, 305720092, 305790099, 1604190030, 1604190033, 1604190034, 1604190035, 1604200039, 1604200059, 1604200060, 1604200066, 1604200070, 2301200031, 309100010, 3099090, 309900090, 301100032
Flat fish	3022200, 3022900, 3022901, 3022902, 3033200, 3033900, 3033910, 3033911, 302230013, 302290020, 302290026, 302390040, 303320006, 303330008, 303390008, 303390009, 303390010, 3044300, 3022201
Haddock	3025201, 3026200, 3033300, 3037200, 302520019, 303720016, 304720021

Commodity	HTISC
Hake	3036600, 3036601, 3037800, 3047400, 302540021, 302540022, 303660063, 303660064, 303780022, 304200033, 304200043, 304290062, 304290063, 304740023, 304900034, 304990071, 3025401
Halibut	3022100, 3033100, 302210025, 302210026, 303310005, 303310006, 3022101, 3022101
Herring	3024000, 3035000, 3035105, 3054200, 3056100, 3056101, 16041200, 302400018, 302410001, 303500013, 303510051, 303510052, 304860036, 305420035, 305420052, 305610027, 305610081, 1604120051, 3024101, 3048600, 3054220
Jellyfish	308300056, 1605630067, 16056300
Live fish	3019910, 301990009
Lobster	3061121, 3061122, 3061123, 3061124, 3061131, 3061132, 3061133, 3061150, 3061200, 3061218, 3061520, 3062112, 3062119, 3062120, 3062122, 3062200, 3062201, 3063100, 3063200, 3069100, 3069200, 16053000, 16053020, 306110001, 306110024, 306120002, 306120025, 306150027, 306210001, 306210006, 306220002, 306220033, 306310001, 306320002, 1605300020, 1605300022, 3069400
Mackerel	3024400, 3024401, 3026400, 3035400, 3035401, 3035500, 3037400, 16041500, 302440004, 302440005, 302450005, 302640023, 303540054, 303540057, 303550056, 303550058, 303740018, 1604150053
Molluscs	3077100, 3078400, 3079100, 3079101, 3079190, 3079200, 3079900, 3079901, 3079991, 5080099, 16055401, 16055600, 16055901, 16059019, 16059090, 16059092, 302530020, 307710028, 307910034, 307910035, 307910039, 307920060, 307990032, 307990036, 307990061, 1605560046, 1605590090, 1605590091, 1605900012, 1605900013, 1605900014, 1605900015, 1605900061, 1605900062, 1605900063, 307220016, 307290037, 307920050, 3072201, 3072991, 307990062, 306990021, 3089090, 3079201, 3079992
Mussel	3073100, 3073200, 3073900, 3073950, 3073951, 16055300, 307310016, 307320017, 307390017, 307390037, 307390038, 1605530043
NES	511999029
Nile perch	3027901, 3032910, 3032911, 3043300, 3046300, 302790039, 302790040, 303290059, 303290060, 304330062, 304630013
Octopus	3075100, 3075200, 3075900, 3075950, 3075951, 16055500, 307510021, 307520022, 307590022, 307590023, 307590024, 1605550045
Ornamental fish	3011010, 3011020, 3011059, 3011090, 3011901
Other	3039000, 3039101, 3039910, 5080010, 5119100, 5119110, 507900014, 511910019, 511910020
Oyster	3071000, 3071100, 3071200, 3071900, 3071901, 16055100, 307100013, 307110010, 307120011, 307190011, 307190012, 1605510041
Pearl	71011001, 71012101, 71012201, 7101100031, 7101210032, 7101220033, 7116100039
Pollack	3036700, 3036701, 3047500, 303670064, 303670065, 304750024, 304940072, 302550023, 3025501
Prawn	3061310, 3061320, 3061390, 3061621, 3061750, 3062310, 3062320, 3062390, 3062600, 3062700, 3063500, 3063600, 3069500, 16052000, 16052100, 16052900, 306130003, 306130040, 306130041, 306130042, 306160028, 306170029, 306170033, 306170034, 306230009, 306230010, 306230060, 306230061, 306230062, 306260006, 306270007, 306360006, 306950015, 1605200018, 1605200019, 1605210081, 1605290090
Salmon	3021201, 3021300 ,3021301 ,3021400, 3021401, 3021901, 3021902, 3031001, 3031101, 3031200, 3031201, 3031300, 3031301, 3031900, 3031910, 3031911, 3032200, 3032901, 3044100, 3045200, 3048100, 3048300, 3054101, 3054110, 16041100, 302120008, 302130010, 302130011, 302140020, 302140021, 302190031, 303100001, 303110040, 303110041, 303120041, 303130042, 303130043, 303190045, 303190049, 303190050, 303220003, 303290026, 304410070, 304520081, 304810030, 305410018, 305410019, 305410051, 1604110050, 1604200057, 303120042, 302190032

