Policy disconnections in the regulation of sustainable seafood in Australia

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Abstract

Wild capture fisheries are managed by governments on behalf of their populations to address societal concerns related to the exploitation of marine resources. In Australia, a key concern for citizens and consumers is the sustainable management of fisheries to prevent overfishing, and overfishing is mainly how sustainability in fisheries is understood. This is also a central concern for the Australian fishing industry, in that social acceptability is a key factor in ensuring their continuing access to the resource. At the global scale, trade is one of the main pressures on fisheries' sustainability, with demand from markets around the world driving unsustainable fishing practices. In Australia, however, ensuring that imported seafood is sustainably fished is not seen as the responsibility of the public governors. As a result, foods from both sustainable and potentially less-sustainable fisheries have equal access to the market and remain largely undifferentiated at the point of sale. This shows a disconnection between strong government efforts to regulate domestic fisheries to prevent overfishing and no government effort to ensure a level playing field for Australian fisheries in the domestic market. This research explores whether the specific sociocultural environment in the governance of fisheries production and trade can explain this disconnection and examines potential avenues for policy change. Within an interactive governance paradigm, it uses tools from deliberative policy and discourse analysis to unveil the discourses framing the current policy frameworks for sustainability in the harvest and post-harvest spaces in Australia. It explores the current configuration of the actors in governance and the potential to induce policy change to ensure the sustainability for all seafood sold at the retail level. The analysis shows that the Australian government's strong fisheries management record for domestic fisheries is undermined by its reluctance to intervene in processes downstream. This reluctance produces regulatory inconsistency in the treatment of imported and domestic seafood and inhibits the capacity of domestic fisheries to communicate their sustainability at the consumer interface. In the past few years, the control of imports to prevent illegal, unreported and unregulated fishing has provided a justification for regulations based on traceability systems in the United States and European Union. These regulations aim to provide a level playing field for well-managed fisheries and prevent seafood fraud. This

justification has yet to be institutionalised in the Australian context; however, traceability regulations may become a feasible response to future industry demands.

Certificate of original authorship

I, Sonia Garcia Garcia, declare that this thesis is submitted in fulfilment of the requirements for the award of PhD of International Studies, in the School of International Studies, Faculty of Arts and Social Sciences, at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise reference or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

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List of Abbreviations

AFMA	Australian Fisheries Management Authority
AFNS	Australian Fish Names Standard
AMCS	Australian Marine Conservation Society
ASC	Aquaculture Stewardship Council
BAP	Best Aquaculture Practices
CCAMLR	Convention for the Conservation of Antarctic Marine Living Resources
CCSBT	Convention for the Conservation of Southern Bluefin Tuna
CDA	Critical Discourse Analysis
CDS	Catch Documentation Scheme
CITES	Convention on the International Trade in Endangered Species (of Wild Fauna and Flora)
CLG	Common Language Group
COAG	Council of Australian Governments
CoOL	Country of Origin Labelling
CRC	Cooperative Research Centre
CSR	Corporate Social Responsibility
CSIRO	Commonwealth Scientific and Industrial Research Organisation
EC	European Commission
EEZ	Exclusive Economic Zone
EPBC	Environment Protection and Biodiversity Conservation
ESD	Ecologically Sustainable Development
EU	European Union
FAO	Food and Agriculture Organisation (of the United Nations)
FRDC	Fisheries Research and Development Corporation
FSANZ	Food Standards Australia New Zealand
GAP	(Global) Good Agriculture Practices
GVP	Gross Value of Production
ICCAT	International Commission for the Conservation of Atlantic Tunas
IPOA-IUU	International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (Fishing)
IUU	Illegal, Unreported and Unregulated (Fishing)

MFMA	The Master Fish Merchants' Association of Australia
MSC	Marine Stewardship Council
MSF	Multiple Streams Framework
NOAA	National Oceanic and Atmospheric Administration
NPOA-IUU	National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (Fishing)
NGO	Non-Governmental Organisation
NSW	New South Wales
NT	Northern Territory
NZ	New Zealand
OECD	Organisation for Economic Development and Cooperation
PNA	Parties to the Nauru Agreement
RFMO	Regional Fisheries Management Organisation
SA	South Australia
SAFS	Status of Australian Fish Stocks
SIA	Seafood Industry Australia
SIAA	Seafood Importers of Australasia
SIMP	Seafood Import Monitoring Program
SSIA	Southern Shark Industry Alliance
TAC	Total Allowable Catch
TDS	Trade Documentation Scheme
UN	United Nations
UNCLOS	United Nations Convention on the Law of the Sea
US	United States (of America)
WA	Western Australia
WLTO	Wildlife Trade Operations
WTO	World Trade Organisation
WWF	World Wildlife Fund / World Wide Fund for Nature

Introduction

Fisheries management is widely considered a 'wicked problem', one whose definition is difficult to formulate and whose policy tools spill over different policy domains (Jentoft & Chuenpagdee 2009, p. 553). For example, the regulation of the sustainability of fish stocks may fail to take into account the effects of market competition on the economic returns for well-managed fisheries. Therefore, policy tools to regulate the harvest may need to find solutions across different policy domains and government agencies, increasing the complexity of management decisions (p. 553). In Australia, the inclusion of Ecologically Sustainable Development (ESD) principles in the *Environment Protection and Biodiversity Act 1999* (Cth) and in the primary fisheries legislation across all jurisdictions establishes conservation goals aimed at the sustainable exploitation of the resource. Sustainable exploitation is mainly understood as preventing overfishing of stocks and, in some jurisdictions, ensuring positive economic returns from the harvest. However, this regulatory pursuit of sustainability ceases in the post-harvest space (i.e., processing, distribution and retail), where efforts towards conservation and sustainable exploitation of the resource are no longer considered the responsibility of the public governors. The prevailing idea among the Australian public governors is that sustainability is a consumer value best addressed by private initiatives with an interest to satisfy consumer demand. As a result, foods from sustainable and less-sustainable fisheries have equal access to the Australian market and the distinction between them is left to market interactions.

In the past few years, these governance arrangements have become increasingly problematic. First, despite the positive international reputation of Australian fisheries management, the public image of the domestic fishing industry has deteriorated alongside a general lack of public awareness of management efforts. This lack of visibility of sustainably managed fisheries negatively affects public trust in domestic commercial operators, who are subject to fisheries management regulations and concerned about their potential loss of access to a resource that is perceived as overfished by much of the public. The fishing industry has renewed its efforts to engage with voluntary tools to communicate its sustainable management and improve its public image; however, doing so is expensive and not ideally suited to the part of the industry

that caters to the domestic market: small-scale, family businesses in fishing, wholesaling or retail.

A second factor drawing attention to the lack of regulatory controls regarding the sustainability of imported seafood is the potential presence of seafood originating from illegal, unreported and unregulated (IUU) fishing in seafood markets worldwide. The rise of IUU fishing as an issue threatening both the sustainability of fisheries globally and stable market conditions in key seafood-importing states has led to the adoption of trade-related measures to prevent IUU fishing. These are based on traceability schemes that transmit information on the catch along global supply chains to final destination markets. The underlying discourse justifying traceability schemes claims that improving the transparency of supply chains is essential for preventing market distortions and ensuring a level playing field for sustainably managed fisheries. This discourse has now been accepted by the international trade regime, suggesting a potential means to align the governance of the harvest of fish to the governance of its trade and consumption. However, as yet, seafood traceability schemes to prevent the presence of IUU products in the market have not been institutionalised as a feasible policy tool in the Australian context.

The research problem for this dissertation is the inconsistency between the regulatory pursuit of sustainability in the harvest space and the lack of regulatory responsibility in the post-harvest space. The effects of the regulatory gap in Australia between the policies to conserve domestic fish stocks and those that govern seafood trade and consumption are discussed, and recommendations are provided to bridge this gap. The dissertation also explores the meanings of fish as resource and fish as food, framing their construction as an object of governance arrangements in Australia, before mapping the policy implications and policy issues derived from these constructions. Finally, it looks at the political processes aimed at solving these issues: how they are framed; who is involved in the process; what outcomes have been produced and why; and what factors may advance or stagnate policy change towards the assurance of sustainability from ocean to plate. The attempt to understand how social interactions producing meaning influence governance arrangements aims to assist those involved in reconciling the efforts to sustain fish stocks with those to provide food for human populations.

Fish as a natural resource

One of the key distinctions between fish and other sources of human nutrition is that fish stocks within states are a common property resource that belongs to the community (variously defined) and is harvested for private profit, or a common-pool resource with open access in the high seas. The institutional arrangements to manage and ensure the sustainable yield of these common property or common-pool resources differ in many cases from the pattern of government intervention or privatisation (Ostrom 1990); however, the apparent failure of the informal management of the commons has paved the way for state intervention as the dominant governance mode. This failure has been condensed in the well-known metaphor, the 'tragedy of the commons' (Hardin 1968), which justifies state intervention to avoid the degradation of the resource by unrestrained access:

> Fisheries resources are publicly owned, being at once everybody's and nobody's. The lessons of economics are clear: when resources belong to nobody, nobody will look after them; when resources belong to everybody, everybody must look after them. It is up to government to ensure that fisheries are exploited so as to provide the best return to the people in the industry and to Australia as a whole. (Department of Primary Industries and Energy, cited in Borthwick 2012, p. 51)

Australia exemplifies the influence of this idea in the construction of a regulatory framework for fisheries. In view of the overarching responsibility of government to act on behalf of the public interest, the eight jurisdictions responsible for fisheries management (the Commonwealth, the states and the Northern Territory [NT]) have passed legislation intended to detail the governments' responsibilities in the management of the resource. They have also developed comprehensive regulations addressing who can fish, where, when, how and how much, and most underwent reforms during the late 20th century to re-allocate access, prompted by declines in fish stocks and the emergence of 'sustainable development' as a key principle in the management of natural resources worldwide (Dryzek 2013; Hajer 1995). A National Strategy for Sustainable Development was endorsed by the Council of Australian Governments (COAG) in 1992 and produced a major piece of environmental legislation in the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* (Cth).

Even before this, the principles of sustainable development had been incorporated into the management of Commonwealth fisheries in the *Fisheries Management Act 1991* (Borthwick 2012, p. 11) and in state legislation such as the *NSW Protection of the Environment Administration Act 1991* (NSW). However, despite the inclusion of the three pillars of ESD (biological, economic and social) into legislation in Australia, sustainability objectives in this country have largely privileged the biological component over the social (Barclay 2012, p. 38) and maintained a narrow economic focus (Emery et al. 2017b, p. 137).

Fisheries management objectives are the substantive legislative base for government intervention. Understanding how the economic and social objectives have been formulated and pursued should assist to define the 'best' return to the industry and community, as well as the normative scope of government intervention to achieve this goal. An ESD framework was produced in 2002 (Fletcher et al. 2002) but it has been applied to a limited extent (Barclay 2012, p. 44; Hobday et al. 2016, p. 1). Research is underway to analyse how government objectives differ across jurisdictions and how top-level objectives are translated into lower-level objectives, indicators and reporting (Ogier in press). In the meantime, studies have highlighted how the economic component of the ESD principles is defined differently (and often poorly or implicitly) between pieces of legislation (Emery et al. 2017a, p. 48). Economic objectives are generally subject to the requirements of biological sustainability but there is also an 'underlying tenet or agreement among levels of government that the management of the fishery should ensure that resulting revenue and profit from fisheries […] is maximised or enhanced' (p. 48). The operationalisation of those objectives to make priorities explicit is still lacking (p. 137). Measurements of fisheries' economic returns have focused on employment and the gross value of production (GVP) of the landed catch, which is the only measure required by the *Primary Industries Research and Development Act 1989* (Cth) (Fisheries Research and Development Corporation [FRDC] & Ridge Partners 2015, p. 3).

This focus on the landed catch shows a central preoccupation with profitability and circumscribes the scope of fisheries management to the wharf. In doing so, the definition and measurement of the 'best return' to the industry ignores other factors that may be constitutive of economic and social returns. It has been argued that indicators beyond GVP need to be defined and measured to provide a better understanding of the

economic performance of fisheries in Australia (FRDC & Ridge Partners 2015, p. 3; 2016, p. 1). Isolated studies have sought to expand the measurements of the economic value of fisheries (Pascoe et al. 2016; Voyer et al. 2016), and have also addressed what 'best return' might mean in the Australian context and how it should be measured. Recent research has linked economic and social objectives and benefits to the broader community (Begg et al. 2014, pp. 10–1). However, there is still a need for better integration of social and economic objectives with ecological sustainability (Barclay 2012, p. 45; Begg et al. 2014, p. viii). Research integrating social and economic factors to assess the overall contribution of fisheries to local economies remains rare (Voyer et al. 2017). A broader understanding of the returns to the Australian community would better inform management decisions in pursuing all three ESD goals (Voyer et al. 2016, p. 14) and would probably illuminate where the scope of fisheries management needs to be redefined to engage with this pursuit.

This emergence of the social in the research of fisheries management is linked to the realisation that the invisibility of the benefits to the broader community may have had unintended consequences for harvesters. One such key consequence is the preoccupation of the industry with building and maintaining social acceptability, or a 'social licence to operate', which is perceived to be at risk (Mazur, Curtis & Bodsworth 2014, pp. 11, 21). That is, the industry seeks to adhere and be perceived to adhere to the beliefs, values and cultural norms of the community and generate social trust, but perceives its contributions to community wellbeing to be undervalued (Begg et al. 2014, p. 10; Voyer et al. 2016, p. 22). Qualitative research has been undertaken to unveil the perceptions on fishing and aquaculture of the community (Aslin & Byron 2003; Mazur, Curtis & Bodsworth 2014; Mazur & Curtis 2008) and particular stakeholders (Brooks 2009). Research has sought to inform management decisions (Pascoe et al. 2014) and establish communication and marketing strategies for the industry, and has been complemented by periodical surveys on perceptions on the sustainability of the fishing industry (Sparks 2011; 2013; 2015; 2017). The extent to which social acceptability has emerged as an issue is evident in the strategies for the allocation of research funds. In its strategic plan for 2015–2020, the FRDC, the public statutory entity managing research funds for the Australian fisheries, established as a key priority that Australian fisheries are sustainably managed 'and acknowledged to be so' (FRDC 2015, p. 25). A hint as to how this acknowledgement might be attained is provided by a 2018 legislative change

that now allows the FRDC to invest in marketing activities (FRDC 2018b). In September 2018, the organisation initiated discussions with the industry to explore potential initiatives these possibilities (FRDC 2018a).

The preoccupation with social licence reflects how the management of fish is embedded in social relations that extend well beyond the harvest space. This entanglement between humans and fish shows the complexities of food politics (Probyn 2016) and points to the 'wickedness' of problems that affect social-ecological systems. At the point of harvest, lack of social trust may ultimately undermine management decisions; for example, opposition to large trawling operations or salmon farming leases introduces a level of uncertainty in allocation schemes, which are intended to provide stable market conditions in the form of fishing rights. As such, the sustainability of the resource becomes no longer exclusively a preoccupation with ensuring the sustainability of fish stocks in the long term, but a preoccupation with access to the resource that those decisions had sought to ensure. It may then be asked, what factors intervene to cause a disconnection between the harvesters and the Australian community; do these factors relate to the governance arrangements between the harvest and post-harvest spaces; are the current tools to communicate sustainable management to the community achieving these goals; could other tools be used to this effect in the Australian socio-political environment; what influence do market strategies conducted by actors in the supply chain have on this disconnect; and do sustainability concerns relate to Australian-caught seafood or all seafood sold in Australia. To answer these questions, attention must be directed to the interactions between the regulation of sustainability, trade and consumption in the harvest and post-harvest spaces.

Seafood as a traded commodity

Fishing is an economic activity conducted by an estimated 59.6 million people worldwide (Food and Agriculture Organisation of the United Nations [FAO] 2018, p. 5). Small-scale fisheries account for two-thirds of the world's wild catches for direct human consumption (FAO 2015, p. ix). The distribution of fisher populations across the globe and the important dimension of small-scale operations reflect an economic practice tied to the traditional understanding of space, the space of places, or the sites, institutions and environments in which social life takes place (Castells 2004, p. 22). At the same time, the global dimension of seafood trade ties fisheries to the space of flows: the

global networks of the production and distribution of goods, services and power that are characteristic of globalised societies (Castells 2000, pp. 458–59; Castells 2004, p. 22). The globalisation of trade has been one key driver for important transformations throughout seafood supply chains:

> Sustained demand, trade liberalisation policies, globalisation of food systems, improvement of transportation and logistics, technological innovations as well as changes in distribution and marketing have significantly modified the way fishery products are prepared, processed, marketed and delivered to consumers. (FAO 2016, p. 51)

Literature on the interactions between seafood trade and sustainability has pointed out the many different ways in which trade affects the ecological, social and economic sustainability of fisheries (Asche, Bellemare, et al. 2015; Asche & Smith 2010; Bellmann, Tipping & Sumaila 2016; Crona, Basurto, et al. 2016; Crona, Daw, et al. 2016). In the 1990s, the increased complexity of the seafood trade and the failure of state interventions to conserve fish stocks prompted the emergence of voluntary initiatives seeking to harness the capacity of political consumerism to improve sustainability practices (Bush & Roheim 2019, p. 331). Marketplace measures enabling consumers to choose sustainable seafood (e.g., seafood guides, third-party certifications and eco-labels) demonstrate the importance of non-state actors in this area. The rapid spread of these measures significantly influenced large industrialised fishing, making a successful case for the capacity of market forces to respond to consumer demands through voluntary action (Roheim et al. 2018).

The study of marketplace measures to foster the profitability of sustainable fisheries has produced an abundant body of research on the tools that link sustainability and consumer preferences. Non-government organisations (NGOs) and the industry have been key drivers in the adoption of marketplace measures to inform consumers about fish sustainability (Roheim 2009; Roheim & Sutinen 2006). This constitutes an example of international, non-state regulation, and has been of interest to scholars of regulatory governance (Foley & Hébert 2013; Gulbrandsen 2014). In Australia, the realisation that consumers knew little about the sustainability of Australian fisheries (FRDC and Ridge Partners 2010, pp. 99–101; Jarrett 2013, p. 8) prompted research on consumer preferences and adequate market tools. Research has also been conducted on the

potential for an eco-certification policy (Jarrett 2013) and on consumer preferences for sustainable and locally sourced seafood (Lawley 2015; Pascoe et al. 2016). Australia has also been the setting for key programs in non-state regulation. The Marine Stewardship Council (MSC), the leading international non-state certification scheme, certified its first fishery in Australia (the Western Rock Lobster fishery) in 1997, the same year it was founded; similarly in 2014, Tassal was the first aquaculture company to achieve full certification for aquaculture operations from the Aquaculture Stewardship Council (ASC).

Despite the increase in the use of certifications and eco-labels for the accreditation and communication of fisheries sustainability in Australia and elsewhere, their use has proved limited to address the challenges of small-scale, multi-species fisheries and to achieve consumer recognition of the sustainability of Australian fisheries. On the one hand, the increase of third-party certification by domestic fisheries has been linked to the need to improve their social licence (Productivity Commission 2016, p. 215); on the other hand, certifications are considered unaffordable and unnecessary in view of the existing regulation. Their adoption remains 'a divisive issue in the industry' (p. 215).

The Australian governments have often expressed a preference for third-party certifications to communicate sustainability in the marketplace based on a risk-management approach to labelling regulations. This approach is coherent with the prevailing model of responsive regulation in the Australian public policy (Ayres & Braithwaite 1992). The approach also reflects the restriction of the scope of fisheries management to the harvest space and the governments' view that, in the post-harvest space, sustainability is a consumer value best left to voluntary initiatives (Blewett et al. 2011, pp. 97–8; Productivity Commission 2016, p. 281). In recent years, this attitude has been challenged by the fishing industry. Due to the limited success of marketing and certifications to communicate the efforts in fisheries management to Australian consumers and the community, several groups demanded a reform in what information requirements should be mandatory for seafood labelling. Industry demands clustered around the mandatory adoption of the Australian Fish Names Standard (AFNS) and for the indication of the country of origin of seafood in restaurants and fish and chip shops or 'foodservice' outlets, which are currently exempt from this obligation. Civil society actors have joined in this campaign, including with demands to adopt the European Union's (EU) labelling laws for seafood, as contained in European Commission (EC)

Regulation 1379/2013. Specific seafood-labelling legislation for CoOL in the foodservice sector was adopted in the NT in 2009 (Calogeras et al. 2011) and three parliamentary inquiries have been launched since 2014 on labelling and related matters for seafood (Commonwealth of Australia 2014a; 2014b; 2016b). The construction of its demands as a policy issue constitutes an interesting example of how the different streams underlying policy processes (the political stream, the policy stream and the problem stream) may converge to drive policy change (Kindgon 1995).

The focus on CoOL has obscured other issues that are driving policy change towards a better integration of the environmental and trade regimes, such as the prevention of IUU fishing and seafood fraud. Measures to prevent IUU fishing practices have been among the key issues addressed in trade policy to improve the sustainability of world fisheries (Sumaila, Tipping & Bellmann 2016, p. 171) and have gained prominence in the past 20 years thanks to a series of influential instruments and multilateral and unilateral trade measures, implemented by international organisations, Regional Fisheries Management Organisations (RFMOs) and states. The acceptance of IUU fishing as an economic activity that damages the sustainability of world fisheries has led the multilateral trade regime to accept unilateral trade-related measures. The EU's anti-IUU measures contained in Regulation 1005/2008 were the first to unilaterally regulate the action of market states to prevent IUU fishing (Leroy, Galletti & Chaboud 2016, p. 88; Miller, Bush & Mol 2014), complemented in 2013 by Regulations 1379/2013 and 1380/2013. This was followed in 2016 by the United States' (US) Seafood Import Monitoring Program (SIMP; Simões & Dolle 2016). Both regulations rely on the provision of traceability documentation to improve the transparency of supply chains and prevent IUU practices and product substitution. Further, both are justified in terms of establishing a level playing field for domestic fisheries, which are subject to strict management regulations and competition from products of undetermined origin that may have lower regulatory costs. Trade scholars have accepted the legitimacy of these measures while also warning that one of the risks posed to unilateral trade measures is that the flow of products from IUU fishing may be diverted to more accessible markets. The success for traceability schemes may reside in their harmonisation and multilateralisation (He 2017, p. 197).

The Australian case is pertinent to understanding the conditions under which states may choose to implement trade measures for sustainability: Australia has a solid record of

accomplishment in promoting liberalisation in trade and a seafood market with a strong presence of imports from neighbouring countries. Australia has also played a key role in the emergence of IUU fishing as a critical issue for the sustainability of high seas fishing. However, it has stressed overfishing prevention through control and inspection of vessels, in Especial Economic Zones (EEZs) as well as internationally (Clare 2010; Johns 2013; Miller & Clark 2016), rather than through trade policies. Measures in IUU prevention such as catch documentation schemes, traceability or labelling have not to date ranked high as research or policy priorities for seafood destined for Australian markets, and both government and industry have sidelined their discussion with regard to labelling requirements. However, the policy window for industry demands for CoOL may be closing, and the prevention of IUU fishing could bring an alternative construct to CoOL demands that may enable the adoption of sustainability controls for domestic and imported product in Australia. The US and EU programs argue that traceability requirements could contribute to deterring unsustainable fishing practices and differentiating managed fisheries; bring greater transparency in the supply chain; and foster consumer trust and community awareness if they are linked to labelling requirements in the consumer interface, as in the EU regulations. Whether these traceability schemes may be adopted by markets such as Australia—with its strong fisheries management regimes, a substantial share of imports in the domestic market and a local fishing industry focused on achieving stable and predictable access to the resource—is a research question that this dissertation seeks to address from a fisheries governance perspective.

Fisheries governance and discourse

Research in interactive governance for fisheries has long been occupied with the complexity of a resource whose management as a social-ecological system renders its governance a 'wicked problem' (Jentoft & Chuenpagdee 2009). Wicked problems are, in the classic formulation by Rittel and Webber (1973, p. 160), those that 'are ill-defined and […] rely upon elusive political judgment for resolution. Not "solution." Social problems are never solved'. This is the case of fisheries management, where social concerns evolve over time and problems often arise from other policy domains, requiring the interaction of different actors and areas of government, often with their own agendas and policy objectives. Interactive governance for fisheries has approached

the wicked problem of the worldwide crisis in capture fisheries through the study of the interactions between the governors and the governed that are decisive 'to get the picture right' (Kooiman et al. 2005, p. 12); that is, these interactions are seen as the sites for the production of knowledge, the tackling of constantly evolving societal problems, and the search for opportunities rather than solutions (Kooiman et al. 2005). This framework adopted first an institutionalist approach to the study of these interactions, focusing on the 'systematic attention to institutional arrangements for governing activities and to the normative principles guiding them' (p. 16). This attention to the normative principles contains elements that link interactive governance studies to another governance approach to these interactions:

> We are saying fisheries governors should be obliged to make their analytical, ethical, and political convictions explicit to others as well as to themselves. When governors define the problems they think should be addressed and ascribe certain solutions to these problems, they inevitably draw on fundamental assumptions and worldviews that should be brought to the surface so they can be explained, defended, and examined. (p. 21)

Interactive governance for fisheries has attempted to integrate different elements that underlie the action of governors in the definition of problems and the ascription of solutions: the meaning of values, images and principles (Song, Chuenpagdee & Jentoft 2013); the role of power (Jentoft 2007); and the social construction of the governors and the governed (Song, Johnsen & Morrison 2018). In doing so, interactive governance opens the door to the analysis of wicked problems as political processes in which meaning, power and socio-specific historical conditions intervene to produce and validate knowledge and truth. Rather than aspiring to an ideal of collaborative consensus, these analyses stress the importance of conflicts surrounding the different formulations of a societal concern by the actors in governance; the specific socio-cultural conditions that determine who the governed and the governors are and what is to be governed and how; and the unequal relations among the actors in governance that explain prevailing definitions and outcomes (Feindt & Oels 2005, p. 163). Briefly, these analyses reflect the importance of discourse as a communicative event: they examine the use of language to construct policy problems and the particular domains of social interactions where these constructs are validated or contested.

Discursive analyses for policy change have drawn on the Foucauldian formulation of discourse to examine how political processes shape the policy outcomes of wicked problems. Policy outcomes are the result of the struggle over the definition of social concerns that takes place in socio-specific contexts. Deliberative policy analysis, later evolving to deliberative governance analysis, operationalises the analysis of discourse to the processes of governance. This provides a conceptual framework that enables the integration of principles, values and beliefs into interactive governance, the underlying rationales for governmental action—the Foucauldian 'art of government'—and the role of power in the interactions between the governors and the governed. Deliberative policy also has a long tradition in the field of environmental policy and some of its most successful research outputs have been in this area, such as in the work of Maarten Hajer on environmental discourse (Hajer 1995; 2002; Hajer & Wagenaar 2003). The linguistic features used for these kinds of analyses have focused on the units of meaning larger than the clause, and the operationalisation of concepts such as policy narratives or story lines has enabled analysis of how complex social concerns are conceptualised into narratives that enable shared understandings. However, the construction of meaning is realised by the linguistic features used at all levels of grammar, as critical discourse analysis (CDA) approaches have long demonstrated. In the Appendices of this dissertation, the CDA approach is presented to illustrate how language both reflects and constitutes the terrain in which these interactions take place, and how the analysis of discourse in the social sciences may have a correlate in linguistics.

Deliberative governance analysis and CDA are primarily qualitative research methodologies that draw on texts, observations and interviews to collect data. This dissertation has similarly obtained data from the observations and records of discursive practices: first, from the observation of an industry conference; second, from interviews conducted with the governors and the governed; and third, by analysing a range of texts that record the political processes of problem formation and the interactions conducting to policy outcomes. Methodological guidance in the process of data collection is often implicit in deliberative governance analysis and, since both are constructivist methodologies, this has been sought in grounded theory and in the CDA discourse-historical approach used to categorise the texts usually produced in political processes.

Research objective

This dissertation explores, first, whether the current governance arrangements for the sustainability of seafood sold in Australia ensure the conditions for the sustainable exploitation of the resource along the supply chain. These arrangements show a disconnection in the governing of the harvest and post-harvest spaces, between the regulatory pursuit of sustainability in the harvest space and its consideration as a consumer value post-harvest. The dissertation examines then what problems have arisen from this disconnection, what policy tools have been used to address them, which have not, and why. Finally, it produces recommendations aimed at solving the negative effects of this disconnection on the overall sustainability of the seafood sold in Australia.

Structure of the dissertation

The dissertation is delivered over six chapters and two Appendices.

Chapter 1 offers an overview of the interactive governance perspective for fisheries and the justification for its use in this research. It also explains how discourse is defined in this dissertation and why discursive approaches are relevant to the study of interactive fisheries governance.

Chapter 2 justifies the choice of Australian fisheries governance as a case study for this research and explains how this discursive approach to interactive governance for fisheries is methodologically structured. First, it presents the conceptual framework of deliberative governance analysis and CDA as qualitative, interpretive and mainly constructivist methodologies. Second, it details what research methods have been applied to the study of the research problem and what guidance constructivist research methods offer for the process of data collection and analysis. The criteria for assessing this research´s validity and quality, including aspects of ethical research, are also explained here.

Chapter 3 presents how the governance arrangements of Australian fisheries have evolved over time to produce a command-and-control mode of governance, with the biological sustainability of fish stocks as its main regulatory pursuit. It also outlines how social licence has arisen as a main concern for the fishing industry.

Chapter 4 looks at the post-harvest space to explore what institutional arrangements govern the transit of seafood from wharf to plate; what consideration sustainability has in these governance arrangements; and which governors are in charge, according to the prevailing rationales. The chapter then explains what policy tools have been explored in addressing social and industry concerns and their partial success.

Chapter 5 focuses on the conflicts triggered between social concerns and government responses as recorded in documents related to the policy processes and which provide responses to those conflicts. The chapter looks specifically at how the labelling of seafood in the retail sector has been the site of contesting narratives on how sustainability should be regulated in the post-harvest space.

Chapter 6 examines the potential for policy change driven by the emergence of IUU fishing as a policy problem and of traceability and labelling schemes as the tools employed to resolve it. The chapter explores how IUU fishing emerged as a salient issue in the late 20th century and the prominent role Australia played in the identification of IUU fishing as a global problem. Finally, it explores whether traceability and labelling could become feasible policy tools to address the effects of the disconnections between the pursuit of sustainability goals in the harvest and post-harvest spaces.

The two Appendices illustrate how discursive analyses in the social sciences have a correlate in linguistic studies of discourse. Appendix 1 looks at the tensions in the construction of the subjects in the governance of the harvest space, while Appendix 2 presents the struggles in the governance of sustainability in the post-harvest space, where the public governors have left a gap that non-state governors struggle to fill.

Chapter 1. Governing fisheries as a 'wicked problem'

As presented in the introduction, the Australian fisheries face two problematic paradoxes. First, while Australian fisheries management has earned an international reputation for high performance in terms of biological sustainability, the owners of the resource—the public—mistrust commercial fishing and its management, leading to the restriction of access to fisheries resources. Second, the strong government pursuit of sustainability goals in the harvest sphere contrasts with the preference for voluntary solutions for sustainability in the intermediary and retail nodes of the fish chain. Both paradoxes are interrelated and are the result of a series of disconnections in the regulation of fisheries sustainability in Australia. Ultimately, these disconnections affect the overall sustainability (biological, economic and social) of Australian commercial fishing due to the implications for the sustainability of the seafood sold in Australia.

This chapter presents the theoretical angle from which these disconnections will be analysed. It starts by locating the study within the realm of 'wicked problems' in policy, those that challenge policy boundaries and technical rationality. Governance theories, such as interactive governance for fisheries, have provided conceptual frameworks and tools of analysis to make wicked problems more 'tractable' or 'governable'. Interactive governance analyses the interactions between the governors and the governed. These interactions can be understood as social practices and their study can be approached from a discursive perspective. This entails that the governors and the governed co-construct each other in their social interactions; that these interactions are fundamentally unequal in nature; that they validate particular forms of truth and knowledge; and finally, that governance is inscribed in a particular discursive space—that of government rationalities. Discourse analysis provides various sets of tools for integrating these aspects into an interactive governance analysis of fisheries. Here, this is achieved by analysing how the subjects of governance, governance objects and the formulation of problems have been created in a series of unequal social interactions and are reflected in verbal artefacts, as well as by analysing the interactions occurring within the specific governing arrangements currently stabilised in Australia. Specifically, this study looks at the crystallisation of governor–governed interactions in institutional frameworks that contain the rationales for government or private action and the policy tools considered adequate to deal with related concerns. It also analyses the emergence of policy

problems and the interactions addressed to frame, suppress or solve them, by looking at the discursive practices that enable or stagnate policy change.

1.1. Interactive governance for wicked problems

Interactive governance for fisheries and the schools of policy analysis based on the analysis of discourse share a common foundation in their preoccupation with tackling 'wicked' problems. This common foundation relates governance to its dimension as a political process in which social interactions are the fundamental unit of analysis and policy is less a technical course of action than the result of collective negotiations.

1.1.1. 'Wicked' problems in public policy

The concept of 'wicked problems' was first developed in a seminal article by Horst Rittel and Melvin Webber in 1973 to describe problems in public policy that, contrary to 'tame' problems effectively dealt with by technical means, have no clear definitions, rely on political processes for resolution and cannot be fixed indefinitely (Rittel & Webber 1973, p. 160). The article was written as a critique of the technical rationality models of policy planning dominant in the 1960s and addresses the limitations of positivist policy studies to tackle social problems in plural societies (Head & Alford 2015, p. 713). Wicked problems are deemed intractable by technical rationality at three stages: the definition of the problem, the identification of its source and the identification of the actions to follow (Rittel & Webber 1973, p. 155). Wicked problems include nearly all policy issues and the solutions are not found in technical rationality but, rather, in a persuasive exercise in which participants seek to promote their worldviews, beliefs or values. This renders policy planning a component of the political process (p. 169).

The realisation that 'wicked problems' are intractable led to the suggestion that it may be better to refrain from tackling them, which in the 1970s and 1980s aligned with the emergence of approaches that argued for a diminished role of governments (Head & Alford 2015, pp. 712, 4). However, governmental action has not decreased in the last century. Public social spending alone remains stable at an average of 21 per cent of the gross domestic product in Organisation for Economic Development and Cooperation (OECD) member countries (OECD, 2016). Issues such as natural disasters demand innovative responses (Head & Alford 2015, p. 715) and it has become apparent that a

number of global threats, such as climate change, biosecurity, poverty alleviation and terrorism, cannot be effectively managed with traditional state-centred approaches (Held 2006, p. 158; Rayner 2006, p. 2). These threats, added to a plethora of apparently intractable issues, including housing, unemployment and environmental and energy policy, constitute large areas of governmental action.

Scholars in public policy and management and, more broadly, in organisational studies have sought to offer nuanced definitions of wicked problems, to examine the factors that make problems wicked and to develop modes of governing that may render them more tractable. Wicked problems are thus characterised as unstructured, crosscutting and relentless (Weber & Khademian 2008, p. 336). They are unstructured because both the problem and the solution are difficult to define, have multiple interdependencies and causes (Australian Public Service Commission 2012, paras 15–6) and therefore present high levels of complexity and uncertainty (Head & Alford 2015, p. 716; Weber, Lach & Steel 2017, p. 2). Wicked problems are crosscutting in that they 'cut across hierarchy and authority structures within and between organisations, and across policy domains, political and administrative jurisdictions, and political "group" interests' (Weber, Lach & Steel 2017, p. 2). Finally, wicked problems are relentless because they are unstable, their solutions are provisory, and they tend to reappear and are sometimes characterised by 'chronic policy failure' (Australian Public Service Commission 2012, para 23).

Contributions from public management (Head & Alford 2015) and organisational studies (see Ney & Verweij 2015 for an overview) have offered multiple approaches towards rendering wicked problems more tractable. Several aspects are common to these approaches. First, the action of governing must be broadened beyond traditional hierarchical modes to include a wider range of stakeholders and ensure the representation of different views. This can be expected to lead to widespread consensus on the need for collaborative arrangements, in which public managers create the conditions that enable stakeholders to arrive at formulations and provisional solutions (Head & Alford 2015, p. 718). Second, there has been a transformation in the role of 'traditional' science in the policy process, with a range of factors having led to a rethink of the science–policy boundary. These factors include the role of science against other sources of knowledge; the role of scientists in the policy process; and the inadequacy or insufficiency of science alone to deal with the complexity, uncertainty and changing demands of problems such as those affecting natural resources (Weber, Lach & Steel

2017, pp. 9–15). Third, institutional flexibility is a requirement for tackling unique problems with diverse stakeholders, whose sources often fall outside the boundaries of departments. Making the structures of public management, as well as their budget and human resources, more flexible remains an important factor to enable 'broader ways of thinking about the variables, options and linkages' by governors (Head & Alford 2015, p. 723).

The concept of wicked problems has achieved increasing popularity in recent times (Peters 2017, p. 385). Public policy scholars have examined processes, tools and institutions to find out how 'to integrate science, different ways of knowing, and political and cultural values into public policy and implementation decisions' (Weber, Lach & Steel 2017, p. 15). Research work has also been directed to identify and categorise wicked problems (Alford & Head 2017, Peters 2017, Peters & Tarpey 2019). Complex problems such artificial intelligence or climate change have led to a newer formulation of 'super wicked' problems (Levin et al. 2012). Outside public policy, 'clumsy solutions' embrace the diversity of voices to look for new skills and generate imaginative solutions that are often emergent and informal (Rayner 2006, p. 12). Overall, mechanisms to construct more collaborative forms of governance are sought, to integrate the plurality of voices, science and policy-making (Weber, Lach & Steel 2017, p. 185).

Although the conceptualisation of 'wicked problems' has resurged in recent years (Crowley & Head 2017, Peters & Tarpey 2019) it has also been the object of critique (Turnbull & Hoppe, 2019). This critique seeks to replace the use of 'wicked' problems by definitions based on a continuum of structuredness and political distance (Turnbull & Hoppe, 2019, p. 333). However, this critique omits the most fruitful contribution of Rittel & Weber to the policy debate: that policy problems are social constructs embedded in political processes. The attempt to produce definitions of a policy problem is not a technical endeavour to produce 'good' definitions (Turnbull & Hoppe, 2019, p. 333). The definition of a problem as 'wicked' is part of a political struggle in the formulation of problems by particular actors and the result of an argumentative process. This realisation enabled the introduction of discursive approaches that unveil the role language and power relations in the formulation of policy problems (Crowley & Head 2017, pp. 542-43).

Beyond the labelling of problems as ‘wicked’ or ‘tame’, the formulation of problems as ‘wicked’ heralded important transformations in the expectations about governing. The strategies proposed to deal with wicked problems follow the realisation that societal problems are as diverse, complex and dynamic as the societies that produce them. Governors must move beyond one-size-fits-all solutions, discard the belief that problems can be solved permanently and that policy formulation and implementation is disentangled from the power relations between the actors in governance. The recognition that some problems are unique and will reappear, that solutions are imperfect and valid only for a limited period of time and that governing is the outcome of an adaptive learning process by a diverse number of stakeholders in unequal power relations demands a broader vision, innovative and adaptive institutions, and the embracement of change. In the particular case of fisheries, several factors have converged to make ‘wickedness’ a relevant construct for scholarly exploration, a subject that has been of particular interest to researchers in the field of interactive fisheries governance looking to explain what arrangements and interventions may improve the overall capacity of governing systems to address social problems (Kooiman et al. 2005, p. 17).

1.1.2. Interactive fisheries governance

Fisheries suffer from a general crisis—biological, ecological, social and economic—deriving from the complexity of their management and the broadness of the concerns related to them (Bavinck et al. 2013, p. 44). Fisheries governance and management embody most characteristics of ‘wicked problems’ (Berkes 2012; Jentoft & Chuenpagdee 2009). The definitions of the problem may be varied and difficult to delineate in a discipline that pursues two apparently contradictory goals requiring reconciliation: preserving a resource and deriving social benefits from it (Jentoft & Chuenpagdee 2009, p. 556; Kooiman et al. 2005, p. 41). Many of the problems for its management originate from fields outside the traditional biological boundaries of fisheries management, such as the depletion of resources driven by market demand for seafood (Berkes 2012, p. 466). Solutions are not only formulated together with the problem but are the result of hard choices between the values, interests and goals of different stakeholders. The argumentative process to reach solutions is particularly conflictive and highly political (Jentoft & Chuenpagdee 2009, p. 557). Solutions tend to

be provisory and unique to a particular 'problem situation' (p. 555) and conditions change continuously, from harvesting levels to the location of 'roving bandits' (Berkes 2012, p. 468), consumer trends or diseases in farms. The current ecosystem-based approach to fisheries management, which includes social and economic considerations, broadens the notion of the ecosystem beyond the conventional focus on fish and their aquatic environments to include humans and society (p. 469). In fisheries, this is a new approach that requires interdisciplinary research and new modes of governance that move away from the traditional single-species approaches from the biological sciences (p. 466).

Interactive governance models have been adapted to fisheries governance and management to broaden the lens of analysis, in an effort to transcend technical fixes and overcome governance failures that have plagued fisheries governance in modern times (Jentoft & Chuenpagdee 2009, p. 559). Governance models look beyond traditional public management perspectives by expanding the range of actors and the sources of authority involved in decision-making. The main driver behind research in interactive fisheries governance is to investigate whether models other than the command-and-control approach prevailing in fisheries management can render fisheries more 'governable', such that their governance is more likely to provide 'efficient and legitimate responses to the complexities of [wicked] socio-ecological problems' (Song, Johnsen & Morrison 2018, p. 378).

Interactive governance deals with wicked problems in fisheries governance by focusing on the definition of the system to be governed, the governing system and the interactions between both. Governance is defined as 'the whole of interactions taken to solve societal problems and to create societal opportunities, including the formulation and application of principles guiding these interactions' (Kooiman et al. 2005, p. 171). The system is conceived as a series of fish chains, organised around a species or market, leading from the ecosystem to the consumer, from sea to plate (Bavinck et al. 2013, p. 133). The transformations that globalisation has brought about in the production, trade and regulation of fish are a key factor in the wickedness of the problem. Diverse conditions of labour, social constructions of fish, methods and techniques of production across the globe, longer chains of interaction and multiplication of regulatory controls are among the changes that have made fisheries complex, diverse and dynamic (Kooiman et al. 2005, p. 131). Fisheries thus present yet another characteristic of the

transformations of government that crystallise in the emergence of governance models: the rearrangement of power and authority beyond the state to the supra-national level.

The interactive governance framework proposes a structure to identify wicked problems by distinguishing three levels or orders of analysis. The first level is the system to be governed, or the fish chain; that is, the first-order governing that deals with the definition of problems and solutions for everyday problems—the 'nitty gritty of governing' (Kooiman et al. 2005, p. 18). Second-order governing refers to the institutions, defined as 'the systems of agreements, rules, rights, laws, norms, beliefs, roles, procedures and organisations that are applied by first-order governors to make decisions' (p. 19). Institutions constitute the 'meeting ground' for governors. The third-order of governance refers to the principles that serve as benchmarks, for governors and the governed alike, to formulate the norms that govern these interactions. Underlying the orders or governance are the values, images and principles held by stakeholders, which are a key factor contributing to the complexity of problems (Song, Chuenpagdee & Jentoft 2013, p. 167). The boundaries between values, images and principles, as well as the role of beliefs, knowledge or perceptions and the ways they interplay require more attention in the literature (pp. 172–3). However, there is an awareness that images 'play a persuasive and rhetorical role in steering the course of governance, shaping how stakeholders view issues, problems and other involved parties' (p. 170).

Finally, interactive governance, as the name suggests, focuses on the governing interactions, defined as 'exchanges between actors that contribute to the tackling of societal problems and opportunities' (Bavinck et al. 2013, p. 11). These exchanges are constrained, and governance looks at the constraints at each level of the system. It focuses on the properties of the exchange—diversity, complexity, dynamics and scale; that is, the structural roots of wicked problems at each level—and examines the components, relationships, interactions and boundaries when defining wicked problems and assessing their governability (Jentoft & Chuenpagdee 2009, p. 559). The emphasis on interactions introduces a dynamic element to the analysis:

> Rather than being fixed, interactive governance suggests that values, principles and goals are simultaneously crafted and expressed as actors engage in social-political exchange. Goals are then not given but negotiated, and are not stable but vary according to the relative strength of the participants that come and go.

> […] As a research tool, governance theory insists that goals are treated as an empirical question rather than assumed. What are the goals? How do they come about? Whose are they? What do they mean? Similar questions are asked of the various groups of governors or stakeholders active in the governance process: Who are they? What exactly is it that they have at stake? Who defines who they are? How do they come forward and make themselves heard? (Bavinck et al. 2013, p. 12)

The way that interactive governance deals with this dynamic element reflects different ontologies and epistemologies within a systems theory in which governing and governance are 'cybernetic processes of intervention, control, responses and feedback' (Song, Johnsen & Morrison 2018, p. 378). The different epistemological approaches to the study of fisheries governance from an interactive perspective have been discussed recently (Song, Johnsen & Morrison 2018) and arranged as shown in Table 1.

Table 1: Conceptual underpinning of the three cybernetic orders and their rendering of governability

	First order	Second order	Third order
Underlying epistemology	Positivist realism	Critical realism, contextualism, post-normal science	Social constructivism, relativism, interpretivism
System characteristics	Constant, efficient, predictable	Complex, unpredictable, negotiable, scale dependent	Situationally emergent, relational, provisional, reciprocal
Governability definition	Stable application of measured intervention and reliable feedback that places target system within prescribed thresholds	Dynamic correspondence of structural and functional components of system properties and governance capacity	Temporary stabilization of the symbolic representation of relations through reciprocal defining of capacity and objects
Preferred governance configurations (an example in fishery)	Command-and-control, rules and regulations (e.g. fishing quota and total allowable catch)	Adaptive and interactive management, social learning and stakeholder engagement (e.g. ecosystem-based management)	Relationally congruent, little distinction of governors and those being governed (e.g. community-based management)
Proxies for governability	Steady state, market equilibrium, maximum sustainable yield, carrying capacity	Adaptive capacity, collective action, self-organization	Goals, discourses, practices and configurations coming to a coherent assemblage
Governability in ideal state	"Impeccable control"	"Seamless fit"	"Coherent assembly"
Risks	Assumption that everything is governable (e.g. the blueprint and panacea approaches)	Always requires more knowledge of the parts and the system; there are limits to governability given the complexity	Less normative and prescriptive, thus weak on generating policy recommendations and is harder to pin down

Source: (Song et al. 2018, p. 384)

In line with the original aim of cybernetics, to develop an 'entire field of control and communication theory, whether in the machine or in the animal' (Wiener 1961, p. 11), the interactions between governors and the governed have been approached from

rationalist conceptions of the system. These are rooted in critical realism and explore how well the governing system defines the system to be governed and designs interventions that 'fit' the needs. These conceptions integrate several elements that are acknowledged to be discursive in nature, such as images (Song, Chuenpagdee & Jentoft 2013, p. 170), and have been subject to research, sometimes following non-discursive methodologies such as survey (Song & Chuenpagdee 2014) or thematic searches (Song, Chuenpagdee & Jentoft 2013). In the same vein, governors and the governed are considered pre-existing categories (Song, Johnsen & Morrison 2018, p. 384), undermining the emphasis on the dynamic nature of interactions. The role of power in interactive fisheries also remains understudied (Jentoft 2007; Kooiman 2013, p. 367). Interactive governance scholars have raised the question about the possible frameworks for the study of power that could be appropriate to the interactive paradigm in its study of interactions (Kooiman 2013, p. 367). Among the suggested directions is a relational nature of power that redirects attention to the images underlying wicked problems, as defined by Rittel: 'an argumentative process in the course of which an image of the problem and of the solution emerges gradually among the participants, as a product of incessant judgment, subjected to critical argument' (Rittel & Webber 1973, p. 162). Power may be the factor that determines what knowledge is considered valid to address a policy problem, what policy is and what governments do: 'how management institutions frame, legitimate and validate discourse' (Jentoft 2007, p. 433). In other words, power may explain how the discursive field is established; how problems emerge, are shaped and reshaped in the interactions; and how this interaction takes place within structures of power. This is the object of study of discourse as a social practice.

