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# Can anti-IUU fishing trade measures spread internationally? Case study of Australia

## Abstract

The emergence of illegal, unreported and unregulated (IUU) fishing as a policy issue over the past two decades has galvanised efforts to advance the regulation of high seas fishing to ensure the conservation and sustainable use of fishery resources. This process enabled the introduction of environmental provisions into international trade under the guise of ensuring the lawful sourcing of seafood. This has proven more acceptable to the trade regime than bans on unsustainably harvested seafood. The European Union and the United States have led the establishment of legality as a proxy for different environmental and social accountability concerns and have implemented unilateral trade measures to prevent seafood sourced from IUU fishing from entering their markets through traceability schemes. Although the EU and US are huge markets, the ultimate success of such measures in reducing IUU fishing lies in their take up in other countries and the potential for harmonisation at the supra-state level. This research has explored the potential for implementation of anti-IUU trade measures in Australia through discourse analysis of semi-structured interviews and public policy documents. Our findings show that there is very limited potential for anti-IUU fishing trade measures in Australia due to socio-specific constructions of IUU and of fisheries management. These findings are relevant for the potential policy diffusion of anti-IUU trade measures in market states.

## Keywords

IUU fishing, trade-related measures, regulation, labelling, Australia, traceability

## 1. Introduction

The term illegal, unreported and unregulated (IUU) fishing encompasses three different categories of fishing activities that have been deemed harmful to fish stocks. The tools used to prevent, deter and eliminate IUU fishing have evolved quickly at the international level since

the term was coined in 1997 (Christensen, 2016, pp. 135-136). The international instruments developed showed an initial emphasis on monitoring, control and surveillance measures addressed to the responsibilities of flag and coastal states towards fishing vessels (as in the 2001 International Plan of Action against IUU fishing, IPOA-IUU). Further attention to the dimension of IUU fishing as an economic activity led to an increasing role of port states, brought to the fore in the legally binding Port State Measures Agreement concluded in 2009 (Food and Agriculture Organisation of the United Nations, FAO 2009), and of market state measures, including unilateral trade-related measures adopted by the European Union in Regulation 1005/2008 and the United States Seafood Import Monitoring Program (SIMP; Simões & Dolle, 2016). Unilateral trade measures complement port state measures in the goal to prevent IUU products from entering markets based on the provision of traceability documentation that accompanies fish as they transit, and enables the tracing of fish back to the point of harvest. Although the multilateral trade regime generally discourages unilateral measures as potential barriers to trade, these unilateral trade measures to prevent IUU fishing have been deemed compatible with the multilateral trade regime (Tsamenyi, Palma, Milligan, & Mfodwo, 2010). However, scholars have pointed to the need for harmonisation and multilateralisation of such approaches and their extension to other markets (He, 2017). As a key player in the attempts to curb IUU fishing and a market economy with advanced fisheries management, the Australian approach to prevent IUU fishing offers an interesting case study to analyse whether the policy diffusion of trade-related measures is likely to occur.

This paper is based on a qualitative policy analysis of two types of data: documents related to the public policy process (government reports, plans of action, parliamentary inquiries, legal instruments and press releases) and semi-structured interviews with stakeholders recruited through purposive and snowball sampling. The paper explores first how the framing of IUU fishing as an economic activity enabled unilateral trade-related measures in the EU and the US in a form that is acceptable to the World Trade Organisation (WTO)-centred trade regime. It then outlines the framing of IUU fishing in Australia to explain why the assurance of legality—and the role of traceability as a means to accredit it—has not been consolidated as a policy issue in the domestic market. The paper argues that the potential policy diffusion of trade measures to curb IUU fishing must take into account two key elements: its specific construction as a policy issue in different states and the objectives of fisheries management with regard to the social and economic dimensions of sustainability.

### 1.1 From flag state to market state measures: the evolution of the tools to combat IUU fishing

The term IUU fishing was first used in 1997 in the report of the XVI meeting of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR; 1997, p. 8; Palma, Tsamenyi, & Edeson, 2010, p. 26). IUU fishing was identified as a threat to the lucrative Patagonian toothfish fishery (Grilly, Reid, Lenel, & Jabour, 2015, pp. 186-187) that was being decimated by the operations of both members and non-members of the Convention. The regulation of fishing to prevent illegal, unreported and unregulated activities soon emerged as a critical issue for the sustainability of fish stocks (Agnew, 2000; Christensen, 2016), especially those remaining subject to open access fisheries in the high seas. A raft of international instruments were developed to combatting it, beginning in 2001 with the *International Plan of Action to Prevent, Deter and Eliminate IUU fishing* (IPOA-IUU).