Commodity	HTISC
Sardine	3024300, 3026100, 3035300, 3035301, 3037100, 16041300, 302430003, 302430004, 302610020, 303530053, 303710015, 1604130052, 1604200058, 3024301
Sardkin	303530055
Scallop	3072100, 3072200, 3072900, 3072901, 3072990, 16055200, 307210014, 307220015, 307290015, 307290035, 307290036, 1605520042, 3072101
Sea cucumber	3081100, 3081200, 3081900, 3081901, 16056100, 308110041, 308120042, 308190042, 308190043, 1605610065
Sea urchin	3082100, 3082900, 308210051, 308220052, 308290052, 308290053, 1605620066
Sea bass	3028400, 3037700, 3038400, 3072910, 302840043, 303770021, 303840073, 303840074, 3028401
Seabream	302850044
Seafood extracts	16030000, 16030012, 16030020, 16030091, 1603000018
Seahorse	3055910
Shark and ray	3026500, 3028201, 3029200, 3037500, 3038100, 3045600, 3048800, 3049700, 3057100, 302650024, 302810040, 302920002, 303750019, 303810070, 303810071, 303820071, 303820072, 303920091, 304470076, 304560085, 304880038, 304960075, 305590025, 305710091, 3038101, 3049600, 16041800, 1604180067 302820042, 304970076
Smoked fish	3054901, 3054950, 305490022, 305490023, 305490061, 305490062
Snail	3076000, 3076060, 307600023, 307600025, 1605580048, 16055800
Snapper	3028501, 302850045
Sole	3022300, 302230012, 303330007
Sponges	5090000, 5119930, 509000016, 511999022
Squid	307490020, 1605540049
Swordfish	3024700, 3024701, 3026705, 3035700, 3035701, 3036105, 3041101, 3042103, 3044500, 3049105, 302470007, 302470008, 302670040, 303570058, 303570060, 303610053, 304110056, 304210060, 304450074, 304540083, 304840034, 304910069, 3048400
Tilapia	3027100, 3032300, 3032301, 3043100, 3045100, 3046100, 3053101, 3054441, 302710031, 302710032, 303230050, 303230051, 304310060, 304510079, 304510080, 304610011, 304930071, 304930074, 305310040, 305310041, 305440054, 305440055, 305520072, 305640084, 305640085
Toothfish	3025200, 3026807, 3037911, 3038300, 3038301, 3041202, 3042001, 3044600, 3048500, 3049206, 302680041, 303620054, 303790001, 303830072, 303830073, 304200020, 304220061, 304850035, 304920070
Trout	3019102, 3021101, 3021102, 3031100, 3031400, 3031401, 3032101, 3044200, 3048200, 3054330, 302110030, 302110031, 303140043, 303140044, 303210025, 304420071, 304820032, 305430053
Tuna	3023100, 3023101, 3023200, 3023201, 3023300, 3023400, 3023401, 3023900, 3023902, 3023905, 3023906, 3034100, 3034101, 3034200, 3034201, 3034300, 3034301, 3034400, 3034401, 3034900, 3034905, 3034920, 3034921, 3048700, 3049010, 3049911, 16041400, 302310014, 302310015, 302320015, 302320016, 302330016, 302340033, 302340034, 302390017, 302390038, 302390039, 303410009, 303420010, 303430011, 303430012, 303440050, 303490012, 303490026, 303490027, 303490059, 304870037, 1604140025, 1604140026, 1604200038, 303420011
Turbot	302240014, 302240015
Whiting	3025600, 3036800, 3036801, 3037910, 303680065, 303680066, 3025601

a This category is referred to as ‘cuttlefish’ in ABS/FRDC summaries, although the majority of volume and value will be squid. **NES** Not elsewhere specified.