An awareness of the potential contributions of the political sciences and social studies of science to the study of fisheries governance has resulted in a tentative application of a constructivist perspective to governable systems (Song, Johnsen & Morrison 2018, p. 387). This perspective argues that both the governors and the governed are co-created through unequal interactions, and that governability is the result of 'processes through which governors and the governed simultaneously create governable systems' (p. 387). Exploration of the co-construction of the subjects and objects of governance draws on a rich corpus of research that has focused on the argumentative processes underlying the definition of wicked problems around three key aspects: 1) how subjects, objects and problems emerge and are communicated through language; 2) how the interactions that

create the governors and the governed unfold in given contexts, in which power and the role of knowledge contribute to create constraints and boundaries; and 3) how the process of governing constitutes one such specific context. Such an approach to the governance of fisheries offers the opportunity to enlist contributions from a long tradition of study of such factors in fields as diverse as linguistics and the studies of technology and science, which have long focused on the interplay between language, power, knowledge and the art of governing, known as the study of discourse.

1.2. Discourse: Making meaning through social practices

Discourse has been a powerful concept in theorising collective interactions, both in the humanities and the social sciences. As a conceptual framework and methodology, it has been successfully adapted to a wide array of disciplines. This makes discourse a difficult notion to pin down, especially because of its double dimension of a verbal object and social practice, both of which are directed towards the making of meaning.

1.2.1. Discourse as text and discourse as practice

The study of discourse originates in linguistics, as a response to the Saussurean distinction between *langue* and *parole*—between the system of language and its individual occurrences—that establishes the former as the subject matter of the study of language (Sarangi & Coulthard 2000, p. xvi). In the 1960s and 1970s, the dominant structuralist (and later Chomskyan) paradigms in linguistics privileged the study of the system over the speech act, thus neglecting the study of language as an essentially communicative act. However, over the last three decades, these paradigms have been contested by several schools of thought drawing from diverse theoretical contributions including sociolinguistics and functional linguistics, which conceive language as a speech act in context (p. xix), in which meaning is generated as a result of a social interaction. Discourse analysis is primarily concerned with one aspect of social interactions: meaning and making meaning (Fairclough 1995, p. 3). This focus is on the role of social interactions to generate meaning, shared visions and common understandings, identities and conflict. Discourse approaches social interactions as communicative events and studies how language (including verbal and non-verbal signs) is used to construct knowledge and beliefs, identities, ideology and organisations; shape group norms; produce social change; and regulate our social life.

A turning point in the evolution of the notion of discourse to explain social change can be seen in Michel Foucault's effort to bring social practices and power relations to the linguistic notion of discourse (Hook 2001, pp. 522–3). Several of his contributions to the analysis of discourse are of special significance to the study of governance and are discussed in this section and the next. The first is his use of the term 'discourse' to constitute social subjects and the objects of knowledge. Another is the idea that the relations that enable one or another regime of truth to prevail are grounded in the use of power and are historically specific. Third is the notion that beyond the sovereign control of the state, governing involves diverse authorities and agencies that are set to discipline the self and shape human behaviour (Dean 1999, p. 11). Fourth is the concept of government as constituting a specific discursive field, an 'art of government' that construes boundaries and strategies to solve problems in historically specific ways (Lemke 2001, p. 191). Advanced liberal governmentality is the currently dominant configuration of this discursive field in Western societies, shaping the relations between government and society (Dean 1999, pp. 149–50).

Regarding the first contribution, discourse is defined in Foucauldian terms as a set of rules, systems and procedures, a realm of discursive practices, 'a conceptual terrain in which knowledge is formed and produced' (Hook 2001, p. 522). In forming knowledge, discourse also constructs the objects of such knowledge by attaching meaning to reality (Fairclough 1992, p. 42), to objects of the natural world, such as whales or fish (Epstein 2008, p. 6). Whether fish is a commodity, a protein, a natural resource or a 'slippery & three-dimensional monster that exists in all manners of curves' (Flanagan 2001, p. 166) does not change the physical properties of fish, but rather what it means to particular social actors, such as fishers, consumers and regulators. These social actors, in turn, are also 'constituted, reproduced and transformed in and through social practice' (Fairclough 1992, p. 44). Discourse practices produce sites from which social actors exist and can speak under certain conditions. Fishers, for example, may exist in fisheries management as those 'individual fishermen exploiting a community resource for private gain' (Borthwick 2012, p. 51) or as 'custodians' of the resource (Sparks 2013, p. 4), with completely different implications for their position in the policy process.

The second contribution to the interplay between knowledge, power and language is the realisation that the conditions under which knowledge is validated form 'a system of exclusion, a historical, modifiable, and institutionally constraining system' (Foucault

1981, p. 54). Therefore, truth and knowledge are the product of a given social construct at a particular period of time: 'Each society has its own régime of truth, its "general politics" of truth: that is, the types of discourse it accepts and makes function as true' (Foucault 1980, p. 131). In Western societies, the regime of truth or the 'political economy of truth' has five main traits of relevance to the study of governance: truth revolves around scientific discourse and the institutions that produce it; it is subject to constant economic and political incitement; it is widely disseminated in society; it is produced and transmitted under the control of political and economic apparatuses; and it is an issue of political and social confrontation (pp. 131–2). For Foucault, practices and discourse are mutually constitutive of truth, and inextricably linked to power: 'discourse is not simply that which translates struggles or systems of domination but is the thing for which and by which there is struggle, discourse is the power that is to be seized' (Foucault 1981, pp. 52–3). Government is one such field of struggle, in which social actors strive to access the discursive field, to intervene in the formulation of a policy problem and gain authority over the generation of knowledge. The controversies in fisheries between local knowledge and scientific knowledge, between the knowledge of fishers and the knowledge of marine biologists, are a good example of this struggle (Bavinck et al. 2013, p. 288).

The analysis of discourse to understand social interactions has expanded the use of the term to a higher level of abstraction—and fuzziness—in the social sciences, but the fundamental notion retained is that of an arrangement of shared meanings produced by social interactions. Its analysis encompasses a vast array of perspectives with some common features:

> (i) a particular awareness of the role of language in constituting policies, polities and politics; (ii) a sceptical attitude toward claims of a single rationality and objective truth; (iii) an inclination to regard knowledge as contingent and principally contestable; (iv) an interest in bias effects of dominant types of language and knowledge; (v) a shared understanding that language and knowledge need to be understood as an aspect of power and as exerting power effects; (vi) an interest in practices (i.e. professional and everyday practices) as constitutive of power relations and knowledge systems; and (vii) a strong emancipatory motive and an interest in democratising knowledge production and policy making. (Feindt & Oels 2005, p. 163)

1.2.2. Power and the art of government

Power, as noted above, is a constitutive element in the formation of discourse and discursive fields, and Foucault analyses power in its pervasiveness, from the role of power in the construction of the self to the specific technologies of governing individuals, with the aim to illuminate its ubiquity and multiplicity of forms. In his early works, the exploration of power in Foucault focuses on its role in the construction of the subject (the 'genealogy of the subject') and the state (the 'genealogy of the state') (Lemke 2002, p. 50). From these two separate early projects, Foucault came to progressively focus on government as the meeting ground for the co-construction of the self and the state. Governmentality came to be the term used for the specific techniques of government in this middle ground between the games of liberties taking place between individuals and practices of domination. More specifically, governmentality is used to describe the specific techniques of power used by states; and in a third use of the term, governmentality is also used to refer to a specific form of government rationalities in the form of liberal and neoliberal techniques (Walters 2012, pp. 12–3), signalling that 'it is not possible to study the technologies of power without an analysis of the political rationality underpinning them' (Lemke 2002, p. 50).

The work on the genealogy of the state questions the traditional understanding of political power by shifting away from the idea of power as a capacity to act and a right legitimised by consent (Hindess 1996, p. 97) towards one in which discourse reflects a 'dominant set of power relations' (Dean 1999, p. 9), which are arranged differently and societies, and are carried out by a number of authorities and agencies. Power goes well beyond the relations between a sovereign and their subjects; it is rather 'a matter of instruments, techniques and procedures employed in the attempt to influence the actions of those who have a choice about how they might behave' (Hindess 1996, p. 141). Beyond the traditional understanding of the sovereign power of the state to coerce and control, there are multiple techniques of power that discipline subjects and extend control to the bodies and the identity to the governed (Dean 1999, p. 46), aiming to affect the actions of individuals by working on their conduct (Hindess 1996, p. 97). The exercise of government authority is transformed in several ways: it is extended to broader domains of individual conduct; the authority to govern is disseminated in many more sources; and it is administered not only in the form of coercion, but through more subtle means. These means are the technologies of government: 'a complex of practical

mechanisms, procedures, instruments and calculations through which authorities seek to guide and shape the conduct and decisions of others in order to achieve specific objectives' (Lemke 2007, p. 50).

In his later works, Foucault's theorisation of discourse focuses on the study of these techniques and the underpinning mentalities of government. Government is a rational activity that implies a directionality to certain ends, a given 'art of government' that is also defined as governmentality (Dean 1999, p. 46). The analysis of government studies how particular regimes of practices emerge, become prevalent and change (p. 21), and the tensions between narratives and forms of knowledge in this system of inclusion and exclusion. Political rationalities create discursive fields that delineate what functions as a 'politics of truth' (Lemke 2002, p. 50), as justifications (or lack thereof) for regulation or government intervention and the tensions between rationalities and technologies illustrate the conflicts and struggles within them (p. 57).

Foucault concerns himself more specifically with the rise of a particular form of government that also falls under the name of governmentality: liberalism (Dean 1999, p. 20; Walters 2012, p. 30). Liberalism is defined as the specific art of government that has 'population as its target, political economy as its major form of knowledge, and apparatuses of security as its essential technical instrument' (Foucault, cited in Walters 2012, p. 30). Liberalism has three characteristics: a 'frugal' or economic government, a special place for the market as a set of processes outside the political sphere against which to check governmental action, and a regime that actively manages and produces freedom (Walters 2012, pp. 31–2). The lens of analysis is further developed to explain the rise of a specific regime of practices prevalent today: a neoliberal governmentality that has shifted the locus of the production of truth to the market. With neoliberalism, the market becomes the truth that shapes governmental practice (Foucault 2007, pp. 33–4). Neoliberalism constitutes a political project that aims at constituting the market as the organisational form for society (Lemke 2001, p. 200), rendering the social domain economic (p. 193). Key transformations in fisheries governance illustrate this point, such as the adoption of market-based (rights-based) allocation tools in Australia. The introduction of individually transferable quotas to allocate fishing rights has created a market in a domain of social life that did not have one before and aims at influencing the conduct of individuals to abandon 'lifestyle' fishing in favour of practicing fishing as a profitable business activity. Commercial fisheries become thus one more area in

which neoliberal governmentality has penetrated Australian policy-making (Hindess 1998, p. 223). A particular government reform thus implies certain understandings of sustainability and globalisation, a set of normative assumptions underlying the policy. Transformations that explain the emergence of 'governance' versus 'government', such as the new relations between state and non-state actors or the displacement of state power towards supra-national spheres, can be read as effects of the neoliberal technologies of government (Lemke 2002, p. 59).

The analysis of the art of government, or of governmentality in the various meanings attached to the term, provides a useful set of tools to explore present-day liberal societies and the various technologies used by a myriad of authorities to govern individuals, including, but not limited to, liberal or neo-liberal governmentalities (Walters 2012, p. 39). Thomas Lemke (2007, p. 54) and William Walters (2012, p. 65) have noted how governance theories and governmentality studies share similar preoccupations: they focus on processes rather than institutions; they broaden the study of government beyond the state to incorporate broader sets of actors; and they view power as relational, rather than as a capacity. However, governmentality studies offer a critical perspective on governance theory in several respects. First among these is the tendency in governance theory to consider governors and the governed as external to one another, rather than as co-constructed in their interactions (Lemke 2007, p. 54). Governmentality studies also question governance theories that depict governance as progressing linearly towards a normative ideal of consensual, collaborative arrangements (such as 'good' governance) as an inevitable response to a globalised world (Walters 2012, p. 68). This inevitability downplays fundamental components of the political process—the asymmetry in power relations, the conception of politics as struggle and conflict, and the combination of the different forms of liberal and non-liberal technologies of government that co-exist today (Lemke 2007, p. 54; Walters 2012, pp. 66–7). The analytical toolbox of governmentality studies can be brought to the study of governance by drawing attention to the co-creation of subjects and objects in governance processes; the role of conflict and struggle in these processes; and the ways that different technologies of government intervene not only to frame problems, but to establish boundaries to possible solutions.

A discursive approach may explain the 'temporary stabilisation of the symbolic representation of relations' (Song, Johnsen & Morrison 2018, p. 383) and identify the

sites of struggle and possible emerging change. Temporary 'solutions' to wicked problems are a combined exercise of power and dissent that is consubstantial with their political nature. Policy processes can work towards critically re-examining the role of knowledge and power, enabling broader participation and acknowledging dissent; however, there is little left to aspire to as regards the Habermasian ideal of undistorted communication, a situation in which 'the games of truth could circulate freely, without obstacles, without constraint, and without coercive effects' (Foucault, cited in Hindess 1996, p. 149). Discursive approaches, in their deliberative form, may still aspire to a normative ideal of governability compatible with aspirations for temporary arrangements to wicked problems. They may also contribute to the analysis of governance, and the understanding of governance itself, as a particular arrangement of practices rather than institutions (Walters 2012, p. 65), by attending to the 'changing ways in which objects, subjects, means and ends of government are articulated' (p. 61) rather than preconceived categories regarding the actors in governance. Further, analytical tools used in discursive approaches may be applied to distinguish between the various liberal and non-liberal rationalities underlying the instruments and actions in interactive governance, avoiding the idealisations of consensus, networking and collaborative arrangements put forward by governance theories and unveiling dissent, conflict and resistance as components of governance. Finally, discursive approaches may point to the limitations of governance itself as a product of liberal governmentality (p. 66), while simultaneously examining the possibilities in the transformations of the strategies of rule highlighted by governance studies (p. 66) to attain partial, temporary solutions to wicked problems.

The research questions addressed in this dissertation follow these theoretical tenets. It aims to suggest partial, temporary solutions to the wicked problem of how to reconcile the control of sustainability at the point of harvest with its control in the retail sphere. It bases these suggestions on an analysis of how the current governance of the Australian fisheries emerged from a series of struggles in the late 20th century. This discursive analysis provides insights into the construction of the subjects and objects of governance: how fish and fishers acquired specific meanings; how the roles, scope and nature of the fisheries governors were—provisorily—fixed according to the construction of the objects and the prevailing rationalities of government; what the current struggles are; and what social practices frame 'viable' solutions. Finally, the

analysis generates recommendations to advance the normative goal of reconciling the conservation of fish stocks with their sustainable exploitation. By using discursive analysis, these recommendations are sensitive to the socio-cultural specificity of the context and should be understood as 'viable' in the current discursive environment.

1.2.3. Theoretical boundaries

One issue affecting possible relational approaches in interactive fisheries governance is how to approach the co-construction of governors and the governed to include non-human subjects, such as fish, or abiotic 'forms of liveliness' (Van Dooren, Kirksey & Münster 2016, p. 4), such as the oceans. That is, how can we understand the entanglements between researchers and the researched, sciences and their objects, humans and nature. Research has analysed the power relations embedded in the structuring of these relations and, more recently, it has questioned the anthropocentric bias of the approach to the study of lifeforms. These perspectives may enrich and extend this research but they also pose challenges for its outcomes and the establishment of its boundaries. This section acknowledges more novel approaches to the study of discourse in the social sciences and explains where these approaches may contribute to the analysis.

Within the sociology of sciences, seminal work by Michel Callon, Bruno Latour and John Law has explored the power relations at work in studies of technology and science. The analytical tools that have come to be grouped under actor–network theory abandon the distinctions between the natural and social worlds and explore how subjects are constructed in these worlds and the essential role of power relationships to this process. The mechanism of 'translation' (Callon 1984) explains 'how the social and the natural worlds progressively take form' (p. 224) and 'permits an explanation of how a few obtain the right to express and to represent the many silent actors of the social and natural worlds they have mobilised' (p. 224). As in the study of the Foucauldian *dispositifs* (dispositives) and apparatuses, scholars in actor–network theory have shifted their focus to the study of devices; that is, from the agency of subjects to the 'objects', 'bringing materiality to the forefront' (Callon, Millo & Muniesa 2007, p. 3) to stress the role that material things may have in political processes (Rose 2006, p. 93). Scholars in the field, for example, have analysed budgets, audits, merchandising techniques and financial derivatives that co-create political constructions such as markets. This

broadens the perception of discourse from the immaterial to the material and to the *agencements* (assemblages) between a variety of 'sociotechnical devices' (Callon, Millo & Muniesa 2007, p. 2) that articulate actions and reframe social practices. In this research, the label may occupy such a space. How do labels structure the discursive elements around them? How do they come to interact with elements such as consumers and food standards but not with others like fisheries managers or oceans? How do labels relate to fish? Can labels be imagined to enact different *agencements* of subjects, different modes of regulation, to mean differently? Can this different understanding constitute a possible temporary solution to the problem of labelling fish as 'sustainable'? Under what conditions? These considerations remain in the background in the analysis of labelling and traceability in Chapters 5 and 6. Both chapters integrate these questions to reflect on the possibility of imagining labels differently. In order to maintain coherence with the theoretical paradigm of the dissertation, they take as a basis for the analysis of alternative conceptualisations the current regulatory framework and struggles. However, studying market-based tools for new and different possibilities remains an exciting avenue for further research.

In the social and political sciences, the agency of objects has evolved into a centrality of matter in schools such as 'new materialism'. These have objected, for example, to the 'perceived excesses of the linguistic turn' (Washick et al. 2015, p. 64), claiming that the 'focus on discourse, language and culture not only leads to impoverished theoretical accounts and conceptual flaws but also results in serious political problems and ethical quandaries, as it fails to address central challenges facing contemporary societies' (Lemke 2015). The reification of matter in 'new materialism' has been challenged in turn, advocating for the 'entanglements and traffic between nature/biology/culture and between materiality and signification' (Ahmed 2008, p. 35). It has also led to revisiting the Foucauldian exploration of the 'government of things' (Lemke 2015) and to renewed attention to the role of the apparatus, *dispositifs* and *agencements*; that is, the diverse ways in which interactions between discursive and non-discursive elements structure the governing of humans and things, which is a common preoccupation of Foucauldian and technology and science scholars in the tradition of actor–network theory. This research acknowledges that its focus on the analysis of discursive elements may pose a limitation; however, it focuses on discursive processes rather than the materiality of objects, turning objects into social practices. Analysing the activity of

‘labelling’ instead of the ‘label’ as thing points to these networks of relation in discursive terms: What technologies of government (e.g., auditing against a set of performance measures), by what actors, to what effect and with what directionality crystallise in a fish label? Where are the gaps and resistances? What are the tensions? What elements of the label emerge as temporary stabilisations of the role of labels in the marketplace? Which are contested? By whom? I focus on human agency in the policy process rather than on the objects of such agency, while still interrogating the meaning of these objects.

The focus on the discursive interactions of humans might be another valid critique of a research in governance whose governed subjects are both human and non-human. The abolition of distinctions between the natural and the social world in the entanglements between humans and non-human forms of life has taken new directions that question the centrality of humans in the co-construction of the subjects among the various forms of life that inhabit the planet. Multi-species studies, for example, is an umbrella term for a series of approaches that are ‘united by a common interest in better understanding what is at stake—ethically, politically, epistemologically—for different forms of life caught up in diverse relationships of knowing and living together’ (Van Dooren, Kirksey & Münster 2016, p. 5). Multi-species studies call for the inclusion of non-human animals in societal concerns; ‘learning how one might better respond to another, might work to cultivate worlds of mutual nourishing’ (p. 17). This ethical perspective on the entanglements between humans and non-humans could be potentially a whole new field contributing to interactive fisheries governance, beginning with a re-examination of the principles of governance from a multi-species perspective. This researcher is aware that questioning biocentric perspectives on the entanglements of fish and humans and their asymmetric relationships is of importance to this research: What are the implications for regulating fish as living or dead? Could the act of labelling fish with their names be as problematic as the division of fish into species? Can fish be ‘given’ a nationality? Is migration of fish stocks an act of resistance to sovereign power? What attentiveness has gone into the interactions between fish and humans along the supply chain? Where is the agency of fish reflected in this research?

The above are all important questions and will be in the background of this project. However, several constraints limit the ways in which this research can approach them. One lies in its goals and intended audience: this research speaks to actors in a domain

largely populated by economists, scientists, industry actors and policy-makers who may be more or less familiar with governance analyses but unlikely to be integrating post-humanist approaches in their professional practice (with animal welfare as an emerging exception). This study thus aims to approach these various groups from a perspective that may bridge understandings between them, while also suggesting practical tools to rethink the wicked problem of fisheries governance. This poses limitations for how the researcher can bridge discursive conventions across disciplines, the negotiation of which, as in any interdisciplinary work, is an exercise in making meaningful boundaries and adjusting research methodologies and methods to them. Deliberative policy and governance analysis already have a tradition of analysis in environmental policy, since at least Maarten Hajer's (1995) influential *The Politics of Environmental Discourse*. Interactive governance for fisheries, based as it is on the same foundations as deliberative policy analysis, is currently a fruitful paradigm that helps situate this research within the social studies of fisheries. This research aims at making a modest theoretical contribution to the field of interactive governance approaches, following research directions already in motion, as outlined above. It also aspires to make a meaningful contribution in response to practical problems in Australian regulation, adding to the body of existing research and formulating recommendations.

In suggesting change, this research attempts to incorporate the post-empiricist approach to the role of the policy analyst, which moves away from technical rationality in policy planning. This approach to policy analysis acknowledges the role of meaning and its attached constructions, such as values, beliefs and diverging normative aspirations in policy-making; and understands interpretation and change as complementary (Fischer 2003a, p. 226). By imagining the possibility of change, this research picks up, in a very limited form, the gauntlet thrown to the studies of governmentality: 'rarely do they offer concrete political proposals themselves' (Walters 2012, p. 148). However, this is not to say that this research seeks new possibilities by exploring the greatest range of potential options; it does not, for example, consider the political value of the economy (Butler 2010, p. 154) in the way of research not only concerned with representing different worlds but with enacting them through various negotiations between humans and non-humans (Roelvink, St. Martin & Gibson-Graham 2015, pp. 8–9). Rather, this research situates itself at the prior stage:

> If we think as well that we can only ask 'how things are made' or 'how are we to join in the making of what's already underway' then it becomes clear that we accept the ongoing making of economic realities and only seek to intervene in them to redirect or further a certain pattern of making. (Butler 2010, p. 153)

The consideration of the possibility of change is restricted in this dissertation to exposing 'how things are made' and bringing change in already-emerging directions, to seek its articulation in the interstices that could bring about different understandings that already exist within the policy community[1]; that is, that are discursively viable. The recommendations on fisheries management objectives and on traceability as a potential policy tool contained in the conclusion reflect this. However, to contribute to the transformation of discursive approaches from these post-humanist perspectives is well beyond the scope of this study. One reason for this is that the entanglements between Australian humans and fish (and what fish and which Australians) and the importance of estuaries and oceans as a milieu of governance still remain to be explored. Such a research would bring the agency of fish and oceans more clearly into the construction of things that govern and are governed. These entanglements remain as a field of study for my further research in this area.

For the time being, however, this thesis deals with the wicked problem of how fish is regulated in Australia, to reconcile the goals of conservation and consumption, taking a discursive approach to interactive governance. It looks at the way that a discursive field is created for the governance of the harvest and trade of fish in Australia and what subjects and objects emerge in it. It examines the conflicts and shared understandings that are produced about what fish is and how it should be regulated, and what discursive struggles are reflected in competing images and unequal interactions. It focuses on the governing by the state and analyses whether current regulatory tools are instruments for conceptual and relational change towards new arrangements in the governance of fish, and whether these align with the specific government rationalities at work in the field of analysis. Finally, it explores whether changes in the goals of governance that are

[1] Policy communities was a term first introduced in 1979 in a paper by Richardson & Jordan to argue that formal procedures could not explain alone policy formation (see Jordan 2005 for the history of the term). Policy communities refer to participants in the policy process that develop 'common perceptions and the development of a common language for describing policy problems' (Jordan 2005). Although policy network developed later and became popular, policy community is a widespread term in policy studies.

happening in other socio-cultural governing contexts may be likely or unlikely to happen in the Australian context.

Chapter 2. Methodology

As discussed in Chapter 1 above, this research is located in the field of governance studies and brings a discursive approach to the study of fisheries governance. The methodological approach employed to achieve this aim relies on a middle ground theory, deliberative governance analysis, which may facilitate the integration of discursive approaches into the general paradigm of interactive governance for fisheries. This approach has been chosen for two main reasons: its suitability for explaining connections and disconnections along the supply chain in the regulation of seafood for sustainability, and for exploring how discursive approaches contribute to the study of fisheries from an interactive governance perspective. Deliberative governance offers the means to operationalise the notions of discourse and power into the policy process, and it shares with fisheries governance an 'interactive' perspective. Further, it has also used the analytical toolbox of governmentality studies with the awareness that policy does not occur in a vacuum but in the specific discursive field of governing. The interpretive methods of deliberative governance are illustrated by CDA, which analyses 'representative' texts to illustrate how social struggles are constituted and reflected in language that is understood not merely as words but as social practice. Constructivist grounded theory offers a methodology to guide the processes of collection and analysis of the data, something often implicit in interpretive approaches that share similar methods of inquiry. Finally, the choice of a case-study approach is especially suited to wicked problems, which are characterised by the impossibility of 'one-size-fits-all' analysis and solutions.

2.1. A case-study approach

A typical approach to wicked problems characterised by complexity, diversity and dynamics is the case-study approach, which Maxwell (2013, p. 16) defines as 'an empirical inquiry that investigates a contemporary phenomenon (the "case") in depth and within real-world context, especially when the boundaries between phenomenon and context may not be clearly evident'. The case study helps gain a profound understanding of the social problem addressed and provides practical lessons that can be applied to other cases (Chuenpagdee & Jentoft 2015; Stake 2000). Rather than aiming at generalisation, they can be transferable to fitting contexts (Lincoln & Cuba 2000, p. 29),

and are therefore a way to prevent one-size-fits-all solutions (Campling 2016, p. 227). The heuristic category of case studies attempts to stimulate theoretical thinking (Eckstein 2000, p. 129), and is in line with the recommendation that power should preferably be studied in the form of case studies (Jentoft 2007, p. 434).

The choice of Australia as a case study is relevant to the study of the policy disconnections in the regulation of sustainable seafood for several reasons. First, in terms of the management of the harvest and trade of seafood, Australia is an example of a developed country with biologically well-managed fisheries, a solid track record in promoting liberalisation in trade and consumer policy, and a seafood market with a strong presence of imports from neighbouring countries. The Pacific region in which Australia is located is a particularly dynamic area in international trade, one where fisheries and aquaculture are a relevant economic activity and where sustainability, food security and food safety are key concerns for the industry, decision makers and citizens. In terms of fisheries governance, Australia participates actively at the different levels of international governance and has well-developed frameworks in place at the federal and state levels for policy-making, including mechanisms for consultation and participation, as well as a framework for regulatory intervention in different policy areas and articulated procedures at the science–policy interface. However, in spite of these arrangements and the normative ideal of participatory and collaborative governance behind them, the problem of how to manage the resource and its consumption persists. Therefore, the case study may show whether the analysis of the discursive practices involved in defining and solving a problem in fisheries governance illuminates new formulations of the problem and possible temporary solutions, and provide insights into the study of fisheries governance in advanced liberal (advanced capitalist) societies.

2.2. The study of discourse in policy-making

In the field of political studies, discursive approaches have mainly been employed by the deliberative policy analysis that emerged as an alternative to the dominant positivist, quantitative approaches in policy analysis to focus on the argumentative processes surrounding wicked problems. Deliberative policy analysis approaches the study of policy—later, of governance—by analysing the interactions of actors in processes of discourse formation, validation and consolidation using a subset of communicative devices related to persuasion and argumentation. Although this approach has

traditionally focused on the agency of pre-conceived, human actors, later developments have enriched the perspective in two ways. First, it has grown to incorporate the study of the specific delineation of concepts and boundaries in the discursive field of governing. The governmentality toolbox provides guidance to the forms of power and to governing as a discursive field, of which governance itself is a technology of government. Second, it has contributed to a broader understanding of agentivity that is not restricted to human agency but includes objects such as documents, which are part of the diverse array of elements that come together to represent and transform the objects and spaces of governance.

2.2.1. Deliberative policy analysis: Policy-making as a discursive field

Deliberative policy analysis approaches the understanding of policy as emerging from a discursive interaction and therefore focuses on the fact 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 2003b, p. 155). From its origins in the argumentative turn of policy (Fischer & Forester 1993), deliberative policy focuses on the analysis of linguistic devices such as framing, narratives and tropes, as used in the construction of problems, their boundaries, shared meanings and exclusions in the area of policy analysis and planning (pp. 2, 160). The aim of this approach is to gain insights into the interactions conducting to the formulation and solution of policy problems, and particularly, to illuminate that politics 'is a struggle for power played out in significant part through arguments about the "best story"' (Fischer 2003b, p. x), a story that is not merely 'words' but plays out in social practice (Hajer & Wagenaar 2003, pp. 14–5). Deliberative policy analysis shares with interactive governance for fisheries the wickedness of problems as a point of departure and a commitment to find the deliberative spaces that will articulate governance at a time of profound rearrangements in the sites of authority (Hajer & Wagenaar 2003, p. 3). Several contributions of this approach are of use to the methodological approach in this research. One is the centrality of its preoccupation with the processes in policy, and the special attention paid to actor interactions, not only in the construction of shared meanings but also in their struggle for dominance. Another contribution is the main role assigned to the argumentative nature of the policy process and the central role of language in it, understood not merely as linguistic representation but as a social practice.

The socio-interactive approach of Maarten Hajer (Hajer 1995; Hajer & Wagenaar 2003) exemplifies how these contributions are operationalised. His approach shares with interactive governance for fisheries an interest in the interactions—that is, the practices and processes, rather than the contents of policy-making—but it contributes to governance the integration of the Foucauldian notion of discourse. For Hajer, discourse is understood as a verbal construct (in the Foucauldian sense of a 'set of statements' that is constitutive of reality; Feindt & Oels 2005, p. 166) but the focus shifts to discourse as a system of practices, in which the Foucauldian theorisations on discourse are operationalised to explain discourse formation and consolidation. Hajer provides a framework of analysis for discursive statements at three levels. At the first level, the linguistic features of the policy problem and policy community are analysed, as in Table 2 below. This layered analysis comprises symbolic narratives or story lines, policy vocabularies that structure policies in specific ways (Hajer & Wagenaar 2003, p. 105) and epistemic notions that reflect the regularities in thinking of the age (Hajer & Wagenaar 2003, p. 106). The second level of analysis relates to the actors involved: Who adheres to diverging policy narratives? What communities of interpretation are established? What are the 'discourse coalitions'; that is, the alliances formed among actors that are attracted to a particular set of policy narratives? (Hajer 1995, p. 65). A third level of analysis refers to practice: Where do these interactions take place? What are the institutional practices in which conflicts take place? (Hajer & Wagenaar 2003, p. 108).

Table 2: Layers of discourse in Hajer's socio-interactive approach

Layers	Examples from the 'nature development' case
1. Analysis of *story lines, myths and metaphors*: (crisp) generative statements that bring together previously unrelated elements of reality and thus facilitate coalition formation 2. Analysis of *policy vocabularies*: sets of concepts structuring a particular policy, consciously developed by policy-makers 3. Analysis of *epistemic figures*: certain rules of formation that underpin theories/policies but that are 'not formulated in their own right'	• Creating a 'network of nature' • The threatened extinction of the otter is illustrative of the state of nature • The myth of the Oostvaardersplassen • 'main ecological structure', 'target types', 'ecological corridors', 'nature development areas' • 'networks', 'infrastructure', 'investment in nature' (1990s) • Previous examples: 'pollution', 'limits' (1970s)

Source: (Hajer & Wagenaar 2003, p. 104)

Hajer's socio-interactive approach has been influential in environmental policy research and, like other deliberative policy analysis, it offers an account of policy-making that integrates conflict into the study of governance. However, two elements of Hajer's framework deserve a more detailed exploration: the role of language—and the understanding of what language is—in the interactions within which the co-construction of the subjects of governance takes place; and the logical development of 'epistemic notions' in policy as a set of discursive regularities. In regard to the former element, Hajer is aware that practices shape the preferences of diverse stakeholders and that the process of identity formation should be part of the study of governance: 'the shift from government to governance should go hand in hand with the appreciation of a whole new range of non-state actors that are actively mediating these new processes of policy making' (Hajer & Wagenaar 2003, p. 101). He also notes how these identities may be transient, mobilised in and for the policy process at hand (p. 98). Rather than taking these actors and institutions as pre-conceived entities, other deliberative policy scholars point out the importance of their construction in discourse: 'Actors do things in politics and institutions shape policy making. But these processes need to be understood within the discourses where actors are constituted and institutions framed as relevant in a given policy field' (Gottweis 2003, p. 254). A deliberative analysis of policy points here to the imbrications between texts and objects, between the semiotic and the material, in a response to the preoccupation of studies of technology and science with materialities (Asdal 2008; Asdal, Borch & Moser 2008). In this form of analysis, texts are understood as part of these realities, as objects in the entanglements, and linguistic approaches contribute an analysis of language as social practice (Asdal, Borch & Moser 2008, p. 288). In this research, this is the role given to policy documents such as reports or parliamentary inquiries: they are records of the social practice of consultation in policy-making. However, they are also 'inscription devices' linked to political machineries with transforming capabilities. As reports, letters, administrative documents or policy briefs, they 'also take part in modifying and sometimes radically transforming issues' (Asdal 2015, p. 88).

The response of deliberative policy analysis to the entanglements between objects and subjects, between the material world and its representations, also takes into account a second element that Hajer's interactive approach stops short of bringing into the analysis of policy-making. This is the particular epistemes in the domain of policy-

making, defined as ‘epistemic notions [that] refer to a regularity in the thinking of a particular period, structuring the understanding of reality without actors being necessarily aware of it’ (Hajer & Wagenaar 2003, p. 106). The use of networks in Hajer’s example, as well as the notions of governance, opens the door to the development of Foucauldian analysis as we saw above in governmentality studies and the Latour-Callon tradition of analysis: if practices constitute given discursive spaces, what defines the particular space of government? Government as a system of practices in which ‘people, individuals, nature and artefacts interact and are transformed into objects of intervention and become “governable”’ (Gottweis 2003, p. 257). The aim of policy-making is ‘ordering’: ‘to manage a field of discursivity, to establish a situation of stability and predictability within a field of differences, to maintain a specific system of boundaries […] and to construct a centre that fixes and regulates the dispersion of a multitude of combinable elements’ (p. 261). This activity of stabilisation is unstable and prone to conflict, and governance is seen as a process of questioning and scrutinising the mechanisms of government (p. 263). This scrutiny is applied in this research to the different technologies that underpin the fish chain at given steps and the underlying rationalities of government.

Deliberative policy analysis steps into a normative creation of a ‘reflexive government’ in an attempt to provide answers to how government institutions may be rendered efficient, accountable and democratic. It explores what technologies can be used for this and whether the answer to deal with wicked problems may be the ability to draw on the multiplicity of policy stories available, integrate dissent and create ‘deliberative spaces’ for the negotiation of social concerns (Gottweis 2003, p. 264). Here the ideal of deliberative policy comes very close to the approach advocated by Song, Johnsen and Morrison (2018): What are the technologies that may enable efficient and legitimate stabilisations of solutions to social concerns? And at the same time, how can these technologies be used in solving concrete policy problems?

2.2.2. Meaning-making in texts: Critical discourse analysis

The preoccupation of deliberative policy analysis with the ‘best story’ has incorporated analysis of the linguistic strategies that are used to construct these stories, focusing particularly on the study of narratives, tropes and frames (Fischer 2003b, pp. 144–7) in addition to the study of the interactions that together constitute the ‘set of relations’

establishing a particular discourse. It has paid less attention to the textual mechanisms that explain how subjects and objects are constructed in specific domains. This contributes to showing, not only what the 'best stories' are, but also who is included and excluded in these stories, in what roles and with what agency; not only what 'fish', 'regulation' or 'fisher' mean but also from whose perspective, to whom, in what context and to what purpose. CDA provides a methodological framework to show how subjects and objects in a particular discursive domain are constructed in social interactions and how interpretive document analysis can be grounded in textual linguistics; that is, in the study of the resources deployed in speech acts to construct discourses.

CDA draws on the long tradition of linguistics concerned with the study of language as a communicative situation. It emerged in the 1970s as a research perspective concerned with the relationship between language and power and is one of the theoretical foundations for the school of deliberative policy analysis (Fischer 2003b, pp. 77–80). CDA comprises a cluster of approaches sharing a similar theoretical basis (Meyer 2001, p. 23) and a general concern with the relationships between language, power and society, and more concretely, with the 'constitutive force of language and discourse in social formation and discipline, economic exploitation and power' (Luke 2002, p. 97). A major contribution by CDA has been the use of functional linguistics to analyse discourse and unveil the grammatical foundations of power in texts (Wodak 2001b, p. 9). More recently, CDA has broadened the analysis of discourses from texts to communicative events, to analyse discourse hermeneutically as both a verbal construct and a material practice. CDA has also proven useful in a variety of disciplines, such as education, politics and media discourse, giving rise to a variety of methods and analytical tools (pp. 6–7).

CDA approaches are diverse in scope and techniques and may be as broad as the linguistic resources available to speakers, from phonology or intonation to narrative and argumentative analysis, which deals with the persuasive function of discourse, or multi-modal analysis, which integrates verbal and non-verbal modes of communication. CDA is generally used with 'typical' texts (Meyer 2001, p. 24). These present the features found repeatedly in the data from interviews, documents and observations to illustrate and substantiate the analysis, which itself combines linguistic and intertextual aspects (Fairclough 1995, p. 188). Linguistic analysis leaves aside the phonetic and phonological levels and concentrates mostly on the semantic and lexico-grammatical

strata of language (Halliday 2004, pp. 24–5), although it also contains elements of organisation above the sentence (e.g., cohesion, paragraph and topic structure). Intertextual analysis relates texts to their social context and reflects the selection of contents and meanings produced in specific social contexts—here, specific conflicts over resource allocation—for particular purposes. The analysis of representative texts is a reminder that 'texts constitute a major source of evidence for grounding claims about social structures, relations and processes' (Fairclough 1995, p. 209) and that interpretive analysis is grounded in the linguistic resources shared by all users. In this research, applying CDA to two representative texts aims to offer a complementary analysis of the data to illustrate the linguistic foundations of interpretive processes and contribute to validating the findings. This analysis is contained in the Appendices. Appendix 1 reveals the linguistic means used in the construction of fishers and fish as objects of governance and how this construction is used in conflict situations between the governors and the governed. This analysis complements the data offered in Chapter 3 on the evolution of fisheries management as a discursive field. The second analysis, presented in Appendix 2, complements the analysis in Chapter 4 of governance arrangements in the post-harvest space. It explores the means used by non-state actors to reinforce their construction as governing subjects, and the conflicts between the non-state governors and the governed.

2.2.3. Integrating deliberative policy analysis into interactive governance

Deliberative policy analysis, like other approaches rooted in the discursive tradition, is an interpretive methodology that proceeds by selecting 'relevant' data to reconstruct the processes in which societal problems emerge, are defined and are acted upon. Its methodological steps are often implicit, although they have been detailed as proceeding as follows. First, the appropriate 'artefacts' carrying meaning are identified. Second, the communities of meaning or practice relevant to the issue are delineated (Yanow, cited in Fischer 2003b, p. 147). Finally, a determination is made of the relevant discourses, policy narratives or story lines circulated and the actors that adhere to them, as well as the sites of conflict and change. When dealing with discourse formation, the Foucauldian 'archive' of discourse as a 'set of relations' is summoned through a diverse array of policy documents (e.g., reports, minutes and policy briefs), interviews, media documents and participant observation (Fischer 2003b, pp. 148–9). Specifically:

> Interviewing, observing, and document analysis are the primary methods for collecting data. Most commonly, the investigation starts with the analysis of documents, in particular media coverage (both print and electronic). In some instances, it might involve the examination of transcripts of committee hearings. These are supplemented by open-ended interviews with the main actors (politicians, interest group leaders, community members, and so forth) identified through documents and other relevant sources. In these interviews the analyst seeks to test his or her assumptions about the boundaries of the interpretive communities, the significance of particular artefacts, and the meaning of stories that community residents share with one another. Those interviewed are requested to supply the names of others with whom the analysts might speak, with the transcripts of these interviews themselves becoming materials for additional analysis. Interviews, documents, and texts are supported by observation of political deliberations, interest and community group activities, and the undertakings of implementing agencies. (p. 149)

This research followed these steps for deliberative policy analysis adapted to the specific context in the following ways. First, it attempted to question the pre-conceived categories attributed to the actors in governance; this made the observation of the policy communities a first step in the data collection. Second, it tried to trace a connection with the archive, with how things 'came to be', especially by investigating the traces of discourses past and present. Third, this research has tried to structure the data collection of documents from the political 'field of action', to give guidance on the types of documents relevant to the field. Table 3 summarises the data types to be collected and the methods used for collection and analysis.

Table 3: Research methods

Data to be collected	Subtype	Data-collection method	Data analysis method
Documents	Research (literature review)	Theoretical and snowball sampling	Coding, memo, notes and draft writing, constant comparing
	Policy documents	Use of 'fields of action' classification (Wodak 2001a, p. 68)	Coding, memo, notes and draft writing, constant comparing
	Selected 'typical' or 'representative' documents	Theoretical sampling	CDA (discourse-historical / multimodal)
Interviews	Face-to-face, one-on-one, in-depth, purposeful selection (Maxwell 2013, pp. 89–91)	Transcripts of the interviews	Coding, memo, notes and draft writing, constant comparing
Observant participation at Conference	Complete observer (at event and streaming)	Transcripts of the panels, observations, conference documents, auxiliary documents (e.g., corporate websites)	Coding, memo, notes and draft writing, constant comparing

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

Chronologically, the research started in September 2017 with observation of a key event, the Seafood Directions Conference, which brings the policy community together. This offered a summary of the actors present and absent, an overview of how the actors defined themselves, and guidance for the selection of possible interviewees. Observation was complemented by conference documents and video recordings of the panels, which allowed for transcription and coding. Interviews were then conducted and relevant documents collected based on insights from the literature and from searches on the relevant government and industry organisation sites. This search was assisted by the categorisation of the 'fields of action', as observed in the discourse-historical approach (Wodak 2001a, p. 68) and adapted to the specific characteristics of the issues in each chapter, as presented in Table 4. Care was taken to also balance a systematic approach with the fragmentary way in which these elements came together and to pursue oblique lines, variations and unexpected turns in the assemblage of materials. For example, the observations in the Conference resulted in an unexpected number of consultations to corporate websites, 98 of which were searched and consulted. The choice of the document for the first of the two CDA analyses was revised weekly with every update of the Australian Fisheries Management Authority between September 2017 and April

2019, when the second draft of two CDA pieces was rewritten; this resulted from a previous choice to follow this particular news service rather than following the email updates from all state jurisdictions. Similar choices were made in the fields of action chosen to balance systematic approaches to the collection of documents from every field of action and avoid unwieldiness in the management of the data. The accessibility of policy documents online, including reports, policy reviews, public inquiries, transcripts of public hearings, speeches, and press releases, enabled the organisation of the documents. These constituted a key source of data, especially for the analyses conducted in Chapters 3, 5, and 6. In particular, public inquiries mixing submissions, hearings and reports constituted a multi-faceted record of discursive practices and a source of rich data that could be validated against data from other sources, as in the interviews made to participants in the policy processes.

Table 4: Categorisation of documents

	Legislative instruments	**Regulatory procedures**	**Executive and administration**	**Communication**	**Political control**
Government	Bills Acts Regulations International agreements Conventions	Consultation (working groups meetings, info) Reports (and related documents)	Policy papers Government positions Strategic plans Guidelines	Press releases Speeches Factsheets Marketing materials (leaflets, pamphlets) Media materials (interviews, videos, newsletters)	Parliamentary inquiries (and related docs)
Industry, civil society, research		Reports (and related documents)	Strategic plans	Press releases Speeches Factsheets Marketing materials Media materials (leaflets, pamphlets, campaign materials)	

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

These methodological steps are applied to the 'systems' in interactive governance in fisheries at three particular levels of analysis. The first level is the discursive co-construction of the governed and the governors in the fish chain. What policy

communities are involved in fisheries and trade? How did they come to be defined? What are their subjects and boundaries? Chapters 3 and 4 present this analysis, with a historical component also included in Chapter 3. A second level of analysis looks at the interactions aimed at solving these problems, specifically at the processes whereby discourses on fishing, sustainability and trade become structured and consolidated, and at the role that power has in the generation and validation of discourses. What are the shared understandings? What are the conflicts? What rationalities of government around responsibilities and regulation underlie these understandings? How do they establish boundaries to possible solutions? How do actors select, exclude and include other actors? Chapters 4 and 5 explore this in relation to the policy tools deemed adequate to provide the (re)assurance of sustainability in the post-harvest space, and the conflicts posed by regulatory demands. Finally, a comparative element is introduced in Chapter 6 with the analysis of the measures to prevent IUU fishing, with two objectives: to illustrate that conditions are socio-culturally specific and to indicate the possibility of change. Regarding the latter point, the questions raised include to what extent is a new discourse emerging in this area to reconcile the environmental regime with international trade, and is it likely to become a feasible articulation in Australia? Table 5 shows how the different data and methods were applied to the analysis of fisheries governance from an interactive perspective.