The prevention of IUU fishing highlighted in the first place the obligations of flag and coastal states as responsible for fishing operations and only considered a cautious role for market state measures (FAO 2001, p. 18) but the limited capacity of states to exert control over their vessels and territorial waters was soon evident (Kuemlangan & Press, 2010, p. 262). In addition, flag and coastal state responsibilities did not solve the problem of unregulated fishing conducted by non-member states in regional fisheries management organisation (RFMO) areas not bound by conservation measures, which is in theory not illegal (Österblom & Sumaila, 2011, p. 973; Serdy, 2017, p. 355). The failure of flag and coastal state measures to curb IUU fishing exerted mounting pressure on states to approach complementary tools (Kuemlangan & Press, 2010, p. 262). These were sought firstly by drawing attention to the obligations of port states to ensure that only regulated operators may enter global markets and derive economic benefit from the exploitation of the resource (Witbooi, 2014, p. 291).

The increasing attention to the roles of port and market states in the regulation of IUU fishing led to the adoption of the United Nations (UN-FAO) *Agreement on Port States Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (2009) (PSM Agreement), the first binding instrument to curb IUU fishing. The shift to port state control tried to address deficiencies in the control by coastal and flag states by deterring the entry of IUU catches into the supply chain (Daley, 2010, p. 28; Kuemlangan & Press, 2010, p. 262; Palma, Tsamenyi, & Edeson, 2010, p. 159; Telesetsky, 2015; Witbooi, 2014, p. 292). The PSM Agreement consolidated the verification of legality as a necessary requisite for the trade in

seafood in order to ensure sustainable fisheries management (FAO 2009) and it signalled a more prominent role for trade-related measures than the one awarded by the IPOA-IUU. Despite the initial reluctance to include trade measures in the text of PSM agreement (Telesetsky, 2015, pp. 1258-1259), these are no longer alluded to as a last resort, but are now seen as part of the toolbox to prevent IUU fishing (FAO, 2009, p. 2).

Underlying this shift was a new construction of IUU fishing, not only as harmful fishing practices for the conservation of fish stocks, but as an economic activity that distorted market conditions and enabled seafood fraud. The work of the Organisation for Economic Cooperation and Development (OECD) Committee for Fisheries illustrates the emergence of this new construction (Le Gallic & Cox, 2006; OECD 2004; OECD 2005; Schmidt, 2005). This work signalled a departure from the jurisdictional approaches based on state and inter-state governance and the roles of flag, port, and coastal sovereignties. First, it sanctioned the conceptualisation of IUU as a transnational crime that provided a foundation for states to ensure the 'legality' of the fish in their national legislation (Österblom, Constable & Fukumi, 2011; Song et al., 2020). Second, it focused attention on the role of markets in illegal fishing and 'naturalised' the prospect of trade-related measures as a logical effect of the economic calculations behind the different manifestations of IUU fishing. Finally, it approached IUU fishing as a global problem, extending it beyond high seas fishing and flag state responsibilities. This represented an endorsement by liberal democracies of the regulation of trade in seafood products for environmental purposes. It also enabled two major markets represented in the OECD, the EU and the US, to explore further the opportunities, challenges and implications of tracing fish from the point of harvest along the supply chain.

### 1.2 IUU fishing, trade-related measures and fisheries management in the US and the EU

The EU and the US have been the first to implement unilateral trade-related measures to combat IUU fishing (Hosch, 2016), which build on earlier multilateral traceability schemes that proved successful in the deterrence of IUU fishing for species such as toothfish and tuna (Agnew, 2000). In both cases, regulatory changes have been introduced through fisheries management legislation to enhance the traceability of imports. The justification of these measures highlights the detrimental effects of the competition against IUU product for the economic sustainability of well managed domestic fisheries, rather than the risks that IUU fishing poses to the conservation of fish stocks.

The EU took the first step in adopting a 'new strategy' to prevent, deter and eliminate IUU fishing in 2007 (Commission of the European Communities, CEC, 2007). The strategy echoed the considerations of IUU fishing found in the OECD reports, presenting the 'IUU business' as 'the second largest fish producer in the world by value, after China'. The strategy provided an estimate of the value of illegal fisheries imports into the EU and it argued that 'the best way to put an end to this lucrative business is to remove the incentive for crime by making it extremely difficult, if not impossible, to market IUU products at a profit.' (CEC 2007, p. 2). This strategy was implemented by means of the EU Regulation 1005/2008 *Establishing a Community System to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*. The regulation made trade of IUU products illegal in the EU territory (p.2) and contained measures towards this end, including a catch certification scheme for the importation of fishery products to document the transit of fish from the point of harvest (see Leroy, Galletti & Chaboud [2016] for an overview).

Regulation 1005/2008 was embedded into the reform of the EU fisheries policy that took place in 2013 with the simultaneous publication on 11 December 2013 of EU Regulations 1379/2013 *Common Organisation of the Markets in Fishery and Aquaculture Products*, and 1380/2013 *Common Fisheries Policy* (CFP; see D'Amico et al. [2016] for an overview of labelling reforms). Regulation 1379/2013 modified labelling requirements for seafood and the reform of the CFP contained in Regulation 1380/2013 stressed the fundamental role of the post-harvest space in fisheries management policies:

> The CFP should ensure that fishing and aquaculture activities contribute to long-term environmental, economic, and social sustainability. It should include rules that aim to ensure the traceability, security and quality of products marketed in the Union. Furthermore, the CFP should contribute to increased productivity, to a fair standard of living for the fisheries sector including small-scale fisheries, and to stable markets, and it should ensure the availability of food supplies and that they reach consumers at reasonable prices. (EU 2013b, p. 22)