Box A1 Stakeholder feedback on policy options

Status quo and codes of conduct

- The Food and Beverage Importers Association supported the government's current approach to combating IUU fishing (option 1). They underscored the challenges faced by major importing countries in implementing unilateral market mechanisms and inferred that given Australia's minimal stake in global seafood trade, the likelihood of successfully implementing a unilateral CDS is limited, could divert trade elsewhere and damage exiting trade relationships.
- Seafood Industry Australia also preferred option 1, noting market-based measures should not be prioritised over other approaches such as providing support to overseas partners to implement international agreements or develop MCS capabilities. They noted Australia has been a strong advocate and participant of multilateral schemes and that we should give these schemes time to fully realise their potential before considering implementing new measures.
- The Western Australian Fishing Industry Council (WAFIC) asked the government to proceed cautiously to avoid a range of unintended consequences, including the potential for perverse impacts on seafood availability and prices, and diversion of IUU fishing product to jurisdictions that lacks similar restrictions.

Importer due diligence

- The Uniting Church of Australia favoured the introduction of a due diligence system (option 5), noting it could be targeted at specified seafood types to reduce the administrative burden. In support of this proposal, they noted that Australia's illegal logging laws have been effective.

Unilateral CDS and traceability programs

- The Minderoo Foundation supported Australia implementing a risk-based scheme, like the US SIMP (option 2) or EU's CCS (option 4). They did not indicate a view as to whether verification of a product's legality should be required from importers or the flag state of the catching vessel, but suggested the scheme should be designed so that traceability information flows through to consumers.
- Several stakeholders called for the introduction of a unilateral CDS, similar to the EU CCS (option 3) (TRAFFIC, AMCS, Graham, Hosch et al 2023). They noted the CDS should involve the electronic transmission and verification of data at each key node in the supply chain, and the development of a central data repository or 'clearing house'. There were differing views regarding which species or products should be covered, whether the scheme should aim to achieve traceability through to the final point of sale in Australia, and the necessity of having public authorities validate catch certificates. Hosch et al (2023) – noted that a well-designed electronic CDS (eCDS) could allow for participation from other states and provide a basis for existing unilateral schemes to cooperate in a single system.

Trade restrictive enforcement measures

- There were no explicit endorsements of Australia implementing TREMS (option 7). However, the Minderoo Foundation noted Australia should consider this option alongside capacity building initiatives.

Box A2 Convention on International Trade in Endangered Species of Wild Fauna and Flora

The Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) is a global agreement with 184 members that regulates the international trade of approximately 5,600 species of animal, including many aquatic species, and 30,000 species of plants. Its objective is to ensure international trade of wild plants and animals that does not threaten their survival. The regulation is based on 3 appendixes:

- Appendix I lists species threatened with extinction, with trade largely prohibited barring exceptional cases for non-commercial purposes.
- Appendix II contains species not currently threatened with extinction but could become so if trade is not regulated.
- Appendix III lists specific populations of species or species threatened only in a specific country.

Australia enforces CITES via a traceability and trade document system implemented through the *Environment Protection and Biodiversity Conservation Act 1999*. This includes permits, certificates, and digital documentation requirements to monitor CITES-listed species trade. Australia has adopted stricter domestic measures that impose additional requirements and, in some cases, further restrict trade in CITES listed species, including import requirements for Appendix II species. It also cooperates with trade partners to assure traceability and legality of imported CITES-listed aquatic species.

Although CITES serves as a robust framework for regulating the trade of species with varying conservation statuses, its capacity to tackle IUU fishing trade is restricted. The constraints arise from multiple factors: CITES' primary focus is on vulnerable species or species at risk of extinction, rather than those subject to IUU fishing; RFMOs and other multilateral fisheries bodies are generally responsible for managing commercial fisheries; and amending CITES to include IUU fishing targeted species faces diplomatic and procedural hurdles. These constraints are underscored by the actions of major market states, which have separately developed unilateral seafood import controls instead of integrating them into CITES.

Source: DCCEEW 2021

Box A3 Global Dialogue on Seafood Traceability

The Global Dialogue on Seafood Traceability (GDST) was established in 2017 as a business-to-business initiative aimed at standardising how seafood is tracked across its global supply chain. It serves as an extension of GS1's universal standards. GS1 is a global entity that has been providing universal standards for business communication across various industries. Operating in 116 countries and facilitating up to 6 billion transactions daily, GS1's system is integrated into global commerce. GDST adapts these standards specifically for the seafood industry, allowing businesses to integrate with existing GS1-based systems.

At the core of GDST's standardisation effort are Key Data Elements (KDEs) and Critical Tracking Events (CTEs). KDEs are specific pieces of information – like the type of fish, where it was caught, and its processing details that are crucial for traceability. CTEs are key nodes within the supply chain where this information is recorded, such as when the fish is caught, processed, or sold. By capturing these KDEs at CTEs, GDST enables a more transparent and traceable seafood supply chain.