Table 5: Distribution of data and methods

	Introductory chapters	**Chapter 3. The system and its governors: Fisheries in Australia**	**Chapter 4. Governing seafood: Sustainability in the post-harvest space**	**Chapter 5. Current demands and limits of the regulatory framework**	**Chapter 6. Traceability and the fight against IUU fishing**
Observant participation (field notes, coding)		Seafood Directions Conference			
Literature (notes, drafts)	Literature on theoretical and methodological approaches	Literature on fisheries governance, regulation and Australian governmentality studies			Literature on fisheries governance, regulation, Australian governmentality studies, studies of technology and science
Interviews		Interviews	Interviews	Interviews	Interviews

	Introductory chapters	Chapter 3. The system and its governors: Fisheries in Australia	Chapter 4. Governing seafood: Sustainability in the post-harvest space	Chapter 5. Current demands and limits of the regulatory framework	Chapter 6. Traceability and the fight against IUU fishing
(notes, coding)					
Document analysis (nodes, chapter drafts)		Corporate websites, policy documents and reports, legislation		Policy documents and reports	Policy documents and reports
CDA (diagrams, notes, codes, drafts)		Media document (Appendices)	Media document (Appendices)		

2.3. Grounded theory for data collection and analysis

Grounded theory, especially in the constructivist form developed by Kathy Charmaz (2006; 2013), is a relevant methodological tool to guide the protocols of data collection and analysis for a number of reasons. First, the approaches discussed are eminently interpretive and use qualitative data; second, they are concerned with the construction of meaning; and third, they usually conflate data collection and analysis, with CDA explicitly situating itself in the tradition of grounded theory (Meyer 2001, p. 18). Constructivist grounded theory is also fitting to this particular research in that, unlike previous grounded theory, it 'locates the research process and product in historical, social, and situational conditions' and pays particular attention to language (Charmaz 2017, pp. 34–8). Lastly, it has also been argued that 'fisheries and coastal management is fertile for the generation of "grounded theory" as a locus for the study of power that may throw light on its role in explaining how natural and social systems change' (Jentoft 2007, p. 133).

Constructivist grounded theory relies on theoretical sampling to gather rich or dense data, as well as memo writing, coding and constant comparing. Unlike previous grounded theory, it involves the researcher's position in the process, taking into account his or her previous knowledges and scrutinising them (Charmaz 2013, p. 402; Ramalho et al. 2015, para 13). Care must also be taken to adopt reflexive strategies, make the researcher's epistemic stances clear (Charmaz 2013, p. 403) and develop

‘methodological self-consciousness’ (Charmaz 2017, p. 35). In this research, this has been done mainly in the interrogation of the researcher’s cultural background, her conceptions of fishing and normative ideas on regulation. While these former understandings and knowledges were important elements to encounter and recognise difference, it has required an ongoing effort to work through the cultural layers that could have blocked the understanding of a dissimilar socio-cultural and political configuration.

The researcher’s cultural background is strongly tied to fishing communities in Galicia (Spain) and to a career in public service in the Catalan administration. Culturally transmitted understandings on what fishing, fishers and regulation ‘are’ thus had to be identified and actively suspended to avoid their interference with the analysis of the data. For example, the idea that the social licence for commercial fishers (*xente do mar*, the people of the sea) needs to be maintained (and that it may be lost!) was a complete novelty, as was the social relevance of recreational fishing in Australia. On the other hand, these cultural understandings were enormously useful for identifying—often through cultural shocks—the specific socio-cultural context in which this research takes place. The analysis of the text in Appendix 1, for example, proceeded from an initial inability of this researcher to make sense of the document, due to the inadequacy of her existing cultural construction of fish and fishers for following the patterns of recontextualisation in the text. At the same time, the lack of shared understandings to fill the gaps left for readers to make sense of the text enabled a radical encounter with the basic question for any analysis of texts and, in general, for any research: ‘What’s going on?’. In relation to the interviewees, how to make the researcher’s cultural background explicit was carefully considered so that all interviewees were offered the same information, in order to enable similar constructions of the interviewer by the interviewees, avoid possible reactivity threats and integrate reflexivity on the researcher position in the analysis.

Constructivist grounded theory also takes into account that the researcher may have previous theoretical frameworks and so advocates for a level of abductive analysis (Charmaz 2017, p. 41), defined as a form of reasoning that seeks, through an iterative process, to obtain the best explanation arising from incomplete observations, and reframes it following new observations and findings. Contributions from the abductive research method are thus used, which ‘specifically aims at generating novel theoretical

insights that reframe empirical findings in contrast to existing theories' (Timmermans & Tavory 2012, p. 170). Constructivist grounded theory shares with abductive research methods the same methodological steps: field note taking, theoretical sampling, coding along various dimensions, memo writing, constant comparing, and sorting and diagramming memos (p. 175), which are also used to some extent in the discourse-historical school of CDA (Wodak 2001a, p. 70).

2.3.1. Data-collection methods and analysis procedures

Insights from grounded theory for data collection were followed to establish the data-collection strategy; reflect on the different approaches to coding, recording and keeping track of the data analysis; and identify the signs that data collection could be finished. Constructivist grounded theory provides guidelines for gathering data, as well as questions to guide the iterative process, the types of analysis and the quality and richness of the data (Charmaz 2006, pp. 18–9; see Figure 1).

Figure 1: Questions guiding the collection process

1. Have I collected enough background data to understand and portray the full range of contexts of the study?
2. Have I gained detailed description of participants' views and actions?
3. Do the data reveal what lies beneath the surface?
4. Are the data sufficient to reveal changes over time?
5. Have I gained multiple views of the participants' range of actions?
6. Have I gathered data that enable me to develop analytic categories?

Source: (Charmaz 2006, pp. 18–9)

The summary of contributions from constructive grounded theory provided an initial data-collection strategy. In line with grounded methodologies, this strategy progressed simultaneously:

> Data collection is not considered to be a specific phase that must be completed before analysis begins: after the first collection exercise it is a matter of carrying out the first analyses, finding indicators for particular concepts, expanding concepts into categories and, on the basis of these results, collecting further data (theoretical sampling). (Meyer 2001, p. 24)

The process of data collection and analysis modified the initial approach in several ways. First, coding methods deviated from those offered in Charmaz (2006, pp. 47–66) in that word-by-word or line-by-line coding does not combine well with a linguistic approach that stresses the importance of keeping the speech act in context. I chose to code clauses in paragraphs to retain contextual information that would be of use to the categorisation arising from the coding. Initial coding was followed by focused coding, to deepen the analysis for each chapter. The QSR-NVivo software was used to assist the process of note taking, coding and memo writing. Second, while memo writing and research journals were useful tools in the early stage of analysis, chapter drafts were found to be more useful for approaching iteration in depth. Chapters ultimately became the core sites at which the analysis and comparison of the data took place, and guided further theoretical sampling. Thus, only 45 memos and field notes were produced during the preparation of the dissertation, whereas four to six working versions of each chapter were produced before writing the first dissertation draft in October 2019. The iterative process for data collection and analysis is outlined in Table 6.

Table 6: Data collected and collection period

Sept 2017	**Oct 2017 – April 2018**	**June 2018**	**August 2018**	**Jan–April 2019**	**April 2019**	**August 2019**
Conference observations (4 memos with field notes)	33 interviews 33 memos on interviews 6 progress memos 2 CDA analyses	1st draft of analysis	3 interviews 3 memos	Review of methodology and methods	2 interviews 2 memos Data collection of interviews terminated	Data collection of documents terminated
	Initial coding, sorting, comparing CDA Diagrams	Draft writing Revision	Focused coding, sorting, comparing Draft writing	Focused coding	Focused coding, sorting, comparing	Finish coding 2 CDA analyses

Data collection was terminated when data reached saturation; that is, when ‘gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of your core theoretical categories’ (Charmaz 2006, p. 113). Saturation of data for the interviews and documents was reached after two main rounds of draft writing, one in June 2018 and another in April 2019. The final number of interviews was of 38, 13 more than originally planned in a research with the three different sources of data

mentioned above in Tables 3, 4, and 5. Broadening the number of interviews was possible thanks to the positive responses by the interviewees, who in most cases were quick to return communications. Only one key interviewee declined the invitation and alternative sources of data for the person had to be sought by means of press releases, interventions in television, and speeches in Parliament. Data collection for document analysis continued until August 2019, with a final revision in October 2019.

2.3.2. Criteria for assessing quality and validity

Constructivist grounded theory asks the researcher to interrogate their own credibility, originality, resonance and usefulness (Charmaz 2006, pp. 182–3). Different disciplines may have different expectations on the validity criteria (p. 182), a point shared by scholars in policy analysis who stand in interaction with quantitative political research (Fischer 2003b, p. 155). This research is in dialogue with disciplines from the social and natural sciences, which usually employ quantitative or mixed methods. To enable this dialogue, it will look outside grounded theory to validity tests in general qualitative research. Therefore, other criteria typical of qualitative research were adopted. In terms of procedure, triangulation was effected by means of the encounters between a deliberative policy analysis and its correspondent exercise in linguistic (multi-modal) analysis. In addition, direct feedback from the interviewees as a form of member-check was sought, according to the ethics procedures; and because many of the interviewees had been observed at the conference and participated in submissions and other policy documents, indirect feedback could also be obtained (Creswell 2003, p. 196). It was intended to conduct peer de-briefing; however, this was not possible for confidentiality reasons. Methodological self-consciousness and reflexivity as mentioned above were also employed to ensure internal validity (p. 204). Validity threats were identified, listed and monitored, and a 'checklist' for validity tests was followed, which included the former aspects as well as respondent validation and searching for discrepant evidence (Maxwell 2013, pp. 124–9). Table 7 presents the validity threats selected and the strategies used to deal with them.

Table 7: 'Checklist' of validity threats and strategies

Threats	Strategies
Researcher bias	Interrogating the researcher's preconceptions and how they might be influencing the analysis. Interrogating how the analysis affects the researcher's preconceptions,

Threats	Strategies
	theories and beliefs.
Reactivity (reflexivity)	Attention to the construction of the interviewer by the interviewees, with particular attention to making explicit the researcher's cultural background.
	Attention to the presentation of the researcher in the interviews: ensure the researcher introduces herself in the same form to all interviewees, clarifying student status and previous career background.
	Reformulation of interview questions where needed to minimise intervention.
	Inclusion of the same background information on the researcher for all interviewees.
Intensive involvement	Participation in workshops and events related to the topic.
	Attention to the geographical distribution of interviews.
	Documentation of ancillary materials (labels, locations, shops) throughout the dissertation.
Respondent validation	Indirect feedback: contrast interview responses with records of other interventions by interviewees.
Discrepant evidence and negative cases	Inclusion of interviewees from different backgrounds (such as fisheries managers from states in different stages of fisheries reform); allow for the expression of different 'voices'; generate trust so that the interviewees could express minority opinions; provide enough assurance of confidentiality.
Triangulation	Triangulation not only in terms of methods but also in searching for validity threats in the data from different methods.
Numbers	Evaluating whether quantitative references may be used in the analysis and using them where relevant.
Comparison	Constant comparison as an ongoing feature of the analysis.

Source: (Maxwell 2013, pp. 124–9)

Overall, the research methodology and methods tried to make explicit how this research would integrate different schools of interpretive methodologies. The first concern was how to integrate a deliberative policy and CDA coherently; one possibility would have been to conduct CDA of all data; another, to use CDA as a complementary tool to validate findings. The technical characteristics of the project—only three years duration, lack of funding for verbatim transcriptions, three relevant sources of data with a high number of documents—led to discarding the first option. The second step was then to establish a systematic approach to the data-collection methods and procedures for the analysis of interviews and policy documents. Constructivist grounded theory provided the criteria whereby data were collected, analysed, interpreted and validated, with additional criteria for the latter drawn from other qualitative approaches. Although several procedures in this approach were modified to suit the particular context of this research—in particular with regard to the availability of the interviewees for feedback, confidentiality and the memo as a central instrument for comparison—attention was

paid throughout to the quality and validity of the data and to the consistency of the methodological approach. The procedures described in the preceding section result from this preoccupation.

2.3.3. Ethical aspects and procedures

Ethical clearance for this research was sought according to UTS policies and the Australian National Statement on Ethical Conduct in Research Involving Humans (National Health and Medical Research Council 2007) and was received before the start of the data-collection process (reference number: UTS HREC ETH17-1570). Ethics procedures governed the data collection from the event observation of the Seafood Directions Conference and the interviews. The ethics application involved a risk assessment, and guidelines for the recruitment and involvement of participants; the collection, storage, use and publication of data; and privacy and confidentiality.

Most participants in the interviews expressed their preference to be completely de-identified. The procedure outlined to ensure this stipulated the following:

> In most cases it will be possible to render the participant unidentifiable in published data and other saved forms of the data. In cases where the participant says something that does reveal their identity, mainly through their professional position being evident in their statements, and where this statement is important to use for the purposes of the research, that interviewee will be contacted by the researchers and their permission obtained to use this material, knowing that it may reveal their identity (or their permission to use their name will be sought). The material will only then be used in publications if the participant does not object. (UTS HREC ETH17-1570, p. 18)

To guarantee the de-identification of the data, all participants quoted in the research were contacted as soon as drafts of all chapters were completed. Participants were provided with the quotations used at that stage and with the attribution used in the research, independent of whether the quotation might affect their identification. Apart from enhanced ethical guarantees, this had two implications for methodological quality and validity. First, it provided participants with the opportunity to review, modify and/or complement the views offered in the interview, which worked as a valuable member-check procedure. Second, it provided the opportunity to modify the attribution awarded by the researcher to best suit their own definition as subjects in the discursive

domain in which this research takes place. In the text, quotations revised by the interviewees are noted, whereas minor grammatical edits by interviewees are conflated with the general copyediting of the text.

Chapter 3. The system and its governors: Fisheries in Australia

This chapter presents the current governance arrangements governing the harvest of fish in Australia and their discursive foundations. The chapter first explains how the governing of fishing evolved in the particular socio-cultural context of Australian fisheries. It presents the struggles and social concerns that contributed to define a particular discursive field and the subjects that populate it.

The chapter goes on to explain the current main features of these governance arrangements: the creation of a distinct space of governing (i.e., 'the harvest') in terms of governing instruments and stakeholder interactions; and the configuration of this space to govern specific concerns around sustainability objectives, with a strong emphasis on the conservation of target fish stocks. The strict locus of sustainability regulation in the harvest space and the disengagement of fisheries management from social and (broad) economic objectives create gaps in the governing of sustainability along the fish chain and in the relationship between fishing, sustainability and the public. This configuration has implications for the governance of seafood downstream and for the recurrence of lack of social licence as a policy issue affecting the governance arrangements.

The segmentation of the harvest space from the post-harvest space is projected over the governed, both the fish and fishers. The notion of fish as stocks and of the fishing industry as fishers that prevails in the harvest space masks other existing conceptualisations of the nature of fish and the overlapping roles of fishers occupying simultaneously different spaces in the chain. The rearrangement of meanings and roles has emerged as an objective for the governed and the governors to improve communication to the public and obtain its trust. However, it remains to be seen what the elements of such rearrangement are and what the rearrangement might imply for the regulatory objectives and actions.

At this point in time, the discursive field has been configured as a space restricted to the harvesting activity, with a command-and-control mode of governing. Those governed, known as 'commercial fishers', are constructed as exploiters of the resource for their

own private profit in conflict with other categories of fishing activity, such as recreational fishing, which are deemed to provide social and broader economic benefits to the community. This construction both underlies and reflects the policy tools used to govern the space and the public image of the governed.

3.1. Constructing the harvest space: The evolution of fishing and fisheries management

As in any other policy domain, the scope and objectives of fisheries management reflect the evolution over time of social concerns related to a particular activity. The process whereby concerns emerge and problems are defined is a 'framing of knowledge, the delineation of concepts and the specification of objects and boundaries' (Song, Johnsen & Morrison 2018, p. 385). In this process, a discursive field is established, representations of reality are built and government intervention is justified (p. 385). This section analyses how the present discursive field in which fisheries management operates emerged as a result of changing social concerns and a series of conflicts between the Australian public, fish harvesters and fishery governors.

Over the past thirty years, the fishing industry in Australia has undergone fundamental changes in its structure, management and public image. From an industry oriented towards employment and the provision of food for the domestic market, with government support for its expansion, commercial fishing (also referred to as professional fishing) has transformed into an industry under tight management control and pressure from other fishing sectors, oriented towards economic efficiency and monitored against ecological and economic objectives. A series of conflicts over the allocation of resources has influenced the modes and objectives of fisheries management and the position of the different actors in governance. These conflicts have affected the social acceptability of professional fishing and public trust in its governance. Recovering and maintaining social acceptability has thus become a key concern for the industry and a policy issue for the managers.

In its origins, the fishing industry in Australia was strongly tied to local communities due to the risk of spoilage in transportation. Fishing focused on sealing and whaling, and on fisheries that relied less on refrigeration, such as cured fish for the Chinese community, oysters, crayfish and pearls (Clark 2017, p. 53). Commercial fishing was

already competing for resources with anglers in these early times. Angling, or recreational fishing, had been introduced in the mid-19th century together with the species that anglers favoured such as trout and salmon, and boomed in Australia at the beginning of the 20th century when the love of the outdoors became part of the construction of a national identity (p. 81). The struggle for resources between recreational and professional fishers led to the establishment of the first fisheries management measures, such as catch limits (p. 91). In parallel, Indigenous communities continued their fishing and aquaculture for subsistence, commercial and recreational uses.

Between the 1940s and 1960s, government support for the commercial fishing industry aimed at overcoming the difficulties in logistics and infrastructure that inhibited abundant catches from reaching urban markets. A 'strong prejudice' outside Indigenous communities against eating local fish species, the small returns in relation to the difficulties in transportation and the amount of fish spoilage were among the factors inhibiting growth (Clark 2017, p. 98). The development of the fishing industry was part of an effort to promote and diversify primary production, and it focused on boosting demand (e.g., promoting the consumption of fish and chips, which rose to prominence in the 1940s and 1950s), linking supply to demand (e.g., fostering the creation of commercial fishing co-operatives) and supporting the establishment of canneries and other infrastructure. Aquaculture operations had been established with oysters in the 1870s in New South Wales (NSW; NSW Department of Primary Industries 2018).

Then in the 1970s, signs of collapsing stocks in particular fisheries and the rise of environmental awareness became decisive factors in the struggle between commercial and recreational fishers over the use of the resource. The keystone fishery collapses of the 1970s and 1980s—gemfish, orange roughy and southern bluefin tuna—are still present in the memories of the researchers and managers interviewed:

> *Southern bluefin tuna is one species that was relatively easily overexploited by a number of countries, of which Australia was one. Australia did its bit to overexploit this shared resource. And when the orange roughy fishery was developed, it was about the worst example of fisheries management I've seen anywhere in the world, and I know a reasonable amount about it, and [EXPLAINED ROLE IN STOCK ASSESSMENTS] […] At about the same time,*

> *Australia had the fiasco with orange roughy, it also had the gemfish fishery off New South Wales collapse. The first two of these fisheries are now recovering and current thinking is that the gemfish stock collapse was as much due to an environmental 'regime shift' as it was to simple excessive fishing. (Respondent#0217, researcher)*[2]

The collapses happened against a backdrop of increasing public scrutiny on environmental issues, including commercial fisheries. In 1972, the United Tasmania Group was the first green party in the world to run for an election, urged by the Lake Pedder controversy that first gave prominence to the environmental movement in Australia. The environmental movement would go on to accrue historic achievements in the 1980s, such as the inscription of the Great Barrier Reef in the UNESCO World Heritage List in 1981 and the Franklin Dam case in 1983. This movement fostered public scrutiny on the management of resources:

> *The three key triggers that made people concerned about overexploitation of fisheries in Australia were southern bluefin tuna, orange roughy and gemfish. You put this in the time context of the Green Revolution and the blue revolution, and you had a lot of people running around promoting gloom and doom. 'The world's fisheries are overfished, they're stuffed and yeah we've got to do something really dramatic about it'. That was the time. (Respondent#0217, researcher)*[3]

As a consequence of fisheries collapses and increased public scrutiny, management objectives suffered a profound revision. On the one hand, the collapses highlighted the importance of measuring stocks as a key objective of fisheries management, as well as the need to reinforce research and assessment protocols:

> *One of the basic principles is that fisheries management is extraordinarily easy, extraordinarily easy. If you have a fishery that is overfished just cut back the effort, and the catch and the fishery will recover. Every time we have tried this in Australia it has worked. (Respondent#0217, researcher)*[4]

[2] Quotation revised by the respondent.

[3] Quotation revised by the respondent.

[4] Quotation revised by the respondent.

> *There's an argument that gemfish was overfished but it hasn't, it's still there. It's still in existence but the quota is zero, maybe you get incidental catch but that's the only species. Even orange roughy is still recovering. The problem with the orange roughy is, CSIRO [Commonwealth Scientific and Industrial Research Organisation] gave the fishers an indication that you could rip it out, there's stacks of it there. But they didn't do a proper assessment, so they did fish down on the biomass. (Respondent#1317, research funder)*

Another consequence was the change in the government's perception of the industry and its role in it, reflecting a broader international context. Sustainable development emerged as a goal of international governance in the late 1980s, with milestones such as the publication of the Brundtland report in 1987 and the Rio Summit in 1992. In fisheries, technological advances since the 1950s had caused industrialised fishing to expand dramatically, with the global catch peaking in the late 1980s (Christensen 2016, pp. 136–7) followed by fisheries collapses worldwide. The need to restrict fisheries access based on the idea of the 'tragedy of the commons', formulated by Gareth Harding in 1969, became the dominant paradigm. At the same time, the active role of states in fisheries governance systems increased in the management of the oceans after the United Nations Convention on the Law of the Sea (UNCLOS) was concluded in 1982.

Sustainable development goals for fisheries were mirrored in Australia in the adoption of ESD principles in the *EPBC Act 1999* and in the different Fisheries Acts, as explored in Section 3.2.1 below. The adoption of ESD principles was tied to the argument that unrestricted access to fisheries leads inevitably to overexploitation and that property rights need to be established to prevent fisheries collapse. This version of sustainability underlies the current logic of government intervention in fisheries in Australia:

> Fish are a renewable, but not inexhaustible, resource. They are subject to the well-recognised potential for a 'tragedy of the commons', where the unregulated efforts of individual fishers deplete the resource. Governments must therefore limit catches to sustainably manage resources and, where there is competition between fishers, determine how access is to be shared. (Productivity Commission 2016, p. 3)

This logic of intervention to prevent overfishing changed the perceived role of the state in relation to the fishing industry. Commercial fishing was no longer an economic sector to be expanded but one to be reduced and its activity strictly monitored for environmental purposes. The economic aspect of fisheries management shifted to a focus on increased economic efficiency in particular fisheries, starting with the Commonwealth fisheries,[5] such as orange roughy and southern bluefin tuna:

> *So we cut back on a lot of fisheries. In little more than a decade Australia went from having more than 30 per cent of its Commonwealth-managed stocks being subjected to overfishing to having no active overfishing. (Respondent#0217, researcher)*[6]

The introduction of ESD principles and a restructuring of the sector towards ecological sustainability—understood as preventing overfishing of target stocks—and economic efficiency enabled the consolidation of highly profitable wild-catch fisheries (e.g., southern bluefin tuna, Western rock lobster, abalone, prawns and barramundi), mainly in the Commonwealth, but also in other jurisdictions. This, together with the spectacular success of Atlantic salmon aquaculture and the sub-Antarctic fisheries, resulted in the emergence of 'high end of town', high-value fisheries, some of which were strongly export-oriented, with dedicated private–public research funding and governmental pressure for economic efficiency:

> *The early challenges were around overcapacity as a result of Government subsidies for boat building, which saw the northern prawn fleet grow to 300 boats trying to catch chase, what turned out to be, too few prawns. That took 25 years of court cases, Senate inquiries, death threats, scientific papers, economics researchers, voluntary buybacks and industry-funded buybacks to finally get them down to 52. And it was a tough journey, but 52 boats in that fishery, which is nearly a million square kilometres, is now good business. (Respondent#0417, fisher)*[7]

[5] As explained in more detail in Section 3.2.1 below, the Australian fisheries within three miles of the coast are under the jurisdiction of the states, whereas fisheries beyond the three miles watermark are managed by the Commonwealth.

[6] Quotation revised by the respondent.

[7] Quotation revised by the respondent.

> *The Australian Seafood Cooperative Research Centre was based exclusively on high-value species for two reasons. First, only those sectors could afford to make significant cash contributions to the CRC [Cooperative Research Centre]. And second, only by doing this would we be able to put forward a convincing value proposition to the Australian Government. Simply, we needed to convince the Government that for every dollar of public investment in the CRC we would be able to return 'x' times that in public good and private benefit. Unless you deal with the high end of town, it is very difficult through research and development or any other activity to achieve significant quantitative economic outcomes. (Respondent#1317, research funder)*[8]

At the other end of the scale were the mostly lower-value fisheries in coastal waters, which were under state jurisdiction, less concentrated and comprising mainly family-owned small businesses (FRDC & Ridge Partners 2015, p. 71; Productivity Commission 2016, p. 90). These coastal fisheries, especially those exploiting less-valuable resources near large metropolitan areas, were the most affected by the combination of rising environmental awareness, the revision of fisheries management objectives and a long struggle for resource access with recreational fishers. In addition to the restructuring of commercial fisheries to restrict effort and catches to prevent overfishing, fisheries management became a conflict-ridden site for the allocation of disputed fishery resources between the different fishing sectors.

In addition to commercial (also called professional) fishing, the other types of fishing recognised in Australian policy frameworks are recreational fishing and 'cultural' fishing by Indigenous people. Regular recreational fishers are estimated to number 3.4 million Australians (Department of Agriculture and Water Resources 2017, p. 1), out of a population of over 25 million. The sector has had a long history of conflict over the allocation of resources since angling first gained popularity in the late 19th century. The recreational sector lobbied successfully to close fishing areas to professional fishers as early as 1902 in Port Hacking, Sydney (Clark 2017, p. 91). From the 1970s, this conflict entered a new stage when the recreational sector allied itself with conservation organisations and successfully achieved further restrictions to professional fishing, such as the full closure of Lake Macquarie in NSW, the partial closure of the Hawkesbury River and closures in other states and territories (p. 127). The success of these joint

[8] Quotation revised by the respondent.

campaigns has continued into the present day, with a successful campaign to close areas of Port Phillip Bay in Victoria to net fishing from 2018 (King & O'Meara 2019) and another to ban large trawlers from operating in Australian waters, with two recent successes in 2012 (Abel Tasman) and 2016 (Geelong Star).

The conflict between the commercial fishing sector and the unlikely alliance between conservationist organisations and the recreational sector transformed the public image of the commercial fishing industry:

> *The industry was largely seen as being out there, people just thought of fishing, fishermen with their hat on, braving the elements that type of stuff, and even though there'd been some big disputes over the years, primarily with the recreational sector over resource access, it wasn't really a big environmental issue, globally or Australia. That changed in the early 1990s. There was a lot more questioning about overfishing going on, some of the NGOs were getting active, the recreational sector leapt on to this, they started campaigning about how bad the commercial sector was because their agenda was to close down commercial fisheries and have the resources to themselves. (Respondent#0117, private researcher)*

In the process, commissioned research highlighted the economic and social benefits of recreational fishing (Ernst & Young Australia 2015; Farr 2013; McManus et al. 2011; Ward et al. 2012). In contrast, there was a lack of measurements around the social and economic benefits from professional fishing flowing to communities. Recreational fishing also managed to escape public scrutiny over their burgeoning numbers and the large size of their catches (Clark 2017, p. 127) by shifting concerns over depletion of stocks to the actions to the professional sector:

> *The way they went about it was to blacken the image of the commercial fishing industry and say all the overfishing problems that you see are due to commercial fishing, whereas there was abundant evidence coming out of research at that time in the eighties, that particularly for the inshore species, the recreational catch of some species was as big as if not multiple times the commercial sector's catch. (Respondent#0117, private researcher)*

The success of recreational fishers in closing estuaries to commercial fishing and the 'super-trawler' episodes also showed that the alignment of recreational fishers with

environmental NGOs could influence or even overrun fisheries management decisions on commercial fishing. Environmental NGOs are seen to have pushed the system forward in their demands for broader notions and assessments of sustainability:

> *Back in the nineties with the allocations all on commercial fisheries, it was all about that, nothing else. Then we had bycatch arrive with the NGOs and the MSC saying, 'No, it's got to be a broader view of your fishery. Not just about your commercial fish stocks'. And then the commission picking up that ball and saying, 'Now we're going to do this'. (Respondent#2617, fisheries manager)*

Most importantly, environmental NGOs have come to act as 'arbiters of trust' in Australia and have a decisive influence on public opinion:

> *And so we look at who are the arbiters of trust from a community point of view; that's certainly not me, it's not government, and I think there's some scepticism around science, in that the community don't understand science, they don't understand scientific process and right or wrong, they trust the NGOs. (Respondent#0417, fisher)*

> *What we found is that our fisheries are very vulnerable to attack so if a Greenpeace or WWF [World Wildlife Fund] come after us and say they're doing something wrong everybody assumes that it's true (Respondent#1517, fisheries manager)*

> *The Australian consumer believes the publicity that the AMCS [Australian Marine Conservation Society], WWF put out, you know the world is ruined, we've overfished, the global warming, the acidity is chewing up the shells of molluscs, all of this. (Respondent#2417, private researcher)*

The deterioration of the commercial fishing sector's public image and the loss of access to the resource as a result of the conflicts over resource allocation have generated a problem of 'social licence to operate', 'social acceptability' or 'public trust' for the industry. Public trust is conceptualised in the literature as social licence (mostly in the mining and forestry fields) or social acceptability (in natural resource management contexts) (Mazur, Curtis & Bodsworth 2014, p. 21) and defined as 'the level of acceptance or approval continually granted to an organisation's operations or project by the local community and other stakeholders. It exists at different levels of approval and can change over time' (p. 38).

Their loss of social licence has made fishers especially vulnerable to the closing of fishing grounds for recreational purposes. The successes in the closing of estuaries and campaigns against large-scale trawling express the extent to which the fishing industry has lost the public's trust:

> *Where we have our main issues with social licence are particularly in our commercial fishery that interacts significantly with our recreational sector in the coastal and near-coastal waters area. (Respondent#4517, fisheries manager)*[9]

> *That was the super-trawler debate and without going through that blow-by-blow I think one of the things that really highlighted to me was there was in my expression a lack of an emotional bank account between the industry and the community so when a negative came our way it was accepted, it wasn't challenged, we had we had really good science but we weren't able to get that message out clearly enough. (Lovell 2017, 3'04''00)*

Research has already identified that environmental values prevailing over fisheries livelihoods is a key factor explaining social acceptability; it has highlighted the low degree of public trust in government and in the fishing industry; and noted the relevance of public opinion in the conflicts over resource allocation (Mazur, Curtis & Bodsworth 2014, pp. 65–7); and it has examined the success of recreational fishers in creating narratives that prompt political action in their interest (King & O'Meara 2019). The concerns about the disconnection between the efforts in the management of fisheries and the lack of effect of these efforts on the public image of professional fishing have also been the object of research (Davies 2019; Mazur, Curtis & Bodsworth 2014; Sparks 2015); guidelines have been produced on how the seafood industry may engage with communities (Ogier & Brooks 2016); community perceptions of fishing have produced a number of reports (Aslin & Byron 2003; Sparks 2011; 2013; 2015) and the industry is currently conducting a project to 'articulate and demonstrate its commitments to addressing community expectations' and shared values (Lovell in progress).

The interactions between these different actors have shaped relations between the governors and the governed in a number of ways. First, the evolution of the relationship

[9] Quote revised by the respondent.

between governors and the governed has located the aims of fisheries management strictly at the level of extraction. The justification of state intervention to prevent the 'tragedy of the commons' generates a 'command-and-control' model of governing (Song, Johnsen & Morrison 2018, p. 383) with a focus on the governing of fish to conserve stocks and of commercial fishing to prevent overfishing, as explored in Section 3.2.2 below. This restricts the number of stakeholders involved and excludes consideration of the wider relationship between professional fishing, supply chains, communities and consumers.

Second, there is an asymmetrical distribution of power between the recreational and professional fishing sectors that places all responsibility for environmental damage on the professional sector, while highlighting the social and economic benefits arising from recreational fishing. This asymmetry has influenced resource allocation decisions between commercial and recreational fishers (McPhee & Hundloe 2004) and it is still reflected, for example, in the gaps observed in the lack of data on recreational fishing catches and in the patchy systems of licensing that have drawn the attention of the Productivity Commission (2016, p. 2).

Third, processes of reform have generated increasing disparity between distinct sectors of harvesters: businesses, small or large, exploiting leading commercial species concentrating the majority of value (rock lobster, prawns, abalone, tuna and salmonids; Mobsby 2018, p. 9), and a larger number of small businesses catching a wide range of species, registering smaller averages in the value of catch, an ageing workforce and less regular patterns of employment. These are the 'high' and 'low' 'ends of town'. Differences among and between these types of fishers have produced what actors in governance perceive as a small, fragmented industry, with problems in achieving joint representation.

Fourthly, social licence emerges as the key issue at stake for the seafood industry:

> *For Seafood Industry Australia I would reflect on the members' advisory forum that we had yesterday and the key issue the number one issue that came out of that is social licence. We've heard a bit about that already this morning I think that's something that we have to earn but we also need to promote. (Lovell 2017, 3'01''00)*

Problems with social licence demonstrate a disconnection not only between the commercial fishing industry and the wider public, but also between the fisheries managers responsible for administering the commons on behalf of the Australian public and the public themselves, who are unaware of these efforts:

> *Some of our issues with social licence come from our lack of focus on educating the public and the community about how well we manage our fisheries. (Respondent#4517, fisheries manager)*

Part of this disconnection originates in the governance arrangements and management goals established to manage commercially fished stocks. This selection of management objectives contributes to construct a harvest space that is disengaged from the more fluid identities of fish and fishers and their meanings for other actors and other policy fields, especially for the consumers at the far end of the fish chain.

3.2. Public governors: The current regulatory framework in the harvest space

The institutional framework that results from the evolution of these relationships between the governors and the governed helps to locate the different governors and frame the boundaries of their activity. The analysis of legislative instruments and governance arrangements allows an understanding of the boundaries of the governing space; of what actors interact in it; what the goals of governing are; and what understanding of sustainability prevails.

3.2.1. Governance arrangements and legislative foundations

The management of Australian fisheries is a shared responsibility between the Commonwealth and states and territories. The Commonwealth manages fisheries beyond territorial limits as per section 51(x) of the *Australian Constitution*. States manage fisheries within the territorial limits, which are currently set at three nautical miles beyond the low-water mark (Borthwick 2012, p. 16). The delimitation of single jurisdictions was reached in 1979 by means of the *Offshore Constitutional Settlement*, which established the overarching jurisdictional arrangements (p. 16).

Fisheries are managed in the Commonwealth and the states and territories by a number of departments and agencies. State bodies responsible for fisheries may be located in the

departments responsible for other primary industries and related resources (as in NSW, Queensland, NT, Tasmania) or in those responsible for regional development (as in South Australia [SA] and Western Australia [WA]). In two jurisdictions, the Commonwealth and Victoria, there is a division of responsibilities: policy formulation is done by the ministerial department and a statutory agency is responsible for fisheries management. In the Commonwealth, the Minister of Agriculture and Water Resources has policy and executive powers, advised by the Department of Agriculture and Water Resources. The Australian Fisheries Management Authority (AFMA) is responsible for the domestic fisheries management functions and reports to the Minister (Borthwick 2012, p. 20). The Commonwealth presents two other differences with respect to the other Australian jurisdictions. First, the Commonwealth maintains a head of power in 'external affairs', particularly as concerns international agreements against IUU fishing. Second, the Commonwealth is the only jurisdiction that does not manage recreational or traditional/customary fishing, since these activities have generally taken place within the three nautical mile territorial limits.

All jurisdictions have enacted legislation to manage aquatic resources. The regulatory framework consists of a series of legislative instruments and complementary guiding documentation. In all jurisdictions, the primary legislative instrument is an Act for fisheries management: *Fisheries Management Act 1991* (Cth); *Fisheries Management Act 1994* (NSW); *Fisheries Act 1995* (Vic); *Fisheries Act 1994* (Qld); *Fisheries Management Act 2007* (SA); *Aquatic Resources Management Act 2016* (WA); *Living Marine Resources Act 1995* (Tas); and *Fisheries Act 1988* (NT). Various Acts for particular activities exist in different states, such as aquaculture in SA, finfish aquaculture in Tasmania or pearling in WA. Fisheries regulations specify how the primary legislation is applied and mandatory instruments then regulate each specifically designated unit of management, stock or fishery. Management plans for each specific stock or fishery contain further specification of the objectives and indicators required to measure them.

Complementing the legislative instruments are several mechanisms to offer guidance and exert control over the development of the legislation over time, as well as government action in the field. Guidance is offered by different means. First, a set of policy documents (i.e., policies, policy statements and strategies) support the legislative instruments, containing principles to guide management. Examples of these are the

Commonwealth Policy on Fisheries Bycatch (Department of Agriculture, Fisheries and Forestry 2000) or the *Commonwealth Fisheries Harvest Strategy Policy* (Department of Agriculture 2007). Other documents providing guidance include independent reviews commissioned by the different governments on their legislation, policies or regulation, such as the Borthwick (2012) report on the Commonwealth fisheries or the *Independent Review of NSW Commercial Fisheries Policy, Management and Administration* (Stevens, Cartwright & Neville 2012). Such reviews have been influential in establishing policy priorities, such as the importance for AFMA objectives of the harvest strategy and bycatch policies stressed in the Borthwick report (AFMA 2016a, p. 28).

Reports by other branches of government may offer guidance into issues or inquire into aspects that are relevant to their policy ownership, such as the Productivity Commission's (2016) inquiry into the regulation of fisheries and aquaculture completed in 2016. Finally, political control of government actions is exerted through parliamentary inquiry reports at the federal or state level that investigate, report and draw attention to salient issues. Recent examples relevant to fisheries include the inquiry by the NSW Parliament into commercial fishing (New South Wales Parliament 2017) or the Senate inquiry into Tasmanian salmon farming (Commonwealth of Australia 2015). Inquiries into the post-harvest space are especially relevant to this research; for example, the Senate's inquiry into labelling requirements for seafood (Commonwealth of Australia 2014b).

These complementary instruments are relevant to this research for two main reasons. First, they investigate whether there has been a regulatory failure and provide recommendations to address it. In doing so, they bring regulation into the broader political context, explaining and reframing meanings to suit the prevailing notions at a given point. Fundamentally, this includes notions related to the role of regulation in public life. Second, the consultative processes involved in the production of these documents is a particular instance of discursive practice, in which it is possible to note what actors are involved, what the different arguments are and how these are woven into the final documents. In this sense, these sorts of texts are a particular record of discursive interactions addressed to frame and solve issues, and are a key source of data for the analysis of the success of regulatory demands around labelling and traceability in Chapter 5.

The Commonwealth, states and territories count on a range of committees formed by various stakeholders to provide advice and consultation on management issues. Examples of these are the Management Advisory Committees and Resource Assessment Groups in Commonwealth fisheries and the Ministerial Advisory Council in NSW. Access to these groups is provided to stakeholders identified in the sector, including those from the commercial, recreational and Indigenous fishing sectors, researchers, and environmental conservation agencies; post-harvest stakeholders or the broader community are rarely involved. Two criticisms to this model of governance have been raised. The first concerns the lack of transparency in several processes in the two jurisdictions that have conducted reviews of their policy: NSW and the Commonwealth (Borthwick 2012, p. 40; FRDC & Ridge Partners 2015, p. 75; Stevens, Cartwright & Neville 2012, p. ix). The other is the limitations in stakeholder engagement, noted in the literature (Borthwick 2012, p. xv; Emery et al. 2017a, p. 50), reviews (Borthwick 2012, p. 42) and in the interviews:

> *Australia has a very orchestrated consultation mechanism which is very catching sector focused. What has evolved in other countries now particularly as part of the fishery improvement program stuff which has brought in a wider engagement with the private sector is that you now see some of the processors coming in, and some of the retailers coming in. They gain an understanding of what the real issues are, and they also get a sense of 'Oh hang on, if these guys screw it up then my buying contracts down the line are at risk', and so it's not a perfect system but I think it's actually had a lot of benefits […] I think the regulators in this country have always 'oh, we don't have anything to do with this sort of stuff' and they've kept the private sector out of fisheries management except for the things they can control. (Respondent#0117, private researcher)*

Public–private partnerships offer support to the industry through research. There is one dedicated research centre within the network of Rural and Research Development Corporations, the FRDC, founded in 1991. Under this scheme, three seafood-related CRCs have been funded by the Australian Government: the CRC for Aquaculture (1993–2000), the CRC for Sustainable Aquaculture of Finfish (2001–2007), and the Seafood CRC (2007–2015). While the FRDC provides research funding for fisheries, aquaculture, recreational and traditional or customary fishing, the CRCs offer support to the key priority sectors. Several state jurisdictions maintain research centres, such as the

South Australian Research and Development Institute in SA or the Port Stephens Fisheries Centre in NSW. This research network interacts with public research centres throughout Australia, such as the CSIRO Oceans and Atmosphere business unit, the ARC Research Centre for Coral Reef Studies and the Institute for Marine and Antarctic Studies, as well as university departments and researchers. Together, they provide the scientific basis for policy formulation, development and management, and researchers are frequent stakeholders in advisory committees. However, the participation of the research community in decision-making processes, and the use of 'best available science' in decision-making related to fisheries, is a source of controversy among stakeholders, especially in cases in which community perceptions and scientific data do not align:

> *The NGOs create a very strong headwind against fisheries but it's not based on facts, it's not based on science. We've had the Department of Agriculture our Minister recently come out and say that the Department want to work on science-based information, not rhetoric. And that is music to the industry's ears. So if we worked 20 to 30 years to change and to improve our processes and to work on sustainability we need to be acknowledged for that. We want to be acknowledged for that. And science and research has acknowledged us but that hasn't led into sufficient communication back to the community. (Respondent#0917, seafood industry representative)*

> *David Attenborough and all those people are telling you that the reef is being destroyed and fishermen are plundering the ocean and nets, drag walls of death, all of that. So we go to our guys and say 'the fishery's fine and it's ran by science, the catch is very conservative, the boats are good boats' and then they say 'well why are we getting hammered in the press?' and I say 'well they're campaigning and they're wrong'. And they say 'they're wrong but we're still getting all this pressure', so one of the reasons the industry is keen to demonstrate its sustainability and all of that is because we've got such a bad image already that the default position is to believe we are plundering the oceans, we are slaughtering the dolphins, we are killing the seals. (Respondent#1517, fisheries manager)*

> *The updated review of the ASC standard for salmon, this is. And they they put a clause in there that essentially said if the public is unhappy with an with an Allowable Zone Effect an established Allowable Zone Effect then you have to*

> *revert back to principle 6, no sorry principle 7, which is your 'be a good neighbour be a good citizen' right, so it's social licence. It reverts back to the opinions of the community on your AZE [allowable zone effect]. They're not scientists. You base something as important as an AZE on robust validated research, not on what [NAME] says that doesn't want the lease boundary to be there. (Respondent#3417, aquaculturist)*

The contention over the use of science reflects the complex characteristics of the science–policy interface; that is, the opposition between science and policy-making:

> *If we as a nation move away from using science to manage fish stocks just at the raw corest element, we might as well give up. Because the alternative is putting a finger in the wind and hoping you know in which direction you go. So the only way to manage fish stocks is through science. And so we can't give up on that, and so as soon as people start to use other approaches and other opinion, you know, just things based on ideology and other things it just doesn't work. (Respondent#1217, research funder)*

The difficulty in communicating effectively with the public:

> *I think it's dense, it's scientific literature, scientists failing to communicate in a simple way and they just need to make it easy to understand by everyone. (Respondent#3217, private researcher)*

And the tensions over the discursive ownership of truth:

> *A lot of this driving belief that fisheries were being over-exploited, the rhetoric was out there amongst people who were considered to be leaders of the scientific community, people like Daniel Pauly and Boris Worm who pronounced that there would be no fish left by 2048. Pauly declared that the only seafood that will be left to eat will be jellyfish sandwiches. These were gross over-exaggerations and sensationalism. But they resulted in both of those people raising a great deal of money for their research teams and getting all sorts of media attention. (Respondent#0217, researcher)*[10]

> *So when you know they just had this declaration of scientists who signed the thing against Australia's review of the Marine Park Reserves, and there's a*

[10] Quotation revised by the respondent.

> *whole lot of scientists who signed it, and you read it? None of that was based on science, that document that they put out. (Respondent#1217, research funder)*

This tense science–policy interface, with its strong research backing informing policy-making, room for improvement in transparency and broader stakeholder involvement, openness to public scrutiny, and difficulties communicating to the wider public and understanding policy as the result of collective negotiations is part of a governance system that focuses on controlling harvesters and fish stocks while failing to communicate the basis for its decisions effectively to the wider community. This makes fisheries management decisions vulnerable to narratives claiming that scientific evidence has been ignored:

> Fishermen and fisheries managers in Australia have previously tended towards conservative fisheries management founded in data that is as robust as can be achieved with limited funding. The case of the Port Phillip Bay closure is notable because the government chose to deliberately ignore the BAS [best available science], and to instead, in the words of Agriculture Minister Pulford, to 'reflect what the community wants'. (Gray, cited in King & O'Meara 2019, p. 11)

The focus of managing objectives in the biological component of sustainability and a narrow economic component further explains these disconnections.

3.2.2. Sustainability in the regulatory framework

The principle underlying all primary fisheries legislation across Australia is ESD, whose definition and core objectives for Australia are contained in the National Strategy for Ecologically Sustainable Development endorsed by COAG in 1992. These were integrated into the *EPBC Act 1999* and in the different Fisheries Acts. 'Sustainability', as pursued in the action of governments, is understood as follows:

> While there is no universally accepted definition of ESD, in 1990 the Commonwealth Government suggested the following definition for ESD in Australia:
>
> 'using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased'.

> (Ecologically Sustainable Development Steering Committee 1992, paras 1 and 2)

The goals of ESD were defined in the same document:

> The Goal is:
>
> Development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends.
>
> The Core Objectives are:
>
> to enhance individual and community well-being and welfare by following a path of economic development that safeguards the welfare of future generations
>
> to provide for equity within and between generations
>
> to protect biological diversity and maintain essential ecological processes and life-support systems.
>
> (Ecologically Sustainable Development Steering Committee 1992, paras 8 and 9)

ESD principles have been divided accordingly into three components to distinguish and integrate the social, economic and environmental impacts into decision-making (Fletcher et al. 2002, p. 7). Come common traits can be seen in the integration of ESD principles into the primary legislation for fisheries in all states and territories, including the pre-eminence given to the ecological component of sustainability over the economic and social components, as widely discussed in the literature (Barclay 2012). Economic and social objectives, in their formulation as well as in their hierarchy, differ across jurisdictions. Table 8 shows the variety of high-level objectives in the primary legislation.