The US provided similar justifications for the adoption of anti-IUU measures in its own plan, first formulated through a Presidential Task Force in 2014 (Presidential Task Force on Combating IUU Fishing and Seafood Fraud, 2014, p. 3). The plan linked sustainable fisheries management, international obligations and trade with a strong emphasis on legality as a necessary basis for seafood trade:

> Illegal, unreported, and unregulated (IUU) fishing continues to undermine the economic and environmental sustainability of fisheries and fish stocks, both in the United States and around the world. Global losses attributable to the black market from IUU fishing are estimated to be $10-23 billion annually, weakening profitability for legally caught seafood, fuelling illegal trafficking operations, and undermining economic opportunity for legitimate fishermen in the United States and around the world. (The White House - Office of the Press Secretary, 2014)

The US Seafood Import Monitoring Program (SIMP) implemented from January 2017 resulted from the intention to develop 'a risk-based traceability program (including defining operational standards and the types of information to be collected) as a means to combat IUU fishing and seafood fraud' (Department of Commerce, National Oceanic and Atmospheric Administration (NOAA), & National Marine Fisheries Service, 2016, p. 88976). The SIMP and the EU Regulation have two important commonalities in their design. One is that both rely on the provision of traceability documentation as a means to demonstrate that fish products were lawfully acquired, in order to prevent the import or trade of 'fish taken, possessed, transported or sold in violation of any foreign law or regulation or in contravention of a treaty or a binding conservation measure of a regional fishery organisation' (Department of Commerce et al., 2016, p. 88975). The other is that both regulations fall into the portfolio of fisheries management, with the SIMP being legislated under the *Magnuson-Stevens Fishery Conservation and Management Act*, and the EU Regulation under the Directorate-General for Maritime Affairs and Fisheries (DG MARE).

The establishment of a proxy between the prevention of IUU fishing and the establishment of a level playing field for environmentally and economically sustainable fisheries has provided a foundation for the new regulatory requirements in the EU and the US. These traceability and labelling requirements constitute unilateral trade-related measures that could be contested in the WTO-regime. However, contrary to earlier measures such as import bans or labelling measures on fishery products harvested from unsustainable fishing practices that resulted in WTO disputes[1], the EU Regulations and the SIMP have been generally received as an acceptable barrier to trade. So far, the EU anti-IUU measures have been challenged once through a dispute raised to the WTO that was resolved before the appellation panel[2]. The US

[1] Disputes WT/DS58, 'United States—Import Prohibition of Certain Shrimp and Shrimp Products', 8 October 1996; and WT/DS381, 'United States—Measures Concerning the Importation, Marketing and Sale of Tuna and Tuna Products, 24 October 2008.

[2] Dispute WT/DS469, 'European Union—*Measures on Atlanto-Scandian Herring*, 4 November 2013.

program only entered into force in 2018 and there have been no disputes at the time of writing. Several scholars have analysed the compatibility of the PSM Agreement and the EU anti-IUU measures with the WTO obligations (Auld, 2018; He, 2017; Young, 2016). Generally, they have taken on board the need for trade-related measures in view of the failure of traditional monitoring, control and surveillance approaches to minimise IUU fishing (He, 2017, p. 196) and seen as part of a 'cumulative solution' (Auld, 2018, p. 691). The general consistency with WTO principles of transparency, non-discrimination and justification of the measures has also been noted (Leroy, Galletti, & Chaboud, 2016, p. 89; Young, 2016, p. 216). Scholars have pointed to the potential challenges: the possible fragmentation of technical requirements for the trade in fishery products (He, 2017, p. 197; Young, 2016, p. 216); the additional burden for fisheries governance in developing countries (He, 2017, p. 197); and the dependency of the EU on the importation of fish – which could well be the most important curb on the effectiveness of the regulation (Leroy, Galletti & Chaboud 2016, p. 89). Overall, the EU trade-related measures have been considered 'solid models of WTO-compatible regulation' (Young, 2015, p. 16).

In developing both unilateral initiatives, the EU and the US took the implications of the fight against IUU fishing to a new stage. IUU fishing not only undermined sustainability efforts but provided grounds to justify trade-related measures to prevent seafood fraud and unfair market conditions. Both regulations link anti-IUU goals of conservation and fairness for the 'good' fishers to consumption through organisation of the seafood market. In both cases, the responsibilities of fisheries management to pursue sustainability goals justifies their intervention in the markets and these goals include a foregrounding of the economic and social components of sustainability, taken as legitimate market competition. If trade-related measures are to contribute to the eradication of IUU fishing, a condition is that 'all state participants, global and RFMOs, unite in their legal stands, coordinate their monitoring roles, and harmonise their underlying regulatory standards.' (He, 2017, p. 197). The Australian case can throw some light into the likelihood of the development and convergence of trade-related measures based on traceability and labelling schemes.