GDST acknowledges the diverse nature of seafood businesses in terms of size, technical capacity, and geographic location. To accommodate these differences, GDST standards are made to be flexible accommodating different traceability systems and allowing for customisation. Such adaptability is particularly important for developing nations where technological barriers might impede full-scale digitisation. The GDST approach promotes digital data exchange between supply chain partners without necessitating complete internal digitisation, thus making it more accessible.

GDST standards are comprised of 2 key components. First, there is a 'Basic Universal List of Key Data Elements' that outlines the minimum information to be collected and shared in a GDST-compliant supply chain. This list covers both wild-caught and farmed seafood. Second, GDST provides technical guidelines for how this data should be formatted and shared, ensuring that various traceability systems are interoperable, or capable of sharing data with one another.

The adoption of GDST standards offers Australian businesses a viable route to meet compliance under Recommendation 2, which targets enhanced traceability for species with higher risk of IUU fishing. The GDST framework is inherently flexible and aligns well with our requirements, particularly in gathering key data and enabling smooth information flow across the supply chain. This dual capability will help ensure current compliance and easy adaptation to future regulatory changes.

Sources: GDST 2023, GS1 2022

Figure A1 Australia's import system

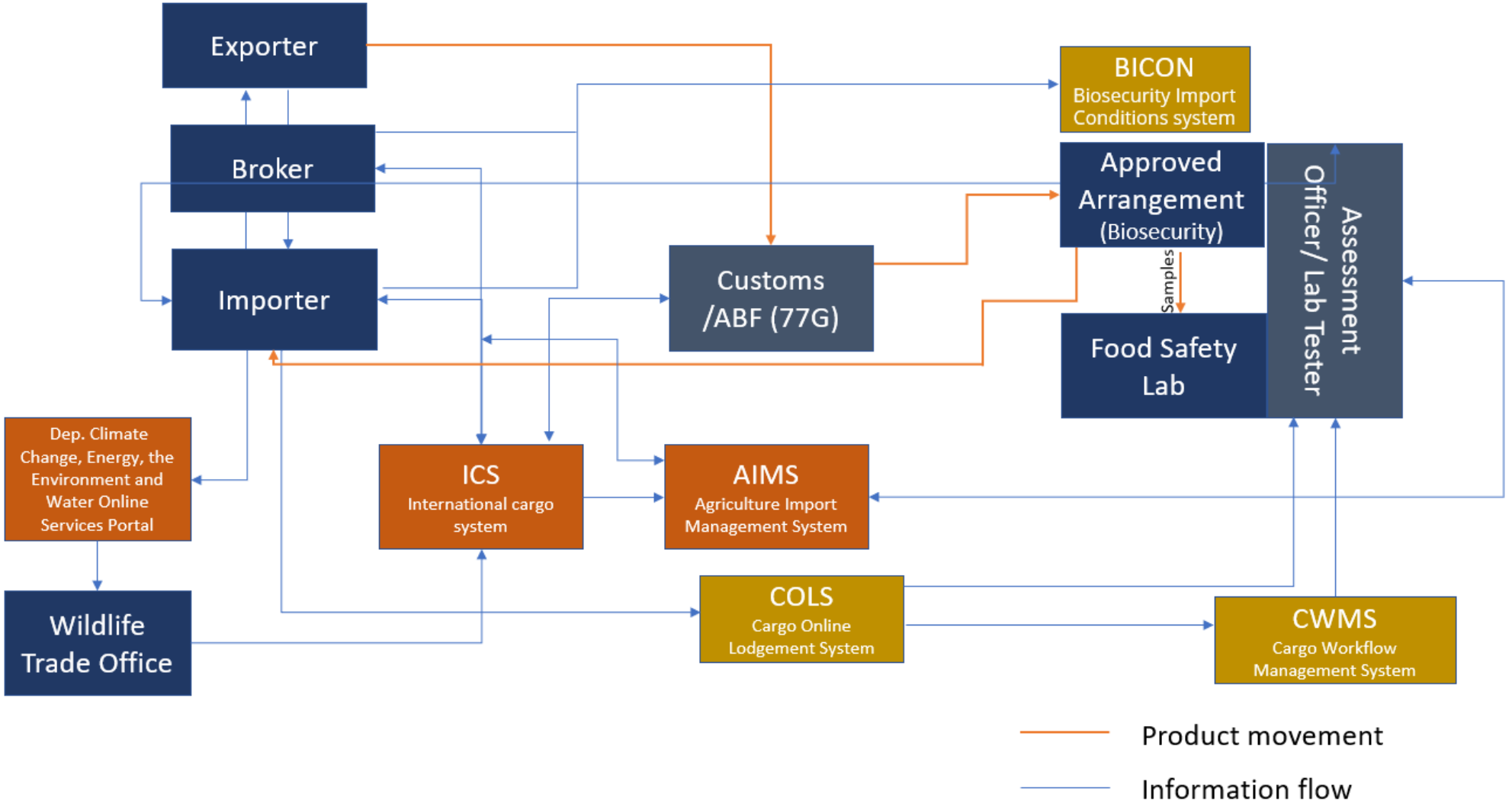


Table A2 Description of key data elements

Data element	Purpose	Mandatory/ conditional	Format/code
Vessel name	Needed to determine if the vessel or facility was authorised by the relevant authorities.	Mandatory	Free-form text is provided to accommodate all potential names. Vessel names must be spelled correctly to verify legality.
Flag state of vessel	Needed to confirm the vessel authorisation and to determine the regulations (national and/or regional) pertaining to the vessel at the time of the recorded fishing operation.	Mandatory	Standardised data format of the 2-alpha International Organization for Standardization (ISO) country codes; see ISO 3166 country codes.
Unique Vessel identifier, IMO, or International Radio Call Signal	Needed to positively identify the vessel and link the vessel to the fishing authorisation issued by the competent authority.	Conditional	The format should correspond to the convention of the vessel registration authority. If registration is not required in the local jurisdiction, some locally meaningful description or disclaimer ('identifier not applicable') is needed. Free-form text is provided to accommodate various formats.
Harvest date	The harvest date with the vessel name/identifier and the location would establish a unique identifier for the harvest event. This data element should correspond to the date of unloading from a catching vessel.	Mandatory	This data element is constrained to a date of landing/offloading at the end of a fishing trip or the date of transshipment at sea or in port.
Species name	Species name is needed to determine legality of product, as HTSIC codes for entry will often not be specific enough to ascertain the species.	Mandatory	The FAO ASFIS 3-alpha species code is based on the scientific name or the association with the local common name.