Table 8: Objectives of the jurisdictions' primary fisheries legislation

	Cth	*NSW*	*Vic*	*Qld*	*SA*	*WA*	*Tas*	*NT*
Ecologically sustainable development	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Equitable or 'appropriate' sharing of fisheries resources		Yes	Implied	Yes[a]	Yes	Yes		Yes
Provide benefits to the community and/or consider community's interests		Yes		Yes[a]	Yes	Yes	Yes	Yes
Conserve/protect fish stocks, habitats and ecosystems		Yes	Yes	Yes[a]	Yes	Yes		Yes
Facilitate and/or encourage participation in fisheries management			Yes	Yes[a]	Yes	Future[c]		
Efficient and cost effective fisheries management	Yes				Yes	Future[c]		
Promote recreational fishing opportunities		Yes	Yes		Yes			
Promote sustainable fishing			Yes			Yes	Yes	
Maximise net economic returns	Yes					Yes[b]		
Cost recovery	Yes				Yes			
Promote viable fishing		Yes	Yes					
Conserve threatened species		Yes						
Increase community understanding of aquatic ecosystems							Yes	
Accountability of decision makers to the community and fishers	Yes				Yes			
Recognise and/or promote Aboriginal cultural fishing		Yes						
Facilitate the rationalisation and/or restructure of the commercial fishing industry			Yes					
Reduce the possibility of shark attacks				Yes				
Enhance competition				Yes[a]				

[a] Included as a principle underpinning the definition of 'ecologically sustainable development' within the Act. [b] The objectives are to yield the optimum (rather than maximum) economic, social and other benefits. [c] Included in the *Aquatic Resources Management Bill 2015* that is before the Western Australian parliament.

Sources: McPhee (2008); *Fisheries Management Act 1991* (Cth); *Fisheries Management Act 1994* (NSW); *Fisheries Act 1995* (Vic); *Fisheries Act 1994* (Qld); *Fisheries Management Act 2007* (SA); *Fisheries Resources Management Act 1994* (WA); Aquatic Resources Management Bill 2015 (WA); *Living Marine Resources Act 1995* (Tas); *Fisheries Act 1988* (NT).

Source: (Productivity Commission 2016, p. 62)

Subsidiary legislation exists in fisheries regulations, dictating how the primary legislation is applied and further specifying the legislative objectives. Mandatory regulation then descends to each specifically designated unit of management, stock or fishery. Management plans for each specific stock or fishery contain further specification of the objectives and the indicators required to measure them, and thus

constitute a key step in translating high-level objectives to the practical goals of fisheries management.

Management plans may be harmonised in their design through an overarching harvest strategy policy, as happens in the Commonwealth, SA and WA (Productivity Commission 2016, p. 10). NT published its policy in 2016 (NT Government 2016) and Queensland aims to do so in its fisheries harvest strategy 2017–2027 (State of Queensland 2017). The Productivity Commission (2016, p. 10) recommended the adoption of harvest strategy policies for NSW, Tasmania, Victoria (and Queensland at the time) and the *National Guidelines to Develop Harvest Strategies* were issued in 2014 (Sloan et al. 2014). A harvest strategy policy ensures a common framework to guide decision-making processes, integrating the objectives, indicators, monitoring, assessment and decision rules of fisheries management plans, thus ensuring the coherence of the broader framework, its certainty and accountability (p. 12). Awareness of the variety of objectives in the different states and territories is implied in the definition, with ecological objectives, but not economic or social ones, assumed to be present in all jurisdictions:

> A harvest strategy is a framework that specifies pre-determined management actions in a fishery for defined species (at the stock or management unit level) necessary to achieve the agreed ecological, economic and/or social management objectives. (p. 11)

This can be attributed to the gaps arising in the transition from high-level objectives to operational objectives, whereby a disconnection emerges between the high-level objectives and their application:

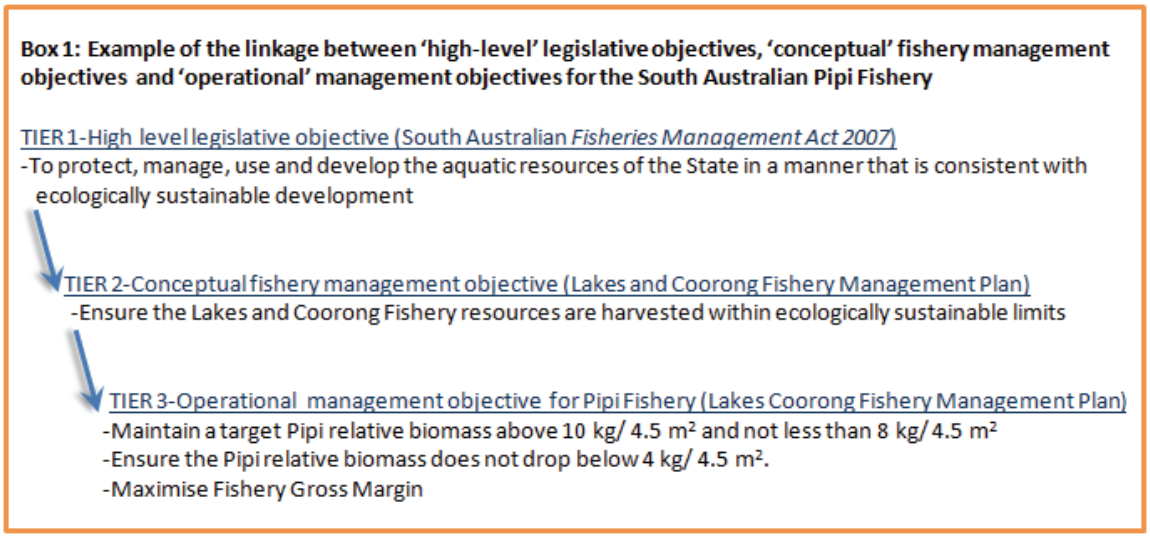
> In the jurisdictions where management plans are common, most reported that they have operational objectives (56–95%) and performance indicators (44–100%). Social and economic indicators are rarely, if ever, specified in Queensland, Victoria, the Commonwealth and Tasmania, but are frequently specified in Western Australia (68%), South Australia (69%), the Northern Territory (77%) and New South Wales (95%). The differences observed are not simply a function of the presence and/or absence of social and economic objectives in governing legislation because the legislation of all jurisdictions

> makes some reference to these objectives, specifically in the context of ecologically sustainable development. (Sloan et al. 2014, p. 14)[11]

The operationalisation of objectives is relevant in that it determines the tools for the monitoring and assessment of the fisheries, provides the real drivers for their management, and identifies the stakeholders involved. Throughout the jurisdictions, fisheries management has focused efforts on determining how much fish can be fished (e.g., conducting stock assessments and establishing catch limits), who can fish (e.g., through allocation processes) and where fishing occurs (through spatial planning). The basis for this has been the status of the fishery, which is the key indicator preceding any strategy (Sloan et al. 2014, p. 19). Overall, stocks of target species have been frequently taken as a proxy for sustainability, where sustainability has been primarily understood as the prevention of overfishing by establishing catch limits based reference and target points and monitoring stocks accordingly.

Figure 2 below shows how the wider principles of ESD are selected and directed towards biological and economic objectives focused on biomass levels.

Figure 2: Operationalisation of objectives in harvest strategies



Source: (Sloan et al. 2014, p. 18)

[11] Data resulted from a survey distributed to fisheries managers in all jurisdictions that contained the specific question 'Number [of fishery/stocks assessed] that explicitly consider social and economic indicators' (Sloan et al. 2014, p. 65)

The operationalisation of objectives gives pre-eminence to a biological definition of sustainability based on managing target stocks and preventing overfishing, as found widely among interviewees involved in fisheries management or research:

> *Sustainability means that the species that is targeted is caught according to a harvest strategy which was based on scientific evidence. That that harvest strategy is sustainable in terms of not fishing down on the biomass of that species. So you got a biomass of species, which reproduces its fish but you're not fishing down on the biomass. (Respondent#1317, research funder)*

> *Sustainable, that your stocks aren't overfished. If you're overfishing your stocks then you are compromising the long-term value, the future stream of income that will be earned from exploitation of that resource, and that's a natural renewable resource. Fisheries, you have to make sure you're not overfishing and in doing that you're protecting people's economic interest in the fisheries and you're optimising the output of it so it's something that's quite a strong focus and that's imported in our harvest strategies. (Respondent#1517b, fisheries manager)*

Taking stock status as a proxy for sustainability is often found explicitly:

> One of the key aims of fisheries management is to ensure that fish stocks are maintained at sustainable levels. This is reflected in international, Commonwealth, state and territory legislation. *The Status of Australian fish stocks reports 2016* assesses the biological sustainability of a broad range of wild-caught fish stocks against a nationally agreed framework. In short, the reports examine whether the abundance of fish (or biomass) and the level of harvest from the stock are sustainable. (FRDC 2018c)

> Sustainability—our fisheries are managed in a manner consistent with the principles of Ecologically Sustainable Development, with no overfishing and the recovery of overfished stocks. (Department of Agriculture and Water Resources 2017, p. 2)

And extends to the fishers' own understanding of sustainability:

> *I've sat in many workshops and wordsmithed around sustainability in vision statements and mission statements and it goes on and on and on. Basically it's*

> *just an ability to harvest at levels which can be maintained now and into the future. (Respondent#1717, fisher)*[12]

The components of biological sustainability evolve over time, driven by such factors as the external pressure put on management by other actors in governance, particularly environmental NGOs. Bycatch and interaction with targeted species are two main examples of measures that extend sustainability to broader environmental impacts. Measures of bycatch or interaction with other species may have been integrated into the specific management plans, such as in the Commonwealth Bycatch policy, but the main measurement driver lies outside fisheries management. The *EPBC Act 1999* is the central piece of legislation for environmental protection in Australia, and is also subject to ESD principles. The *EPBC Act 1999* requires, among other provisions, that all fisheries with an export component be assessed against their biological sustainability (Borthwick 2012, p. 25; Productivity Commission 2016, pp. 216–8). This has placed an additional emphasis on the assessment of the ecological component of sustainability for those fisheries subject to the EPBC provisions:

> *That has a huge impact on objectives and I actually think that's been extremely influential even more so to date than any of the harvest strategy frameworks really. That's because the strategic fisheries assessments required by the EPBC Act have actually dictated the types of ecological considerations and the objectives that are put in place and then that as a side has had a kind of a consequence for the other types of objectives pursued and that a lot of focus has gone into meeting those to the neglect… You know if you've got a management agency that's only got limited policy resources, they'll address those that are about the ecological, ticking the box to get that WLTO [Wildlife Trade Operations] approval and therefore less energy is put into those other questions. (Respondent#3017, researcher)*

The *EPBC Act 1999* therefore broadens the range of aspects that need to be taken into account and monitors the performance of fisheries against them; however, as a trade-off, economic and social objectives are further sidelined. The economic objectives are second in rank in many jurisdictions and have as their aim to maximise the 'net return to the Australian community', often perceived as increasing the GVP of the resource extracted. Economic objectives have been criticised in the literature as lacking

[12] Quote revised by the respondent.

definition, adequate measurements and implementation (Emery et al. 2017a; 2017b). Despite studies trying to broaden economic objectives (Pascoe et al. 2016), profitability remains a fundamental objective for managers:

> *Allowing the market to work, ensuring there are no impediments to people exploiting the resource, optimising the resource so that the price they get is sufficient to cover their costs and their investment in the fisheries in terms of the buyouts and licensing and those sorts of things. (Respondent#1517b, fisheries manager)*

The economic objectives have rarely gone beyond the landed value of the catch or taken into account broader economic benefits flowing into the community. The focus of economic objectives on the profitability of the harvest for the harvesters is one of the components rendering professional fishers vulnerable to cultural narratives that undermine their position in the community in conflicts over resource allocation:

> If commercial fishermen are successfully framed as myopic economic maximisers, while recreational fishers are presented conversely as family oriented and socially responsible members of an environmentally conscious public, one side immediately has the advantage in terms of their moral and environmental credentials. (King & O'Meara 2019, p. 9)

The lack of research on the economic and social contributions of commercial fishing is beginning to be addressed (Voyer et al. 2016) but may be contested where the interaction between economic and social objectives involves looking beyond the profitability of fisheries:

> *FRDC is very keen on this triple bottom line, the problem is like the two particle problem you can solve in physics, three particles you can't and they would you spin the social in now. If we say the biological trumps the economic, get the biological then get the economic, and we say if you get the economic right you've taken care of the social, because you know if the Government wants to do something for employment in a town well, optimise the economy and now you can afford it but to achieve the social through economic that's very inefficient. (Respondent#1517, fisheries manager)*

The definition and measurement of social objectives have not abounded in the management of Australian fisheries or in the third-party certification schemes (Barclay 2012) but are an emerging research issue (Brooks et al. 2015; Pascoe et al. 2014). In this area, the FRDC has a dedicated human dimension program devoted to researching the social aspects of fisheries, including their social objectives (Triantafillos et al. 2014) and the social and economic contributions of the sector at the state level (Voyer et al. 2016) and national level (FRDC 2018a).

However, social objectives are generally ascribed to groups of fishers other than professional fishers:

> *What social and economic outcomes should they pursue in the first instance? So that certainly has been a gap identified in every single jurisdiction, all but the Commonwealth. I think states in some shape or form intend to optimise the social and economic outcomes for the jurisdiction from that fishery. And they're all tending to assume that means having, well often assume that that means having economically profitable fisheries. So delivering an industry surplus if you like. And that's the extent of it. And then the other way they achieve that is through an allocation to a recreational sector. And then they tick a box and say we've delivered on social outcomes because we have enabled recreational opportunity. (Respondent#3017, researcher)*

This implies that the recreational sector provides social outcomes, whereas the commercial fisheries render 'only' economic returns, and only for the fishers. Moreover, the restriction of stakeholders in governance to the harvesters, means omitting consideration of other interests, including post-harvest businesses and the public, as seen above:

> *Really only the economic and social interests of the harvest sector, whether that's recreational or commercial or Indigenous are taken into account. And beyond that, there's, very rarely do you ever see direct consideration of any kind of broader community benefit. So it's quite a narrow… What we'd say in a policy sense is those who have standing in those objectives is a very narrow group and they are the identified stakeholders which are the harvesters essentially. (Respondent#3017, researcher)*

The emerging concern about the social objectives of fisheries is being reflected in research that adopts wellbeing frameworks to measure broader economic flows and benefits and may in the long run influence a redefining of the objectives, with greater participation from the post-harvest sectors and community. As the need to improve transparency and stakeholder involvement in the different jurisdictions is diagnosed and management models move along the continuum from centralised to consultative or even to collaborative models (Neville et al. 2008, p. 32), stakeholder identification and engagement may be a critical tool to address the disconnection between the community that owns the resource and those in charge of managing it.

The disconnections between fisheries management and broader social and economic objectives disengage management from the broader community, as evidenced in the restricted number of stakeholders involved in consultation processes. The disconnection also disengages the control of sustainability from the post-harvest space. The evolution of the governed and the public governors has configured a governance space that relies strongly on hierarchical modes of government, justified by the previous over-exploitation of the resource. A belief that over-fishing is widespread continues to influence public perceptions about professional fishing. These modes aim at conserving and allocating the resource so that biological objectives are met, fisheries are profitable, and the interests of recreational and Indigenous fishers are taken into account. The vagueness of the broader economic objectives, coupled with the lack of attention to the social component of sustainability (Barclay 2012, p. 38), means that fish stocks are managed to be available for future generations, but beyond that the goals are unclear. As Emery et al. (2017b, p. 143) ask, 'is the objective of the fishery to provide employment, food, reward entrepreneurship, generate income for the community, provide recreational utility or some other goal?'. The prevailing meanings of fish as stocks and fishing companies as harvesters may be hampering efforts to broaden the objectives and take into account the multilayered, interconnected, overlapping identities of the governed and the complexity of their interactions with communities.

3.3. The governed in the harvest space: Fish, fishers and 'the industry'

Notions about the governed—who and/or what they are, their positions in the system and the boundaries of their activity—are the base on which policy domains are determined, problems are framed, participation is enabled and control is exerted. These

are the ‘images’, one of the three components (together with ‘instruments’ and ‘action’) in interactive governance frameworks (Kooiman et al. 2005, p. 20). Two main images of the governed are explored here to complement the policy documents above: the construction of fish as measurable units and the construction of fishers as harvesters. Fish is overwhelmingly characterised in the interviews as a measurable unit for conservation and allocation purposes (e.g., stocks, catch, quota) or as a commodity for profitability (e.g., product). The construction enables a shared meaning across the harvest and post-harvest spaces. This continuity is complemented by the fluid identity of the fishing industry, in which the representation of the harvesting activity obscures other activities being conducted by fishing companies. The fluidity of notions across the harvest and post-harvest spaces has two main implications: in terms of governance, the boundaries of fisheries management in the harvest space do not correspond to the economic activities governed; in terms of the construction of fishers, it renders the industry vulnerable to narratives of fishers as profit maximisers, which can be exploited in conflicts over the resource.

3.3.1. Fish as the governed in the harvest space

The management of fisheries for sustainability—primarily understood as the conservation of stocks—and the secondary importance of the narrow economic objective of profitability is coherent with the prevailing notions of fish in the harvest domain. In this space, fish are primarily a source of data for conservation, allocation and value. This notion of fish is also consistent with the focus on data collection to inform decision making. In the post-harvest space, the notion of fish as a measurable resource also fits well with the prevailing notion of fish as a (food) product. However, while these notions are found in contexts reflecting the control of fishing activity or the economic activities related to the trade of fish, other functions such as the provision of food, or social or cultural benefits, remain less prominent.

A detailed examination of the semantics of fish for the stakeholders involved in its governance would be a research topic on his own right. However, the general conceptions of fish as a resource and product found in the fisheries management objectives are reflected at basic levels of analysis, both in terms of content analysis and discourse analysis. Content analysis seeks to examine meaning by inferences from the contexts of use (Krippendorff 2004, p. 18), often by conducting quantitative analysis

through tabulations, statistical analysis and clustering (Krippendorff 2004). The units of context may vary but are often related to the semantic and syntactic relations between conceptual components, such as words, [13] clauses, sentences or paragraphs (Krippendorff 2004, pp. 105–9; Weber 1990, p. 7). A basic context analysis is conducted below to illustrate the occurrence and distribution of the nouns used by interviewees to refer to fish; that is, the lexical set 'fish'. CDA employs qualitative techniques to demonstrate how the meanings of fish are selected in concrete communicative events, to show how language reflects and enacts the power struggles between the governors and the governed. This analysis can be found in Appendix 1.

The examination of the different nouns that are synonyms of fish for the actors in the harvest space (and, by opposition, in the post-harvest space) unfolds in three stages. At the level of the nominal group, the range and distribution of lexemes used to talk about fish by the particular actors are examined by means of a basic tabulation. At the level of the clause, the type of verbal processes associated with fish are identified; finally, the paragraph and the broader context offer the means to investigate the cohesion, discrepancy and nuances in the use of terms.

The distribution of the generic nouns in the 'fish' lexical set in the harvest and post-harvest spaces is tabulated between sectors in Table 9 below. Small-scale fishers, fisheries managers and some of the researchers are listed as 'harvest', whereas retailers, wholesalers and seafood industry representatives are listed as 'post-harvest'. Interviewees whose activities overlapped sectors (mostly producer-retailers and some of the researchers) are listed separately, and so are the interviewees in other policy domains.

The tabulation of occurrences shows that 'product' and 'seafood' are the dominant synonyms for fish. While the content nouns are used in both the harvest and post-harvest sectors, their distribution reveals that the words are used differently by sector.

[13] 'Words' is taken here in the sense of lexemes; that is, comprising different forms of the same word as they would appear in a dictionary entry. For example, '*found* and *find* are different forms of the same word' (or lexeme) (Lyons 1977, p. 19).

Table 9: Distribution ratio of the lexical set 'fish' by relative size of the group (occurrences/interviews as % of total)

	Resource	Catch	Quota	Stock	Species	Product	Seafood	Fish
Sector: Harvest (21.05%)	0.34	0.84	0.95	0.66	1.61	2.63	1.24	4.76
Sector: Post-harvest (50%)	0.24	0.79	0.58	1.21	2.18	9.37	6.42	13.34
Sector: Overlap (15.79%)	0.05	0.42	0.03	0.53	1.16	4.24	1.61	6.89
Other sectors (13.16%)	0.24	0.47	0.26	0.34	0.63	0.89	1.26	1.21
Total occurrences	33	96	69	104	212	651	400	996

The distribution of the lexemes shows a much greater occurrence of 'resource', 'catch', 'quota' and 'species' in the harvest space. 'Product' and 'seafood' are more common in the post-harvest space but the former is also very much present in the harvest. This illustrates the different conceptions of fish as a resource and a unit for management in the harvest space, but also the common consideration of fish as a product both in the harvest and in the post-harvest spaces.

The generalisation of fish as a 'resource' is limited to a small cluster of actors in specific situations: researchers, fisheries managers and NGOs describe fish as a resource or part of a resource, mostly in contexts of management. 'Resource' is often used as a classifier in groups such as 'resource access', 'resource management', 'resource economics' or 'resource stewardship' among harvest actors (as a reflection of specialised terminology). Post-harvest actors refer to 'resources' to characterise fisheries as a 'limited' or 'renewable' resource. Fish are more often referred to as a resource to be managed, either by researchers or managers, in more specific terms; 'catch', 'stocks' or 'quota' reflect its key quality: the ability to be quantified to produce data for fisheries management objectives, principally including contexts of allocation and exploitation.

‘Stocks’ refers to living fish stocks, which is the key source of data for research and management in the measures to attain objectives:

> *When government said, ‘You have to do these things in the direction’, which were about no overfishing, recover fish stocks. (Respondent#2617, fisheries manager)*

This is also a function of ‘catch’, especially in connection to ‘bycatch’:

> *Harvest strategy is very data driven and you have a lot of data on catch but you don’t have a lot of data on bycatch because you push [it] back over the side. (Respondent#1517, fisheries manager)*

‘Catch’ and ‘quota’ have a further distinction in relation to ‘stocks’ and ‘species’: that of property and value, which stand in opposition to stocks as a living resource:

> *Sustainably, but making money in a sustainable fishery. Rather than just bringing home the most catch. Bringing home the most catch had led to some issues around unprofitability and those sort of things. (Respondent#2617, manager)*

> *If a fisherman’s got quota and they want to go and catch their quota and there’s a fishery boundary in the way that stops them doing it that’s just dumb, okay? We should get rid of those things that get in the way of fishermen legitimately taking their catch. (Respondent#2617, fisheries manager)*

The opposition between units of value and fish as living entities appears in contexts of conflict over resource use and is an element of the narratives that construct fishers as ‘profit maximisers’. The example below presents the arguments of recreational fishers, environmental NGOs, the media and public opinion as misinformation. This is achieved using the active voice, activating fishers as agents of destruction, and using verbs of material process such as destroy, and plunder:

> *David Attenborough and all those people are telling you that the reef is being destroyed and fishermen are plundering the ocean and nets you know, drag walls of death, all of that. (Respondent#1517, manager)*

This is opposed to the arguments of fisheries management and fishers about research as fact, using the passive voice, referring to fish as catch rather than animals, and deagentialising fishing. Further, presentations from fisheries managers and fishers display a disengagement of science from the social world:

> *So we go to our guys and say the fishery's fine and it's ran by science, the catch is very conservative, the boats are good boats. (Respondent#1517, manager)*

The majority of contexts in which fish is animated belongs to these episodes of conflict over resource use that have shaped the evolution of fisheries management and still loom large in the interviews with fishers, researchers and managers. One example comes from the topic of the deep-water trawl fishery for orange roughy in the 1980s, in which the government's granting of high quota allowances in the face of industry pressure, against scientific recommendations, led to the rapid depletion of the stock (Bob Kearney, personal communication, 9 September 2019). In contexts like these, fish is animated to express the consequences of the conflict; here, in the opposition between catch (as in total allowable catch [TAC] and 'landings' as a metonymy to designate the landed catch) and dead fish:

> *As to what the TAC should be, and the recommendation from that committee to the government for the orange roughy fishery in Tasmania was 4,400 tons per annum. In the first year of the fishery, the kill, the landings was about 56,000 tons, but the kill was about 90,000 tons.*
>
> *[--Why?]*
>
> *Because they caught so much in their nets they couldn't pull it in, the nets burst, and the orange roughy floated to the surface. There were dead orange roughy all through the fishing grounds, floating everywhere. (Respondent#0217, researcher)*[14]

Species and individual fish names are used to singularise situations. 'Species', as used in biology to define 'a group or class of animals or plants (usually constituting a subdivision of a genus) having certain common and permanent characteristics which clearly distinguish it from other groups' (from the *Oxford English Dictionary*), is used in the harvest space to singularise particular groupings of fish in management:

[14] Quotation revised by the respondent.

> *It [introducing Maximum Economic Yield (MEY)] has been done in the Northern Prawn fishery, I think, for at least one of the species in the GAB, Great Australian Bight fishery, a couple of species in the southeast trawl, it's notionally been introduced in several other fisheries but often by proxies because the data requirements for calculating MEY are very high. Although the new guidelines that are coming out with the new harvest registry policy shortly gives them cheap alternatives about how you might be able to do that. Um, so, we are, we, we asked and are getting some information about how to do that more easily in the future for the remaining species in fisheries. (Respondent#2617, fisheries manager)*

Species is used to singularise fish as a product, which explains the frequency of its use among the producers-retailers. This passage captures the transit of the meaning of species from denoting a group of animals to a product, in the context of the transformation of an individual fishing activity to an integrated company:

> *I did take part in ocean trawl fishing for mullet and salmon and other species as well as sea gurnard fish for some time, but as things evolved we've focused on certain species, we're very focused on certain species primarily the high-value, low-volume species. (Respondent#1717, fisher)*

The use of 'species' 'product' and 'seafood' across stakeholder groups reinforces the common understanding of fish as the object of economic activity (with 'commodity' as a much less-used term with 11 occurrences in total). 'Species' and 'product' are associated with the verbs indicating production ('produce', 'make', 'turn', 'churn', 'sort', 'source', 'harvest', 'bring', 'catch', 'process', 'pack'), transactions ('supply', 'buy', 'sell', 'auction'), movement along the supply chain ('send', 'import', 'export', 'come', 'trace') or use ('consume'). The notion of fish as a product is the dominant one across all actors interviewed, be they from government, environmental NGOs or the industry, or researchers. In the harvest space, the notions of fish as a resource and fish as a product are relevant to fisheries managers in determining economic objectives:

> *Another thing in terms of the economics of the fishery is that unlike most products, as the market expands you can expand production to meet that, as a fishery, eh, you've you're a renewable resource, the actual quantum of production is essentially fixed by biology, so unless you get some sort of consolidation, in aggregation of activity, it's hard to as a fishery you can't*

> *actually increase your scale, that's fixed and constrained so you rely on price premiums which reflect the scarcity of the product to be able to sort of deliver you an increase in revenue or some form of consolidation of activity within that. (Respondent#1517b, manager)*

Among fishers, fish is also overwhelmingly a product, and the use of the word is often tied to the expression of dollar value:

> *I'd rather put them in the bait bag, because they're in demand for bait, and we're finding that the retail price of bait is higher than the retail price for cooked prawns. That smaller grade green prawn, you've got to weigh up the viability and the logistics of public being happy with what they're eating and what they're paying for and having the cooked product or, if you have to sort that product on board the vessel as you're going, and then or you can just bring it all home green and at the end of the day you have a lot less work and still make as much money. And I don't have to travel anywhere, when the wholesalers come and buy them, come and pick them up direct from me, there's a whole lot less for me to do. (Respondent#0517, fisher)*

The notion of fish as a quantifiable unit for management and profitability in the harvest space is consistent with the notion of fish as a product downstream. However, this is problematic as it renders fishers vulnerable to their construction as profit maximising subjects indifferent to the environmental and other values of the community. Recreational fishers have used this construction as part of their successful campaigns to close estuaries to commercial fishing (as in the Port Phillip Bay closure), contrasting the profits of harvesters with the environmental interests of the community involved in the conflict, and presenting themselves as family-oriented community members:

> The claim that commercial fishermen fit the stereotype of the economic maximiser powerfully feeds into the overall message that they are not properly motivated, are bad people, not morally worthy custodians of the resource, unlike the recreational fishers who arguably have nothing financial to gain. (King & O'Meara 2019, p. 9)

The construction of commercial fishers as profit maximisers disconnected from the community is a contributing factor to their lack of social licence, as reflected in the conflicts over resource access. The need for an alternative narrative that bridges the

disconnection between harvesters and the community has been identified by some fisheries managers:

> *Examples of where we have tried to address this gap include when we invited all of our media outlets along to join us in celebrating the seafood sector at a seafood season launch. We produced a seafood sector calendar that we disseminated widely across the state to all of our regional councils, and key stakeholder groups. And what we were trying to do was to get across to the wider public that there are people, there are families, there are communities that are behind all of the seafood that they consume in the marketplace. (Respondent#4517, manager)*[15]

The wording of this quotation reflects the association of fish to trade (seafood as 'consumed' rather than eaten, 'marketplace' as the site of interaction and 'seafood sector' and 'stakeholder groups' rather than 'fishers', 'processors' or 'retailers'), but it also provides a hint to the possible elements that might constitute the narrative: the connection of fishers as providers of food for the community. The Seafood Directions Conference, held in Sydney in 2017, devoted its opening sessions to this exploration, beginning with a keynote address by the then Assistant Minister for Agriculture and Water Resources, Senator the Hon. Anne Ruston. The address presented the Commonwealth fisheries policy statement (Department of Agriculture and Water Resources 2017), launched at the Conference. The statement defines the main principles and themes underpinning the regulation of fishing activity in the Commonwealth, in which the Australian community is defined by those who fish for recreation and those who eat fish (but not by those who harvest it for seafood eaters to buy):

> Australians love to fish and Australians love to eat seafood.
>
> Our love of fishing and seafood is at the very heart of our nation and this policy statement.
>
> Approximately 3.4 million Australians are regular fishers, and on average, every one of us eats 140 serves of seafood every year. (Department of Agriculture and Water Resources 2017, p. 1)

The Conference revolved around the elements that can be used to create a story that may help the seafood harvesting industry regain public trust. The opening sessions in

[15] Quote revised by the respondent.

the Seafood Directions Conference were partly devoted to this exercise, including a keynote speech on 'The Art of Storytelling' by a marketing expert. Then there was a characterisation of what the elements of the story might be by the keynote speakers, both the Assistant Minister for Agriculture and Water Resources and the Chair of Seafood Industry Australia (SIA), the new national peak body for the industry. Both interventions introduced the role of fishers as members of the community (families) who provide food for other fellow members of the community:

> *It's critical to remember that the Australian seafood industry is not just about fishing and it's actually not just about people. I feel it's about families, families who work together on a boat, in a shop or in an aquaculture business. Families who want to plan their future and their children's future with confidence and be valued when doing so. It's about families, it's also about families who don't fish and who need us to fish for them and who want to put Australian seafood on their dinner table every night. (Veronica Papacosta, session SIA remarks, Seafood Directions Conference, Sydney, 28 September 2017, researcher notes)*

In the same round table, attention was drawn to the fact that the construction of fishers as profit maximisers reflects a construction for management purposes. In other words, the dominant notion of fish as a quantifiable unit for conservation and value is reflected in the fisheries management objectives discussed in Section 3.2 and also in the language that harvesters use to refer to fish, as analysed here. A narrative that modifies the construction of fishers as providers of food for the community may need to modify equally both the linguistic elements of the narrative and the current policy objectives of fisheries management:

> *There seems to be a lot of focus on that, the minister emphasised consumers and mums and dads wanting seafood on the table. That´s clearly important for public support for seafood industries but I think a lot of our policies in fisheries management around Australia are much more focused on the producer rather than on the consumer and this is somewhere where we run the risk of losing their community support. So for example we have policies and it's in the policy statement to put a much greater emphasis on maximising economic yield. Now that's very good for the producer but it does mean that you're reducing supply to consumers and you're also pushing up the price to Australian consumers as well so that's not so good for public support. (Gardner 2017, 6'00''00)*

The alignment of meanings, narratives and governance objectives in the quest for public trust is in the making and may possibly involve understandings of fish as food, the construction of fishers as providers for the community and food provision as a governance objective. The pursuit of social licence by harvesters may well require moving beyond indicators of profitability into the reporting of broader social and economic objectives. Research to clarify and better establish what these indicators are is already emerging, as we have seen in Section 3.2.2. Table 10 below shows how these social and economic objectives could be applied to the management of commercial fishing, although their clarification remains to be established and their potential linkages to the post-harvest space remain undetermined. In the example, a number of management objectives are identical as sub-objectives and as specific operational objectives, giving rise to the question of whether increased access to local seafood (operational objective 4.3.1) can be achieved without government consideration of the post-harvest space. However, if the linkages are not yet explicit in the governance, they do exist already in the overlapping identities of the fishers as harvesters, whose activity often extends into a number of processes down the supply chain.

Table 10: Management objectives identified for the Coral Reef Fin Fish Fishery

Table 1. Objective hierarchy identified with the Working Group.

Broad Objectives (Level 1)	Sub-objectives (Level 2)	Specific Operational Objectives (Level 3)
1. Ensure ecological sustainability	1.1 Ensure resource biomass sustainability	1.1.1 As per the Queensland Sustainable Fisheries Strategy, achieve B_{MEY} (biomass at maximum economic yield) (~60% unfished biomass or defensible proxy), by 2027 for the main commercial, charter and recreational species; if below biomass at maximum sustainable yield, B_{MSY}, aim to achieve B_{MSY} (~40–50% B_0) by 2020.
		1.1.2 Minimize risk to Other Species in the fishery which are not included in 1.1.1.
	1.2 Ensure ecosystem resilience	1.2.1 Minimize risk to bycatch species
		1.2.2 Minimize discard mortality of target species (e.g., high grading)
		1.2.3 Minimize broader ecological risks
		1.2.4 Minimize risk to protected species
	1.3 Minimize risk of localized depletion	1.3.1 Minimize risk of localized depletion due to fishing
		1.3.2. Minimize risk of localized depletion in response to environmental events (e.g., cyclone)
2. Enhance fishery economic performance	2.1 Maximize commercial economic benefits, as combined totals for each of the following sectors	2.1.1 Commercial fishing industry profits
		2.1.2 Charter sector profits
		2.1.3 Indigenous commercial benefits
	2.2 Maximize value of recreational fishers and charter experience (direct to participant)	2.2 Maximize value of recreational fishers and charter experience
	2.3 Maximize flow-on economic benefits to local communities (from all sectors)	2.3 Maximize flow-on economic benefits to local communities
	2.4 Minimize short term (inter-annual) economic risk	2.4 Minimize short term (inter-annual) economic risk
	2.5 Minimize costs of management associated with the harvest strategy: monitoring, undertaking assessments, adjusting management controls	2.5 Minimize costs of management associated with the harvest strategy: monitoring, undertaking assessments, adjusting management controls
3. Enhance management performance	3.1 Maximize willingness to comply with the harvest strategy	3.1 Maximize willingness to comply with the harvest strategy
4. Maximize social outcomes	4.1 Maximize equity between recreational, charter, indigenous and commercial fishing	4.1 Increase equitable access to the resource
	4.2 Improve social perceptions of the fishery (social license to operate) (recreational, commercial, charter, indigenous)	4.2.1 Through sound fishing practices, minimize adverse public perception around discard mortality (compliance with size limits, environmental sustainability, and waste)
		4.2.2 Maximize utilization of the retained catch of target species
		4.2.3 Maximize the potential for fishing to be perceived as a positive activity with benefits to the community (commercial, rec, and charter)
	4.3 Enhance the net social value to the local community from use of the resource	4.3.1 Increase access to local seafood (all species)
		4.3.2 Maximize spatial equity between regions or local communities

Source: (Pascoe et al. 2019, p. 10)

3.3.2. Fishers and the fishing industry

The goal of fisheries management to sustain fish stocks is achieved by regulating who can harvest the fish, under what conditions and in which places. In all jurisdictions, fisheries management has competence over the licensing of professional wild-catch fishers, recreational fishers, Indigenous cultural fishers and aquaculture producers (Productivity Commission 2016, p. 48). In terms of wild-catch professional fishing, this division corresponds to the segmentation of the fish chain in two main spaces, the harvest space and the post-harvest space (i.e., all other activities in the supply chain through to consumption). However, this segmentation differs between jurisdictions, which has had major implications for the regulation of fish downstream. As will be seen in Chapter 5, one of the key demands of the fishing industry in the post-harvest sector, the extension of CoOL to the food services, originated in the regulation enacted in NT to this effect. Policy ownership by fisheries management over the licensing of fish shops in NT enabled legislation for seafood labelling through Fisheries Acts, whereas in other jurisdictions seafood labelling is regulated through the food regulatory system, not the fisheries system. Establishing the limits of the subjects bound by sustainability requirements is thus a relevant decision as to what sustainability objectives may be feasibly pursued.

A separation between the governing of the harvesters and the rest of the supply chain belies the complex nature of the governed, whose functions are often more integrated within the supply chain than is indicated by the separation of the harvest and post-harvest spaces. Conceiving the fishing industry primarily as harvesters also contributes to focusing sustainability efforts and the public scrutiny of these efforts on the harvest sector, exempting the post-harvest activities of the industry from such efforts or scrutiny, and making actors within this sector less likely to participate in the policy community of the harvest space. The separation results in disconnections between the governed and the governors, including in regard to social concerns around sustainability and the policy tools suitable to address them. As will be explored in the next chapter, these gaps also explain the current regulation of the sustainability of seafood along the chain.

Commercial fishing (the 'fishing industry', 'seafood industry' or 'the industry') has a number of actors in different roles:

> *The fishermen refer to themselves as the industry and so they say the catching sector is the industry. To me, it's the whole, it's people who are dependent including the post-harvest sector, particularly those who have some really direct connection there, so I would call the seafood processors and seafood specialist retailers as the industry. Restaurants who might have fish and a lot of other products I wouldn't consider them a direct part of it, and the Coles and Woolies I wouldn't consider them to be the seafood industry but a fish seafood specialist retailer are all considered part of the industry. (Respondent#0117, private researcher)*

The estimated number of people employed nationally in the commercial fishing sector in 2015–2016 was 5,777 people in wild-catch activities and 3,968 in aquaculture production, as described in Table 11 below (Mobsby 2018, p. 28). A further 1,536 people were engaged in seafood processing and 2,477 people in wholesaling (p. 28). Licences for processing and wholesaling may fall under fisheries legislation, food safety acts or specific seafood safety legislation (Productivity Commission 2016, p. 271). The scope of the harvest space is clear in relation to the companies that harvest the fish, whereas the oversight of processors, wholesalers and distributors of fish varies by jurisdiction. Retailers are not counted in the fisheries statistics, and their numbers are within the 9,800 supermarket and grocery stores and 4,800 fresh meat, fish and poultry retailers active in 2014 (p. 270).

Table 11: Estimated employment in the Australian commercial fishing and aquaculture industry

Category	NSW no.	Vic. no.	Qld no.	SA no.	WA no.	Tas. no.	NT no.	ACT no.	Australia no.
Aquaculture	84	142	118	156	92	139	8	0	737
Onshore aquaculture	106	104	334	152	74	120	17	0	913
Offshore longline and rack aquaculture	453	19	103	220	77	532	3	0	1,406
Offshore caged aquaculture	32	29	11	40	11	794	0	0	912
Rock lobster and crab potting	42	66	81	189	544	164	12	0	1,106
Prawn fishing	64	0	167	76	61	0	14	0	392
Line fishing	6	7	12	18	4	3	0	0	58
Fish trawling, seining and netting	11	11	28	22	3	0	0	0	80
Fishing, hunting and trapping	260	196	276	89	99	45	18	7	997
Other fishing	673	299	710	574	380	316	173	0	3,144
Fishing and aquaculture total	**1,731**	**873**	**1,840**	**1,536**	**1,345**	**2,113**	**245**	**7**	**9,745**
Seafood processing	202	173	221	321	266	349	5	0	1,536
Fish and seafood wholesaling	668	625	604	191	258	109	16	7	2,477
Processing and wholesaling total	**870**	**798**	**825**	**512**	**524**	**458**	**21**	**7**	**4,013**
Grand total	**2,606**	**1,667**	**2,668**	**2047**	**1,875**	**2,586**	**282**	**18**	**13,755**

a Based on 2016 ABS Census data. Categories are consistent with ANZSIC 2006.
Source: Australian Bureau of Statistics

Source: (Mobsby 2018, p. 28)

The analysis of the attendees at Seafood Directions 2019 shows the extent to which the policy community in the harvest space is constructed of harvest and post-harvest actors but strongly focused on the harvesters as the governed and the fisheries managers as the governors. Seafood Directions is the Australian fishing industry's biannual conference. In 2017, 306 delegates [16] registered for Seafood Directions, 32 of them being international actors and speakers from other fields (e.g., bankers, economists, storytellers and futurologists). The other 274 persons attended in representation of different institutions in the public and private sectors, as outlined in Table 12 below.

[16] The list of delegates was distributed on the first day of the conference and may not have included last-minute alterations and/or speakers in the program who were not registered as attendees. The analysis was conducted by identifying the online self-representation of the organisations, whether through corporate websites, social media profiles or business registry entries.

Table 12: Seafood Directions Delegates (domestic)

	Delegates	Organisations
Government	47	12
NGOs	12	5
Research	41	12
Industry	174	98
TOTAL	**274**	**127**

The analysis of the attendees offers insights into the composition of the policy community gathered around the fishing industry. In terms of the governors, two institutions out of 12 and three persons out of 47 were not representatives from fisheries departments. (This included two representatives from Austrade and one from the Department of Industry and Innovation; in addition, the Director of the Tourism and Transport Forum presented as a speaker, although she was not registered as a delegate.) Only fisheries management had a dedicated stream in the program around management issues, and the politician selected to open the conference was the Assistant Minister of Agriculture and Water Resources, Senator the Hon. Anne Ruston. The locus on the governing of the industry in fisheries management was clear. As for NGOs, all persons and institutions but one represented environmental NGOs, the exception being the Industry Skills Advisory Council in NT. NGOs from other sectors that link seafood to its role as a food product, such as consumer groups, were absent.

In terms of the governed, actors mentioning commercial fishing as their main activity constituted the largest category; the other two groups, Indigenous and recreational, were much less well-represented in the program. The opening roundtable on the future provision of seafood featured the groups relevant to the program organisers: the seafood industry peak body, researchers and recreational and Indigenous fishers, moderated by an expert in seafood marketing. The closing panel featured the FRDC, a multinational professional services company, the national peak body, an industry-supported NGO, an industry association for aquaculture and the Sydney Fish Market. Recreational fishing had this sole appearance in the program and no registered delegates, whereas Indigenous fishers participated in the closing of the program and had two dedicated sessions within the fisheries management stream.

The dominant role of the harvesting component extended to its consideration as the 'industry', as is evident in the associations representing its interests. Table 13 details the number of delegates and professional associations present in the conference. The descriptions of the industry associations on their websites were strongly tilted towards harvesters—and, among them, wild-catch fishers and fishing companies—with rising visibility of the aquaculture industry, for whom this was the first time having a dedicated stream in the program of the conference.[17] Associations covered a great range of classifications: jurisdiction-specific (state or Commonwealth, 6), fishery-specific (6), gender-specific (1) or producer-specific (fishers or farmers, 8). State- or federal-based industry associations refer to fishers and processors in their membership; fishery-specific associations represented high-volume (sardines) or high-value species (prawn, southern bluefin tuna, pearls, abalone). Membership of these species associations includes fishers (or quota owners) and other actors, such as processors or exporters. Retailers, policy-makers and resource managers featured only occasionally, and two bodies (Women's Industry Network Seafood Community and SIA) presented the broadest definitions of their membership, encompassing wild capture, aquaculture and the post-harvest sector. One association represented actors involved in the wholesaling and retailing of seafood, in contrast to the six that had 'fishermen' or 'producers' in their name.

[17] The program of the conference is accessible online at http://www.seafooddirectionsconference.com/pages/program-.html (last accessed 11 April 2019).

Table 13: Industry Delegates and Organisations in Seafood Directions 2017

Activity	Delegates	Organisations
Representative organisations	45	26
Fishers (boat owners, quota holders, fishermen, aquaculturalists, divers, pearling)	20	11
Whole of industry	22	12
Post-harvest	1	1
Training	1	1
(Fishers/industry) Non-specified	1	1
Harvest	58	28
Fishers	11	8
Fisher- aquaculture	1	1
Aquaculture	15	10
Fisher, processor	5	3
Fisher, distributor	9	1
Fisher, exporter, processor	5	2
Fisher , distributor, processor, retailer, restaurant	3	1
Fisher , processor, trader, exporter, importer	8	1
Fisher, farmer, processor, marketing	1	1
Post-harvest	36	16
Retailer	3	3
Retailer, processor, distributor, exporter	1	1
Seller	1	1
Processor, retailer	1	1
Processor, retailer, exporter	1	1
Engineering, pearls, exporter, importer	1	1
Marketing, sales	1	1
Marketing, trade, co-operative	1	1
Wholesaler, retailer (co-op)	8	4
Wholesaler, processor retailer (co-op)	1	1
Fish market	17	2
Services	31	24
Services (consultant)	19	17
Services (technology)	12	7
Industry other (?)	4	4
TOTAL	174	98

Overall, producers featured prominently in the associations, either by the number of fishers-only organisations or by being highlighted in the whole-of-industry ones. Some websites explain the evolution in the membership:

> In the mid-1960s members of the rock lobster and prawn processing industry identified a need for a peak commercial fishing industry body to represent the industry. The State Government of the time saw benefit in forming such an association for groups of like-minded fishers as it gave them a more effective way in which to communicate with Government.
>
> Fishermen were encouraged to come together in their own ports along the coast and establish local associations. The local port associations were then encouraged to join as members of a peak industry body (now known as WAFIC [Western Australia Fishing Industry Council]).
>
> Over time, this membership base was extended to include the processing sector, major vertically integrated companies that were not local port specific and the peak industry bodies of the pearling, aquaculture and abalone sectors. (Western Australia Fishing Industry Council 2019, paras 2–4)

This expansion of fishing associations towards the post-harvest sector reflects the mix of activities of the businesses attending the conference. Table 13 shows the activities that companies mentioned on their online corporate sites, social media profiles or in entries in businesses registers.