## 2. Methods

This paper uses a case-study approach to a policy issue—whether the prevention of IUU fishing through traceability and labelling regulations in Australia is a feasible policy option—through a deliberative governance analysis. Deliberative governance approaches the study of policy

processes through a discursive approach, that is, by analysing meaning-making procedures in social practices that underlie the construction of any given policy problem. These analyses propose that policy is closely linked to verbal representation and argumentation, and that policy decisions are based on the underlying assumptions of actors rather than the scientific evidence provided (Fischer 2003, p. 155). The qualitative analysis of the strategies used by actors in defining policy problems is useful to help explain processes of policy formation: how policy problems are defined and policy boundaries are formed as a result of political processes in socio-specific contexts. The definition of a policy problem is a key process in governance, since a dominant discourse of what the problem is 'enables and constrains the available policy options and the range of legitimate actors for its resolution' (Feindt & Oels 2005, p. 169). Since the mid-1990s, discursive analyses have been widely used to explore policy formation and change in a range of environmental issues (see Leipold, Feindt, Winkel & Keller [2019] for a recent overview). In the study of IUU fishing, non-discursive approaches to meaning making and social interactions have been applied to the conceptualisation of IUU fishing as an organized crime (Österblom, Constable & Fukumi, 2011) and to the responses to IUU fishing in the context of crises (Österblom & Sumaila, 2011). The implications for small-scale fisheries of the discursive construction of the concept have also been discussed recently in a paper by Song et al. (2020). This paper builds on this literature to examine a more recent development: the shared understandings enabling or constraining policy change towards trade-related measures to prevent IUU fishing, as part of a doctoral research project focussing on wider policy changes in the regulation of seafood labelling and traceability in Australia.

The paper uses a qualitative case-study design with a mixed-methods approach. It follows a recent development in these approaches that includes interviews and observations to the traditional use of policy texts as data sources (Leipold et al. 2019, p. 449). Table 1 shows the types of data sources and collection methods:

**Table 1: Research methods**

| Types of data | Subtype | Data-collection method |
|---|---|---|
| Documents | Research (literature review) | Theoretical and snowball sampling |
| | Policy documents | Use of 'fields of action' classification (Wodak 2001, p. 68) |
| Interviews | Face-to-face, in-depth, semi-structured, purposive selection (Maxwell 2013, pp. 89–91). | Recording and transcripts |

Source: Adapted from Creswell (2003, p. 186).

Constructivist grounded theory in the form developed by Kathy Charmaz (2006) provided general guidance in the protocols of data collection and analysis. Constructivist grounded theory provides guidelines for gathering data, as well as questions to guide the iterative process between the data sources and the analysis, the types of analysis and the quality and richness of the data (Charmaz 2006, pp. 18–9). It also offers guidance on the criteria for validity in line with an epistemological position in which researcher is not disembedded from the co-construction of social reality. These rely on methodological self-consciousness (Charmaz, 2017, p. 35) to avoid validity threats.

Chronologically, data collection started with the observation of a seafood industry conference in September 2017, continued with an iterative process between the different data sources, as depicted in Table 2 below.

**Table 2: Data collected and collection period**

| Oct 2017 – April 2018 | June 2018 | Aug-Dec 2018 | Jan–April 2019 | April 2019 | August 2019 |
|---|---|---|---|---|---|
| 33 interviews<br>33 memos on interviews<br>6 progress memos | 1st draft of analysis | 3 interviews<br>3 memos | Review of methodology and methods | 2 interviews<br>2 memos<br>Data collection of interviews terminated | Data collection of documents terminated |
| Initial coding, sorting, comparing | Draft writing<br>Revision | Focused coding, sorting, comparing<br>Draft writing | Focused coding<br>Draft writing | Focused coding, comparing, draft writing | Draft writing |

Interviewees were sampled from a mixture of purposive selection and snowball sampling, first broadly categorised into government, research, industry and civil society actors and later defined in more detail according to a professional capacity jointly defined by the researcher and the interviewee. This resulted in an identification of researchers (inside and outside academia), research providers, fishers, seafood industry representatives, consumer group representatives, fisheries managers, retailers, wholesalers, consultants, aquaculturalists, environmental managers, campaigners, environmental NGO representatives, restauranteurs, and policy officers, with a number of participants in overlapping capabilities; the total number of interviews was 38, 35 of them one-to-one, and three with two interviewees from the same organisation; respondents totalled 30 men, 11 women, and zero non-binary[3]. Interviews were

[3] Interviewees were not asked to specify or confirm their gender and this categorisation can be solely attributed to the researcher.

semi-structured, with a common block of questions on the activity of the respondent, their definitions of sustainability, and the main issues in labelling and traceability. The number and wording of the questions was tailored to the professional activity of each respondent. As the analysis progressed and the connections between IUU fishing, traceability and labelling emerged, a number of interviewees were sought for specific insight into these. Conversely, three interviews were meant to provide insights into salmonid aquaculture in which traceability and labelling issues remained unrelated to IUU fishing.

Documents were compiled from an adaptation of the 'fields of action' in the discourse-historical method, as shown in Table 3.