Catch area	Necessary to identify the fishing area where the catch occurred to determine the scope of foreign laws and/or regulations that pertain to the activity/operation in that jurisdiction. If a RFMO has competency in the stated area for the species reported, the RFMO measures would pertain to a flag vessel of a contracting or cooperating party.	Mandatory	Free-form text is provided to accommodate various fishing areas. In some cases, the use of an RFMO list of fishing areas may be applicable. Location should correspond to the reporting areas of the local jurisdiction or applicable regional management body. If a catch report is not required in the local jurisdiction, or the catch area is not required to be specified, a local description is needed or the use of FAO fishing area codes with an additional note regarding within or beyond the EEZ of a Coastal State (ISO 2-character country code).
Fishing methods	This data is needed to determine lawful acquisition in fisheries where certain gear types are prohibited or restricted in use to certain time periods or certain fishing areas. In some fisheries, vessels may be authorized to fish only with certain gear.	Mandatory	Free-form text is provided to accommodate all potential fishing gears. Codes or formats should correspond to the reporting convention for gear types of the local jurisdiction or applicable regional management body. If a catch report is not required in the local jurisdiction, or the gear type is not required to be specified, a local description is needed or the use of FAO gear codes.

Data element	Purpose	Mandatory/ conditional	Format/code
Authorisation to fish	Needed to confirm that the competent authority has issued a vessel fishing permit/authorisation or has licensed the aquaculture facility.	Conditional	In certain cases, a competent authority may not require a permit for each vessel for example for artisanal/small-scale fisheries. Free-form text is provided to accommodate varying formats for fishing authorisation. If a permit or license is not required in the local jurisdiction, some locally meaningful description or disclaimer ('license not applicable') is needed.
Estimated live weight/processing description	Needed to determine the upper bound catch amount on a harvest event, to prevent unauthorised product later being added to an authorized event and later in the supply chain.	Conditional	Requires both reporting a numeric value and the reporting unit. Coded as 'LB' for pounds or 'KG' for kilograms. If estimated live weight not available, description of form of product at landing required.
Processed weight	Processed weight is needed to corroborate the volume of catch originally unloaded/delivered and reported to competent authorities.	Mandatory	Requires both reporting a numeric value and the reporting unit. Coded as 'LB' for pounds or 'KG' for kilograms.
Information of vessels involved in transhipment	To determine movement of product between catch and disposition of the fish in the first transaction.	Mandatory	Free text field – containing vessel name, flag state, and IMO/IRCS (where applicable), date of unloading and loading. If no transhipment, insert 'NA'.
Port of landing	To identify port of landing. This will be combined with the harvest date and vessel information to establish a unique identifier for the harvest event.	Mandatory	Free-form text is provided to accommodate varying formats of landing ports or delivery locations.
Information on landing recipient or buying entity	This information is needed to record the disposition of the fish in the first transaction.	Mandatory	Free-form text is provided to accommodate varying formats of company names and addresses.
Information on other processing/export/re-export entities in supply chain	This information is needed to record the movement of products throughout the supply chain.	Mandatory	Free-form text is provided to accommodate varying formats of company names and addresses. Facilities should be provided in chronological order.