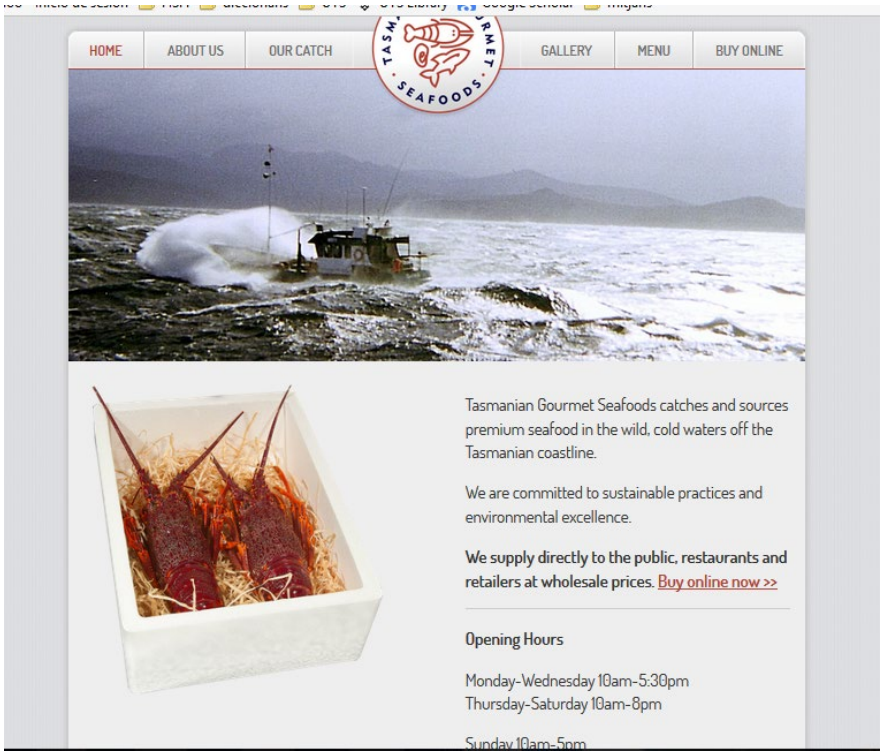
The dominance of representation from the fishing activity over other activities in the chain reflects the same tendency in the individual companies as in the associations. Vertically integrated companies in fishing or aquaculture that fish, process and export tend to present themselves on their websites as fishing companies. Even in the case of small- to medium-scale businesses, the representation of companies as fishing companies obscures their other activities.

One example of this is found in the industry awards presented during the conference: the winner of the award for take-away fish and chips in one of its three categories was Tasmanian Gourmet Seafoods. However, the company website foregrounds its fishing activities by means of text and image (see Figure 3):

> Tasmanian Gourmet Seafoods catches and sources premium seafood in the wild, cold waters off the Tasmanian coastline. We are committed to sustainable

practices and environmental excellence. We supply directly to the public, restaurants and retailers at wholesale prices. (Tasmanian Gourmet Seafoods 2012)

Figure 3: Tasmanian Gourmet Seafoods, Home section (Tasmanian Gourmet Seafoods 2012)



Source: (Tasmanian Gourmet Seafoods 2012)

The website has a MENU section (see Figure 4), from which it can be inferred that fish and chips are offered for sale, but there are no pictures of the facilities on the site; the images in the gallery section are one of a lobster pot, four photographs of a boat braving the elements and two of fishermen on the boat.

Figure 4: Tasmanian Gourmet Seafoods, Menu section

HOME | ABOUT US | OUR CATCH | GALLERY | MENU | BUY ONLINE

TASMANIAN GOURMET SEAFOODS

MENU

FRESH COOKED FISH - CHOOSE ANY FISH FROM OUR FISH DISPLAY

	Premium Grilled/Battered/Crumbed with chips or salad	$24.90
	Market Fish Grilled/Battered/Crumbed with chips or salad	$18.90
	Fish of the Day Grilled/Battered/Crumbed with chips or salad	$15.90
	Half serve	$12.00
	Seafood Chowder	$13.00

TASMANIAN GOURMET MEAL PACKS

Lobster	Battered lobster served with chips or salad	$24.90
	Half lobster and chips or salad	$Market price
	Smoked lobster paté with local cheeses served with water crackers	$18.90
Fisherman's Basket	2 battered fish of the day, 2 crumbed king prawns, 2 crumbed scallops, 2 crumbed squid rings with chips or salad	$24.90
Family Pack	2 serves battered fish of the day, 2 crumbed king prawns, 2 crumbed scallops, 2 crumbed squid rings, 4 dims sims, 4 potato cakes, 1 tartare sauce, 1 seafood cocktail sauce with chips or salad	$45.00
Scallop Meal	8 to 10 grilled/battered/crumbed with chips or salad	$24.90
Squid	Tasmanian squid lemon pepper/crumbed with chips and salad	$18.90
Prawns	8 grilled/battered/crumbed prawns with chips or salad	$15.90
	2 grilled garlic prawn skewers with chips or salad	$18.90
Burgers	Fish burger grilled/battered/crumbed with chips or salad	$10.90
	Beef burger with chips and salad	$10.90
	Chicken burger with chips and salad	$10.90
Lasagne	Served with chips or salad	$12.90

PLATTERS

Gourmet Taste Plate	Selection of prawns, pickled octopus, sweet chilli mussels, Morten Bay bug, 3 oysters and cocktail sauce	$25.00
Gourmet Hot & Cold Platter	A selection of squid, prawns, battered fish, picked octopus, sweet chilli mussels, oysters, Moreton Bay bug, crumbed scallops, smoked salmon, pate and selection of dipping sauces and crackers.	$110.00
Add Half Lobster		(Market Price)

KIDS MEALS - MEAL INCLUDES 1 POP TOP DRINK

Fish and chips	$12.00
Squid and chips	$12.00
Chicken nuggets and chips	$12.00

OYSTERS

Tasmanian oysters (eat in)	
Natural	$12.00 for 6
	$18.00 for 12
Kilpatrick	$16.00 for 6
	$26.00 for 12
Battered	$3.00 ea

*All prices include GST

**Prices are subject to change without notice.

EXTRAS

Scallops	$2.00ea
Squid ring	$1.50ea
Prawn cutlet	$1.50ea
Dim sim	$1.00ea
Potato cake	$1.00ea
Tartare sauce	$1.00ea
Aioli	$1.00ea
Cocktail sauce	$1.00ea

• PROUDLY SERVING SEAFOOD SUSTAINABLY SOURCED FROM AUSTRALIAN AND NEW ZEALAND WATERS. •

• COFFEE, COLD DRINKS, LICENSED AND BYO (WINE ONLY) •

find us on facebook

Source: (Tasmanian Gourmet Seafoods 2012)

The public presentation of companies as fishing companies when they engage in a variety of activities along the chain correlates to the dominance of the harvesting component in the associations and the participation of harvesters as key stakeholders in fisheries management processes. However, this construction of the harvest space is problematic. First, it masks the integrated activities of the harvesters. Commercial interests in the regulation of sustainability may be complex, for example, when domestic fishers who are also processors, wholesalers or retailers are at the same time importers of foreign seafood products. Second, policy domains and the actors participating in them may not exactly overlap; while fisheries managers appeared in Seafood Directions as the public governors for the industry, comprising both the harvest and post-harvest sectors, they have very little jurisdiction over the post-harvest sector. The direct governors of the post-harvest sector, food regulators, were not present at the conference. Issues in the program, such as social licence or sustainability, were presented to the whole-of-industry and were addressed to the public governors in fisheries management, who are in theory primarily in charge of sustaining stocks; fisheries managers are not the governors of the post-harvest space, where the interactions between the fish chain and the public actually take place. Third, for

integrated companies, certain activities were illuminated (e.g., fishing, harvesting and marketing) while others were obscured (e.g., importing, exporting and distributing). For example, Seafood Directions lacked representation—and the voicing of their interests and concerns—of some industry associations that are present in the post-harvest policy domain, such as retailers and importers. At the same time, actors that intervene decisively in the post-harvest regulation of sustainability but are usually not considered part of the industry (e.g., supermarkets) were also absent from the conference. The lack of engagement of these actors with the harvesters and their public governors is consistent with the connections and disconnections along the chain that foster or inhibit participation in fisheries governance, with different degrees of exposure to public scrutiny and control over sustainability for different nodes of the chain.

In this context, one key event in the Seafood Directions Conference was the importance accorded to the then new national peak body, SIA. The designation of a retailer with a career in marketing as chair of SIA signalled the interest of the industry in addressing the processes in the post-harvest space and, especially, at the consumer interface:

> *SIA was designed by industry for industry and we represent each link in the chain so from wild-catch, aquaculture and post-harvest and the post-harvest element I feel very strongly was a missing link in the past. We are the face of the consumer, we need to have that conversation so we can tell the story, so post-harvest can tell those stories, so I think that's a really important element. (Veronica Papacosta, session SIA remarks, Seafood Directions Conference, Sydney, 28 September 2017, researcher notes)*

The seafood industry[18], historically focused on the harvesters, is currently extending its representative structures to integrate the whole supply chain in an effort to address concerns about social licence by demonstrating the industry's sustainability credentials. The focus of these concerns has shifted to the consumer interface, at which fisheries managers cease to be the public governors, sustainability is no longer a regulatory objective and other actors in the fish chain acquire salience as stakeholders within the industry—or outside it. Chapters 4 and 5 explore how the regulatory environment and

[18] This overlap also presents a problem in this dissertation to name the different actors. In the text, 'seafood industry' is used when referring to production, distribution and seafood retailers, and 'fishing industry' when referring to the harvesters (or harvesters-processors, or harvesters that are also integrated companies). Where this is not clear, the type of actors have been specified in the text with more detail.

the configuration of the policy community in the post-harvest space constrain the framing as policy problems of the industry's demands to communicate to consumers (and the public). These constraints determine which policy tools are deemed feasible to use (e.g., third-party certification and marketing in Chapter 4), which are not (e.g., labelling in Chapter 5) and which have not even been constructed as tools (e.g., traceability in Chapter 6).

3.4. Conclusion

Over the past thirty years, a transformation in the role and perception of commercial fishing and its management has led public governors to remain focused on biological sustainability objectives for target stocks and to restrict the scope of action generally to the harvest space. This transformation has also resulted in a command-and-control mode of governance, with little participation from the broader community, whose social and economic linkages to commercial fishing activity remain underexplored. For management objectives, fish is primarily a resource to be distributed between different user groups and a product to generate profitability for its professional exploiters. A number of fishery collapses, the public's increased environmental awareness and long-standing conflicts between fisher groups have eroded community perceptions of the commercial fishing industry and driven restrictions to commercial fishers' access to the resource. Fear of the loss of the social licence to operate has been generating uncertainty among harvesters over the future of their activity, highlighting a need to transform their public image. The industry is currently exploring what elements of a story to improve community perceptions may be invoked, such as the meanings of fish as food, the construction of fishers as families, and the attention to the post-harvest component of the industry. At present, however, there are a series of mismatches between the concerns of an industry whose activity overlaps between the harvest and post-harvest sectors and the lack of an audience among the governors of the post-harvest space. Current efforts to integrate the social component of sustainability into fisheries management models raise the question of whether the public governors might have an incentive to foster the connections between sustainable management, the seafood industry and the public. Government rationales in the post-harvest space ascribe the responsibility to foster such connections to private initiatives in processes downstream, the challenges and partial successes of which are the subject of the next chapter.

Chapter 4. Governing seafood: Sustainability in the post-harvest space

Once the fish leave the wharf, entering the post-harvest space, the dominant notion of fish is as a food product. In this space, governance arrangements aim at ensuring availability, competition and that the product safe to eat and avoiding biosecurity risks. In this space, sustainability is no longer regulated by government to satisfy ESD objectives. Rather, it is considered an attribute to differentiate products in a competitive environment; that is, a marketing tool rather than a public policy objective. In this environment, non-state actors step in to define sustainability, provide assurance to support sustainability claims and communicate this assurance to consumers. For the public governors, voluntary verification tools are the default option to meet sustainability requirements, understood here as a consumer demand.

In this discursive environment, non-state actors fill the regulatory gap left by public governors choosing not to regulate the sustainability of the seafood sold in Australia, and market-based tools are developed to meet these ends. However, voluntary market-based tools such as ecolabels have had only partial success in their implementation. The drivers for highlighting the sustainability of seafood to consumers remain largely restricted to those actors subject to scrutiny, and these actors (large retailers and industrialised fishing) are only a part of the industry involved in the harvest and trade of seafood in Australia. This chapter examines what subjects emerge in the governing of fish as seafood; what fish is expected to be regulated for and by whom; what tools are deemed suitable to support sustainability claims; and what challenges emerge when market-based tools fail to target the wider roles of consumers as members of the public with the capacity to maintain or withdraw access to the resource.

4.1. Fish as seafood: Consumption and seafood trade in Australia

The market structure for the trade of seafood in Australia provides the context in which the governance of seafood takes place. This structure is characterised by the dominant position of imported versus domestic product; the orientation for export of some of the most valuable domestic species; and the low concentration of retail outlets in the trade of seafood products. The configuration of governance actors and desirable tools to

assess sustainability in this space reflects a mismatch between the market structure and its construction for governance purposes. In this construction, large retailers, industrialised fishing and transnational market-based tools obscure the roles of small-scale, independent retailing and minor wholesaling in the supply of seafood to consumers.

The apparent consumption of fish in Australia was 13.9 kilograms per person in 2016–17, reflecting a growth in consumption of 0.8 per cent between 2006–07 and 2016–17 (Mobsby 2018, p. 1). The increase in demand has been met by imports, while domestic production has increased in the aquaculture sector and diminished in wild catch. In 2015–16, imports comprised 67 per cent of the total consumption of seafood in Australia. This makes seafood a unique case in the domestic market for protein food sources in that Australia is a net importer (Hogan 2017, p. 34); for other major food sources, Australia is a net exporter. Seafood imports grew at an annual rate of 2 per cent between 2005–06 and 2015–16 (Department of Agriculture and Water Resources 2018b). Frozen and processed product (including canned) constitutes the majority of imports, whereas fresh chilled fish tends to be domestic, with a proportion of produce from New Zealand (NZ) thanks to that country's economic integration with Australia (Department of Agriculture and Water Resources 2015, pp. 10–1). Domestic capture declined in these years but this has been compensated for in value terms by an increase in aquaculture, particularly of salmonids. The production of Atlantic salmon aquaculture for domestic consumption represents almost 25 per cent of the overall GVP of fisheries and aquaculture in Australia (Mobsby 2018, p. 6). Its production is concentrated in a small number of large companies, all of them based in Tasmania.

Two explanations are commonly offered for the lack of domestic capacity to match demand: 1) the low productivity of Australian waters (Department of Agriculture and Water Resources 2015, p. 5); and 2) the inability to compete in production costs of neutrally flavoured white fish such as basa (catfish or *Pangasius bocourti*), which rank highly in consumer preferences for taste (p. 5). On the other hand, underlying latent effort remains a preoccupation in a number of fisheries and raises questions about the efficiency of allocations and the profitability of some fisheries (Pascoe et al. 2013, p. 117; Productivity Commission 2016, p. 16).

In contrast to the diversity of species harvested, consumption is concentrated in a small pocket of species. The rise in consumption of Atlantic salmon and basa in recent years has come to complement high consumption of canned tuna and prawns (Department of Agriculture and Water Resources 2018b; Lawley 2015, p. 4). The top import species are frozen and thawed basa, prawns and canned tuna (Department of Agriculture and Water Resources 2015, pp. 10–1).

Although Australia is not a major seafood exporting country by volume, some of the most valuable fisheries are strongly export-oriented. Thus, of the total value of production in 2014–2015 of $2.4 billion, the value of exports was $1.2 billion (Department of Agriculture and Water Resources 2015, p. 1). The *Australian Fisheries Statistics 2017* lists the top export species by value as rock lobster, abalone, tuna and prawns (Department of Agriculture and Water Resources 2018a). However, compared to other food products such as beef, meat excluding beef, vegetables and grain, which are among Australia's 25 most exported commodities (Department of Foreign Affairs and Trade 2018a), exports of fish are marginal, targeted primarily at niche, high-value market segments (Department of Agriculture and Water Resources 2015, p. 2).

The domestic marketplace is characterised by the importance of independent outlets—whose number remains undetermined[19]—and a clear segmentation between large and small retail depending on the kind of produce sold:

> There is little concentration in the retail market for fresh seafood. Around 17 per cent of domestic sales of fresh seafood occur in supermarkets and around 40 per cent through independent seafood outlets, with the remainder sold through takeaway and dining venues. There is considerably higher concentration in the retailing of more highly processed seafood due to the dominant market position of large supermarket chains in the sale of consumer-packaged products. Canned seafood and frozen product are more likely to be sold through supermarkets, with around 87 per cent of canned seafood product and 25 per cent of frozen product sold through these stores in the mid-2000s. (Spencer & Kneebone, cited in Productivity Commission 2016, p. 270)

[19] The Productivity Commission (2016, p. 270) offers the following figures sourced from the Australian Bureau of Statistics: 'Around 9800 supermarket and grocery stores and 4800 fresh meat, fish and poultry retailers were in operation in 2014'.

Therefore, the overall seafood market structure is comprised first of supermarkets, which mostly sell canned or frozen product, with a strong representation of imports, and second of independent retailers, which concentrate the majority of fresh and frozen sales. This distribution of products and market channels establishes a strong divide between supermarkets and independent retailers in terms of the products they offer and, importantly, their capacity to exert control along the supply chain and participate in its governance. This divide also affects their capacity to engage with market-based tools—devised to meet the demands of the larger supply chains—to assess and communicate sustainability, as explored in Section 4.3.1 below.

4.2. Public governors and seafood governance in the post-harvest space

The environmental sustainability of the production of domestically produced food is no longer regulated by government after the production node of the supply chain, and the sustainability of production methods for imported food is not regulated by the Australian government at all. In the post-harvest space, government regulation of seafood seeks to ensure three main objectives: that seafood is safe for consumption; that transactions are conducted in a competitive environment in which consumer and businesses rights and obligations are clearly defined, and that the legislation offers adequate protection to consumers; and that food products present no biosecurity risk (e.g., potential to spread disease).

In this framework, information on sustainability is categorised as a consumer value and left to voluntary regulation, for example through food labelling. This means that sustainability ceases to be a regulatory requirement and becomes simply a quality of the product, which companies can choose to use in their marketing. The withdrawal of the regulatory capacity of the state for ensuring sustainability in the post-harvest space leaves only non-state actors to address (or not) sustainability. The drivers that explain the engagement with sustainability of these actors and the understandings of the different roles of consumers are key factors in the design, scope and success of the voluntary tools designed to assess and communicate sustainability.

4.2.2. The food regulatory system and consumer information

The food regulatory system is overseen by the ministerial departments and agencies assigned the health and commercial competition portfolios. Food safety and public health issues rank highly as an object of government intervention on behalf of the population, whereas the environmental sustainability of seafood, perceived as a consumer demand, is only relevant if claims made about products are false or deceptive. This framework determines the responsibilities of the regulators in this space and the criteria for opting for regulatory intervention (e.g., labelling requirements for public health and food safety) or voluntary and industry-driven tools (e.g., third-party certifications to verify sustainability claims).

The Australian Consumer Law (Schedule 2 of the *Competition and Consumer Act 2010* [Cth]) governs the broader framework in Australia regarding consumer protections, among which are consumer guarantees, product safety and consumer information. The Australian Consumer and Competition Commission is the regulator at the federal level and shares responsibilities with the states in consumer protection. Safety of food products regulates the 'methods of producing, preparing, handling and storing food to ensure it remains safe for consumption' (Commonwealth of Australia 2012, p. 97) and food safety regulations are enforced by the states. The framework also establishes what information is required to enable consumers to make informed choices.

Consumer protections in food products are managed jointly by the food regulatory system and consumer protection (Commonwealth of Australia 2012; 2014a; 2014b). The food regulatory system is singular in Australia in that it is regulated at all levels of government from local to supra-national arrangements. The system places policy powers with the Australia and NZ Ministerial Forum on Food Regulation, regulatory powers with a statutory agency, Food Standards Australia New Zealand (FSANZ), and enforcement powers with the states. Importantly, food regulation falls into the health portfolio of the states, and the Health Ministers of each state and territory sit on the Ministerial Forum.

The primary legislation governing food safety is the *Food Standards Australia New Zealand Act 1991* (Cth), which establishes the procedure to develop standards through FSANZ, while the safety control of imports is regulated through the *Imported Food*

Control Act 1992 (Cth). Regulations developing the *FSANZ Act 1991* (Cth) are contained in the *Food Standards Australia New Zealand Regulations 1994* (Cth). Food standards are developed by FSANZ and incorporated into the states' Food Acts (all states and territories) and regulations (all states except Victoria and NT). Therefore, implementation and enforcement corresponds to the states and ownership corresponds to the Department of Health or, in NSW, to a food regulatory agency. In most states and territories, responsibility over enforcement is shared with local governments, and a representative of the Australian Local Governments Association is present in the Forum.

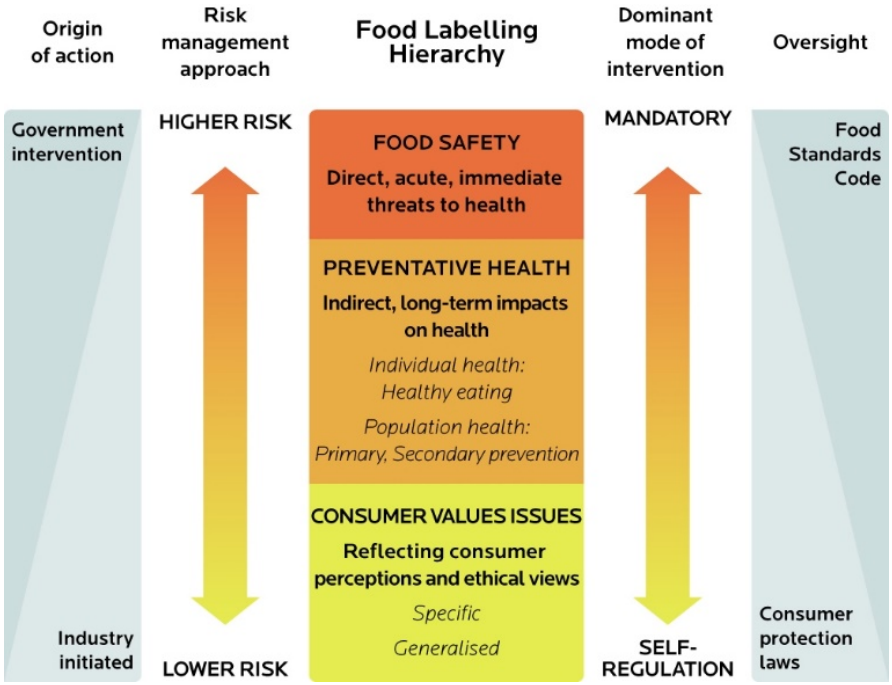
The regulation of food interacts with the consumer protection laws on the key issue of CoOL, as explored in more detail in Chapter 5. However, the fundamental provisions of the *Competition and Consumer Act 2010* (CCA) found below apply to all claims made to advertise products:

> Competition and Consumer Act 2010
>
> 4.13 Among other things, the CCA contains a number of provisions dealing with consumer protection. These provisions are set out in the ACL [Australian Consumer Law], which forms Schedule 2 to the CCA. While the ACL is relevant to the labelling of food, it applies broadly to the advertising of all products and services. There are a number of provisions of the ACL which affect the manner in which food can show its country of origin:
>
> (a) the prohibition against misleading or deceptive conduct, or conduct that is likely to mislead or deceive (section 18);
>
> (b) the prohibition against making false or misleading representations about the standard, quality, value, grade, composition, style, model or history of goods (paragraphs 29(1)(a) and 151(1)(a));
>
> (c) the prohibition against making false or misleading representations about the place of origin of goods (paragraph 29(1)(k) and 151(1)(k)); and
>
> (d) the prohibition against conduct liable to mislead the public as to the nature, manufacturing process, characteristics, suitability for purpose or quantity of goods (section 33). (Commonwealth of Australia 2012, p. 66)

These provisions provide strong requirements that sustainability claims be demonstrated, and the responsibility for the definition and support of sustainability claims will therefore be a key role in the governance of sustainable seafood. However, this applies only to businesses that make these claims voluntarily, since sustainability information is

not mandatory for consumers. The risk management framework in place ranks the necessity of regulatory intervention according to the risk to individual or population health, as exemplified in Figure 5, leaving matters outside this area—such as the environmental sustainability of production methods—to voluntary, industry-initiated regulation.

Figure 5: The Food Labelling Hierarchy



Source: (Legislative and Governance Forum on Food Regulation 2011, p. 12)

The strength of this framework has been well-noted by consumer advocates:

> *At least when it considers FSANZ, Department of Health and Health Ministers have a framework that they assess when deciding on what labelling issues to progress. So and they have it as a hierarchy of, you probably are aware of it, you know, food safety probably higher within consumer values. And so we see that being really, really careful, looked strictly and that's why we struggle with a lot of the issues that fall into that consumer values segment because there isn't a regulatory solution for those issues. It's a voluntary option for manufacturers to provide to consumers. It's self-regulation. So we see them following that framework pretty strictly when determining what issues get prioritised over others. (Respondent#4817, consumer group representative)*

Environmental issues are considered in this framework as general consumer values (Blewett et al. 2011, p. 33) because they are of concern to smaller proportions of consumers than health and nutrition (p. 40). Regulators in this system have no policy ownership of environmental issues that affect the consumer interface and intervention is left to market-based initiatives:

> Consumers are already protected by health and consumer protection legislation, and the labelling of seafood to identify species, origin and method of catch would primarily help to meet the preferences of consumers requiring information as to the provenance of their seafood and its method of production. The market is already responding to the demands of consumers through the use of third-party certification schemes that provide consumers with information as to the provenance of the seafood and the sustainability and condition of the fishery from which it originates. (Productivity Commission 2016, p. 281)

In the current regulatory framework, which regulates primarily for food safety and evaluates carefully the risks of unnecessary regulatory burden, the regulation of what sustainability is, what claims can be made and what authority supports those claims falls to private actors.

4.2.3. Public governors and the assurance of sustainability

Sustainability is certified by the state in particular situations outside the framework outlined in the previous section. The sustainability of seafood along the supply chain is assessed by public governors in specific cases according to provisions contained in the *EPBC Act 1999* and monitored by the Department of the Environment and Energy and the Department of Agriculture and Water Resources.

The *EPBC Act 1999* mandates that Commonwealth fisheries and those Australian fisheries oriented to exports obtain a certification for export to demonstrate sound environmental management of the fishery. The environmental assessments required by the Department of the Environment require fisheries to be monitored to prevent overfishing (control of stocks) and minimise impacts on ecosystem diversity and structure (e.g., bycatch reduction, mortality of other species and general impacts on the ecosystem) (McPhee 2008, pp. 240–4). Imported seafood is subject to sustainability controls related to the international obligations contained in the *Convention on*

International Trade in Endangered Species of Wild Fauna and Flora (CITES) and in the Catch Documentation Schemes for two species: southern bluefin tuna and Patagonian toothfish, the latter intended to fight IUU fishing. Exports are thus subject to the demonstration of sustainability as a necessary condition, whereas the vast majority of imports lack public oversight regarding their sustainability:

> *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 you know in the EU there are rules now, America's just brought in rules along that kind of lines and 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. (Respondent#3317, consultant)*

> *No one, no one controls sustainability, there's no regulation around sustainability, so that doesn't have any control. It's mostly interaction with the NGOs and contracts to the supermarkets and so forth. (Respondent#4717, seafood industry representative)*

> *Live specimens are because that's regulated by our live import list, so not commercial fisheries but the aquarium trade bringing live fish in that can only bring species that are in our live import list and that's enforced by Agriculture at the border but with fish generally the imports are okay. There's exceptions, not under our Act but like the Patagonian toothfish that has its own catch documentation scheme and that's regulated under the Customs Act*[20] *and that does imports and exports but mostly fish are not regulated at the border for imports (Respondent#4917, environmental manager)*

These different regulatory requirements for exports, imports and domestic fisheries are an important disconnection resulting from the lack of coordination between the different policy domains responsible for supplying fish to the market. As a result, product from both well-managed fisheries and undetermined ones coexist in a competitive space in which communicating the sustainability of seafood sold in Australia is an attribute for product differentiation. The Australian government's position is that the private sector

[20] *Customs Act 1901* (Cth)

should ideally respond to consumer demand for information on sustainability. However, as the rest of this chapter shows, the drivers for the differentiation of sustainable produce arise from the complex interactions between the actors in seafood governance. These interactions have resulted in demands for the establishment of a level playing field for (domestic) well-managed fisheries, as explored in Chapter 5. The government response to this demand largely depends, as argued in Chapters 5 and 6, on the importance of downstream processes for fisheries management objectives.

4.2.4. The elusive governor: Consumers and the public

The (re)assurance of sustainability as arising from a consumer demand on the supply chain has been widely discussed in the literature exploring the relationships between trade and production as sets of activities organised by economic actors (Bair 2009, p. 29). Market-based intervention by non-state actors originated in the potential for consumer demand to drive change towards more sustainable choices through differentiation of sustainable seafood (Barclay & Miller 2018, p. 2; Jaffry et al. 2016, p. 77; Leadbitter & Benguerel 2014, pp. 418–9). As research has evolved to recognise the complexity of governing models along commodity chains (Bair 2009, p. 100), the roles of consumers have been shown to be more complex than 'voting with their wallet' and to extend outside those active shopping consumers to a larger role as 'audiences' in a governance concert (Barclay & Miller 2018, p. 14). These varying and overlapping roles of consumers struggle to be accommodated in regulatory frameworks and policy tools, whether public or private.

The regulatory framework governing the sale of seafood applies to those persons that 'have acquired' goods or services for 'personal, domestic or household use or consumption' (*Competition and Consumer Law Act 2010* [Cth] Schedule 2, s 4B). The regulatory framework conceives the consumer as an individual engaged in a transaction, but it also acknowledges that governments act at the consumer interface on behalf of the public. This can be seen, for example, in the policy drivers for the regulation of food labelling, in which the pre-eminence of food safety information derives from a double perspective: that food safety is a consumer demand, in that it is ranked by consumers as their main concern (Blewett et al. 2011, p. 32); and that it is also a government demand, in that the 'public health and safety of the population is the paramount concern for government in relation to food and food label considerations' (p. 35). This does not

apply to environmental concerns, which are deemed by the regulators in the health and consumer protection portfolios to be of inferior relative importance to consumers, leaving them subject to only voluntary initiatives:

> These demands arise from consumers' perceptions of the world, their ethical views and their personal values. Information demands reflecting consumer values include country-of-origin labelling (CoOL), environmental issues, animal welfare and methods of production. All these are a concern to smaller proportions of consumers, except for CoOL, which, in Australia at least, has considerable salience. (p. 33)

The view that consumer demand would drive improvements in the sustainability of seafood production has prevailed since the 1990s (Bush & Roheim 2019; Roheim et al. 2018, p. 392) but it has proven insufficient to explain the more complex roles of consumers in the sustainable seafood movement. An extensive literature devoted to the effects of consumer demand as an incentive for sustainable produce has demonstrated that consumer demand is not expressed necessarily as price premiums for sustainable seafood (Asche, Larsen, et al. 2015; Jaffry et al. 2016; Roheim, Asche & Santos 2011; Roheim, Sudhakaran & Durham 2012; Stemle, Uchida & Roheim 2016), and 'it is increasingly unclear whether consumers actually demand more, or drive retailers' demand for sustainable seafood' (Roheim et al. 2018, p. 373). This divergence between consumer ethics and consumer behaviour when 'voting with their wallet' is noted by retailers, and may or may not influence retailers' decisions to engage with sustainability initiatives:

> *We're mainly talking about fresh, fresh local. We throw sustainable here sometimes just because I am aware of it but it's not important at this point in time. I get no feedback from any customers asking me if we are sustainable. Never once has a question been asked. (Respondent#2917, retailer)*

> *People have what I believe is a dichotomy between rhetoric and action. So there's a lot of discussion around sustainability but price is king in the store. Price and convenience is king in the store. So I think that probably has led to a bit of a lag from the post-harvest sector around that kind of advertising you know or pushing for sustainable products. (Respondent#5217, retailer)*

The wider role of consumers as 'audiences'—that is, as individuals who may or may not engage in a transaction but who will nevertheless develop an attitude towards a company (Barclay & Miller 2018, p. 188)—is a driver for the private regulation of large industry actors that are subject to scrutiny. These actors are well aware of the overlapping roles of consumers as individuals and members of the public, and of the sensitivity of the regulatory process to values, beliefs and collective ideas:

> *There are some vegetarians out there, they don't give a shit about seafood protein. But they do give a shit about where the planet is going, they're legitimate stakeholders, they do and can influence the political process, and we know from some work that we've done, if there's a chance for social media outrage then it becomes outrage in broader media and then it becomes a political issue, then you've lost. And our view all along has been to collaborate closely with those NGOs that have an interest in the things that we do, and to make them very much part of our journey […] And so initiatives like the MSC, that power dependent on a brochure or a package even that's really, that's worth a lot of money, and you have to deal with that. (Respondent#0417, fisher)*[21]

The awareness of industry actors of the wider role of consumers as political agents (Bush & Roheim 2019, p. 15) is consistent with research that points to the evolution of political consumerism into a larger web of social relations that includes the state as a key actor (Bush & Roheim 2019; Foley 2013). This contrasts with a regulatory framework in which the governors of the resource are reluctant to intervene in the post-harvest space as an actor with its own demands on behalf of the public or as arbiters between the demands of different actors. In the absence of government intervention, the governance concert engaged in communicating sustainability about production methods is largely driven by the large retailers and producers, whose interest is to ensure they are seen as promoting sustainability for reputational purposes, subject to the scrutiny of global environmental NGOs. However, as explored in the next section, independent fishers and retailers, as well as the wholesalers supplying domestic or imported produce, are more loosely represented in the private governance of seafood. The small-scale fisheries that supply the domestic market may need to communicate to the public to promote their sustainability credentials. However, they have little capacity to transmit

[21] Quotation edited by the interviewee.

their messaging along the supply chain, especially when the middle actors in it lack incentives to respond to consumer demand and are not subject to public scrutiny.

4.3. Private governance in the post-harvest space

With private governance for the assessment and communication of sustainability claims set as the default option by the public governors, actors in the seafood movement interact to define sustainability, obtain data to demonstrate sustainability claims and market these claims to their target audiences. These interactions reflect the dominant role of large retailers and those producers subject to the scrutiny of global environmental NGOs. However, this picture obscures the operations of small-scale fisheries, wet fish counters and food service outlets, who are not similarly subject to approval from large environmental NGOs, nor as easily able to use the existing certification and labelling tools for demonstrating sustainability. Their interactions in defining what sustainability is to consumers illustrate the limitations of market forces to reach consensus across a fragmented constellation of actors and interests.

4.3.1. Non-state governors of the supply chain

The persistent failure of states to manage oceanic resources and regulate long supply chains in globalised economies has led to the pre-eminence of non-state actors in setting standards for food supply chains, including the assessment of seafood sustainability (Bailey et al. 2018, p. 782; Hadjimichael & Hegland 2016, p. 129; Hatanaka, Bain & Busch 2005, p. 355). The ensemble of public and private actors intervening in this space is known as the 'sustainable seafood movement': 'organisations seeking to conserve fisheries and marine ecosystems primarily through the use of market-based approaches' (Barclay & Miller 2018, p. 2). The prominent role of large actors in this movement—large environmental NGOs, major retailers and industrialised fishing fleets—has been a key factor in the design and purpose of the voluntary tools deemed suitable to assess sustainability.

Market-based initiatives to certify fisheries sustainability originated as a response to the consumer concerns of activist movements and private actors (Bush et al. 2013, p. 1067), and NGO-driven initiatives have played a key role in the development of tools to enable consumers to exert pressure on brands through the choice of sustainable seafood, such as boycotts, seafood guides and certifications. However, as Barclay and Miller (2018,

pp. 3–4) proved, the drivers for engaging with the accreditation and messaging of sustainability are more complex than the response to consumer demand, directing attention to the multiple reasons businesses engage with the differentiation of sustainable produce. Some of the motivations identified in the literature include the mitigation of public risk, market opportunity, business obligations, and business ethics and Corporate Social Responsibility (CSR; Leadbitter & Benguerel 2014, pp. 420–1). Large private actors involved in global supply chains have found market-based tools useful for the accreditation of sustainability to suit their different goals. However, small producers find it difficult to use these tools due to cost and reporting requirements, which establishes a number of asymmetries in the governance framework. These relate importantly to the salience of reputational concerns and the patterns of exclusion and inclusion of actors from private governance (Bailey et al. 2018, p. 786). These patterns help define the boundaries of private governance and the capacity of market forces to satisfy social concerns about the sustainability of fisheries.

The Australian context reflects the key role of large firms and their reputational concerns in the drivers to engage with sustainability tools. Reputational concerns revolve around the formal incorporation of environmental values into business responsibility, especially for large corporate actors:

> *There is top-down CSR commitments by the likes of Hilton and Hyatt and Coast which means reactive, supply chain partners scramble to get chain of custody and others are proactive trying to find a unique selling point and say 'we want to have chain of custody to differentiate ourselves from our competitors'. (Respondent#2317, NGO representative)*

Large retailers have been key actors in the setting of private standards in the agrifood business worldwide (Hatanaka, Bain & Busch 2005, p. 356) and in the commitment to environmental responsibility in business practices (Bailey et al. 2018, p. 783). This is especially relevant in the Australian context, which is characterised by the concentration of large retailers: the supermarket chains Woolworths and Coles, and more recently Aldi. These three supermarket chains accounted for over 70 per cent of grocery sector sales in 2017 (Woolworths 32.2 per cent, Coles 28.8 per cent and Aldi 12.1 per cent; Roy Morgan 2018). This concentration enables the big chains to exert considerable power over the conditions that suppliers must meet, places them under public scrutiny

and identifies them as important actors in the governance concert (Barclay & Miller 2018).

The two major supermarket chains are frequently mentioned as key drivers in promoting the assurance of sustainability along the chain, which they do in a variety of ways. First, the supermarkets have been behind efforts to provide support for sustainability claims:

> *I think the pushback there would have probably been from the buyers, the retail buyers, so the supermarkets and the big corporate buyers for imported product to carry some sort of sustainability certification. So I think once again in this case the supermarkets would have led the direction. (Respondent#4717, seafood industry representative)*

Sourcing commitments reflect the capacity of large retailers to exert pressure upstream and affect the business practices of other actors (Bailey et al. 2018, p. 783), such as wholesale contractors:

> *The buyers, particularly the supermarkets, the buyers want someone to be responsible for the entire supply chain. So it's not good enough now to say 'look, I bought this off him, but I don't know where he got it from'. That's not going to work anymore. Increasingly the importers do everything and so they typically will be in, because Southeast Asia is a big production region for [IMPORTERS], they will be up there personally every few months talking to the farmers, talking to the factories and talking to the logistics people, etcetera. So that's become a very important part of it. That's to do with food safety, that's to do with sustainability, that's to do with modern day slavery, it's to do with all those things. But the national seafood buyer, one of the supermarkets isn't going to sit down with you and accept, you don't know who you bought that fish off, that's not going to work. (Respondent#4717, seafood industry representative)*[22]

[22] Quote revised by the respondent.

This market power is also exerted on producers, such as by imposing the standards they may use (Hatanaka, Bain & Busch 2005, pp. 359–60):

> *Look with Coles it's ASC for salmon or 4 star or BAP [Best Aquaculture Practices] for other species. For Woolworths they're much more relaxed as long as your fish is certified under approvable program which is going to be like GLOBAL GAP [Good Agricultural Practices], BAP or ASC. For salmon I'm talking about, I don't know about the other species. Then you're fine because it just meets their sustainable sourcing policy. (Respondent#3417, aquaculturalist)*

The capacity of the large retailers to establish conditions extends to the public governing of the resource:

> *So, we've looked at the supply chain right through to, you know the Coles. We've worked with Coles and Woolworths for example in terms of some of our fisheries meeting their standards. So we've worked alongside them. (Respondent#2617, fisheries manager)*

And to other big corporate clients, who are able to contract large quantities and are sensitive to reputational requirements:

> *You can sort of see the kind of things that corporate food service's starting to do and I don't think [NAME] is unique, this is starting to roll through corporate food service because businesses like the big hotel chains are starting to ask questions. Not only hotel chains, the other people I think is big hospitals, big chains of nursing homes, that kind of places. So a big hospital group that might pipeline heaps and heaps of product. They want to make sure that they're doing the right things. So they're starting to ask questions, whether it's about some of what they're asking about sustainability while they're asking about is this social welfare stuff, 'can you guarantee that your products come from appropriately managed operations that aren't using child labour, slave labour'. (Respondent#3317, consultant)*

Environmental NGOs remain drivers of these changes:

> *Primarily because they got bought by [COMPANY], they're subject to their commitments that they've written with [NGO], and I remember [COMPANY] and all the bloody greedy mafia down at Sydney Fish Market when I was down*

*there, they couldn't give a flying f*** about anything, except for what colour the next Mercedes was, and now they've been forced to actually look through what they're buying and being active participants. (Respondent#0117, private researcher)*

They were all the leaders in the seafood industry in Australia, the big fishing associations, the FRDC, the government, hoteliers, the salmon industry, Coles, Woolworths there as well. […] So we got a lot of those word cloud things that shows what from across the sector what sustainability meant to them and it was interesting because there was lots of something there about forever and future generations which you'd expect to see, a good family environment but it was really loud messages in there around that it makes good business sense, so you know it wasn't just this only the people that are morally in higher standing than others that were doing it. It made good business sense. It was about security of supply chains. It was about their reputation. It was about profit to them. So that was really interesting to see that that that had gone far beyond just somebody wanting to be seen to be doing the right thing. It was a necessary part of business. (Respondent#0817, NGO representative)

Reputational concerns appear closely associated to the exposure of actors to public scrutiny, their level of access to tools to support their sustainability claims and their capacity to extract information along the chain. Scrutiny over fishing operations is the business case of large fishing companies to engage with sustainability accreditation and messaging, such as in the case of the Northern Prawn Fishery (Hadjimichael & Hegland 2016, p. 132) and other industrialised fishing and aquaculture:

And so we often see when you are working in a pristine area like the Great Barrier Reef or Antarctic you often see those fisheries have to move first. They're under the microscope. (Respondent#1217, research provider)

So that's probably where the company was, that in the safe messaging around sustainability the social licence to operate is paramount. I mean if you don't have the support of your employees and your community then it's very difficult to farm. Wider than that, if you don't have the support of the Tasmanian community that has its own issues as well and as you'd be aware with Environment Tasmania and the environmental pressure groups within Tasmania, salmon's on the radar very much so now. (Respondent#3417, aquaculturalist)

The exposure to scrutiny and the capacity to put pressure on upstream actors draws a distinction between those large-scale visible actors who need to engage with the accreditation of sustainability and those who do not, those who can control the supply chain to demand and transmit that information and those who cannot. Wholesalers offer a contrasting example to the role of supermarkets and large producers in business practices related to sustainability.

In Australia, 845 listed seafood wholesalers supply imported and domestic seafood directly or through distributors to the retail sector, including food service, fish shops, hospitals or hotels (Productivity Commission 2016, p. 269). Profitability is repeatedly mentioned as their main driver for sourcing decisions:

> *Typically those who buy at auction are after the lowest price and the Dutch auction mechanism helps them achieve this by working in reverse to normal auctions. Further, fish sold on the auction floor are generally those that are provided in bulk by the co-operatives and are not high-value species. (Respondent#1317, research provider)*[23]

> *Supply and demand is all is what drives the market. I mean, especially if it's a wild-caught product, I mean supply and demand basically around the world. (Respondent#3717, wholesaler)*

This capacity to influence the system is a vital component of the relationship between wholesalers and lower-value fisheries:

> *[WHOLESALER] will buy 100 boxes of flathead at the market floor whatever price he wishes to buy, he's got the market, he's got the processing ability, he's got the freezing capacity. (Respondent#2917, fishermen's co-operative)*

The nexus between profitability and lack of reputational concerns in the sourcing of product is mentioned repeatedly by interviewees across sectors:

> *When you've got the big players like [WHOLESALER], [WHOLESALER] and a few others down at Sydney who buy bulk, they will buy as cheap as they can, they're not a co-op, they couldn't care less. Every cent, every dollar they spend less is more money in their pocket. (Respondent#2917, fishermen's co-operative)*

[23] Quotation revised by the respondent.

> *The suppliers [wholesalers] are there to make money they don't care, they'll buy stuff in China, they'll import it and they're not. It's very rare, [NAME] was the last one but he's just been bought up, he was probably the only one who really cared about the sustainability aspect. (Respondent#3117, restaurateur)*

The different patterns of control of the supply chain by wholesalers and supermarkets in Australia illustrates generally how 'the business case for CSR may only occur for large companies with a high public profile, leaving behind small and medium-sized enterprises' (Bailey et al. 2018, p. 786). Supermarkets, powerful actors under scrutiny, with CSR schemes and an easily identifiable position in the chain, have incentives—and challenges—to communicate their sourcing policies. Wholesalers, with a more diffuse identity along the chain and much less of a public profile, emerge as a key actor lacking a business case to engage with sustainable sourcing policies, particularly with lower-value fisheries catering for independent retailers. As a result, the market for sustainable seafood becomes focused on particular products: canned, frozen and processed imported seafood, such as tuna and basa, and a smaller part of the fresh domestic produce, with particular attention to prawns and Atlantic salmon, two forms of industrialised fishing whose harvesters are also vulnerable to public scrutiny. On the other hand, the wet fish counter is supplied by a larger number of wholesalers with little incentive to engage in sustainability efforts for either domestic or imported product. In this space, consumer preferences and price incentives are stratified:

> *From a retail perspective you probably have more of an ability to communicate in the environment, which is why we think sustainability is sort of, it's the communication isn't there. And it's I would I would say that 15 per cent of consumers are actually very concerned with this. That 15 per cent would be in the upper 2 per cent of the demographics. You know, it's the upper 15 per cent. So basically at the moment it feels from a retailer's perspective that the people who can afford to care, care. (Respondent#5217, retailer)*

> *There's a bunch of businesses down the middle that aren't necessarily looking for certifications or expecting that the governments will do the right thing but they're gonna be selling your major key species your major product lines to the well-heeled public, to people who can afford to pay for that stuff and then there's the sort of dregs of product that then I would imagine will be out in the lower social demographic suburbs. (Respondent#3317, consultant)*

Small-scale fishers, harvesters and retailers may be proactive in the differentiation of their product for these niche markets:

> *The sustainability just seemed part and parcel because you had to sort of distinguish yourself from everybody else. You can't do the same thing as everyone. So that was something no one was doing and why not. (Respondent#3917, aquaculturalist)*

However, information barriers, lack of control over the supply chain and time to verify and filter information pose challenges to the choice of sustainable seafood:

> *Marine Steward Council I suppose is the leading forum but I still they can be paid off. I use hoki for my standard fish and chips only because like during summer I would go through 750 kilograms of fillet a week in one store alone so about a tonne between two stores. The feedback out of New Zealand at the moment is that hoki is being fished out, but they still have the Marine Steward Council certification and the Government's still saying the quota is fine. Whether or not either of these three statements is true or not, like it's hard to find out an information. It's very hard to find out, so sustainability for me is just I suppose finding the source, making sure the fishermen are doing the right thing, not overfishing, not wasting fish, and just catching for consumption. (Respondent#3117, restaurateur)*

The space of the wet fish counter and its processes upstream constrains the possibilities for private governance to drive change towards improved business practices in sustainable sourcing. In independent retailing, where price is the main consumer demand, the sustainability concerns of the broader public remain largely unaddressed through market-based tools. Voluntary tools mainly respond to concerns of environmental sustainability at the global scale and focus on industrialised fishing and large supply chains, as these actors are able to afford the costs of private standards for verification and exert control on the supply chain to meet their sustainability requirements. The dominant presence of these actors extends to the governance interactions that aim to define sustainability as an object of governance; that is, what sustainability means in the Australian post-harvest space.