**Table 4: Categorisation of documents**

| Legislative instruments | Regulatory procedures | Executive and administration | Communication | Political control |
|---|---|---|---|---|
| Acts and regulations (11)<br>International agreements and conventions (4)<br>Resolutions (2) | Consultation (working groups, meetings) (1)<br>Research and government reports and related documents (12) | Policy papers (3)<br>Government positions (3)<br>Strategic plans (6)<br>Guidelines (3) | Press releases (1)<br>Speeches (1)<br>Factsheets (3)<br>Media materials (interviews, documentaries, news, leaflets) (39) | Parliamentary inquiries and related docs (3 inquiries) |

Source: Adapted from Wodak (2001, p. 68).

From these, one particular document discussed IUU and was coded into NVivo together with the interviews: a parliamentary inquiry in the Australian Senate in 2014, *Current requirements for labelling of seafood and seafood products* (Commonwealth of Australia, 2014). The inquiry provided the most extensive public record of stakeholder discussions around traceability and labelling, including IUU fishing, in recent times. The range of texts includes records of different social interactions (two hearings, 25 submissions, and one report), as well as speeches and media releases produced during the inquiry.

Coding proceeded in two stages: initial (themes and topics included and excluded) and focused (patterns of argumentation, subjects, time and context) with the main unit of analysis at the level of the paragraph. As the analysis progressed, memos were replaced by chapter writing as a primary form of sorting, comparing, and reflection on the analysis. The chapter on which this paper is based was drafted and redrafted between December 2018 and December 2019, with further refinement in the drafting of this paper in 2020.

## 3. Results and discussion: The policy construction of IUU fishing in Australia

Australia is a relevant case study to analyse the potential for harmonisation and policy diffusion of trade-related measures to combat IUU fishing. Australia was a key player in the policy formation of IUU fishing as a global issue within the CCAMLR (Österblom & Sumaila, 2011). Australia participates in two of the three international catch documentation schemes in existence, and it has been instrumental in promoting multilateral cooperation against IUU fishing in the dynamic fisheries region of the Pacific, with a view to ensure the conservation of fish stocks as part of wider strategic economic and security interests in the region (Haward & Begin 2016, p. 5). Australia is a minor player in global terms, with around 1% of the global trade value, but it is firmly established in the commercial networks of the Pacific region. Its fisheries are oriented towards regional exports of high value fisheries to China, Vietnam, Japan and Hong Kong (Steven, Mobsby & Curtotti, 2020, p.25). The export of products such as abalone, bluefin tuna or rock lobster account for a gross value of production (GVP) of AUD 1.58 billion out of an overall GVP for fisheries and aquaculture of AUD 3.58 billion (Steven, Mobsby & Curtotti, 2020, pp. 2,5). Imported seafood, mainly from Thailand, China, Vietnam and New Zealand, makes up 65% of the overall seafood consumption by volume (Steven, Mobsby & Curtotti, 2020, pp. 25, 36). Figure 1 below summarises this information for 2018. Despite its international experience in promoting holistic measures to prevent IUU fishing and the importance of international trade for its seafood sector, Australia has had a selective role in the advancement of traceability and labelling schemes. The specific construction of IUU fishing as a policy problem in the Australian context goes some way to explaining this selectiveness.

**Figure 1: Australia's trade in fishery and aquaculture products, 2018**

[Image uploaded separately]

(Source: Steven, Mobsby & Curtotti, 2020, p.25)

Australia had a fundamental role in promoting holistic approaches to fight IUU fishing internationally and engaged actively in drafting measures such as the catch documentation scheme for toothfish in the CCAMLR (Agnew, 2000, p. 367); and the trade information scheme for Southern Bluefin Tuna in the Convention for the Conservation of Southern Bluefin Tuna (CCSBT; Department of Agriculture, Fisheries and Forestry, 2005, p. 37). Australia also

intervened actively in the drafting and negotiation of international instruments such as the IPOA-IUU, the Port State Measures Agreement and the Regional Plan of Action (RPOA) to Promote Responsible Fishing Practices including Combating Illegal, Unreported and Unregulated Fishing (RPOA-IUU). Finally, Australia participated in working groups such as the High Seas Task Force in the UN and in the OECD (Department of Agriculture, Fisheries and Forestry, 2005, p. 5; Department of Agriculture, 2014, p. iii). The effort to address IUU fishing was framed from the beginning as a means to protect national resources:

> *We were having significant problems in the sub-Antarctic with Patagonian toothfish poaching and that's where this whole process of IUU came from because not only we couldn't identify the owners of the vessels, we couldn't prosecute anybody, we couldn't follow any trade and we were genuinely annoyed and we went to the FAO the first time and the FAO told us to read the compliance manual. We said thanks for your assistance, we've already read that we want to do something a bit more*. (Interview respondent, fisheries manager)