Table A3 Comparison of multilateral and unilateral catch documentation schemes

Category	Multilateral CDS	Unilateral CDS
Design	• Based on Regional Fisheries Management Organisation/Arrangement (RFMO/A) rules and enshrined in international law. • Designed to prevent IUU fishing and trade.	• Established and enforced under the national law of the market state. • Designed to prevent IUU fishing and trade.
Scope	• Covers entire stock/species under RFMO/A management mandate. • Typically, applies to 1 or 2 high-value species taken from a specific fishery.	• Covers only products entering the end market. • Typically applies to high-risk species in all fisheries, or all wild species in all fisheries.
Product flows	• Covers domestic and international trade regardless of how product is transported or traded from catch to market.	• Covers international trade with a single market only.
Compliance	• Mandatory for all fishers, traders, and processors handling products originating from a given fishery at all stages of the supply chain. • Comprises both catch and trade documents but variation in which information requires validation and by whom. • An authority is designated to operate the CDS and there is central registry in which copies of all catch and trade certificates are deposited. • Sequential linking of certificates allows for 'mass balance monitoring' and the identification of laundered IUU product.	• Compliance only required if product is destined for market operating the scheme. Can be designed to capture movement along the supply chain. • Data/collection reporting requirements can be imposed on importers, or schemes can require catch and trade documents that are validated by public authorities. • Relies on enforcement at the time the product arrives at the destination market and is susceptible to fraud.
Applicability	• Identifies the extent to which IUU fishing is occurring in the source fisheries and provides insights into where and how IUU fishing may be occurring. • Provides a cross-check on reported catches for use in stock assessment and can help to curtail residual IUU fishing. • Development or expansion of multilateral schemes can be difficult to negotiate with member countries.	• Broader coverage and easier to implement than multilateral schemes. • Risk that IUU product is diverted to other markets without legal provenance controls. • Does not identify the extent to which IUU fishing is occurring in source fisheries or provide cross-checks on reported catches for use in stock assessments.

Box A4 Illegal logging import controls

Australia has taken significant steps towards combating illegal logging and promoting trade of legally sourced timber and timber products. In 2012, Australia introduced the *Illegal Logging Prohibition Act 2012* which seeks to 'reduce the harmful environmental, social and economic impacts of illegal logging by restricting the importation and sale of illegally logged timber products in Australia'. The Act makes it a criminal offence to import illegally logged timber products, or to process domestically grown raw logs that have been illegally logged.

The Act is supported by the Illegal Logging Prohibition Regulation 2012, which requires timber importers and processors to assess their supply chains for the risk of importing or processing illegally harvested timber. This assessment must be completed for each consignment of regulated timber products (as defined by tariff codes) that are imported into Australia, and for raw logs that are domestically grown and processed in Australia. This is referred to in the laws as 'due diligence', the specifics of which are set out in the regulation.

The regulation outlines 5 key steps that regulated entities (importers and processors) must undertake as part of their due diligence:

- Establish a due diligence system – documenting steps ensuring non-dealing in illegal timber.
- Gather relevant information and evidence, confirming origin and legality of the timber contained in the product you intend to import.
- Assess the risk that the product has been illegally logged.
- Mitigate the risk of importing illegally logged products.
- Maintain written records – documenting the steps taken.

Although the regulated entity (timber importer or processor) is responsible for meeting the due diligence requirements, other entities are impacted by the laws. These are primarily overseas suppliers and customs brokers who play a role in helping clients complete their due diligence and trace timber through the supply chain back to the source. The laws-regulated community is diverse, covering a range of timber and non-timber industry sectors and a range of business sizes.

Source: DAFF 2023a

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