4.3.2. Governance interactions to define sustainability: The Common Language Group

The definition of sustainability for fisheries has been contested and there is little consensus on what makes a fishery sustainable (Hilborn et al. 2015), complicating matters for the communication of sustainability claims. Consumer protection legislation establishes that any claims made in relation to a product must be supported by evidence and misleading information is a relevant breach of consumer guarantees. However, sustainability definitions are varied, measurements imperfect, and there are remarkable differences in their interpretation (Roheim et al. 2018, p. 392). Current discussions on what a sustainable fishery is, led by the actors in the transnational seafood movement, have evolved from an initial concentration on fish stocks to understanding sustainability as a process encompassing fish stocks and management systems, with attention to environmental impacts in the local marine ecosystems. This is the kind of definition found in certifications and seafood guides (Hilborn et al. 2015, pp. 1438–9), which are increasingly being called upon to also introduce the economic and social dimensions of sustainability:

> Once we examine aspects of sustainability beyond food production, we can find little basis for an agreed upon definition of social, economic, or ecological elements of sustainability. The standard in those dimensions depends on what an organisation or individual believes is most important. There are some standards in these dimensions that could likely be widely agreed. For instance, bycatch that leads to extinction and use of slave labour, but any attempt to be all-inclusive will subject 'sustainable fisheries' to being tweaked and pulled in all directions by different interest groups. (p. 1439)

This 'tweaking and pulling' has resulted in a series of coordination failures that have ultimately resulted in a proliferation of standards, market confusion and concerns about the functionality of the assessments to mitigate the reputational risk of retailers (Roheim et al. 2018, p. 393). In the transnational research on the seafood movement, possible solutions to these coordination failures still focus on the large actors in the global supply chains with CSR concerns:

> Central to any possible future, we argue, are retailers who wish to continue procuring seafood to meet product quality requirements in a way that allows

> them to make credible sustainability claims to consumers and shareholders while avoiding risk to their brand from NGO scrutiny. (p. 395)

The attempt to solve coordination failures and agree on a credible message for consumers on sustainability has taken place specifically in Australia. The example of the Common Language Group (CLG) between 2012 and 2014 illustrates the attempts of the Australian seafood movement to reach a consensus on the definition of sustainability. It demonstrates the difficulties involved in reaching consensus among different actors and the governance asymmetries that skew participation towards large supply chain actors, excluding those stakeholders unable or unwilling to participate.

Inspired by the British CLG, led by the UK industry organisation Seafish, the Australian CLG was established to adopt agreed positions on a range of issues affecting the industry as a means of 'overcoming the confusion and some negative perceptions of Australian seafood and paving the way for a more common understanding' (Christoe 2015, p. 8). A Custodian Group formed by stakeholders in the sector identified as a first main issue to be addressed 'the need for a common understanding of what constitutes "sustainable seafood" ' (p. 6). The Custodian Group met nine times between 2012 and 2014, when the project was handed over to the research funder, the FRDC, and produced its final report (Christoe 2015). In addition to the final report, the Group produced two Issues Papers (*Defining Sustainable Australian Seafood—Wild Capture Fisheries* and *Sustainable Fishing—A Common Language for Sustainable Wild Catch Fisheries*) and a submission to the Senate inquiry on labelling requirements for seafood (Commonwealth of Australia 2014b).

The stakeholders below were nominated as the CLG Custodian Group Members (Christoe 2015, p. 21), while Ford Focus Australia / Seafood Services Australia were appointed the managers of the project. Table 14 shows the composition of and attendance at the meetings.

Table 14: Common Language Group Custodian Group members and attendance

	12/11/2012	17/12/2012	11/03/2013	2/04/2013	14/10/2014	21/11/2014
NGOs – WWF	✓	✓	✓	✓	✓	✓
Fisheries managers – Australian Fisheries Management Forum	✓	✓	✓	✓	✓	✓
Research – FRDC	✓	✓	✓	✓	✓	✓
– Research providers network						✓
Recreational fishing – Recfish	✓		✓	✓	✓	✓
Wholesalers – Sydney Fish Market	✓		✓	✓	✓	✓
Aquaculture – National Aquaculture Council	✓	✓	✓		✓	
Commercial fishing – National Seafood Industry Alliance	✓	✓	✓			
Indigenous Fishing – Indigenous Reference Group					✓	✓
Retail – Coles		✓	✓	✓		
Woolworths						✓
De Costi			✓	✓		
Consumer groups – CHOICE			✓			
Imports – Seafood Importers Association						

Source: Minutes of the meetings in Christoe (2015); ✓ indicates attendance at the meeting. Usually one person, or occasionally two, represented each organisation.

The selection and attendance of the members show the different degrees of participation of the stakeholders. Large NGOs, researchers, fisheries managers and aquaculturalists were represented regularly, whereas other industry actors and governors were unequally represented for a number of reasons. First, the initial meeting showed a distinction between those actors key to governance and those actors that needed to be actively engaged, such as independent fish retailers or importers:

> It was proposed that it was desirable to include independent fish retailers, eg George Costi and consumer group representation, eg. Choice. It was believed that these inclusions would increase the credibility of the Custodian Group. (Christoe 2015, p. 35)

> The CLG Custodian Group Membership was discussed and the recommendations to approve the draft Custodian Group Membership to include Imports and Indigenous Groups. (p. 43)

Second, the stakeholders were still mainly those present in the harvesting space; important retail-space actors, such as representatives from the food service sector (e.g., restaurants, fish and chip shops), were absent, as were regulators with responsibilities in the post-harvest framework, such as food safety, consumer policy or industry. When they did attend, these actors lacked engagement, such as in the case of the consumer group CHOICE, who attended only one meeting.

Third, financial capability disadvantaged certain actors, such as the representatives of the wild-catch fishing industry and the consumer group CHOICE, who could not afford to attend the meetings (Christoe 2015, pp. 2, 43, 55). Overall, attendance at the meetings reflected the dominance of the large supply chains and NGOs as stakeholders, obscuring the larger universe of independent fishers, importers and retailers, and reflected the disconnections between those who harvest fish and those who trade in seafood. The absence of the seafood importers association was especially noteworthy in this respect.

The first nomination of issues to be addressed by the CLG highlighted, in the first place, the need to provide a definition of sustainability (Christoe 2015, p. 36). The initial discussions on the scope of the definition reflected divergent views between the pre-eminence of the environmental component of sustainability contained in the *EPBC Act 1999* (pp. 69–70) and the demands of NGOs and supply chain actors to include social and economic components of sustainability. The issues paper limited its scope to the ecological components of sustainability with reference to Australian wild-caught seafood (p. 68) and postponed inclusion of the other elements to future discussion papers (p. 57). The final report of the CLG highlighted the achievement of agreement on five components that make fisheries sustainable:

> 1. Target and retained species of commercial value
> 2. Bycatch species (discarded because they are not permitted to be kept, or are of no value)
> 3. Threatened, endangered or protected species
> 4. Habitats important to marine/aquatic productivity and ecosystem function
> 5. Ecosystems impacted by fishing operations, including food-webs. (p. 16)

The issues paper also generated a first effort to simplify scientific information and translate it into consumer-accessible language by integrating these five elements into broader questions:

> Many consumers do not understand the differences in how different groups define sustainability. In order for consumers to make an informed choice on sustainable seafood, they need to know:
>
> - Which fish is this?
> - Where did it come from?
> - How much is caught and how is it caught?
> - How is the fishery managed and assessed?
> - Who is saying/endorsing that the fish is sustainable and on what basis?
>
> (Christoe 2015, p. 73)

The agreement on these five elements was emphasised as a major outcome of the work of the CLG (Christoe 2015, p. 16). However, they stopped short of reaching an agreement on a definition of sustainability able to bridge the gap between technical and consumer-friendly language (p. 16). Draft technical definitions for sustainable wild-caught seafood and ecologically sustainable fisheries (p. 136) were agreed on and circulated to stakeholders. These garnered positive feedback (p. 55) but the process was interrupted. The group stopped working in 2015 when the final report was published, and the work of the group was handed over to the FRDC.

The challenges faced by the CLG in attaining results point to several weaknesses in the governance interactions:

> *The idea I think was great about trying to get consensus on these things but there wasn't the leadership. There was never a good enough understanding of what is the objective here, who are our audience and how are we going to get there? And all the people that could have played a part in that weren't resourced. (Respondent#0817, NGO representative)*

These weaknesses point to four essential factors shaping the logic followed for the choice of tools. First, small-scale fisheries, importers and independent retailers have little visibility in the governance of the post-harvest space, which is represented primarily by large producers and retailers. Second, there is an absence of leadership

from the public governors. Sustainability in the harvest space is viewed as a process that happens at sea with minimal presence of the public governors, leaving a void in the public governance of downstream processes. Third, the choice of tools is complicated by difficulties in identifying the target audience as consumers or the public. Finally, the short-lived nature of the initiative is a reminder that private sector structures that might carry mid- to long-term objectives lack the stability of public management structures to achieve them.

Where the state has withdrawn from its arbitral role and private local governance tools are precarious, transnational governance has taken over the task of assessing and communicating the sustainability of fisheries at the consumer interface. Certifications, originally conceived to suit the needs of large supply chain actors, have been repeatedly used by public governors as a 'one-size-fits-all' solution for the verification of sustainability and its communication to consumers. The mixed successes of market-based tools and communication initiatives demonstrate the limits of private governance to address public concerns. These limitations, which are widely discussed in the research on transnational governance, present specific characteristics in the Australian context.

4.4. Voluntary tools to assess and communicate sustainability

The arrangement of the transnational governance concert in the assessment and demonstration of sustainability in the post-harvest space reflects the withdrawal of the public governors from responsibility over sustainability in downstream processes and the private and non-state sectors' leadership in defining the challenges and addressing social concerns around sustainability. NGOs, large producers and retailers have converged in developing and adopting third-party certifications as a widespread tool for assessing the sustainability of industrialised fishing operations and the commitment to sustainability in the sourcing practices of large-scale retailers. In Australia, these tools have been used to an extent by the large actors, but are unsuitable for use by the coastal fishing, wholesaling and independent retail sphere to build public trust in fishing or aquaculture operations. Actors in this space have tried an array of initiatives to communicate to consumers and members of the public, with the occasional involvement of fisheries management agencies seeking to increase trust in their operations. The combination of certifications, marketing initiatives, campaigns and accreditation tools

reflect an overlap of the 'territorially embedded material interests, institutions, and discursive strategies of producers (and their state supporting agencies) and transnationally embedded governance norms for assessing and communicating sustainability' (Foley & Havice 2016, p. 24). This interplay has rested so far on a shared vision of the responsibility of the private sector for the assessment and communication of sustainability as a consumer demand. However, the mixed successes of voluntary initiatives have challenged these assumptions and led to regulatory demands on labelling, as explored further in Chapter 5.

4.4.1. Third-party assessment of sustainability: Certifications and eco-labels

The accreditation of the sustainability of fisheries by independent organisations is the most widespread tool worldwide to demonstrate and communicate sustainability in the retail sphere. Brought about by the globalisation of production, technological changes and the expansion of trade (Auld 2014, p. 24), certification programs constitute a major success in the environmental regulation of fisheries and are a prime example of a global non-state regulatory mechanism (Hatanaka, Bain & Busch 2005). Australian wild-catch and aquaculture-certified fisheries and retailers provide evidence for governments positing market-based initiatives led by consumer demand as the basis for sustainability verifications and communication at the consumer interface. However, certifications also present limitations, especially for coastal fisheries, retailers and aquaculture businesses. Specifically, certifications can exclude those actors unable to afford them; and for some actors, using the environmental credentials gained through certification has not improved their social licence.

Certification programs are, in principle, 'a form of private governance established by nongovernmental organisations (NGOs) and businesses to advance responsible production processes' (Auld 2014, p. 1). Driven by social movement activism and consumer concern, third-party certification programs for seafood were developed from the mid-1990s onwards by partnerships between market and civil society organisations in the US, initially for specific fisheries, and then implemented sector-wide with the establishment of the Marine Stewardship Council, founded by a partnership between Unilever and WWF in 1996 (Gulbrandsen 2009, p. 654). It is currently estimated that 17 per cent of the world oceans' captures are certified (Auld 2014, p. 1). Aquaculture certifications are also being developed following the spectacular rise in the world's

production of farmed seafood; among these, the ASC, BAP and GLOBAL GAP are the leading standards. At the consumer interface, certification programs are communicated by means of eco-labels, which aim 'to educate consumers about the environmental effects of the products' production/consumption' (Jacquet & Pauly 2007, p. 309). Third-party certification relies on independent bodies and appeals to objectivity and transparency as the means to achieve trust and legitimacy (Hatanaka, Bain & Busch 2005, p. 355). Their institutionalisation as part of the set of tools to regulate and manage fisheries worldwide is one of the main features of transnational seafood governance. This has led scholars to consider this domain as moving from state regulation to a hybrid form of governance, in which governmental actors lose their pre-eminence and become one more actor alongside civil society organisations and businesses (Vince & Haward 2017, p. 139).

Research has shown the positive impacts and challenges of certifications on the environmental improvement of fisheries (Martin et al. 2012; Opitz et al. 2016), although their success as a market-based tool that provides price rewards for certified products is much less clear (Asche, Larsen, et al. 2015; Jaffry et al. 2016; Lim, Hu & Nayga 2018; Stemle, Uchida & Roheim 2016). Certifications have been particularly successful in the assessment of the sustainability of certain wild-catch fisheries and aquaculture in the Australian context; that is, those fisheries 'highly selective of their target species, well-regulated and enforced, and with limited access rights' (Gulbrandsen 2009, p. 659) such as prawns, toothfish or rock lobster; or, in aquaculture, 'larger-scale, better capitalised production units' (Bush et al. 2013, p. 1067). Australian fisheries and aquaculture have played key roles in the global development of eco-certifications. In March 2000, the Western Rock Lobster Fishery in WA was the first fishery in the world to become MSC certified; and in 2017, it became the first to have been recertified for a fourth time (Marine Stewardship Council 2018a). In 2012, the Northern Prawn Fishery was the first tropical prawn fishery in the world to be MSC certified, achieving one of the best MSC scores ever awarded (Hadjimichael & Hegland 2016, p. 131). Among large retailers, Coles was awarded MSC Oceania's Best Sustainable Seafood Supermarket in Australia in 2017 (Marine Stewardship Council 2017), and Woolworths partly funded the MSC certification of the Northern Prawn Fishery (Hadjimichael & Hegland 2016, p. 131). Similarly in aquaculture, in 2014, Tassal became the first company in the world to achieve the newly developed ASC certification across all operations (Tassal 2018).

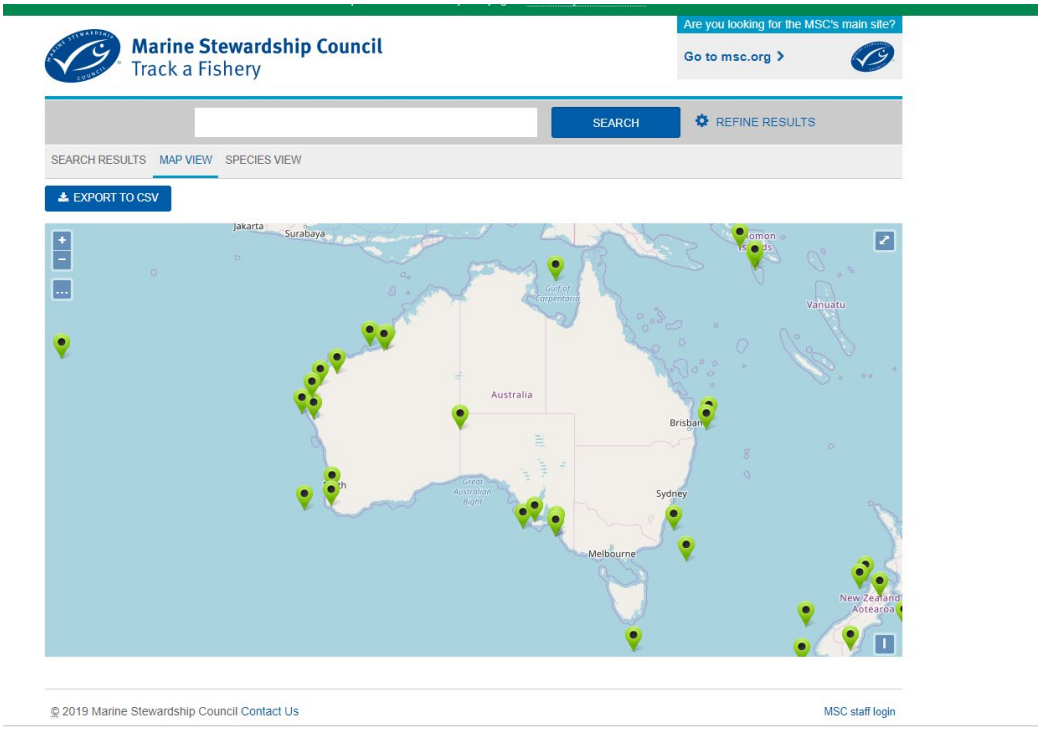
However, certifications have an important limitation relevant to the majority of the Australian fishing industry: abundant research has shown their unsuitability for small-scale fisheries that 'often lack the necessary technical capacities, access to historical harvest data and financial and human resources to apply successfully for certification' (Bush & Oosterveer 2019, p.117). In Australia, lower-value, data-poor fisheries are a small fraction of the MSC-certified fisheries (Bellchambers et al. 2016, p. 611):

> *There's lots of reasons why it [a fishery] wouldn't be MSC certified and it's expensive and really designed for large fisheries that have quite a margin to support the audit costs. (Respondent#0817, NGO representative)*

This presents one key challenge for the suitability of certifications in the Australian context, since it reinforces the division between higher- and lower-value fisheries, those fisheries that can afford certification and those that cannot (Hadjimichael & Hegland 2016, p. 133). The certified Australian fisheries are mainly high-value fisheries (e.g., rock lobster, prawn, Patagonian toothfish, mackerel icefish, blue crab, abalone and oysters) or low-value, high-volume fisheries (e.g., the SA sardine fishery), with a few examples of low-value, multi-species fisheries (e.g., the Lakes and Coorong fishery and the South East Australia small pelagic fishery). Certifications can be withdrawn if fisheries fail to meet the requirements, and corrective actions cannot be verified (Marine Stewardship Council 2018b, p. 30). In Australia, certifications have been withdrawn for multi-species fisheries (e.g., the WA Kimberley demersal scalefish trap fishery, the SA Lakes and Coorong finfish fishery, the WA Pilbara demersal scalefish trap fishery and the WA Gascoyne line fishery).[24] The certified fisheries are mainly within the Commonwealth, WA and SA jurisdictions, with very few examples of the multi-species, multi-gear estuary fisheries in NSW, NT, Victoria, Tasmania or Queensland (see Figure 6).

[24] Data on certified fisheries was sourced from the MSC 'Track a fishery' website on 3 October 2019 (https://fisheries.msc.org/en/fisheries/).

Figure 6: Map of MSC-certified fisheries in Australia (includes fisheries in assessment and with suspended or withdrawn certifications)



Source: (Marine Stewardship Council 2019)

Similarly to the differences between fisheries, certification applies differently to supermarkets and independent retailers:

> *A few faults with MSC, like we got quite a rigid standard which hasn't been flexible enough for small-scale fishers who might land their catch of the day, where you're working with wet fish counters where one minute you might have a pink snapper because it's just being cool and it's seasonal but the next minute you might have a jewfish or a blue groper, like those kind of things, it's not where the MSC has really worked particularly well to date. We've been much better working with the current sector where a tuna is a commodity almost, where there's a space in the shelf that needs to be filled and MSC can work in that space but we're trying to create new solutions to work with small-scale fishers, work with independent supply chains who have wet fish counters or small restaurants or fish and chip shops. (Respondent#2317, NGO representative)*

In the Australian context, which has a large number of small-scale, multi-species small businesses and independent retail outlets, a large cross-section of actors remain

excluded from the benefits of certification. Actors that are unable to access certifications stress that certification programs are (expensive) service providers that may be replacing government functions:

> *One of the biggest leaders in the industry is MSC. Unless as a retailer you buy the licence, you enter into that commercial transaction, you can't advertise MSC products that you purchase. So as a retailer, the perspective is that MSC has become something that people who want to export will invest in, you know. It is really a local market mechanism for advertising. (Respondent#5217, retailer)*

> *The problem with MSC is it's quite expensive, very expensive and in a way it's privatising the fisheries management responsibility and sending the bill to the producer. So the bigger, more lucrative fisheries can afford the MSC. The smaller estuary fisheries can never afford that yet they are still managed by other government departments and they come to New South Wales DPI [Department of Primary Industries], or the State Department of Fisheries on those inshore, in need to promote that they are being managed and they are sustainable. They just can't afford to pay the big bucks for MSC to have a logo that says they are. (Respondent#3617, fish market)*

Small-scale fisheries and retailers are thus excluded from the market-based tools stipulated by government as the mechanism through which sustainability can—and should—be transmitted. The argument that 'ultimately, it is in the interests of retailers, supermarkets and the services industries to provide the information demanded by consumers' (Commonwealth of Australia 2014b) to avoid regulatory intervention in this space fails to consider that the design of these market-based tools is inadequate for a large part of the Australian seafood sector.

Another factor undermining the apparent separation between private and public regulation is the increasing role of the states in the mechanisms of the private governance of seafood. The intertwining of state and third-party certifications has taken many forms, and the variety of purposes for which governments have used certifications are beginning to be addressed by scholars (Adolf, Bush & Vellema 2016, p. 80; Foley 2013, p. 285). Rather than replacing state regulation, 'sustainability certification, like MSC, is used strategically by the state to stimulate change rather than to replace public regulation and policy' (Adolf, Bush & Vellema 2016, p. 81). The close association

between public objectives and certifications has been relevant in the Australian case to broaden the scope of the environmental objectives of fisheries management. This hybrid governance model may now be pertinent in relation to the increasing preoccupation of fishers and fisheries managers with the social licence of fishing and aquaculture operations (Vince & Haward 2017). Two recent initiatives have demonstrated the complex interplay of private governance and state objectives in this area: 1) the private–public partnership between the WA government and the MSC; and 2) the certification of Atlantic salmon aquaculture in Tasmania.

In 2012, the WA government entered into a partnership with the MSC to facilitate the pre-assessment of the WA fisheries. For the MSC, this provided the opportunity to develop tools 'to influence management behaviour across the jurisdiction beyond certification' (Respondent#2317, NGO representative). For the WA government, the expected benefits included 'scientifically robust, independent assessments of fisheries sustainability and management and improved community support for commercial fishing' (Bellchambers et al. 2016, p. 609). Through the partnership between the WA government and the MSC, the management of the fisheries was subjected to an independent review, and management was streamlined as required to meet MSC standards. However, challenges remain for the future capacity of the fisheries to access funding for full assessments: 'it remains to be seen if the process will lead to a measurable increase in community confidence in fisheries management' (p. 614). A survey conducted to assess the social and economic impact of the partnership revealed diverse opinions among stakeholder groups and within fisheries regarding whether MSC certification provides social licence. Although many survey respondents indicated that social licence and community acceptance were important social drivers for obtaining MSC certification, there was particular uncertainty around whether this social licence had indeed been achieved or not (Ingrid Van Putten, personal communication, 11 November 2019). This may stem from the apparent lack of awareness on the part of both public and private parties that for certification to improve public perceptions about fishery sustainability, its benefits would have to be effectively communicated to the public:

> *The Western Australian state commitment to MSC is fantastic but two parts of them, the missing links are definitely the chain of custody involvement in a project and the communication aspects. Yeah, that kind of money was ring-*

> *fenced towards fishery improvements and certification but not necessarily thinking about how to bring that message back to consumers or to communities. So yes, they drove it primarily because of the social licence to operate and community perception of sustainability in Western Australia and the missing link towards that funding stream to do community-based engagement and that MSC is a voluntary scheme and we're not for profit, so we have limited budget on a localised level to engage in community event. (Respondent#2317, NGO representative)*

> *They [MSC] don't wanna spend their money. And I said to them, 'if you're really genuine and you really want to promote sustainability in Australia you gotta spend the money'. […] They don't wanna spend their money to educate people on what sustainability means, because you and I know sustainability there's so many people offering ticks, you know, certification, and all the research we've all seen demonstrates that consumers are confused by all these different labels and the average consumer in their mind couldn't give you their definition of what sustainability is. (Respondent#2417, private researcher)*

The simultaneous ASC certification in 2013–2015 of the Atlantic salmon operators in Tasmania and the environmental problems in Macquarie Harbour, Tasmania demonstrate the limitations of using transnational governance instruments to address social concerns and the complexity of the governance interactions between public and private standards. In 2013–2014, tensions erupted between local communities, industry actors and regulators over low oxygen levels in Macquarie Harbour, a main site of salmon farming for the three main aquaculture companies in Tasmania: Tassal, Huon and Petuna (see Cullen-Knox et al. 2019; Vince & Haward 2017; Appendix 2 also offers some background information). The controversy threatened the apparently 'enviable social licence' of the aquaculture sector more broadly (Cullen-Knox et al. 2019, p. 307) and motivated, among other reactions, a federal Senate inquiry (Commonwealth of Australia 2015), the change of the public regulator for the industry in Tasmania, and the suing of the regulator by one of the companies for failing in their regulatory duties to protect the environment (Meldrum-Hanna & Balendra 2017).

One important element of the controversy was the role that certification by environmental NGOs played in the environmental assessment of the aquaculture operations. Two of the salmon companies, Tassal and Petuna, had ASC-certified farms

in the harbour, with the ASC certification being used as proof of the sound management of the operations. However, this achievement of a global standard did not have the desired effect of providing social licence to salmonid operators among the local communities (Vince & Haward 2017, p. 142). Media coverage and the Senate inquiry unveiled inconsistency between the ASC certification scheme and the poor environmental performance of the industry, highlighting 'a disconnect between 1) local concerns regarding adequacy of the environmental regulatory process at a time of industry expansion and 2) the globally recognised environmental certification that the salmon companies were being awarded and promoted' (Cullen-Knox et al. 2019, p. 314). This further undermined community trust in the operators:

> *If you need certification there's something not quite right. I know you need certification for lots of things these days but in my view certifications are not designed to be a cover but they are effectively a cover for what reality is. Because if you're doing the right thing you don't need all that. Certification really shows to the end user, the customer that the right thing is being done. But in reality it's a cover for the wrong thing being done. Because if that was the case, if the certifications were effective then there wouldn't be any issues in Macquarie Harbour with low oxygen because they'd have to be doing the right thing. (Respondent#4317, former aquaculturalist, community member)*

The Macquarie Harbour controversy calls into question the self-proclaimed ability of certifications to contribute to the social licence of their clients. Appendix 2 presents the analysis of a video outlining the collaboration between the salmon farming company Tassal and the NGO WWF to achieve sustainability objectives. WWF claims in the video that to farm salmon sustainably and responsibly the 'best standard to meet that is the Aquaculture Stewardship Council, so for the company, it gives them social licence to operate within a marine environment' (WWF-Australia 2018). However, certifications have no such intrinsic power. Rather, 'the community's ability to accept or reject market driven initiatives demonstrates that certification, eco-labelling and CSR policies require its consent' (Vince 2018, p. 342; Vince & Haward 2017, p. 142), which in turn is linked to the specific sites where the activity takes place (Vince & Haward 2017, p. 342). As the Tasmanian case shows, the distinct identities of consumers and communities as targets for the communication of sustainability messaging overlap, further complicating the efforts of market actors at the global scale to address local

concerns, which also involve complex political interactions between governments, local communities and industry.

Considering the above, the ability of fisheries and aquaculture to improve their social licence through investing in certification is limited by several constraints at the level of scale, and in the roles and functions of hybrid governance arrangements. The first relates to the erroneous assumption that certifications designed to supervise production practices globally also protect against public scrutiny in all locations. The second is that market-based tools constructed to assess the business practices of global supply chain actors cannot necessarily replace the regulatory role of states concerning operations conducted under their jurisdictions. Third, certification bodies are likely subject to their own needs to navigate trade-offs between independence, neutrality and engagement, to maintain their credibility and authority, and thus continue accessing potential clients. Finally, certification bodies cannot be assumed able to replace government in other key functions, such as remaining accountable to the public and responding to scrutiny where government action is questioned. The importance of these two functions emphasises that private standards cannot replace government objectives, government policy and regulatory tools to generate public trust in regulated industries. Thus, while for the small-scale coastal fisheries in WA, government involvement was necessary to enable third-party certification, it has not yet proven effective in improving social licence. Likewise for the Tasmanian large operators, certifications addressed to consumers and supply chain actors were not necessarily an effective medium to achieve public trust but they are a requirement for market access. Both cases exemplify that the present stage in the development of market-based tools has 'opened up the space for reflection and experimentation on how private actors, often in step with states, can foster more sustainable seafood production' (Bush & Oosterveer 2019, p. 153) and multiple future scenarios for the future of market-based tools have been advanced (Roheim et al. 2018). The WA example in particular is an example of the experimentation in combining private and public capabilities to streamline management and certification requirements. However, as the respective roles in certifying production are re-examined, it must also be re-examined which audiences are being communicated to (and with what effects), and which are not. In the meantime, the constraints placed on the effectiveness of certification schemes for promoting social licence in this landscape explain why the

several attempts of the industry to communicate their sustainability to communities have fallen short.

4.4.2. Communicating sustainability

The coastal fisheries unable to afford certification have engaged in a series of initiatives to communicate to the post-harvest sector the sustainability of their seafood, following the rationale that it is the responsibility of the private sector to supply that information. The challenges faced by these initiatives can be attributed to the coastal fisheries' lack of government support, the difficulty to define consumers and the public as targets of communication and the lack of approaches based on social or economic objectives.

The work of the CLG addressed an initial problem with the availability of information on sustainability; namely, what information is available to supply chain actors to support sustainability claims in the marketplace (Christoe 2015, pp. 26, 44, 86, 111–12). This happened at around the same time as the FRDC project, *Status of Australian Fish Stocks* (SAFS), which produced its first report in 2012. SAFS is the result of harmonising and making available data on fish stocks across the Australian jurisdictions to a variety of audiences:

> The Status of Australian Fish Stock Reports are a series of assessments of the biological sustainability of a broad range of wild-caught fish stocks against a nationally agreed framework. The reports examine whether the abundance of fish and the level of harvest from the stock are sustainable.
>
> The 2018 reports focus solely on the status of fish stocks. The status classifications do not consider broader ecosystem impacts of fishing or social and economic considerations that some consumers may be interested in. (FRDC 2018c, paras 1, 8)

The project draws on the unique role of governments as providers of the data necessary to assess sustainability, whether for the public or third-party certification schemes (Campling & Havice 2018, p. 84; Gulbrandsen 2014, p. 77), and reveals the pressures on fisheries management to broaden the scope of data to report on other environmental impacts such as bycatch and management, and to adapt fisheries management tools to the requirements of large retail actors:

> The Reports are relevant for all stakeholders: the general public, policy makers, managers, fishing industry, consumers, retailers and an international audience alike. However, they are not an eco-label or a seafood chooser.
>
> The classifications are based on the status of fish stocks; however, the status classifications do not consider all broader ecosystem impacts of fishing or social and economic considerations that some consumers may be interested in. These are being explored for future editions of the Reports. (FRDC 2018d, paras 4–5)

> *We've also worked with people who are in the supply chain who are setting standards both here and overseas for what fish they will accept in terms of where the fish have come from, how they're caught, all those sorts of things. So, when we look at our management system and we look at the supply chain and we go, how can we help the fishermen meet the supply chain requirements now and into the future? There are, there are three tools we have. One is catch limits, another one is gear and another one is spatial management. (Respondent#2617, fisheries manager)*

The awareness that information on biological stocks alone does not suffice to satisfy the reputational needs of supply chain actors was evidenced in the CLG discussions, and led to the establishment of project Whichfish, funded by the FRDC and launched in 2018. Whichfish is a step beyond SAFS in that it provides information to seafood buyers on the broader environmental impacts of the Australian fisheries by producing risk assessments that take into account stocks, production methods (gear type) and the management system of the fishery (Whichfish 2018a). Again, its methodology draws attention to the large actors in the supply chain:

> These reports set out the results of an assessment against the (Responsibly Sourced Seafood) assessment procedure, originally developed for Coles Supermarkets Australia by MRAG Asia Pacific. FRDC is grateful for Coles' permission to use its Responsibly Sourced Seafood framework. The aim of the procedure was to allow for the rapid screening of uncertified source fisheries to identify major sustainability problems, and to assist seafood buyers in procuring seafood from fisheries that are relatively well-managed and have lower relative risk to the aquatic environment. It uses elements from the GSSI [Global Sustainable Seafood Alliance] Benchmarked Marine Stewardship Council

(MSC) Standard version 2.0, but is neither a duplicate of it nor a substitute for it. (Whichfish 2018b)

Both SAFS and Whichfish are part of broader industry efforts to build the sustainability credentials of the Australian seafood industry, to equate Australian produce with sustainability. This effort relies on joint work between the fishing sector and fisheries managers in the harvest space based on the rationale that consumer demand will drive improvements in the sustainability of seafood:

> *What Australia has been doing is changing how we manage fisheries, how we assess our fisheries, how the industry work within our fisheries to collect the data, so everything we do will equal Product of Australia, equal sustainable. (Respondent#1217, research provider)*

Once the association between Australia and sustainability is supported by evidence, the sustainability of Australian product will be a pre-competitive requirement; that is, an attribute of the Australian fisheries that consumers can assume as a given, as they can for food safety and biosecurity:

> *We want you to go into that shop and even, not even think about sustainability, we don't care. We want you to go into the shop and want to think is it better? Tonight do I want to eat orange roughy or scallop or squid? Which is better, what's the one I love, what's the dish, what's the thing I want to cook. That's what we want you to [think], not is more sustainable, or more food safe or is there a biosecurity risk? (Respondent#1217, research provider)*

This reflects a possible scenario in which the processes to assess and verify sustainable seafood will be conducted outside the consumer interface. This would reflect the increasing role, in Australia as well as internationally, of third-party assessments as tools for market access and CSR, rather than as a tool for satisfying a consumer demand that may not be as powerful a driver as potential NGO scrutiny:

> *In ten years time they [the retailers] won't be using ecolabels, they might still be doing third-party certification but it'll just be a process that's done without the consumer needing to see a label. (Respondent#3217, private researcher)*[25]

[25] Quotation revised by the respondent.

Both Whichfish and SAFS demonstrate the potential for fisheries management improvements driven by private sector actors, whether consumer demand or the CSR of large retailers sourcing domestic and imported product that meets the procurement requirements for sustainability. However, two problems persist. First, the focus on communicating information principally to large actors with the resources and motivation to invest time to access and study that information risks excluding small-scale wholesalers and retailers, which supply a large fraction of the Australian market and who are not bound by CSR requirements. Second, addressing these initiatives to buyers in the supply chain inhibits the communication of improvements in sustainability practices at the consumer interface to consumers and communities:

> *We used to have this conversation didn't we about, is it business to consumers? Is it business to community or is it business to business? And, obviously, consumers and community are really important to know what's going on, but the easiest thing for us to do is business to business, so when Coles buys or Woolworths buys or Aldi or one of the IGAs or whatever it is, Metcalf, they can be confident that their procurement standard meets the requirements. (Respondent#1217, research provider)*

Connecting assessment tools to the consumer interface is an important issue for those actors in the fishing industry that need to differentiate themselves from imports, whether to increase their competitiveness through marketing or, importantly, improve their social licence. These actors need the public to be informed about the sustainability of their fisheries and aquaculture production to ensure their ongoing access to the resource. These actors are acutely aware that 'the tools are there, they just haven't been brought to market' (Respondent#0917, industry representative). They are also aware of their responsibility to do so in the present institutional environment:

> *I think the fishers know they have to do it, but they don't know how and they're too busy fishing and too busy surviving because they, you know, what was coming out of yesterday's meeting was this fear of access, keeping their access to fishing is their main priority. They can't do everything. (Respondent#3517, consultant)*

In the Australian context, a few initiatives have been carried out aimed at communicating to consumers at the point of sale. However, these initiatives

demonstrate the difficulties the domestic industry faces in communicating to consumers and the public in a space in which domestic fishers are driven to improvements by fisheries management requirements, while consumer demand fails to promote CSR in the sourcing of imports.

The 'Love Australian Prawns' campaign has been almost unique in addressing consumers at a national level, having overcome the problems faced by the industry in their attempts to communicate to consumers. Love Australian Prawns was a marketing campaign initiated by the industry through the Seafood CRC in 2013 (Seafood CRC & FRDC 2015, p. 23); it enjoyed considerable success, not only in sales but also in enabling cooperation among competitors (pp. 36, 42). However, its success also illustrates the challenges involved in generating marketing campaigns within the industry, even when the aim is to promote consumption:

> *Actually a classic like Love Australian Prawns campaign does not focus on sustainability, it doesn't focus on food safety, it just focuses on celebrating prawns. (Respondent#1217, research funder)*

First, only high-value fisheries were willing or able to provide resources for the campaign:

> *[The campaign] raised over 300,000 dollars a year voluntarily from prawn farmers and fishers. Once again, we're dealing with the high end of town. A key to the campaign was the development of point of sale material to go into retail outlets and this brought about its own challenge—identifying who the retailers were. Once we did that we had to, in many cases, almost force feed them to take the material even though it was free. This form of campaign requires sustained effort and resources to be successful. And, as I have said before, it's only the high-end businesses that can afford it. (Respondent#1317, research funder)*[26]

Second, the fragmentation of the sector had to be overcome:

> For a long time prawn fishers and farmers competed vigorously in the domestic market. However, the research showed that the majority of consumers do not distinguish between the two sources of prawns. Factors that were far more important in the decision to buy prawns were Australian origin, freshness and

[26] Quotation revised by the respondent.

> trust in the retailer. This finding alone enabled a historic joining of traditional foes to work with the CRC to develop a national prawn marketing strategy, which is now funded directly on a voluntary basis by the two sectors. (Seafood CRC & FRDC 2015, p. 42)

Third, the campaign had to navigate the invisibility of the independent retailers and the degree of disconnection between producers and retailers in the domestic market:

> *Nobody had any way to communicate with retailers. There was no database of seafood retailers in Australia, nothing, which makes it a little bit hard when you want to run a retailing marketing campaign. So there was a whole process of having to find seafood retailers. That involved going through telephone books, googling, buying databases off you know, mailing companies and things trying to put all together where are the Australian seafood retailers. And then as part of that [title] campaign, it was very clear. No one, no one is communicating with retailers who are the face of selling seafood for most Australian consumers. (Respondent#3517, seafood industry consultant)*

The promotion of consumption points to the distinction between fisheries and other primary industries in one key feature: the lack of a marketing levy to enable fisheries to communicate to consumers to promote seafood consumption, improve product competitiveness or educate the public about the sound management of the Australian fisheries. The FRDC's ability to raise voluntary levies was only enabled in 2018 when the Primary Industries Research and Development Amendment Bill 2017 (Cth) was passed by both Houses of Parliament (FRDC 2018b). This sets fisheries aside from many other primary industries, which have long had levies collected to invest in research and development and marketing:

> *Part of the problem is that industry has never been able to get its act together. Compared to beef for example, which has had their marketing bodies, you know, how many of us remember the lamb ads and the beef ads, there's never been anything like that with seafood. (Respondent#0117, private researcher)*

This state of affairs goes back to the boundaries of fisheries management traced in the 1990s and reflects the focus of fisheries management objectives on biological rather than on social or economic objectives:

> *Now that FRDC has the enabling legislation to collect and manage marketing levies it gives the seafood industry the same advantages other primary industries have enjoyed for decades. One of the reasons this took so long to achieve was that industry, fisheries managers and researchers alike were focused on sustainably issues throughout the 90s. And they railed strongly against FRDC's ventures into product development and marketing. Even economic and social issues took a long time before being addressed a decade later. (Respondent#1317, research funder)*[27]

This legislative change enabling marketing creates new opportunities for the FRDC, which as of 2018 is conducting consultations to inform their marketing strategy. SIA's role as the new peak body representing the whole of industry will be key to these marketing efforts, although it remains to be seen whether the necessary funding will be secured; whether initiatives will overcome structural difficulties, such as industry fragmentation and lack of retailer connections; and whether the objective of industry-led campaigns will be to target consumption or improve the public image of seafood producers.

Messaging addressed to communities through private-led consumer awareness initiatives around coastal fisheries has not been addressed nationally, although some initiatives have been developed in state jurisdictions, such as in NSW and SA. Like the example of the WA–MSC collaboration, these initiatives show the emerging attention of fisheries managers to social and economic objectives related to fishers and their communities. However, they also show the limitations of isolated, localised approaches.

The Oceanwatch Master Fisherman program in NSW exemplifies these limitations, despite the industry players being relatively large and close to the main consumer centres. The program is an initiative of the NGO Oceanwatch, 'a national not-for-profit environmental company that works to advance sustainability in the Australian seafood industry' (Oceanwatch 2017). The NGO is an initiative of the NSW Fishermen's Co-operative Association, the Sydney Fish Market and the Master Fish Merchants' Association of Australia. Core funding comes from the National Landcare Program of the Australian Government (Department of the Environment and Department of Agriculture and Water Resources), and in 2014 the NGO was recognised by the

[27] Quotation revised by the respondent.

Australian Government as the natural resource management group for the Australian fish habitats and marine environment.

The Master Fishermen program aims at providing skills and training for fishermen on sustainable fishing practices. It also aims at bridging the gap between small-scale fishing and local communities by providing information materials on sustainability, fishers and fishing practices. In addition, the program produced a QR code to allow fishermen to identify their product at the point of sale, so that consumers can trace it to the fisherman's online profile, which contains information on the fisher's area of operation, fish supplied and fishing or harvesting methods:

> *I really like that because that's about professional fishermen undergoing training in addition to what they need to hold their licences, signing up to a code of practice on the back of that training, getting a QR that can be used to tell their story and then taking their QR code through their supply chain so that the consumer can actually look it up and find out a bit about the fisherman that caught that product. (Respondent#3617, fish market)*

The program was viewed as a cost-efficient alternative to dominant eco-labels, based on the sound management of the domestic fisheries and the connections to quality and provenance, and praised by the participating sectors:

> *Master Fisherman is home grown Australian-based and certified. It's not a business, it's actually a solution. It's about responsible harvesting and also should, could bring in an element of sustainability. But it could be overlaid with sustainability but to understand that we have a program here that actually gets on the ground with practical outcomes and make sure that fishermen are doing the right job and brings that through to the consumer in a way that we can promote to the store. That to me it's you know, it's not MSC, it's not a business, it's not about licensing, it's actually about doing about giving consumers the reassurance that the fish is being handled well, handled properly. (Respondent#0917, industry representative)*

However, funding from the industry, whether fishers or retailers, is limited:

> *And that's a good project, we're still working on getting that through the industry but it takes some money, we've got to get funding to get it done because the fishermen won't pay and it's free to the fishermen, so somehow*

we've got to pay for this. Yeah, and we're still working our way through, the ministers are very supportive of it, but it's like anything, it's hard to get funding. (Respondent#2917, fishermen's co-operative)

The lack of clear price premiums is a disincentive to the labour-intensive, low-profit small businesses serving market segments with low consumer demand:

You're not going to be able to collect 300,000 dollars from the majority of fishers who currently sell to the co-ops. So the retailers need to pull their weight too. They need entrepreneurship and to be provided with the knowledge to market product and the industry—not just sell what's displayed under their counters. This was the aim of the retailers' network formed and run by the CRC. (Respondent#1317, research funder)[28]

At one stage it was also a fish names thing like the MSC where you could be certified as 'I use the standard fish names' and all of the shops at the Sydney fish market were part of that system at one stage and then they closed down because not enough people were happy to pay $50 a year to get this little certificate to put in their shop. I mean, for the small fish shop, they're not particularly interested, they don't make a lot of money. The money they make per hour of their labour is very poor, a lot of people go on and think you know all these guys are making a lot of money but I know that's bullshit. […] I can look at the shop and I can tell you if they're making money or not because if they're making money the shop is usually clean and modern but a lot of the shops are still very old, very run down and you know, when they think that they might have started at 5am and finished at 7pm when you look at the money they make for 12 or 14 hours a day it's not good money. They could make more money working in the fish counter at Coles and Woolworths. (Respondent#2417, private researcher)[29]

The experiences of Oceanwatch illustrate the challenges facing initiatives that are industry-led in the low-value, small coastal fisheries that inhabit the space where imports that have not been assessed for sustainability compete with domestic produce and where the government rationale states that consumer demand will drive the efforts

[28] Quotation revised by the respondent.

[29] Quotation revised by the respondent.

for sustainability assessment and verification. Some of these actors defend the existence of a market failure that needs government intervention:

> *Australian governments, both state and federal have tended to shy off intervention in markets. I think the general view is that if there's demand for something then the private sector will meet it. But that's not always the case. There is a case to be argued to say that unless government acts here to implement statutory through chain labelling then it's not going to happen. Clearly, provenance and product information is something that the community wants. It's something that would support many things government does already particularly with the Food Authority, where we currently have a through chain mechanism for food traceability. Collectively, this needs to be put in a more open and accessible fashion at the point of consumption, which isn't at the moment. So this then is lost to the last link in that chain. (Respondent#1717, fisher)*[30]

This demand has two sides: the demand for the regulators in the post-harvest space to introduce measures in labelling that promote the identification of Australian seafood as sustainable; and the demand for fisheries management to intervene more actively in the post-harvest space, to go beyond communicating sustainability to supply chain actors to engage directly in sustainability messaging with the public. While this intervention on the part of fisheries management is starting to be undertaken—with the exploration by governmental agencies of public–private and private–social partnerships between certifying bodies, large producers and fisheries managers—such intervention only marginally enters the messy, disconnected universe of the small-scale fishers, wholesalers and retailers, and it is failing to link management objectives to the generation of public trust for those who exploit the resource to provide seafood.