The two National Plans of Action against IUU fishing published in 2005 and 2014 (Department of Agriculture, Fisheries and Forestry, 2005; Department of Agriculture, 2014) show an evolution in the approach to the prevention of IUU fishing from a militarised approach to cooperative action and regional cooperation in the Pacific, and acknowledges the economic and social impacts of IUU fishing (Department of Agriculture, 2014, p. 2). However, both plans rest on the assumption that monitoring, control and surveillance measures and a closed port policy are sufficient to block access of unlawful products to the domestic market, for two reasons:

> Given the very small quantities of fish which foreign fishing vessel operators have sought to land in Australia, the actual market-related implications have to date been insignificant. (Department of Agriculture, Fisheries and Forestry, 2005, p. 36)

> Given the limited extent of IUU fishing involving Australian-based operators – other than in the mainly criminal activities of domestic groups involved in illegal abalone and rock lobster fishing and trafficking discussed elsewhere in the AUS-NPOA-IUU – there has been little need to date to respond in Australia to the provisions of IPOA paragraphs 73 and 74, which call for action against importers, trans-shippers, buyers, consumers, bankers and others who may do business with IUU fishers or engage in activities that support IUU fishing. (Department of Agriculture, Fisheries and Forestry, 2005, p. 38)

The section on market-related measures in the 2014 IPOA-IUU acknowledged the discussion of traceability under way in the international sphere but did not contribute to advance it. The section situated trade-related measures as subsidiary to fisheries management measures; it situated traceability under the jurisdiction of the *Australia New Zealand Food Standards Code* and circumscribed the Australian practice to two Regional Fisheries Management Organisation catch documentation schemes, CCAMLR and CCSBT (Department of Agriculture, 2014, p. 9). Any role for traceability to prevent IUU sourced products in the domestic market mentioned in the US and EU documents—transparency, prevention of fraud, level playing field—is absent from the Australian document and the potential use of traceability to prevent IUU sourced products entering the Australian market is left unsaid. This construction of IUU as a transnational crime largely determines its policy approach:

> *The market is of interest to us but usually other agencies will deal with that. We work with Interpol. We work with Sea Shepherd. We work with a whole bunch of groups of people to prevent and stop IUU fishing. Now, inevitably that does involve markets because you need market intelligence to know where this product is going so you can track it. Groups like Interpol and Sea Shepherd and others who have their own networks of people around the world are very useful in that regard. That helps the operational side know where these boats likely to be, where they're going to be pulling into port to offload fish and transport it through the supply chains. We get all that intelligence that comes back to us and then we can deploy our staff and the assets we have in the right places at the right time.* (Interviewee, fisheries manager)

The focus on IUU as a criminal activity endangering national resources has parallels in the research on IUU-related measures, that has focussed on Australia's role in the CCAMLR and sovereignty claims in the Antarctic space (Baird, 2006; Fallon & Kriwoken, 2004; Hodgson-Johnston, 2015; Österblom & Sumaila, 2011); and in control measures, security and foreign relations (Erceg, 2006; Haward & Bergin, 2016; Mfodwo & Tsamenyi, 2011). Research on the implications of IUU fishing as an economic activity has been explored only in regard to the compatibility of the EU and the US traceability schemes with international law (He, 2018; Tsamenyi et al., 2010) and only very recently the conceptualisation of IUU fishing has been questioned in relation with the sustained livelihoods of small-scale fisheries (Song et al. 2020).

As a result, both the presence of IUU sourced products and fraudulent practices in the Australian markets remain to be defined. In a IUU fishing Index published in 2019 (Macfadyen et al., 2019), Australia presents low scores in the prevalence of IUU fishing, ranked 138 out of

152 countries. On the other hand, two studies on seafood mislabelling have been conducted, a pilot survey conducted in 2003 (Food Standards Australia New Zealand, 2003), and a study in Tasmania in 2015 (Lamendin, Miller, & Ward, 2015). These present an inconclusive picture, the first one finding 23% of mislabelling in two species sampled across the country, and the second finding only inaccuracies in the labelling of 38 samples from 15 fishmongers in Tasmania (Lamendin, Miller, & Ward, 2015, p. 438, 442). Overall, the Australian government consideration of IUU fishing remains restricted to strategic interests and the protection of valuable Australian fishery exports, rather than IUU within domestic markets.

### 3.1 Boundaries and objectives of fisheries management in Australia

The disconnections between IUU fishing, the management of domestic fisheries beyond the harvest space and the potential for traceability schemes and labelling to advance sustainability objectives is partially explained by the boundaries of fisheries management and its objectives in Australia. The prevention of IUU fishing remains a policy objective at the federal level. The Australian Fisheries Management Authority (AFMA) manages all fisheries beyond three nautical miles from the low water mark including key fisheries signalled as the main target of IUU fishing, like tuna and toothfish. Coastal fisheries targeting lower value fisheries for the domestic market remain largely under the jurisdiction of the states.