4.5. Conclusion

The situation in Australian fisheries reflects the effects of the interplay between the interests of transnational actors, supply chains, coastal fisheries, governments and communities; the constraints on private governance in addressing sustainability concerns; and the limits of understanding sustainability as a consumer value rather than a public concern. Pressure from those actors unable to access or effectively use

[30] Quotation revised by the respondent.

voluntary tools to communicate to consumers and communities has led to demands on the regulators in the post-harvest space 'to bridge the gap between a faceless regulator and a consumer-facing entity' (Bailey et al. 2018, p. 787). In a few countries with strong fisheries sectors, the reaction to transnational forms of governance has been to explore the potential of territorially-based eco-certification programs, as has been the case in Iceland, Canada, Japan and Alaska (Foley & Havice 2016, p. 24). In Australia, continuing trust in the capacity of non-state actors to improve business practices runs parallel with regulatory demands clustered around two of the elements that the CLG indicated as aspects of sustainability: the correct names of fish and the indication of origin. As discussed in Chapter 5, these demands clash with the self-imposed boundaries of the regulatory framework. First, fisheries management agencies have little regard for downstream processes and are unable to convey the importance of the regulatory control of sustainability to the governors in the post-harvest space. Second, governors in the post-harvest have a preference for voluntary initiatives such as third-party certifications, providing an Australian example of 'the obfuscation of geographically constituted, and identifiable, production and regulatory systems in favour of universally applicable sustainability standards' (Foley & Havice 2016, p. 25). Finally, the framing of the issue that prevails constructs it as an interest of the fishing sector alone, opposing it to the much larger foodservice sector. The policy processes to resolve conflicts in seafood labelling test the rationales for public intervention in the post-harvest space, the position in this space of fisheries management and the ability of small-scale coastal fisheries to exert influence in the governance of seafood downstream.

Chapter 5. Current demands and the limits of the regulatory framework

Voluntary tools for the verification and communication of sustainability at the consumer interface have proven to be a challenging terrain for the Australian fishing industry in its quest to ensure continuing public trust in their operations. Fragmented structures and interests, unclear boundaries between consumers and communities as target audiences, lack of financial capabilities and a disconnection with wholesalers and independent retailing have been factors limiting the success of voluntary tools. In recent years, part of the seafood industry has turned its attention towards other possible tools to improve its competitiveness and public image. They have challenged the shared understanding by industry and government actors that it is the responsibility of the private sector to communicate at the consumer interface. At the same time, the fishing industry, which has traditionally sought to improve competitiveness by reducing costs, has begun to pursue these aims through marketing.

Recent changes in CoOL for food products and increasing pressure on coastal fisheries in the form of anti-trawling campaigns and estuary closures have led the fishing sector to push for two policy changes in this area: mandatory CoOL for seafood in the foodservice sector and the mandatory adoption across jurisdictions of the AFNS. So far, only NT, one of the two jurisdictions in which fish retailers are required to be licenced and the only one in which licensing lies under fisheries management regulations, has responded positively to the first of these demands. A change in NT licensing conditions for fish and chip shops and restaurants requiring them to identify imported fish in menus fuelled a push by industry activists for the adoption of these requirements nationwide. This change, together with the demand to label all fish with the AFNS, has been discussed in Senate inquiries and bills in Parliament at the federal level and in NSW. The analysis of these discursive practices shows: 1) a continuing reluctance of public governors to regulate for sustainability in the post-harvest space; 2) the continuing belief on the part of regulators in the suitability of market measures rather than government regulation to address sustainability concerns in the post-harvest space; 3) an exclusive construction of consumers as individual subjects, rather as the members of the public whose trust is vital to ensure future access to the resource; and 4) the lack

of influence of lower-value fishing producers and independent retailers in the governing space.

5.1. Informational regulation and consumer information

In the Australian policy context, the two main demands of the fishing industry for mandatory regulation—CoOL in the foodservice sector and a mandatory standard for fish names—belong to the area of food labelling. Food labelling is a subset of informational regulation and is one of the main interventions by governments in markets to prevent information asymmetries between the parties in a commercial transaction (Freiberg 2017, p. 331). Information asymmetries occur when one party in a transaction manages to 'conceal information to obtain a more favourable price or conditions in a transaction, or to dishonestly gain an advantage' (Department of the Prime Minister and Cabinet 2014, p. 23). If the information asymmetry is significant, markets fail to allocate resources efficiently and regulatory intervention may be needed.

Government policy objectives have become broader than the prevention of market failures and now include addressing social concerns to create public value for the community (Freiberg 2017, p. 339), such as improved public health. Globalised food systems, complex trade patterns and the food safety issues associated with them have led to increased attention to information asymmetries and to the role of regulation in protecting the right of consumers to make informed choices. Social concerns translated into consumer values are increasingly influential in the political processes that assess what labelling requirements are deemed necessary to provide 'adequate information relating to food to enable consumers to make informed choices' (*Food Standards Australia New Zealand Act 1991* [Cth], s 3c). These social concerns and the technologies available to transmit and verify information vary over time, inducing regular reviews of informational regulation and tools.

Food labelling is an essential part of informational regulation (Freiberg 2017, p. 335) since labels are the principal vehicle for transmission of information from producers to consumers (Blewett et al. 2011, p. 28). Mandatory labelling contains the information requirements stipulated by government regulation that need to be attached to specific products (Freiberg 2017, p. 335). Due to their relevance, prioritising the kinds of information that should be mandatory in the labels is vital, especially in view of the

limited space available on most produce labels (Blewett et al. 2011, p. 29). Therefore, the food label is a field of struggle between competing demands from consumers and industry actors, and in prioritising government responsibilities in the areas of market competition, food safety, public health and issues relevant to consumer values (p. 35).

Seafood labelling is a prime example of the complexity of labelling requirements in food products. Fish is a highly perishable food product that is usually subject to specific handling requirements. In markets such as Australia's, where seafood often reaches the consumers after some form of primary processing (e.g., freezing, filleting, drying or smoking), visual identification of the fish species may be difficult and processing may influence organoleptic qualities. This affects a huge variety of different seafood products, with over 100 commercialised fish species in Australia (FRDC 2018c, para 2). The method of production—whether the fish is wild-caught or farmed, and what fishing gear was used—may result in a price differential reflecting the quality of the fish and/or ethical consumer values. Further, unlike other fresh food, which is predominantly produced domestically, the majority of fish consumed in the Australian market is imported. Specifications on the country of origin are relevant to different categories of consumer values such as sustainability and provenance. Finally, common fish names show considerable variation, with supply chain actors taking advantage of the available choices as a marketing tool, deploying linguistic strategies such as generalisation (e.g., whitefish, fish), substitution of unattractive names (e.g., changing blackfish to luderick) and metonymy[31] (e.g., using 'flake' to refer to related shark species), drawing a thin line between marketing strategies and misleading or deceptive conduct. Research results on the mislabelling of seafood have been a key driver of policy reform for traceability in the US, as explored in the next chapter, and recent advances in technology have prompted abundant studies confirming mislabelling in fish products worldwide (Galal-Khallaf et al. 2014; Helyar et al. 2014; Pardo 2016; Tinacci et al. 2018; Xiong et al. 2016).

The vast differences between products in the seafood category make labelling a complex area in which to balance industry demands, government policy drivers and consumer priorities. Chapter 4 showed how the food regulatory framework considers

[31] Metonymy is a kind of figure of speech, in which something is referred to using a closely associated, but not equal, other thing; for example, using 'The White House' to mean 'The US presidential office'.

consumer values a case for voluntary initiatives driven by consumer demand. This has weighed heavily on the measures deemed acceptable by a regime that ascribes food standards to the protection of public health and considers carefully the regulatory costs on businesses. However, the example of CoOL in Australia shows that consumer values may achieve regulatory recognition in labelling; that the process is highly dependent on socio-specific contexts; and that specific labelling information, such as the specification of the country of origin of foods, functions as a proxy for a variety of attributes, such as quality, freshness and sustainability. The Australian seafood industry has endeavoured to use the avenue of CoOL to advocate for further policy change. This has shown the limits of the current regulatory system and potential avenues for labelling requirements containing sustainability information.

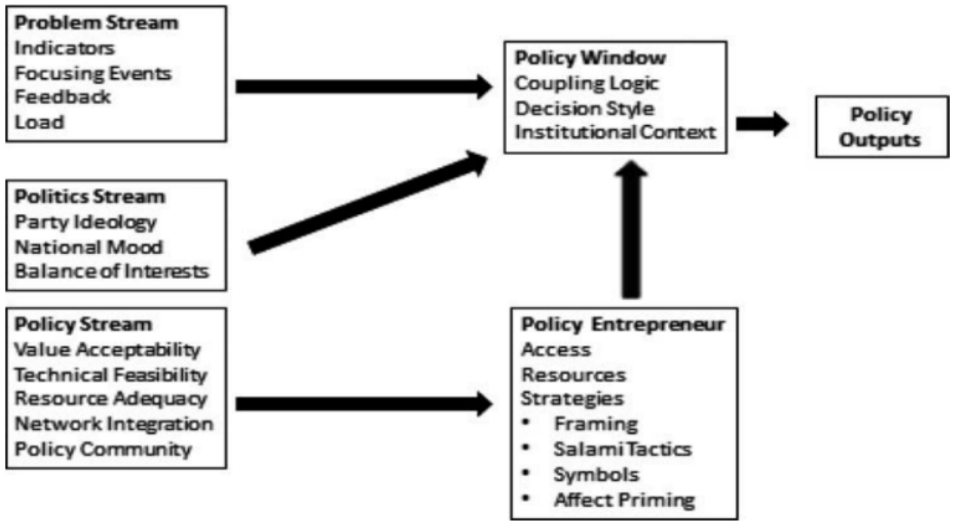
5.2. Agendas, policy discourses and policy change

Labelling requirements and demands evolve over time following changes in consumer concerns related to food production, distribution and consumption. The information deemed relevant for consumers to make informed choices is consequently an arena of regular policy change, in which issues emerge in the agenda, become institutionalised as problems and are given a solution in the form of a policy action. Studies on policy formation, agenda setting and policy change provide useful insights to analyse how the seafood industry's demands for mandatory labelling entered the political agenda at a particular point in time, how the problem was framed, how change stalled, and what factors may explain the current outcomes. A discursive approach to the Multiple Streams Framework (MSF) provides a useful lens to analyse both the institutional factors and individual agency.

In the past 30 years, studies in policy formation and agenda setting have been profoundly influenced by John Kingdon's (1995) *Agendas, Alternatives and Public Policies* (for a summary of Kingdon's framework see Béland and Howlett [2016], Jones et al. [2016] or Winkel and Leipold [2016]). Kingdon's theorisation of the factors that lead to agenda setting, the MSF (also known as the Multiple Streams Approach), has been applied in over 300 cases in 65 different countries (Jones et al. 2016, p. 13) and continues to be 'one of the most established theories of policy processes' (Weible & Schlager 2016, p. 11). The MSF explains agenda setting as the confluence of three streams: 1) the *problem stream*, or collective perceptions of problems that may be in

need of government intervention; 2) the *policy stream*, or in Kingdon's metaphor, the 'primeval soup' (Kingdon 1995, p. 117; Winkel & Leipold 2016, p. 110) of policy options and solutions, shaped by analysts and experts (Béland & Howlett 2016, p. 222); and 3) the *political stream*, or those events or circumstances in the domain of politics or advocacy (e.g., campaigns or changes in the executive) that influence the context of policy-making (Béland & Howlett 2016, p. 222; Winkel & Leipold 2016, p. 110). When two or more of these streams come together—are *coupled*—an issue is ready to enter the political agenda; that is, the need for the policy process to address it becomes institutionally recognised. This usually happens over a limited period—a *policy window*—and is due to one or several of the following: the action of *policy entrepreneurs*; crisis situations or *focusing events*, such as crises, disasters or the personal experiences of policy-makers (Kingdon 1995, pp. 96–7); or *institutionalised events* (e.g., elections). Kingdon's analysis, summarised in Figure 7, brings together institutional factors, events and individual agency. Policy entrepreneurs are those individuals that are willing to invest their resources in driving change (Kingdon 1995, p. 122) and their influence has been particularly observed in those situations in which change 'involves disruption to established ways of doing things' (Mintrom & Norman 2009, p. 651), as opposed to incremental policy changes.

Figure 7: The Multiple Streams Framework



Source: (Jones et al. 2016, p. 15)

A discursive approach to MSF attempts to explain how the construction of policy issues results from a series of discursive constructions. This links Hajer's concept of policy discourses (Winkel & Leipold 2016, p. 112) to the discursive strategies of the actors in the policy process that construct story lines or 'condensed statement[s] summarising complex narratives, used by people as "short-hand" in discussions' (Hajer 2006, p. 69). These actors position themselves in regard to the story lines and push for their institutional acceptance through a series of discursive strategies (Winkel & Leipold 2016, pp. 112–4). Once coupling has occurred, actors try to achieve policy change by manipulating existing narratives to construct alternative discursive structures and push for their institutionalisation.

The process instigated to change labelling regulations with regard to the origin of foods can be usefully analysed using this framework. The modification of CoOL requirements in 2016 through the *Country of Origin Food Labelling Information Standard 2016* was a long process in which the problem and political streams coupled through a series of focusing events, the action of political entrepreneurs and the accumulation of problems that the policy tool was supposed to solve. This coupling eventually opened a window for policy change, despite the resistance to change in the policy stream, as explored in Section 5.3 below. Part of the seafood industry (mainly professional fishers and aquaculturalists) attempted to ride on the wave of this policy window to make its own demands for mandatory labelling requirements, as explored in Section 5.4. These demands have been unsuccessful and policy change has stagnated in the short term.

5.3. A successful coupling of streams: Country-of-origin labelling for food products

Legislators in a number of countries have become interested in having the country or origin in which a food stuff has been grown, produced or processed specified, prompted by the complexity of globalised food systems, trade regulations and consumer concern over food scandals (Wood, Tenbensel & Utter 2013, p. 132). In Australia, the pursuit of 'truth in labelling' has been the object of attempted changes since 1998 to solve specific concerns. Labelling has been considered a policy tool that could respond to a number of issues in the problem stream, from genetically modified organisms to sustainability and the competitiveness of domestic industries. The Australian Consumer Law contains the current prohibition against false, mislabelling or deceptive conduct in labelling. The

different stages in the demand for CoOL provide the backdrop against which the seafood industry organised its demands in the area of informational regulation. The process exemplifies how the streams of the policy process—the problem stream, the policy stream and the politics stream—may converge at given points in time to create a political issue in the agenda. Different 'couplings'—between the story lines that connect problems and solutions, and the policy entrepreneurs promoting different understandings of the problems and solutions—come together at given points, providing windows of opportunity for policy change. How these policy windows provoke change depends on the (unequal) interactions between actors and institutions.

As a policy tool, CoOL in food is one of the few divergent standards between Australia and NZ in the trans-Tasman food labelling system (Blewett et al. 2011, p. 107; Wood, Tenbensel & Utter 2013, p. 132). This reflects the context-specific nature of coupling, which depends on the dynamics occurring in the three streams. In NZ, CoOL emerged as a confrontational issue in the problem stream against a background of strong governmental action in favour of trade liberalisation in the politics stream and little precedent of CoOL regulation as a defined policy tool (Wood, Tenbensel & Utter 2013, p. 138). In Australia, the configuration of the policy community was more pluralistic in the political stream, and policy entrepreneurs were able to build wider alliances. The policy stream was also less tightly linked with trade liberalisation and de-regulation, discourses that were combined with economic nationalism, and it had already contemplated CoOL as a policy tool (p. 138). Finally, the issue also benefitted in Australia from a progressive construction amalgamating a wide variety of interests and framings of the problem (pp. 137–8), building up momentum through a series of focusing events, such as food scares.

Bills aimed at reviewing mandatory CoOL in unprocessed foods were first put to Parliament in Australia in 1998, 2003 and 2005 by the Australian Greens on the grounds that the tags 'Product of' and 'Made in' Australia were misleading to consumers and did not enable informed choices with regard to genetically modified foods, pesticides and local industry (Australia 2005, p. 92). The Truth in Food Labelling Bill 2003 [2005] (Cth) moved by the Greens did not succeed but the newly created FSANZ agency received instructions in 2002 to review the transitional Standard 1.1A.3 in the Food Standards Code, which prescribed CoOL in 'certain unpackaged foods, namely uncooked fish, vegetables, nuts and fresh fruit that originate from anywhere other than

from Australia and New Zealand' (FSANZ 2004, p. 8). NZ opted out of the procedure and the resulting Standard 1.2.11 applied exclusively to Australia from 2005 onwards (Wood, Tenbensel & Utter 2013, p. 133). To this day, NZ does not require any indication of the origin on foods. Standard 1.2.11 extended the obligation to indicate country of origin to both packaged and unpackaged foods, unprocessed, processed or cooked, including seafood in 2006 (Blewett et al. 2011, p. 106), and unpackaged beef, sheep and chicken in 2013 (FSANZ 2013, p. 1). The standard excluded foods offered for immediate consumption and the 'food service' sector, such as schools, prisons, restaurants or hospitals (FSANZ 2005).

Pressure on CoOL reform in Australia did not diminish after the publication of Standard 1.2.11. Rather, different strands of political discourse converged to demand CoOL as a policy solution for different problems in the political stream. First, the Australian Greens continued to push CoOL as a regulatory intervention to promote local economies. Second, sustainability emerged as an issue of concern related to the use of palm oil in Australia, producing a coalition of interests between the Green Party, the Nationals and the Nick Xenophon Group. Domestic competitiveness and the interests of small businesses were a common preoccupation for all three parties that enabled a first coupling of the politics and problem stream. In 2009, Senators Xenophon (Xenophon Group), Joyce (Nationals) and Brown (Australian Greens) moved the Food Standards Amendment (Truth in Labelling Bill) 2009 in August 2009 to modify CoOL regulations, and the Food Standards Amendment (Truth in Labelling—Palm Oil) Bill 2009 in November of the same year. Neither was passed into law, but they provided a first alignment between the problem and political streams regarding what policy tool (i.e., labelling regulations) would solve which problems (i.e., sustainability, domestic competitiveness and public health). The pressure on CoOL regulations had a spill over effect in NT, where the seafood industry obtained the mandatory identification of imported seafood as a condition for licensing of all retailers under fisheries management regulations in 2008.

The policy stream felt the pressure to provide a response, which took the form of a policy review of labelling in 2009. The review produced the report *Labelling Logic: Review of Food Labelling and Policy* (Blewett et al. 2011). The Blewett report discussed the 'unfortunate' divergence of approach between NZ and Australia and recommended that modifications to the standard should be legislated through the

Competition and Consumer Act 2010 (Cth). The report acknowledged that CoOL could not be taken as a proxy for health information; it reinforced the regulatory risk assessment pyramid for food labelling and the role of consumer values in it; and it justified the occurrence of market failure and the need for government intervention:

> The Panel proposes that market failure is the principal argument that should be advanced for any prescriptive intervention in food labelling in the area of consumer values issues. There are mutual market benefits (to buyer and seller) of promoting food with positive/aspirational origins (e.g., chocolate from Switzerland), yet non-reciprocal benefits from withholding such information when it relates to origins with perceived negative connotations (e.g., food products from countries with poor human rights records). This situation constitutes market failure and the reason for government intervention on the issue of CoOL. (Blewett et al. 2011, p. 107)

This justification did not explain why market failure was assumed to have happened in some consumer-facing retailers, such as shops, but not in others, like restaurants; and it did not clearly specify which market failures related to consumer values should be the object of government intervention, except to say they would have 'salience' (Blewett et al. 2011, p. 33). In other words, it failed to acknowledge that market failure was a result of the manifestation of the social concerns that the political stream was seeking to solve through the use of mandatory labelling as a policy tool. However, it did recommend that CoOL regulation be moved from the Food Standards to the Australian Consumer Law framework.

After the Blewett review, the inconsistencies in CoOL remained prominent in the political stream. Pressures to amend the existing specifications resulted in the House of Representatives agreeing to an inquiry in March 2014 to assess 'whether the current country of origin labelling (CoOL for food) system provides enough information for Australian consumers to make informed purchasing decisions' (Commonwealth of Australia 2014a, p. xiii). The CoOL inquiry gathered a total of 54 initial submissions (plus seven supplementary ones) and held seven hearings and a visit. It issued a number of recommendations to improve CoOL, which would be important to the policy change that occurred in 2016. It also made a specific recommendation for seafood: that the NT licence conditions for seafood retailers be referred to COAG (p. xviii). At practically the same time, in June 2014, the Senate agreed to conduct an inquiry specifically on the

labelling requirements for seafood: *Current Requirements for Labelling of Seafood and Seafood Products* (Commonwealth of Australia 2014b). This inquiry showed the special relevance of labelling for the seafood industry and the importance of the recent policy changes in the NT labelling requirements.

Focusing events in the form of food scandals related to imported foods (Hepatitis A outbreaks resulting from the consumption of imported frozen berries) made the indication of country of origin a consumer information issue linked to public health. The different advocacy groups promoting change were able to use these focusing events to induce the successful coupling of streams that would institutionalise the regulatory intervention:

> *Palm oil is probably the best intersection of food, health and environmental issue because palm oil is high in saturated fat. Your health groups are interested, obviously the environmental reasons are pretty strong and CHOICE is interested from consumers wanting to be able to make an informed choice, so that's an interesting kind of cross-section of groups. From the media perspective, I think a media is integral to ensuring that an issue is pulled onto the political agenda or on raising awareness towards it, it's incredibly important. Country of origin labelling was only pulled onto the political agenda because it was tied to the frozen berries scare. And we were, I mean it was a weak link, but we were able to make the link and because that got such a huge media groundswell, it put the issue on the agenda. (Respondent#4817, consumer group representative)*

The then Prime Minister Tony Abbott made a public commitment to change CoOL, joined by the Agriculture Minister, Barnaby Joyce (Medhora 2015). This aligned the ruling party to the long-standing positions of the Greens, the Nationals and the independent Xenophon Team in matters of CoOL. The reform of CoOL finally took place in the form recommended in the Blewett report on labelling policy (Blewett et al. 2011, p. 108). The *Country of Origin Food Labelling Information Standard 2016* was made under Section 134 of Schedule 2 of the *Competition and Consumer Act 2010* (Cth). The standard applied from 1 July 2016 and contained the same exemption for the foodservices (*Country of Origin Food Labelling Information Standard 2016* [Cth], Part 2, Division 2, s14 2[a]). The demands for seafood labelling had not been granted regulatory support.

5.4. Riding the wave: The 2014 Senate inquiry on seafood labelling

Policy windows provide opportunities for change but stay open for only short periods (Kingdon 1995, p. 166). Advocates for change need to be prepared to take advantage of the policy windows suitable for their purposes. They are 'like surfers waiting for the big wave' (p. 165) and like surfers, they need to have demands and solutions ready: 'If you are not ready to paddle when the big wave comes along, you're not going to ride it in' (p. 165). In 2014, the seafood governance actors promoting the reform of seafood-labelling requirements tried to 'ride in the wave' of the policy window open for reform of CoOL requirements, as seen in the Senate inquiry *Current Requirements for Labelling of Seafood and Seafood Products* (Commonwealth of Australia 2014b).

Seafood was among the first food products to come under CoOL regulations in retail in Australia. It was included in the provisional Standard 1.1A3 in 2000 and the obligation to label the origin of cooked or uncooked fish came into effect under the revised Standard 1.2.11 in 2005, including the exemption contained in it for the foodservice sector. Lifting the foodservice sector's exemption from CoOL has been a standing demand of the fishing industry. The adoption in 2008 of regulations requiring CoOL in foodservices in NT provided a first positive response to this demand, and the general reform of CoOL opened a window of opportunity to take policy change to the federal level. In addition, the confluence of a number of focusing events and advocacy efforts in the problem stream brought other demands around seafood labelling into the politics stream. As a result, the inquiry was the first—and only—time that the relevance of seafood-labelling requirements to industry, NGOs and government was debated at length by a wide range of stakeholders in the governance concert. The written records of these interactions—submissions and hearings, press releases, the Committee report and explanatory statements to the bills resulting from the inquiry—together with the stakeholder views collected in interviews offer rich data on the discursive strategies and practices used in the construction and negotiation of labelling demands. Their analysis provides insights into the different demands and government responses and, more concretely, into how CoOL in the foodservice sector was constructed as a policy tool and what other demands were included in or excluded from this framing. The analysis also provides insights into the role of sustainability in the regulatory framework for

labelling, and explains the current policy outcomes and the potential opportunities for policy change in the near future.

5.4.1. Context of the inquiry

The in-depth discussion of the labelling requirements for seafood resulted from a particular coupling of events within the large policy window open at the time to reform CoOL in food products. The particular coupling of the streams explains the terms of reference of the inquiry; it also explains how the prominence of the policy window opened for CoOL provided the frame for the inclusion or exclusion of different demands and for the construction of successful story lines to articulate them.

Advocacy efforts by different stakeholders in the problem stream, a number of focusing events and the action of policy entrepreneurs drew attention to the issue of seafood labelling that was being pushed by industry in the direction of CoOL. Industry demands in the problem stream to lift the exemption in CoOL in the foodservices were fuelled in 2009 by a key event in the policy stream. In that year, the exemption of the foodservice sector from CoOL was circumvented in NT, in which jurisdiction seafood retailer licencing conditions are regulated under fisheries legislation (Commonwealth of Australia 2014b, p. 8). Complaints from the fishing industry and consumers that food outlets in Darwin were misleading consumers about the origin of seafood (p. 13) led the NT government to mandate the identification of imported seafood as a condition for licensing of all retailers under the *Fisheries Act 1979* (NT). These licensing conditions offered an indication for industry that policy change could happen in Australia as part of the advocacy efforts to reform CoOL for food products. At the same time, global environmental NGOs were aware of the changes in seafood labelling unfolding in the international domain, particularly the new EU Regulation 1379/2013, which established a number of mandatory labelling requirements related to seafood sustainability and the prevention of IUU fishing, such as the specification of FAO harvest areas, scientific fish names and production methods (EU 2013a). For environmental organisations such as Greenpeace, the WWF and the AMCS, industry advocacy for CoOL offered an opportunity to push for labelling regulations containing information on fisheries similar to the newly adopted European labelling laws; that is, information on fish names, fishing areas, production methods and gear used (Sealife Trust 2014, para 7).

Further events in the problem stream provided momentum for the discussion. First, two policy entrepreneurs—broadcaster, food critic and farmer Matthew Evans and politician Nick Xenophon—initiated action towards the Senate inquiry that would gather and filter the demands to modify labelling requirements. Through his work on seafood labelling for a series of television documentaries, Evans had sought support in Xenophon's long-standing commitment to truth in labelling laws. The latter was a member of the Senate Committee conducting the inquiry process, and the three parts of the documentary were aired between October and November 2014, drawing attention to the inquiries in course. Second, controversies such as the campaign against the trawler *Abel Tasman* (*FV Margiris*) in 2012 (Haward, Jabour & McDonald 2013) and commercial overfishing in Corio Bay in 2013 (King & O'Meara 2019) were clear indications of the commercial fishing sector's need to achieve public trust. Industry, government and NGOs established a common platform to discuss common concerns, the CLG, as examined in Chapter 4.

Industry demands were fragmented and they did not completely align with the goals of NGOs pushing for labelling requirements:

> *Some in the fishing industry were calling for better labelling, some sectors were calling for a 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. (Respondent#5017, NGO representative)*

The different demands from these stakeholders resulted in a broad listing of the terms of reference in the Senate inquiry:

> The current requirements for labelling of seafood and seafood products, with particular reference to the following matters:

> (a) whether the current requirements provide consumers with sufficient information to make informed choices, including choices based on sustainability and provenance preferences, regarding their purchases;
>
> (b) whether the current requirements allow for best-practice traceability of product chain-of-custody;
>
> (c) the regulations in other jurisdictions, with particular reference to the standards in the European Union (EU) under the common market regulation (EU) No 1379/2013 Article 35;
>
> (d) the need for consistent definitions and use of terms in product labelling, including catch area, species names, production method (including gear category), and taking into account Food and Agriculture Organisation guidelines;
>
> (e) the need for labelling for cooked or pre-prepared seafood products with reference to the Northern Territory‘s seafood country of origin regulation;
>
> (f) recommendations for the provision of consumer information as determined through the Common Language Group process conducted by the Fisheries Research and Development Corporation;
>
> (g) whether current labelling laws allow domestic seafood producers to compete on even terms with imported seafood products; and
>
> (h) any related matters. (Commonwealth of Australia 2014b, p. 1)

These broad terms of reference reflected the framing of labelling as a policy problem within informational regulation:

> Information regulation through disclosure has two main objectives. First, it generally aims to address information asymmetries in order to create informed and transparent markets. Second, it specifically aims to advance public policy objectives in specific areas such as health and well-being, financial security, environmental protection and others on the premise that information asymmetries obstruct the achievement of those objectives. (Weil et al., cited in Freiberg 2017, p. 336)

The inquiry process would narrow down these broad terms of reference to a narrow set of specific information asymmetries and public policy objectives. The analysis of the report, submissions and hearings conducted in 2014 and the stakeholder views collected in 2017–2018 provide a detailed understanding of how CoOL prevailed as the most

relevant information asymmetry denounced. It also offered ample evidence of the limited role of policy objectives for sustainability in the post-harvest space, and of the potential opportunities for future policy change.

5.4.2. Policy networks, communities and entrepreneurs: Participants in the seafood-labelling inquiry

The Senate inquiry into seafood labelling registered 25 submissions and held two hearings, in Darwin and Sydney. Table 15 shows the types of stakeholders involved in the inquiry by presenting a list of the participants in the submissions and hearings. Those organisations shown in bold participated in both.

Table 15: List of organisations and individual submissions participating in the Senate inquiry *Current Requirements for Labelling of Seafood and Seafood Products*

Organisation	Sector
Submissions	
Seafood Importers Association of Australasia Inc – SIAA	Importers
Australian Barramundi Farmers Association – ABFA	Fishers – Farmers
Australian Prawn Farmers Association – APFA	Fishers – Farmers
Queensland Department of Agriculture, Fisheries and Forestry – QLD DAFF	Government – fisheries
Food Standards Australia New Zealand – FSANZ	Government – other
Greenpeace Australia Pacific – Greenpeace	NGOs
Northern Territory Department of Primary Industry and Fisheries – NT DPIF	Government – fisheries
The Master Fish Merchants' Association of Australia	Industry association
Sydney Fish Market – SFM	Fish Market
National Seafood Industry Alliance – NSIA	Industry association
Department of Agriculture – Dept. Agriculture	Government – fisheries
Northern Territory Seafood Council – NTSC	Industry association
Southern Shark Industry Alliance and TRAFFIC International – **SSIA** and TRAFFIC	Fishers – Farmers and NGO
Seafood New Zealand – Seafood NZ	Industry association
Australian Marine Conservation Society – AMCS	NGOs
Matthew Evans	Individual (food critic)
Fisheries Research and Development Corporation – FRDC	FRDC
Simon McGuire	Individual
NSW Food Authority – NSWFA (and Fisheries NSW)	Government – other
Coles Supermarkets Australia Pty Ltd – Coles	Supermarket

Organisation	Sector
WWF-Australia – WWF	NGOs
Department of Health – Dept. Health	Government – other
Justice and International Mission Unit, Synod of Victoria and Tasmania, Uniting Church in Australia – Uniting Church	NGOs
Richard Lamendin	Individual (researcher)
Woolworths	Supermarket
Hearing 1 Sydney	
Mures Fish Centre	Fish and chip shop
Ian Knuckey	Individual (researcher)
Hearing 2 Darwin	
Australian Hotels Association, Northern Territory Branch	Foodservice
The Deck Bar, The Arch Rival, Nirvana; Australian Hotels Association, Northern Territory Branch	Foodservice
Timothy Hayward	Individual (food service)
The Barra Bar	Foodservice
Pee Wees on the Point; Australian Hotels Association, Northern Territory Branch	Foodservice
Tourism NT	Tourism
William Robert Passey	Fisher – Farmer
Humpty Doo Barramundi, Australian Barramundi Farmers Association	Fisher – Farmer
Pulp Kitchen, Hungry Joes	Foodservice
Tourism Top End	Tourism

Source: (Commonwealth of Australia 2014b, Appendices 1, 2). Organisations or individuals shown in bold participated in both the submission process and a hearing.

The composition of the participants and the terms of reference reflect the intent to consider labelling requirements from the perspective of the information required by consumers. This focus on the goals of informational regulation allowed the inquiry to take a broader view of the potential market failures (e.g., product substitution, misleading information) and sustainability requirements than would have been possible if limited by the priorities of the food safety regime. However, this wide view would subsequently be narrowed down by the majority of participants, to focus specifically on the issue of CoOL in the foodservice sector, and to justify their support or opposition using arguments from the relevant policy domains: sustainability, competition and public health.

Submission participants were strongly skewed towards actors in the fisheries sector, whereas consumer groups and the foodservice sector were scantily represented. Likewise, stakeholders active in the voluntary governance of seafood trade and consumption were well represented, while consumer groups were largely absent. There was also organised representation of seafood retailers and importers representing a small number of companies in the sector, and both Coles and Woolworths had an individual presence. The professional associations representing the foodservice retailers (e.g., Restaurant and Catering Australia, and the Australian Hotels Association) made no submissions to the inquiry, and the position of the foodservices was only considered in the Darwin hearing, represented by the NT Branch of the Australian Hotels Association and individual businesses. One actor from outside the fisheries sector, the Uniting Church of Australia, presented a framing of the policy problem as a modern slavery issue.

On the governors' part, submissions reflected the efforts to locate the issue within the food regulatory regime: FSANZ provided the regulatory framework for the report; and half of the fisheries departments participating provided joint submissions between fisheries and health (NSW Food Authority) or submissions with input from other departments, such as Queensland's Department of Agriculture, Fisheries and Forestry (DAFF). Only the Department of Agriculture and the NT Department of Fisheries and Primary Industries contributed individual submissions, and fisheries governors in four of the eight state jurisdictions were absent from the inquiry. The effort to bring labelling issues under the food regulatory regime was balanced by the strong presence of environmental NGOs, who provided four submissions: three independently and one joint submission with an industry organisation.

Finally, the two policy entrepreneurs had key roles in the inquiry process: within Government, Nick Xenophon was a member of the Committee and would later present and move the reading of the Bill resulting from the inquiry. Matthew Evans presented a submission, participated in the hearings and was quoted a number of times in the final report.

The representation of and linkages between groups in the inquiry contrasted strongly with the diversity of actors and lack of a dominant interest group in the general Australian discussion of CoOL reforms taking place in the background (Wood,

Tenbensel & Utter 2013, p. 137). Whereas actors in the general debate on CoOL represented loose interests, multiple framings of the issue and had little contact with each other (p. 138), the 2014 seafood-focused Senate inquiry presented an image of a tight policy community in which groups consulted each other, as mentioned in the submissions, reports and hearings. Some of the groups had interacted previously in platforms such as the CLG (and would continue to do so in the course of this policy process). The discourse coalitions formed[32] before and during the inquiry contributed to foregrounding a number of demands. For example, stakeholders in the NT forged a strong coalition around CoOL in the foodservice sector after the policy change in that jurisdiction and intervened in a number of inquiries, reports and meetings. In the course of the inquiry, Matthew Evans joined a concerted advocacy effort led by the AMCS and Greenpeace: the *Label My Fish* alliance launched in October 2014 (Han 2014). This advocacy effort pursued the reform of labelling to include sustainability information along the lines of the recent European seafood labelling regulations.

The terms of the debate focused on the role of informational regulation to exert behavioural change towards better informed consumer choices. The tension was established around the diagnosis of what the change of behaviour would be and what needs justified regulatory intervention. On the one hand, advocates for improved labelling regulation created a set of story lines that linked labelling to consumer values such as sustainability and provenance (expressed as a preference for domestic seafood). In this construct, the lack of specification of the origin of seafood was producing a market failure that favoured imported seafood (Australia 2014a, pp. 44, 50). On the other side, public governors endeavoured to assert the principles of the current framework, based on another set of story lines on the role of government intervention and markets. Their concerted efforts converged to block off those consumer values that were not related to the regulatory pyramid of intervention in the food regulatory regime, centred on public health risks.

[32] Discourse coalitions are 'a group of actors that, in the context of an identifiable set of practices, shares the usage of a particular set of story lines over a period of time' (Hajer 2006, p. 70). In the policy process, actors try to 'impose their view on reality on others, sometimes through debate and persuasion, but also through manipulation and the exercise of power' (Hajer 1993, p. 45).

5.4.3. Foregrounding of issues: Country-of-origin labelling in the foodservice sector

The structure of the report, the submissions and hearings reflected the effort of a large proportion of the participants in the foregrounding of the major issue at stake: the exemption under Standard 1.2.11 of labelling the country of origin for foods prepared for immediate consumption. This included industry stakeholders pushing for the adoption of something similar to the NT licensing conditions in other jurisdictions and the public governors reluctant to policy change, while NGOs pushing for further policy change also addressed CoOL. This foregrounding of the CoOL issue was achieved by a mixture of procedural means, including the framing of the terms of reference, hearings and structure of the report; and by the story lines and the discourse coalitions built around them in the submissions and hearings.

As to the first means, the terms of reference listed a number of challenges and demands from different sectors, which were structured into the final report in four chapters: the first provided the terms of reference; the second described the food standards regulatory framework; the third was devoted to CoOL and the NT regulations; and the fourth grouped all other issues in the terms of reference as 'Australian Fish Names Standard, sustainability and provenance labelling' (Commonwealth of Australia 2014b, p. 29). This final structure reflected the hierarchy of demands in the process, both resulting from it and leading to it, such as separate items for the NT legislation and holding a hearing in NT.

Lifting the exemption contained in Standard 1.2.11 was noted in the report as a demand from 'a considerable number of witnesses' (Commonwealth of Australia 2014b, p. 11) and it was analysed in two of the sections of the report, once as a general problem and then in more detail, in its application in NT. The foregrounding of CoOL took two main forms. In those submissions that did not follow the terms of reference, an executive summary was provided, highlighting CoOL as the main issue at stake. In those submissions that followed the terms of reference, CoOL was highlighted as a main issue in the introduction and/or listed in the first term of reference. In following the terms of reference, these submissions also made statements about the NT legislation in response to the term of reference specifically devoted to it. A total of 10 submissions followed this format, with a further five highlighting CoOL together with the AFNS. Table 16

shows the distribution of submissions and establishes how a strong foregrounding of CoOL in the foodservice sector emerged in the submissions from the fishing industry (SFM, NSIA, ABFA, APFA, NTSC),[33] regulators (QLD DAFF, NSW FA, Federal Department of Agriculture) and large retailers (Coles). CoOL was also present in those submissions that foregrounded broader approaches and in those that argued against mandatory labelling (e.g., Seafood Importers Association of Australasia [SIAA] and Master Fish Merchants' Association of Australia [MFMA]).

Table 16: Foregrounding of country of origin labelling in the submissions (see Table 15 for acronyms)

	Foregrounds CoOL	Foregrounds CoOL and AFNS	Foregrounds CLG (broader approach)	Foregrounds AFNS	Foregrounds other issues
Follows ToR	SFM	CLG	WWW	FRDC	Uniting Church
	NSIA		Greenpeace		SIAA
	Coles		AMCS		MFMA (including CoOL)
	QLD DAFF		Evans		
	NSW FA				
	Seafood NZ				
Does not follow ToR	Foregrounds CoOL	Foregrounds CoOL + AFNS	Summarises relevant regulations		
	ABFA	Lamendin	Dept of Health		
	APFA	McGuire	FSANZ		
	Dept Agriculture	SSIA and TRAFFIC	NTDIPF		
	NTSC	Woolworths			

The foregrounding of CoOL was reinforced in the opening statements of many of the witnesses in the first hearing (Australia 2014a, pp. 1, 2, 11, 29) and in the ensuing questioning: when witnesses failed to stress CoOL, the Committee directed its first questions to the issue (p. 22). The lack of specification of the country of origin in the foodservice sector was consistently presented as a void in consumer information in three areas: a high consumer demand for origin labelling was already evident in other

[33] A complete list of acronyms for the participants in the inquiry is found in Table 15. SFM: Sydney Fish Market; NSIA: National Seafood Industry Alliance; ABFA: Australian Barramundi Farmers Association; APFA: Australian Prawn Farmers Association; NTSC: Northern Territory Seafood Council; QLD DAFF: Queensland Department of Agriculture, Fisheries and Forestry; NSW FA: New South Wales Food Authority. SIAA: Seafood Importers Association of Australasia; MFMA: The Master Fish Merchants' Association of Australia.

areas of food labelling; it allows for unfair competition between imported product and domestic product with higher production costs (Commonwealth of Australia 2014b, pp. 11–2); and it impairs consumers wanting to choose sustainable, Australian seafood:

> The simple message that we say is: if sustainability is important to you in your choice of what you buy, buy Australian, because you can be confident that it is well managed. (Australia 2014a, p. 6)

Submissions and witnesses consistently built up CoOL as a solution for two important problems: the need to ensure a level playing field for domestic and foreign products, and the need for information to inform sustainability choices. Industry representatives, from producers to restaurants and wholesalers, developed a body of evidence linking CoOL with a level playing field for the domestic industry that would also enable competitiveness and create employment, allow consumers to choose seafood produced using sustainable methods, and promote the food service and tourism industries. The association between sustainable fisheries and Australian-ness was also sought by the Committee in the hearings with the environmental NGOs, who did not particularly foreground CoOL, and in the questions asked of one Committee members in particular, Senator Williams, on whether Australian fisheries were sustainably managed (Australia 2014a, pp. 5, 50). NGO submissions revealed the problematic nature of this construction: in the NT licensing conditions, the foodservice sector was only required to identify imports as 'I'. The NT regulations in no way prevent product from unsustainable fisheries accessing the market, nor do they differentiate imports produced sustainably from those that are not. Instead, the NT regulations sought, above all, to satisfy consumer demand for domestic produce. Because Australian fisheries are by and large well managed, 'domestic' can serve as a proxy for 'sustainable'; however, this proxy becomes less well-aligned when considering imports.

The story line that made lifting the exemption on CoOL for seafood in the foodservice sector a solution for competitiveness was documented with evidence—from research and anecdotal—of mislabelling practices including: 1) free riding of imports on the Australian brand image (Submission 6); 2) different price points for imported and domestic product competing in the same market (Submissions 6 and 10); 3) regulatory inconsistency in the use of antibiotics in imported prawns (Submission 3); 4) higher regulatory and production costs (Submissions 3 and 10); and 5) the competition of

domestic fisheries (shark) against imports originating from IUU fishing (Submission 13).

The example of the NT lent substantial support to the story lines associating CoOL for the foodservice sector with domestic competitiveness. References to the NT legislation were abundant in the submissions and at both hearings, one of which was held in Darwin. At the Darwin hearing, reports were heard from six witnesses from the food service sector (including the NT branch of the Australian Hotels Association, fish and chip shop owners and restaurants), as well as wild-catch and aquaculture producers and witnesses from the tourism sector (government and industry). The witnesses consistently reported that the regulatory costs for implementing the regulation (e.g., changing menus) were low; CoOL resulted in an increase in sales; consumers were responding positively to the more expensive Australian produce against cheaper imported options; and that despite the initial reluctance of small businesses and multinationals, including hotels, to adopt the regulation, these business types were adhering to them. The only complaints from the NT about the CoOL regulations heard by the Committee related to the lack of policing of the regulation. Further, because the regulation was under the Fisheries Act, rather than overseen by the same health inspectors responsible for compliance with food safety, regulatory compliance was administratively more complex than if there were only one set of inspectors. The testimonies in the Darwin hearing caused the Chair to exclaim:

> Make no mistake, there will be the naysayers listening in, and if they are not listening in they will have copies of the *Hansard* record, and they will be running off to do all their lobbying to make sure that this does not go anywhere. It is embraced now—it was not to start with but it is embraced by industry and it is embraced by government and it is embraced by small family businesses and it is embraced by those who go out there and do the hard yards and catch the product or start farming the product and put their livelihoods on the line and work for years and years for very little return, and they said that the consumers love this. I want you to very clearly put on the record that you may only be one tiny percentage of the population but you have got this right. (Australia 2014a, p. 28)

The focus on lifting the exemption in Standard 1.2.11 on CoOL for seafood in the foodservice sector induced a confrontation between the fishing industry and the

regulatory framework, including fisheries managers and food regulators. Those in favour of lifting the exemption contained in Standard 1.2.11—including producer associations, the existing national peak seafood industry body and the Sydney Fish Market—used the avenue provided by the NT example to take advantage of the window of opportunity for CoOL regulation. Conversely, fisheries managers led the resistance of the public governors against requiring CoOL in foodservice as initiated by NT. The Commonwealth Department of Health, FSANZ and the NT Government provided an overview of the regulations in place, while the Commonwealth Department of Agriculture, the Queensland Government and the NSW Department of Primary Industries offered more detailed statements about the suitability of an NT-style reform. Thus, the submission of the Queensland Government began as follows:

> The Queensland Government encourages marketing initiatives and other non-regulatory measures that will promote Queensland and Australian seafood, without adding to the burden of regulation.
>
> However, the Queensland Government is not in favour of introducing additional mandatory seafood labelling requirements beyond the current requirements that are already in place.
>
> Mandatory labelling regarding method of seafood harvest or production and mandatory country of origin labelling (CoOL) for seafood sold in restaurants would significantly increase red tape and costs for many businesses, and is not supported. (Commonwealth of Australia 2014b, Submission 4, p. 2)

The Commonwealth Department of Agriculture and the NSW Department of Primary Industries offered more nuanced arguments. They affirmed the place for CoOL within the food regulatory system, reasserted that consumer values belong to voluntary regulation and stressed that changes in the regulation would overburden businesses in the food service sector. The difficulty in adopting either CoOL or the AFNS within the current regulatory regime was made evident in the Sydney hearing by the FSANZ representatives, who noted that any amendment to the Food Standards Code would need cross-jurisdictional agreement:

> Mr McCutcheon: Are you talking about if the Australian government did that?
>
> Senator BULLOCK: Yes, our government.

> Mr McCutcheon: The Australian government is one of 10 governments that sit around the table for the development of food regulations. The Australian government would have a position, but it would need the support of at least the majority of the other nine governments that sit around the table for that to happen. […]
>
> Senator BULLOCK: I must admit, I have spent all of today sitting here thinking, 'This is easy-peasy.' It is only when I see you gentlemen that I realise how difficult it is to get anything done, no matter how overwhelmingly supported it is by all segments of the community. (Australia 2014b, p. 70)

This misalignment of objectives between the industry and its regulators in the harvest space was evident in the arguments and responses of producers and the public governors. Producers' associations mentioned CoOL as a means to prevent misleading information on origin (e.g., free-riding associations with Australian product), IUU fishing (exemplified by imports of 'flake') and unfair competition between domestic-managed fisheries with high production costs and foreign fisheries, which may not be managed to prevent overfishing. By contrast, the public governors emphasised that mislabelling was legally enforceable under the Australian Consumer Law as a consumer guarantee, and that information on country of origin was already available and could be supplied to the consumer under the existing voluntary regime. None of the regulators legitimised sustainability, product substitution or the level playing field as regulatory problems that required public intervention, instead situating CoOL as an issue of sector-specific interests:

> *We in the past have suggested that you have a very large and important food services sector and a relatively small fisheries sector by comparison in absolute terms that might get some marginal benefit from [CoOL] in terms of price premium. They already sell everything they can catch so they're not looking to sell more, they're looking to improve their premium in pricing but when they come to Government now they say 'It's for the consumer so that the consumer is informed'. And then the response would be 'but the consumer could ask because they're in a service provision environment, it's not decision marketed where it's labelled and the law requires it. It's in and they can ask before they buy'; and they say 'No, we want it labelled, we want it on the menu and on the sign'. And we would say that's potentially got a very high cost in terms of compliance because there's an awful lot of restaurants out there and food*

providers, and the return is exactly what, an informed consumer who could ask the question? And they won't say we want our price premium and they won't quantify that. (Respondent#1517, fisheries manager)

The rationale that market forces react to consumer demands and that government regulation should impose the least regulatory burden possible on the greatest number of businesses was overturned by the Senate Committee. Riding on the window of opportunity for CoOL and the success of the NT legislation, the Committee took the opposite view than the regulators: it argued that the regulation would benefit the tourism industry, as well as 'consumers, the local fishing industry and the national economy'; it considered that the exemption was an example of regulatory inconsistency and that it undermined the 'level playing field' for the industry; and it saw no evidence that markets provided incentives for voluntary differentiation, but rather inhibited voluntary action (Commonwealth of Australia 2014b, p. 27). As a result, the Committee recommended lifting the exemption contained in Standard 1.2.11 (p. 28).