Australia has integrated the principles of Ecologically Sustainable Development (ESD) across all jurisdictions—federal and in each of the states and territories— and Ecosystem Based Fisheries Management (EBFM) has been adopted in a number of jurisdictions (Pascoe et al., 2019, p. 644). However, their operational objectives have focused on the biological component of sustainability, with much less clarity on the economic (Emery, Gardner, Hartmann, & Cartwright, 2017) and only recent attention to the social (Barclay, 2012; Pascoe et al., 2019, p. 645). Studies on broader economic benefits than profitability of commercial fishing are only just emerging (Abernethy, Barclay, & Davey, 2017; Voyer, Barclay, McIlgorm, & Mazur, 2016), prompted by the need to demonstrate the contributions of commercial fishing to the national economy in order to improve its public image (Fisheries Research and Development Corporation, 2018).

The regulatory pursuit of sustainability in the management of fisheries ceases in the harvest space. The regulation of seafood downstream as it heads towards consumers is placed under the food regulatory system. The Australian Consumer Law and food standards issued by an

independent, supra-national authority (Food Standards Australia New Zealand) regulate the conditions to be fulfilled as food passes along the supply chain. Food policy responsibilities fall into the Health portfolio of the Commonwealth and the States, and enforcement corresponds to the Australian Competition and Consumer Commission and the food authorities in the states. In this framework, traceability is considered a food safety mechanism. The sustainability of food production methods are considered to be a consumer value that is left to voluntary, industry-driven initiatives rather than being regulated by government. The lack of sustainability objectives for the management of commercial fisheries in terms of their broad economic or social sustainability and the framing of IUU fishing as a security issue only affecting exports means that regulatory oversight of seafood beyond the point of harvest is tied to agencies with no responsibility over the sustainability of fish stocks, Australian or otherwise. In this context, demands for the improvement of traceability and labelling requirements 'fall between the cracks' of the Australian regulatory structure, lacking support from the public administrators responsible for the management of the resource. As summarised by a participant,

> *That's a fact that there were no Australian government requirements around the sustainability of any incoming seafood. There was no requirement there for that to be looked at or addressed by anybody. Whereas in the EU there are rules now, America's just brought in rules along that kind of lines and [here it] is not on anybody's radar. Biosecurity is on one branch of DOA's [the Department of Agriculture's] radar, food safety is another branch of DOA's radar, CITES species are supposedly on the radar of the Department of Environment but I don't think anyone's actually checking.* (Interviewee, consultant)

### 3.2 Fisheries management, industry demands and policy tools

The lack of engagement of fisheries management with the post-harvest part of the supply chain in Australian markets leads to a disconnection between the domestic fishing industry who does want government regulation of seafood labelling, the regulators in food regulatory system responsible for labelling and traceability who are only concerned with food safety, and the role of fisheries management agencies in this space. The response to two key industry demands in recent times shows that the involvement of fisheries management in downstream processes may be a necessary condition to advance towards sustainability improvements via traceability and labelling requirements.

Labelling requirements and traceability came under the scrutiny of the Australian Senate in an inquiry conducted in 2014 on the requirements for the labelling of seafood (Commonwealth of Australia, 2014). The inquiry debated labelling and traceability requirements in the context of two demands: one, to make use of the existing Australian Fish Names Standard mandatory, a possibility enabled in the food standard regulatory framework pushed by a broad coalition of industry actors and environmental organisations to avoid the use of misleading names. The other demand was that food service outlets such as restaurants or fish and chip shops should specify the country of origin of their product or, at least, indicate whether it is imported.

> *Some in the fishing industry were calling for better labelling, some sectors were calling for mandatory fish name standard. Others were calling for voluntary fish names standard, but for the standard to be refined more. The fishing industry was dead against some of the labelling things that we wanted included in particular the type of fishing gear that was being used. They wanted country of origin labelling, but really they just wanted to distinguish between something caught outside of Australia and something caught in Australia. And I am sure that that wasn't a universal, they didn't universally want that because many of them have businesses that are partly Australian production and partly importing.* (Interviewee, NGO representative)

The long-standing demand of the domestic fishing industry for Country of Origin labelling (CoOL) in all food outlets had been granted in the jurisdiction of the Northern Territory through fisheries legislation, thus circumventing the food regulatory system. Several reasons explain these demands: producer associations advocated for the extension of CoOL to food outlets as a means to establish a level playing field for the domestic produce subject to high production costs, including those regulatory costs associated to sustainable fisheries management. CoOL and the mandatory specification of standard names would also contribute to the prevention of mislabelling practices and to greater efficiency on border controls for imports. The example offered was the use of the term ‘flake’ for different shark species, both domestic gummy shark subject to strict management controls and five different shark species from overseas fisheries without management strategies (Commonwealth of Australia, 2014, Submission 13, pp. 2-3). Indicating country of origin of seafood in food outlets like fish and chips would also enable domestic producers to reap potential price premiums associated to stated consumer preferences for national produce (Lawley, 2015, p. iii). In a market where 65% of the seafood consumed is imported (Steven, Mobsby & Curtotti, 2020, p. 36) and takeaways and dining venues concentrate over 40% of the overall seafood sales (Productivity Commission, 2016, p. 270),

these demands could be influential on the sourcing and purchasing habits for domestic and imported seafood.

Several aspects of the inquiry show the effects of the perceived boundaries of fisheries management on the possible roles of traceability and labelling requirements to address IUU fishing and the conditions governing seafood markets. The first one, the Senate inquiry, received 25 submissions[4], of which four were from agencies responsible for fisheries, three were from the state governments of Northern Territory, Queensland, New South Wales and one was from the federal Department of Agriculture. Half of the Australian fisheries jurisdictions did not state any position in the form of a submission, which amounts to saying that a discussion on the current requirements for seafood labelling and traceability are irrelevant to the management of fisheries in Australia. Secondly, only the joint submission by the New South Wales Food Authority and Fisheries New South Wales recommended the adoption of the Australian Fish Names Standard, a demand that had been backed by submissions from actors as diverse as fishing industry bodies, importers, fish markets, large retailers, environmental NGOs and researchers (Submissions 1, 6, 9, 10, 13, 17, 19, 20 and 24). Instead, two submissions by fisheries agencies provided arguments to oppose the adoption of the standard on the grounds that although they had adopted its use, it still needed improvements. Thirdly, the fisheries agencies repeated in their submissions the food regulatory hierarchy and the consideration of the food regulators that sustainability is a consumer value best left to the regulation of market forces (Submission 19, pp. 3-4) and consistently opposed changes to labelling or traceability that would cause unnecessary regulatory burden (Submission 4, p. 1, Submission 19, p. 5, Submission 11, p. 5). Several public agencies also raised alerts about the potential costs involved in a regulatory process, starting with those involved in conducting consultations and cost-benefit analysis. The federal Department of Agriculture made the following statement about international developments in traceability:

> Traceability and labelling is [sic] attracting increasing attention in international fisheries management. Some countries are seeking more information on where and how seafood was caught and whether it is consistent with international, regional and domestic fisheries regulations. Unilateral market measures taken by an importing country can be trade restrictive in that they do not necessarily recognise equivalent or better arrangements put

4 The list of submissions and the documents are available at https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Rural_and_Regional_Affairs_and_Transport/Seafood_labelling/Submissions (viewed 19 June 2020)

> in place by other countries with differing approaches. Some, including the EU and the US, have already implemented market state certification requirements that have caused additional requirements for some Australian seafood exporters. (Commonwealth of Australia, 2014, Submission 11, p. 4)

The Australian federal Department of Agriculture is in charge of the prevention of IUU internationally, but in its submission on the Fish Names Standard within Australia omitted the rationale behind unilateral trade measures, thereby dissociating the prevention of IUU fishing from traceability and labelling. State fisheries agencies, not involved in the global fora on IUU fishing or in the management of fisheries post-harvest, ignored the connection brought up by environmental NGOs and producers between traceability and lawful sourcing of seafood products that is now an accepted strategy internationally and which other parts of the Australian government were active in establishing. Seeing their policy mandate as being to sustain domestic fish stocks, the state fisheries management agencies deferred traceability and labelling of imported seafood to a food regulatory framework free from the consideration of the potential implications on domestic fisheries of IUU fishing in in international fisheries entering Australian markets. The lessons learned by Australian agencies at the international level in the prevention of IUU fishing were not brought home, and the state agencies ignored that the choice of policy tools to address sustainability in the post-harvest space has direct implications for those public bodies with a regulatory responsibility to pursue sustainability in domestic fisheries. Unsurprisingly, neither the inquiry nor further events have resulted so far in regulatory changes to enhance traceability or consistency of naming in the labelling of seafood. With the industry demands centered on a narrow understanding of CoOL and fisheries management agencies disengaged from the post-harvest space, an alternative framing of IUU fishing remains to be articulated that may explain the need for traceability and labelling as policy tools.

## 4. Conclusion

In this research, discursive approaches are useful to explain the assumptions underlying the formulation of policy problems in socio-specific contexts and over time, which in turn determine the choice of the policy tools deemed feasible to address them. The potential for traceability and labelling requirements to become useful tools in promoting sustainable fishing practices via the prevention of seafood sourced from IUU fishing from reaching markets hinges on socio-specific definitions of IUU fishing as a policy problem. In turn, the definition of the

problem determines the role of the public administrators and sets of policy tools at hand. In the EU and the US, the economic dimension of IUU fishing has been associated with the undermining of market competitiveness of domestic fisheries, as well as economic and social sustainability and the prevention of seafood fraud – areas under the policy ownership of fisheries management agencies. In this context, traceability has acquired new functionalities beyond the traditional role of ensuring food safety. The Australian case demonstrates that different understandings of IUU fishing as a policy problem may be a barrier to the advancement of traceability requirements, even in those markets actively engaged in international action against IUU fishing. The Australian case also shows the pivotal role of fisheries management objectives in the regulation of the post-harvest space. Where fisheries management agencies lack social or broader economic sustainability objectives and are thus refractory to acknowledge the importance of the post-harvest sector in the overall management of domestic fisheries, it is unlikely that an innovative conception of traceability may emerge to enable further transparency of seafood supply chains for the benefit of local industries, informed consumers or resource owners. Further research in other jurisdictions may further help explain the potential for policy development of anti-IUU trade-related measures related to traceability and labelling and the role of national fisheries management agencies in it.

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