The selection of place of origin as a consumer value whose indication levelled the playing field between domestic and imported produce overrode other attempted constructions of the problem in terms of sustainability or public health. Demands associated with these goals, such as the AFNS, stalled. The lack of support by fisheries management agencies for the adoption of the AFNS further demonstrates the strength of the existing food regulatory system; the exclusion of the post-harvest sphere from the concerns of fisheries management agencies with regard to the pursuit of sustainability objectives; and limitations in the capacity of policy entrepreneurs to drive change against the resistance of the greater part of the policy community in the policy stream.

5.4.4. Banging against the window frame: The Australian Fish Names Standard

The second key demand identified by the Committee during the Senate inquiry was for making the AFNS mandatory in consumer-facing seafood labelling. The CLG had included this need for consistency in naming among the issues to be addressed by the group, secondary to achieving a definition of sustainability (Christoe 2015, p. 36). The AFNS was already mandatory for Australian fisheries exports (Commonwealth of Australia 2014b, Submission 17, p. 4), but the requirement at the consumer interface was to label fish with 'a name or a description of the food sufficient to indicate the true nature of the food' (FSANZ 2015, 1.2.2-2 s1(a)). Further, in the *Australia New Zealand*

Food Standards Code, consideration is given to whether compliance with a standard produced by an organisation accredited under Australian Standards should be mandated (Productivity Commission 2006, Submission 119, p. 4). The use of mandatory fish names is also an area of divergence between Australia and NZ. The NZ Ministry of Primary Industries maintains a list of approved domestic and foreign fish names, common and scientific, to be mandatorily used not only by exporters but also by processors and importers (NZ Food Safety 2019). Conversely, in the Australian retail sector, the generalisation of fish names has been an extended practice:

> *It used to be that you could go to Coles and Woolies and there'd be a bag that had 'white fish' written on it and I think that some information about where it was caught (Respondent#0117, consultant)*

> *Australians have had this history of mislabelling fish because see, and the reason the fish people did this was because Australians in any one city have got their, what's the word, their historical likes and dislikes. In Spain and Italy they eat hake, merluccio, in Australia that's considered a shit fish right? So we've got these things and you know for years it was a problem in Australia to sell something new because all people wanted to buy in the old days was snapper and whiting and flathead depending on where you lived in Australia and then shark, we've never liked selling shark as shark, we've always given it the name of 'flake' or in Sydney it used to be called 'boneless fillet', see that's a good example. When people sold shark as boneless fillet nobody worried about that. (Respondent#2417, researcher)*

Mandating the AFNS had implications in two areas. First, promoters of the AFNS argued that the lack of a mandatory standard enabled product substitution, whereby cheaper species were marketed with names associated with more expensive product:

> In the 1970s, the name 'Butterfish' referred to Coorong Mulloway, which was caught in abundance. As this fish population declined, Flake (shark) was often labelled 'Butterfish'. Throughout the 1980s and 1990s, Gemfish (NZ) and Hake (South Africa) took on the name. In recent years, Basa from the Mekong Delta in Vietnam is most often sold as 'Butterfish'. The dubious farming practices used in this area have been well documented. Clearly, the term 'Butterfish' has become meaningless. It is a convenient front for whatever the retailer chooses

> to sell under the moniker. (Commonwealth of Australia 2014b, Submission 18, p. 1)[34]

Second, the lack of standard fish names has implications for sustainability in that imported product from unsustainable fisheries can easily evade border controls and compete with domestic product subject to environmental regulations:

> The term 'Flake' refers to shark flesh sold in Australian fish and chip shops, particularly in southern Australia. Over the last half century, most of the flake sold in these shops has come from gummy shark (*Mustelus antarcticus*) sourced from Australia's southern shark fishery. More recently, the term 'flake' has been used to cover any shark sold in southern Australia, including imports from unsustainable shark fisheries such as those from South Africa's Demersal Shark Fishery, and even shark species on the IUCN [International Union for Conservation of Nature] red list. (Commonwealth of Australia 2014b, Submission 13, p. 1)

> *CITES species are supposedly on the radar of the Department of Environment but I don't think anyone's actually checking. So if you brought in a great white shark and call it a bronze whaler shark no one would know. (Respondent#3317, consultant)*

The need for a mandatory standard for consumer information, and for environmental and public health reasons, was summarised in a submission by a private individual, Robert Lamendin. Robert Lamendin is the main author of a study on product substitution in Tasmanian retail outlets (Lamendin, Miller & Ward 2015):

> The message that we, as the authors of this study, wish to send is that stronger seafood regulation, in the form of a clear and standardised naming system (we nominate the Standard Fish Names list developed by the now defunct Seafood Services Australia) is key to preventing seafood mislabelling and substitution, and would promote informed consumer choices.
>
> At this time, standard seafood names are not mandatory—they are therefore open to various unhelpful, if not misleading, interpretations. This not only

[34] A different use for the term 'butterfish' was described in 2002 in a disease outbreak report related to two fish species with purgative properties: 'In Victoria, escolar (*Lepidocybium flavobrunneum* and *Ruvettus pretiosus*) and rudderfish (*Centroioplws sp.*) are commonly marketed under the name "butterfish". True butterfish, (*Scatophagus sp.*) is caught as a by-catch in seine nets and traps in the shallows of northern Australia' (Gregory 2002, p. 439).

> places consumers at risk of being subject to economic fraud—jeapordising [sic] confidence in local product—it may also serve to undermine the efforts of campaigns for sustainability and ecosystem health. Issues of human health may also stem from this. (Commonwealth of Australia 2014b, Submission 24, p. 1)[35]

The demand for the regulatory use of standard fish names was explicitly stated in the submissions by SIAA, Greenpeace, the Sydney Fish Market, NSIA, SSIA and TRAFFIC, FRDC, NSWFA, Coles, Richard Lamendin, Simon McGuire, Matthew Evans and WWF; that is, the seafood industry, large retailers, environmental NGOs and one submission from the food regulatory regime and fisheries management. The adoption of the standard was particularly foregrounded in the submissions and hearings by the FRDC (the organisation accredited to develop the AFNS), CLG, SSIA and TRAFFIC and Simon McGuire. Arguments for adoption related to consumer information. First, Lamendin, McGuire, Greenpeace, AMCS and Matthew Evans argued that current regulation allowed product substitution. Second, as stated in the submissions and hearings by SSIA and ABFA, it enabled the free riding of imports on Australian names such as 'flake' or 'barramundi', leading consumers to believe they were consuming a domestic product. Third, regulations created differences in the regulatory treatment of imports and export fisheries, the latter of which had to comply with the AFNS, as stated in the FRDC submission. Finally, sustainability considerations were only stated in the SSIA and TRAFFIC submission, in the submissions by NGOs, and in the submission by the CLG attached to the FRDC submission. These actors reminded the Committee that the correct naming of fish is one of the key indicators of sustainability in the labelling of seafood.

The seafood retailers' representative group, MFMA, explicitly opposed the adoption of the fish names standard. The arguments used by the seafood retailers stressed the apparent weaknesses of the AFNS and warned of consumer opposition to unfamiliar names. The occurrence of mislabelling was played down as 'anecdotal evidence', which could not be contradicted by seafood industry witnesses advocating mandatory labelling,

[35] The report of the Victorian outbreaks noted: 'Investigation of the 3 Victorian outbreaks revealed that the chefs of the restaurants where the outbreaks occurred were unaware of the purgative properties of escolar and rudderfish. In addition, receipts retained by the restaurants indicated that "butterfish" was purchased so the chefs were also not aware of the correct species that had been purchased on these occasions. The purgative properties of escolar and rudderfish have been documented in literature but outbreaks may be poorly recorded' (Gregory 2002, p. 439).

none of whom could report personal experience of mislabelling events, arguing that either the incidence had diminished or that information was difficult to find (Australia 2014a, pp. 16, 33).

The importance of CoOL and the standardisation of fish names for fishers and aquaculturalists was quickly recognised by the Senate Committee members, as expressed by Senator Bullock: 'The arguments for country-of-origin-labelling and the Australian Fish Name Standards have got me hooked' (Australia 2014b, p. 52). Likewise, Senator Lines said:

> 'Flake' needs to refer to your fish—Australian fish name, standard issue; we have to ensure that we get that right—and country of origin labelling needs to apply to fish shops, and you are done and dusted.
>
> Mr. Ciconte: Correct. (p. 59)

This initial opinion of the Committee members would change, and the final report did not include a recommendation to adopt the AFNS, save for the additional reports of Nick Xenophon and the Greens. Criticisms regarding the quality of the standard from different sectors and, especially, the intervention of the public governors of fisheries greatly undermined the chance of a recommendation to adopt the AFNS.

In the fisheries and food regulatory framework, only the joint submission by the NSW Food Authority and Fisheries NSW noted that product substitution occurred with seafood and recommended 'the mandatory adoption of a consistent approach' to reduce confusion among consumers and industry (Commonwealth of Australia 2014b, Submission 19, p. 6). Another two agencies, Queensland's DAFF and the Department of Agriculture, referred positively to the AFNS in the context of consumer information but rejected its mandatory adoption. In both these cases, consideration was given to consumer protection and trade regulations, domains that fall outside the scope of fisheries management. Sustainability considerations, which fall under the fisheries portfolio, were not mentioned:

> A voluntary Australian Fish Names Standard (AS SSA 5300) has been published which provides guidance on standard fish names to be used in Australia. Inconsistent use of fish names is confusing for consumers and can affect consumer confidence in the quality and safety of seafood. The Australian

> Fish Names Standard is a voluntary code prepared by Seafood Services Australia to establish consistent names for fish species so consumers can make informed purchasing decisions. The Australian Fish Names Standard is referred to in the Code, but the Code does not mandate compliance with the standard. The government encourages the development of Australian Fish Names Standards especially where they reflect consumer trends and preferences. (Commonwealth of Australia 2014b, Submission 11, pp. 5–6)

The reluctance of the public governors to recommend the adoption of the standard, as in the case of CoOL, was based on the commitment of the Australian governments to 'cut red tape and reduce regulatory burden for business, especially small business' (Commonwealth of Australia 2014b, Submission 11, p. 2; Submission 4, p. 1). The implications of the adoption of the standard were made explicit by FSANZ:

> In our standard 1.2.2 we certainly do reference the Fish Names Standard that was developed some years ago, but that has no legal weight at all. It is basically a reference, and there is information provided in the standard for anyone who wants to pursue that to follow it through there. I think the reason there would be difficulty in getting this across the line is that, with any work that we do, because we are developing standards that eventually become regulations through state and territory law, we have to go through a benefit-cost analysis. Our sense is that it would be very difficult to prove a genuine net public benefit from extending labelling into all those areas given the additional cost that would be imposed on industry to provide that sort of labelling. (Australia 2014a, p. 68)

The cost of the regulations for the foodservice sector was again the contentious issue, as in the case of CoOL, and situated the adoption of the AFNS as part of the confrontation between the fishing industry and the foodservice sector. This opposition was framed vocally in the politics stream by the then Parliamentary Secretary to the Minister for Agriculture, Senator Richard Colbeck (2013–2015), who would later serve as Assistant Minister for Fisheries and Forestry between 2018 and 2019 (Department of Health 2019, para 9):

> Senator WHISH-WILSON: I think the lobby groups for some of these business organisations, such as the Food & Grocery Council and packaging industries and others, tend to have tip of the iceberg concerns. On SBS the other night,

> Senator Colbeck was interviewed about this and he said, 'If we start labelling species for fish we might have to do it for carrots,' or something like that. Personally, I do not really know what that has got to do with sustainability. (Australia 2014b, p. 34)

> *I discussed the subject of correct naming of seafood throughout the supply chain with Senator Colbeck. I got the impression that he didn't understand the importance, not only to the consumer but also to fisheries management of getting the names and country of origin labelling right in the food service sector. His response to me was along the lines of it being too politically risky to impose correct labelling on fish and chip shop owners. (Respondent#1317, research funder)*[36]

As Senator Whish-Wilson identified, the Senator responsible for fisheries did not consider correct fish naming as a key indicator of sustainability, nor did he give any credence to the effects of inconsistent naming on the competition in the market between well-managed fisheries and potentially unsustainable ones. The opposition to the mandatory adoption of the AFNS illustrates the reluctance of fisheries managers to be involved in the post-harvest sector, even when regulatory interventions sought to drive policy change towards the sustainability objectives pursued under the Fisheries Acts. It also showed the sensitivity of the politics stream to pressure from the interests of the foodservice sector, and the lack of consideration of sustainability objectives in the post-harvest space:

> *The other thing that was said to me when I first got into this industry, the difference between a rock lobster and a prawn is a difference between a horse and a cow. So it's not like saying 'this is a piece of, this is a rib eye and this comes from this particular cow', that's not that. This is talking about a completely different species altogether. And that's what they [the Committee] didn't get. The other thing the Commission [sic] didn't understand was correct labelling at retail and wholesale level has implications for fisheries managers. If you start changing the name of that fish how do you ever do an audit of the fish? In fact, it can work either way. You can either have a lot more fish sold at retail level than was ever caught, or you can have more fish caught than were*

[36] Quotation revised by the respondent.

> *ever sold. You just get that disconnection. (Respondent#1317, research provider)*

The Committee understood that industry was 'banging [its] head against a brick wall' in pursuing a mandatory standard for fish names (Australia 2014b, p. 9). Neither the public governors in the harvest space (i.e., fisheries managers) nor the public governors of the post-harvest space (i.e., food safety and consumer law) considered fish names in labelling an issue requiring government intervention. According to Senator Xenophon, the Committee 'could have gone further' by not only acknowledging the importance of consistent naming but also recommending its adoption (Commonwealth of Australia 2014b, p. 47). However, their approach was understandable in view of the doubts raised by several actors, included those in charge of promoting greater advocacy for fish names (e.g., the NGOs) and those mandated with promoting sustainability in the harvest space (i.e., the fisheries management agencies).

5.4.5. Backgrounded issues: Sustainability

The lack of consideration of the sustainability implications of the correct naming of fish illustrates the secondary importance awarded to the discussion of other issues related to sustainability objectives. These issues, some of which were present as separate items in the terms of reference, were lumped together into the second half of Chapter 4 in the report of the committee:

> The committee expects that greater consumer awareness brought about by the expansion of CoOL as recommended by this report, together with 'buy local' campaigns that will inevitably follow, will drive positive sustainability outcomes. Consumers will ultimately decide whether they are happy to purchase Australian or imported product or whether they want additional labelling information, including method of capture, to make informed choices. Ultimately, it is in the interests of retailers, supermarkets and the services industries to provide the information demanded by consumers. For this reason, information such as catch method, gear type and related information including traceability may well become important opportunities for branding and therefore selling points for retailers and restaurants. (Commonwealth of Australia 2014b, p. 41)

The exclusion of requirements for sustainability from mandatory labelling (included the AFNS in the first half of Chapter 4) reflected, once again, the influence on the Committee of the public governors of the harvest and post-harvest spaces, who claimed that sustainability was a consumer value and should be the object of voluntary intervention. The joint submission by the NSW Food Authority and Fisheries NSW, for example, reminded the Committee that sustainability had been expressly mentioned in the Blewett report as belonging to the domain of consumer values, placing it within the Australian Consumer Law framework rather than mandated by government (Commonwealth of Australia 2014b, Submission 19, p. 3). Similarly, the Queensland Department of Agriculture, Fisheries and Forestry noted that 'the current labelling requirements allow businesses to provide information to consumers regarding the sustainability and provenance of food, including seafood that they sell' (Commonwealth of Australia 2014b, Submission 4, p. 2). On the other side of the spectrum, environmental NGOs and Matthew Evans strived to make the case for more comprehensive labelling that contained elements of sustainability such as provenance, gear and production methods, following the recommendations of the CLG (Commonwealth of Australia 2014b, Submission 16, p. 1; Submission 15, p. 1; Submission 6, p. 4). However, the framing of these demands presented a number of problems that isolated them from the rest of the policy community.

First, the NGOs made it clear that CoOL was not an acceptable proxy for the accreditation of sustainability since, among other things, it posed problems for imports (Commonwealth of Australia 2014b, Submission 6, p. 5; Submission 21, p. 2). Although both Greenpeace and the WWF sided with the seafood production industry in acknowledging the importance of the NT licensing conditions (Commonwealth of Australia 2014b, Submission 6, p. 5; Submission 21, p. 2), their detailed labelling requirements, which included gear and methods of production, as well as FAO areas to indicate origin instead of countries, undermined the construction of CoOL as a proxy for sustainability pursued by the Senators and the industry. Further, these requirements formed part of a common demand on the part of the environmental NGOs Greenpeace, WWF and AMCS to adopt EU labelling regulations; a demand formulated in October 2014 as the *Label My Fish* campaign (Sealife Trust 2014). This set the big environmental NGOs against the seafood industry and government officials, and the Committee fomented the siloing of interests by grouping the NGOs together in the

hearing in Sydney. In their report, the Committee noted the labelling requirements contained in the EU labelling scheme as a 'reinvention of the wheel', adopting the wording from one of the industry representatives (Commonwealth of Australia 2014b, p. 37). In stating its position, the Committee aligned with the seafood industry and government in considering the EU labelling regulations as an unnecessary regulatory burden, instead favouring the construction of CoOL as a proxy for the sustainability of the Australian fisheries:

> Sustainability and provenance labelling
>
> While there were many divergent views in relation to seafood labelling, most witnesses were in agreement that CoOL should be extended to include the food services sector. The committee holds the view that steps beyond this, including the introduction of an EU-type labelling model, would require substantial changes to industry structures which would be onerous for the Australian industry and premature in terms of consumer awareness. (Commonwealth of Australia 2014b, p. 41)

Issues related to product sourced from IUU fishing and the traceability of seafood products fell victim to this marginalising of the demands promoted by NGOs, as will be explored with more detail in Chapter 6. At the core of the demands was a fundamental difference in the approach to labelling as a regulatory tool. For the NGOs, labelling was more than a consumer-facing tool:

> *Once there's some sunshine on the chain of custody all the way through, then some of the more damaging, more kind of morally bad practices like overfishing, illegal fishing, slavery and so forth, will start to be eliminated, so we wanted in the labelling the place of catch to be recorded, not the exporting country for example, but we also wanted behind the labelling for a company to be able to produce on demand the vessel that caught it, the time window it was caught in, a whole lot of detail, the vessel master, processing facilities, etcetera. So ours was about making sure that companies understand their supply chain and if you are selling a product that is on the shelf or delivered to the back of a restaurant, you can find out all of this information if you want. That was our context. It was about getting more information about fishing to be recorded in the first instance so that we can then go about improving the industry. Probably secondarily the consumer having that information, to be honest. (Respondent#5017, NGO representative)*

The notion of labelling as a regulatory tool to bring transparency to the supply chain and eliminate unsustainable practices was only shared by environmental NGOs, Matthew Evans, a joint submission of SSIA and TRAFFIC, and the submission by the Uniting Church. The inquiry process excluded this role for labelling from the framing of the issue in two main ways: in defining traceability as a regulatory tool to ensure food safety (Commonwealth of Australia 2014b, pp. 8–9), and by excluding and/or recontextualising the submissions. The Uniting Church was completely ignored in the Committee report (although it would find its way into the coupling of streams that ended in the *Modern Slavery Act 2018* [Cth]). The joint submission by SSIA and TRAFFIC was framed as a problem of adopting the NT regulations (Commonwealth of Australia 2014b, p. 12) and correct fish name standards (Commonwealth of Australia 2014b, p. 30), with the consent of the industry member representing this submission in the hearing (Australia 2014b, p. 59). Finally, as in the hearings, environmental NGO submissions were grouped together in the Committee report under the policy transfer of EU Regulation 1379/2013. Arguments by fishing associations, the FRDC, food authorities and fisheries managers opposing the adoption of regulations similar to those in the EU relied on familiar tropes: unnecessary regulatory burden for the industry, inadequacy of the legislation for the Australian context, likely barriers to trade and the inadequacy of labelling for addressing sustainability as a consumer value.

The report showed the contours of this confrontation: on the one hand, Evans, the environmental NGOs, Xenophon and the Greens defending the adaptation to Australia of the EU labelling laws in additional comments to the report; and on the other hand, bipartisan Committee views, the governors and the seafood industry opposing policy change for changes in labelling requirements for traceability and sustainability. The framing of labelling as a consumer-facing tool that would exclusively admit consideration of CoOL demands had been completed.

5.5. Further developments of the CoOL demands

The Senate inquiry rode in the wave of a larger political process on the reform of CoOL for food products that had resulted in a parliamentary inquiry taking place at almost the same time in 2014. The inquiry for the general reform of CoOL revealed the extent of the opposition of the foodservice sector to the demands of the seafood industry at the retail interface and the sensitivity of the political stream to their pressure. This was

instrumental in excluding the NT licensing requirements from the general CoOL reform by relegating it first to COAG, and then to a working group in the Department of Industry and Innovation, whose work has not led to a government position on this issue. 'Riding out the storm'; that is, delaying the resolve of an issue until the policy window closes, is a classic strategy for opponents of policy change (Kingdon 1995, p. 170). After the reforms of CoOL were regulated in 2016, the use of these strategies may indicate that the momentum for policy change at the federal level has stagnated indefinitely.

Only the seafood industry demands to adopt the NT laws were considered in the general reform, and these were framed again as a consumer issue without consideration of their implications for fisheries management. The hospitality sector did not confront the seafood industry in the Senate inquiry, but it did in the parliamentary inquiry (Commonwealth of Australia 2014a). The initial 54 submissions to the parliamentary inquiry on CoOL (Commonwealth of Australia 2014a) included those of APFA, ABFA, FRDC, NTSC, NSWFA, NSIA, MFMA,[37] the Department of Health, the Department of Agriculture, and the Australian National Retailers Association. The discussion of the NT licensing conditions took place as a case study and the Committee drew the food service sector into participation:

> 4.117 The Committee invited the Restaurant and Catering Industry Association of Australia (RCIAA) to appear at a public hearing to discuss country of origin labelling in the food service sector and address the issues raised by the seafood industry organisations that made submissions to the inquiry.
>
> 4.118 Mr John Hart, Chief Executive Officer of the RCIAA, was very straightforward in outlining the Association's position:
>
> Our association opposes any suggestion that the labelling requirement should be extended or the exemption removed for unpackaged food, particularly that served in restaurants—unsurprisingly. (Commonwealth of Australia 2014a, p. 62)

[37] APFA: Australian Prawn Farmers Association; ABFA: Australian Barramundi Farmers Association; FRDC: Fisheries Research and Development Corporation; NTSC: Northern Territory Seafood Council; NSW FA: New South Wales Food Authority; NSIA: National Seafood Industry Alliance; MFMA: The Master Fish Merchants' Association of Australia.

Unsurprisingly too, the debate resulted in a confrontation between the foodservice and s industry sectors, which the Committee directed to the executive:

> The Committee recognises that the Northern Territory has a unique labelling scheme for seafood in the food service sector. However, the Committee is of the opinion that as seafood is the only substantial protein source marketed in Australia that is not predominantly sourced locally, a case may be made that it should be treated differently to other sources, for instance beef and lamb. The evidence from the Northern Territory would suggest once implemented, mandatory country of origin labelling for seafood at all points of sale has been welcomed by the Northern Territory community. However, the Committee considers it did not receive enough evidence in this area to make a firm recommendation for its wider implementation, and accordingly recommends the issue receives further examination by the Council of Australian Governments. (Commonwealth of Australia 2014a, pp. 138–9)

This excluded the issue from the Regulatory Impact Statement conducted for the reform of labelling laws and blocked the adoption of the Food Standards Amendment (Fish Labelling) Bill 2015 resulting from the Senate inquiry. The polarisation of the debate between the fishing industry and the hospitality sector and its leaking into the politics stream was evident in the voting of this bill, sponsored by the Greens, the Xenophon Group and independent Senators formerly belonging to the Palmer United Party. As seen above, the Parliamentary Secretary to the Minister for Agriculture was the person in charge to take into account the interests of the foodservice sector, reproducing the arguments that the Department of Agriculture had put forward against regulatory indications of origin, fish names or sustainability information:

> Since the release of these recommendations, the parliamentary secretary responsible for fisheries, Senator Colbeck, has come out and said that mandatory country-of-origin labelling would be costly and impractical for the restaurant sector. He said: 'There is nothing to stop food outlet services voluntarily promoting the source of their seafood on menus and menu boards.' (Australia 2015, p. 3119)

Advocacy to follow the steps of the NT in labelling has continued after the failure to lift the exemption at the national level in 2015. The Senate supported the recommendation to lift the standard a third time in its *Inquiry into Opportunities for Expanding the*

Aquaculture Industry in the Northern Territory (Commonwealth of Australia 2016b, p. xxiii) but the government response noted that the matter was being studied by a working group formed in the Ministry for Industry and Innovation in 2016 (Department of Industry, Innovation and Science 2017). Also in 2016, the Productivity Commission analysed the issues of CoOL and the AFNS as part of its report on marine fisheries and aquaculture (Productivity Commission 2016, pp. 274–84). The Productivity Commission, like the Blewett report, recommended against modifying the information standard and against the mandatory adoption of the AFNS (Productivity Commission 2016, p. 42). In the background, the issue has become a confrontation between stakeholder interests, with the government in an arbitral position:

> *There's a real contention between food service and retail on that one and there's literally government debates with industry happening as to whether there should be something at food service or not. And the feeling that it's just an overburden of regulation on all the small businesses that run pubs and cafes and clubs and all the rest to actually have to label that stuff on menus or blackboards. You know the feeling very much is that you should be able to ask the wait staff or the person to serve when you order the product where it comes from and they should be able to tell you where it comes from. (Respondent#3317, consultant)*

There is still demand to lift the exemption, with the national peak seafood body, SIA, listing this as its main goal after social licence (Seafood Industry Australia 2019, para 7); therefore, further developments might be expected. However, the Minister of Industry and Innovation has not issued the findings of the working group formed to provide advice on the issue as of August 2019, two years after the original reporting date (Department of Industry, Innovation and Science 2017, p. 2). The entry into force of the Information Standard 2016 in July 2018 might well have signalled the closure of the policy window. There is no longer a policy entrepreneur promoting policy change within government at the federal level. Nick Xenophon retired from the Australian Senate in 2017 and from political activity in 2018, and while Matthew Evans continues individual efforts to advocate for better labelling, the *Label My Fish* campaign is no longer active. Campaigners still hope that the continuing success of the NT regulations may constitute a potential driver for the implementation of similar legislation in other states, if not at the federal level:

> *It's worked on a, small, on a very rudimentary level in the Northern Territory and every indication is that it would be a boon to restaurants and the seafood industry if it was done nationally. But there's certainly opportunities for the states to go it alone. It's sad to see that, you know, you get that in New South Wales, I think Victoria would be considering a law as well. I think that it then just goes to show that there's a lot of powerful interests against it, but I think it will happen but it may have to be on a state basis. It will be much more difficult on a national basis. They know it works, they know it's good for the seafood industry, it's good for sustainability, it's good for the hospitality industry but there are very powerful lobby groups. (Respondent#5117, campaigner)*[38]

Individual states have attempted to pass legislation on CoOL in the foodservice sector. This has been the case in NSW, where the Food Amendment (Seafood Country of Origin Labelling) Bill (NSW) was not passed into law in 2017. The seafood industry continues to pursue the avenue of CoOL through campaigns and targeting upcoming institutionalised events, such as the next state election in Queensland in 2020 (Seafood Industry Australia 2018). However, the construction of the issue by the seafood industry actors and the response of the regulatory framework remains unaltered and faces similar problems to those encountered in the design and implementation of voluntary tools. Conflicting demands from the different industry actors; a disconnection between the regulatory frameworks for sustainability and for consumer protection; difficulties in the construction of the problem in a manner suitable for the governing regime; problems in agreeing on common goals with the civil society sector; and difficulties in establishing the target audience for behavioural change: all of these inhibit the capacity to communicate information to consumers and raise community awareness that fisheries management mostly corrects or prevents overfishing.

5.6. Conclusion

The political process to demand mandatory labelling for seafood across the retail sector seems to have been closed at the federal level after the exemption was included in the new *Country of Origin Food Labelling Information Standard 2016*. Advocacy by the seafood industry has shifted from the Commonwealth sphere to some state jurisdictions, such as NSW and Queensland. However, the food regulatory regime and fisheries

[38] Quote revised by the respondent.

management governors have so far resisted these efforts, arguing consumer values should not be used as an avenue to create price premiums for domestic seafood producers against the perceived interests of the foodservice retailers currently exempted from indicating the origin of seafood. NSW has rejected a first attempt to lift the exemption for the foodservice sector. The industry continues to explore the potential of this avenue and the next attempt to adopt regulations at the state level will possibly take place in Queensland in 2020.

In the meantime, the construction of sustainability as a market failure that provokes an inefficient allocation of resources between sustainable and unsustainable fisheries remains a potential alternative to CoOL. Product substitution, the presence of product sourced from IUU fisheries, regulation for transparency along the supply chain, and the equal treatment of imports and domestic produce for sustainability were downplayed alike by the governors and key actors in the governed industries. If the window of opportunity closes on CoOL in the foodservice sector, it might be useful to revisit this construction to shape future demands by the industry to address problems arising from the lack of differentiation regarding sustainability in the retail sphere. To do this, the involvement of the public governors in the control of sustainability along the supply chain is a necessary factor.

In the past few years, the awareness that downstream processes have implications for the sustainability of fisheries under management regulations has increased thanks to the institutionalisation of IUU fishing as a global policy problem. Efforts to prevent the presence of IUU-sourced product have resulted in state intervention to prevent this type of market failure by means of traceability schemes. Whether these efforts may enable similar interventions in the Australian context is explored in the next chapter.

Chapter 6. Traceability and the fight against illegal, unreported and unregulated fishing

A regulatory tool for preventing the importation of some seafood has emerged internationally, based on providing assurance of the legality of the seafood sold. Thus far, measures regarding the legality of imported seafood have been applied in the EU and the US. Concerns about the lawful sourcing of fish are linked to the emergence of IUU fishing as a global issue over the past two decades. Efforts to address IUU fishing have resulted in multilateral and unilateral measures to prevent IUU products from entering key markets, based on the provision of traceability documentation that traces the transit of fish to the point of harvest. Trade-related measures to prevent IUU fishing have so far been deemed compatible with the multilateral trade regime.

The legality of seafood can act as a proxy for sustainability. The examples of the EU's and US's trade-related measures against IUU fishing show that informational regulation may enable a level playing field for domestic fisheries, based on the construction of sustainability as a market failure. This is closely linked to two conditions: the intervention of fisheries management in the post-harvest space in the pursuit of social and economic objectives; and the willingness of the industry to commit to improved transparency in the supply chain. Whether Australia follows this trend will depend largely on whether the legality of seafood emerges as a pre-competitive requirement, associating the sustainability of fisheries with the legality of seafood sold in the Australian market. If anti-IUU regulations on imports were to be introduced in Australia, the role of traceability would have to be extended beyond its current use in ensuring food safety, to also ensuring the lawfulness of fishing activity.

The viability of this policy change hinges, importantly, on the implication of the public governors for fisheries. In the EU and the US, anti-IUU trade-related measures are legislated through fisheries management. In Australia, with fisheries legislatively decoupled from the post-harvest space and IUU primarily perceived as a threat to Australian seafood exports, this new proxy for sustainability regulation is yet to emerge in the domestic market.

This chapter explores first how IUU fishing was crafted as a proxy for sustainably managed fisheries, and came to be accepted as such by state and non-state actors in the EU and the US. It also looks at how this construction made trade-related measures against IUU fishing acceptable as a means to reconcile conservation and exploitation goals all the way along the supply chain. Then, the specific framing of the prevention of IUU fishing in Australia is presented, in comparison to the EU and the US, to explain why the assurance of legality—and the role of traceability as a means to accredit it—has not emerged yet as a policy issue in the Australian domestic market. Finally, it explores whether an industry demand for better traceability of seafood, whether to prevent IUU or to serve sustainability objectives, may emerge in the near future.

6.1. Illegal, unreported and unregulated fishing and the regulation of the high seas

IUU fishing defines three categories of fishing activities deemed harmful for the exploitation of fish stocks (i.e., illegal, unreported and unregulated fishing). The conflation of concerns under the label 'IUU fishing' emerged in the late 1990s and served to advance a proxy for sustainability based on the accreditation of legality in the sourcing of seafood. This proxy was established around the necessity of regulating access to fisheries to prevent the 'tragedy of the commons' on the high seas, and reconciled the interests of those state and non-state actors aiming for conservation of stocks with those seeking to establish who should be profiting from valuable fisheries.

Concerns around different forms of fishing in a regulated area of the high seas first appeared formally grouped together as IUU fishing in the report of the XVI meeting of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR; 1997, p. 8; Palma, Tsamenyi & Edeson 2010, p. 26). The discussions in the CCAMLR meeting reflected the participants' preoccupations with various forms of breaches of Regional Fisheries Management Organisation (RFMO) regulations: illegal fishing in the EEZs of CCAMLR members by vessels from other countries, notably of CCAMLR members in violation of the exclusive rights of coastal states over fishery resources in the EEZs; unreported fishing by members and non-members, constituting a significant number of undeclared catches breaching CCAMLR reporting obligations; and unregulated fishing by non-contracting parties to CCAMLR—that is, vessels fishing the

high seas of the Convention area flying flags of non-member states (CCAMLR 1997, p. 127).

CCAMLR is a multilateral fisheries management organisation concerned with the conservation of fishery resources for their sustainable exploitation (CCAMLR 1980, p. 4); IUU fishing has been identified as a threat to both goals. The 'threat to Antarctic fish stocks and bird populations' (CCAMLR 1997, p. 8) that they identified related mainly to the lucrative Patagonian toothfish fishery (Agnew 2000, p. 361; Grilly et al. 2015, pp. 186–7), which has since become the most important species caught in the Southern Ocean (Christensen 2016, p. 141; Fallon & Kriwoken 2004, p. 222). The rapid decimation of toothfish stocks and abundant mortality of seabirds caused by the longliners' harvesting of toothfish propelled IUU fishing onto the agenda of CCAMLR, as a problem of how to enforce the RFMO's conservation measures on both member and non-member states (CCAMLR 1997, p. 9).

Enhancing compliance with the conservation measures of multilateral fisheries bodies presented considerable challenges within the RFMO-UNCLOS regime. The main challenge was making all forms of IUU an offence, especially unregulated fishing. Unregulated fishing refers both to fishing where there is a 'lack of regulations governing a particular area, fish stock, or type of vessel', and to fishing by non-contracting parties in an RFMO-managed area (Palma, Tsamenyi & Edeson 2010, p. 48). The tendency to equate unregulated with illegal fishing reflects the attempt to overcome two fundamental constraints in the architecture of the public international law of the oceans with regard to restricting access to fishery resources: the *pacta tertiis* rule and the *mare liberum* doctrine. The *pacta tertiis* rule establishes that international treaties bind only the contracting parties and not third parties without consent (Serdy 2017, p. 345). This is a cornerstone of international law. Meanwhile, the Grotian notion of the *mare liberum*, established in the 17th century, grants freedom of navigation and fishing on the high seas. The combination of freedom of access and the *pacta tertiis* rule restricted the 'illegality' of violations of international instruments in fisheries on the high seas and in areas managed by RFMOs. Therefore, a vessel whose flag state is not a signatory of the relevant international instrument nor a member of the RFMO managing the fishery would, in theory, not be bound to the conservation measures and could thus fish legally in the RFMO area using the same practices as would be deemed illegal for a vessel of a member state. The members of CCAMLR were keenly aware of this:

> *We had a workshop in Australia on IUU fishing and I said well we want to get to the legal part of this, the unregulated part because at that stage there were parts of the ocean where there weren't regulations in place and the unreported part which was coming out of illegal activity, and the stupidity of it is in CCAMLR you cannot be a member of CCAMLR, you can flag your boats to a to a flag of convenience place like Togo or somewhere and you can fish in CCAMLR and catch as many fish as you like and CCAMLR can't do anything about it. (Respondent#1917, fisheries manager)*

The conflation of the three categories under the umbrella term 'IUU fishing' and the frequent use of 'illegal' fishing to refer to either or all of them served to improve the capacity of multilateral organisations to enforce conservation measures on non-members and restrict access to fisheries on the high seas. With coastal waters already under the jurisdiction of national states, the urgency was now to bring geographical areas and fish stocks (e.g., discrete fish stocks and deep-sea fisheries) under the management of regional organisations and to strengthen their powers. In this process, open-access fisheries were increasingly seen as a 'geographical and substantive regulatory gap' (Molenaar 2005, p. 533) that needed to be addressed by expanding the coverage of regional fisheries bodies to prevent IUU fishing and deter destructive fishing practices. Unregulated fishing was singled out as a key concern in several international instruments, including the United Nations (UN) Fish Stocks Agreement, Agenda 21 and the FAO Code of Conduct for Responsible Fisheries (Palma, Tsamenyi & Edeson 2010, p. 48). UN resolutions in this respect, such as Resolution 59/25, are clear indicators of the urge to expand multilateral governance and regulation (Molenaar 2005, pp. 538–45), while UN Sustainable Development Goal 14 has as one of its targets to 'effectively regulate harvesting and end overfishing, illegal, unreported and unregulated fishing' of the oceans (United Nations Knowledge Platform 2018). Even legal scholars who criticise the equation of unregulated with illegal fishing consider the goal to regulate fishing on the high seas legitimate: 'If rebuilding of stocks requires abolition of the residual freedom of high seas fishing, which the author would not dispute, then attention needs to turn to how states are to be persuaded to relinquish this freedom' (Serdy 2017, p. 357). The *International Plan of Action to Prevent, Deter, and Eliminate Illegal, Unreported and Unregulated Fishing* (IPOA-IUU) in 2001, the Port State Measures Agreement in 2009 and the unilateral US and EU trade measures in 2008 and 2016 are milestones in the process whereby an increasing number of states

have been persuaded to accept the restriction of access to fisheries resources in the name of conservation goals and to collaborate in enforcing compliance of conservation measures to prevent IUU fishing.

Key to securing acceptance for the fight against IUU fishing—in the form of restricting open access to the high seas, with the aim of conserving stocks and regulating all fishing—was a convergence of interests on the part of the various actors in fisheries governance. This included coastal states, RFMO parties and large fishing companies, as well as environmental NGOs, and labour and human rights organisations (Christensen 2016, p. 135), and occurred at a time when non-state actors were emerging as influential actors in international environmental governance. The different components of IUU fishing already existed well before the issue emerged as an urgent concern, as did most of the measures contained in the IPOA-IUU (Palma, Tsamenyi & Edeson 2010, p. 5). What was different was the context: 'what the IUU terminology did was to galvanise international efforts to address existing fisheries management concerns' (p. 5). The galvanisation of these efforts reflected the effectiveness of the framing of IUU fishing to reconcile dissimilar interests in conservation and profit. The key role of the NGO ISOFISH in the CCAMLR toothfish crisis exemplified the effectiveness of the alliance. ISOFISH, established as a joint initiative by a fishing company and environmental activists (Fallon & Kriwoken 2004, p. 235), was founded in 1997, the same year that the WWF and Unilever set up the Marine Stewardship Council. Its campaigns were important in communicating the urgency of the problem to the wider public, and it fulfilled other roles in governance complementary to those of the states, such as naming and shaming unlicenced fishers and focusing on the potential role of port states in preventing access to markets for IUU fishing sourced seafood (p. 242). The wide success of the narrative opposing 'good' fishers and conservationists to 'pirate' fishers (Österblom & Sumaila 2011, pp. 975–6) was key in the construction of IUU fishing as a form of transnational crime (Österblom, Constable & Fukumi 2011). The role of non-state actors in IUU fishing reflected their endorsement of the elimination of open access to fisheries as a means to achieve the double goal of preserving stocks and maximising the benefit for licenced fishers. Their successes in the construction and communication of the problem offered them increased access to international environmental governance (Österblom & Sumaila 2011, p. 978) and secured broad acceptance of the metaphor of the tragedy of the commons to justify the territorialisation of the oceans.

Attempts to introduce regulation on the high seas continue the process initiated in UNCLOS with the designation of territorial waters and EEZs, to reconcile the freedom of the seas with the economic interest of states in the conservation of valuable fishery resources (Christensen 2016, p. 138). Overexploitation of straddling and highly migratory fisheries like tuna provided further room for multilateral cooperation on implementing conservation measures for the open seas. The emergence of IUU fishing as an issue of concern provided another driver for regulating further areas of the ocean and restricting access to fisheries to the members of multilateral organisations and their vessels. The world's oceans 'had been enclosed, creating the conditions where illegal and unregulated fishing could occur' (p. 138). The rise of trade-related measures is a direct result of this context, in which the pursuit of protecting valuable fishery resources is situated in a space of overlapping sovereignties, the 'terraqueous territoriality': 'a distinctively capitalist articulation of sovereignty, territory and appropriation which tries to transcend the land–sea dualism though a periodic enclosure and parcelisation of the sea' (Campling & Colás 2018, p. 7). The regulation of the high seas can be considered an additional step in the capitalist creation and hierarchical arrangement of places for the exploitation of resources (Steinberg 2001, pp. 22–3).

However, the oceanic space resists this attempt at 'flattening' (Campling & Colás 2018, p. 790), and eliminating open access to fisheries in the terraqueous space remains an arduous task. Some examples of the challenge posed by the aquatic space to tracing further borders beyond the 200-mile EEZs include: 1) tensions in defining the three components of 'illegal', 'unregulated' and 'unreported', especially as concerns making unregulated fishing illegal; 2) the difficulty of effecting border control over expanses of water in distant regions to address IUU fishing in the EEZs; 3) the continuous presence of vessels flying flags of convenience[39] and flags of non-compliance; and 4) and the mobility of fish, which complicates the establishment of such borders. All of these are relevant to Australia, as explored below. Trade-related measures appeared in this context as an innovative approach to the challenges posed by international law to the regulation of fishing on the high seas. The trade-related measures approach

[39] A flag of convenience is a 'flag of a country that operates an open register, when the owner of the vessel that is flying the flag holds economic control, or resides in a country that is not the same as the Flag State' (Miller & Sumaila 2014, p. 206). A flag of non-compliance refers to a 'flag of a State that exhibits a consistent pattern of failure in compliance with its international obligations' (p. 205).

acknowledged the need to link conservation measures to the post-harvest space. This approach made regulated fishing a new proxy for sustainable management, and was carefully crafted to be acceptable to the liberal international trade regime governed via the World Trade Organisation (WTO).

6.2. From boats to fish: Trade-related measures to prevent, deter and eliminate illegal, unreported and unregulated fishing

The limitations of international law to enforce all fishers to comply with conservation measures provided the justification for trade-related measures in the prevention of IUU fishing. In 2001, the first global strategy against IUU fishing, the IPOA-IUU (Edeson 2001, p. 607), included a cautious role for market states in its toolbox of measures. This role expanded gradually as IUU fishing was increasingly approached as an economic activity that jeopardised the interests of licenced fishers. International organisations explored the economic drivers of IUU fishing and its implications and facilitated a reading of IUU fishing as an economic activity that distorted market conditions by, among other things, creating unfair competition and enabling seafood fraud. Increasing attention to trade-related measures resulted first in the adoption of the Port State Measures Agreement in 2009 and then in unilateral trade measures by the EU and the US in 2008 and 2016, respectively.

6.2.1. The emergence of multilateral trade-related measures

The consideration of IUU fishing as a crime that needed urgent action to strengthen the international regulatory framework led to the publication of the IPOA-IUU in 2001 (FAO 2001, p. 1). This was a non-binding compendium of measures that states could apply to fight IUU fishing. In the IPOA, market-related measures were to be interpreted and applied in accordance with the principles, rights and obligations established in the WTO, and implemented ‘in a fair, transparent and non-discriminatory manner’ (p. 17). The IPOA also made further statements on the complementarity of trade-related measures:

> Trade-related measures should only be used in exceptional circumstances, where other measures have proven unsuccessful to prevent, deter and eliminate IUU fishing, and only after prior consultation with interested states. Unilateral trade-related measures should be avoided. (p. 18)

The ‘exceptional circumstances’ contemplated in the IPOA as a necessary condition to engage in multilateral trade-related measures were exerting mounting pressure on states to approach their potential use. ‘Resource-deficient flag State agencies, regional fisheries management organisations (RFMOs) and international voluntary regulatory instruments struggle to keep up with motivated and dynamic fleets of IUU fishing vessels’ (Kuemlangan 2010, p. 262). In this setting, complementary ways to address IUU fishing were sought, initially by focusing on the role of port states as a first point of entry of seafood into the supply chain.

Port states had been allotted a passive role in the control of IUU fishing in the FAO Compliance Agreement and in the FAO Code of Conduct for Responsible Fisheries, but their potential usefulness was recognised by the Fish Stocks Agreement and in the IPOA (Witbooi 2014, pp. 298–9), and they became pivotal in the FAO’s *Agreement on Port States Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (2009), the first binding instrument to curb IUU fishing. The shift to port state control—that is, a focus on the supply chain after the harvest node—was an attempt to address deficiencies in flag state control of fishing vessel behaviour by deterring the entry of IUU catches into markets (Daley 2010, p. 28; Kuemlangan 2010, p. 262; Palma, Tsamenyi & Edeson 2010, p. 159; Witbooi 2014, p. 292).

The *Agreement on Port States Measures* was a step forward in the work to deter IUU fishing in several ways. First, it consolidated the necessity for ensuring sustainable fisheries management of verifying legality in the trade in seafood:

> ARTICLE 2
>
> The objective of this Agreement is to prevent, deter and eliminate IUU fishing through the implementation of effective port State measures, and thereby to ensure the long-term conservation and sustainable use of living marine resources and marine ecosystems. (FAO 2009)

Second, it signalled a more prominent role for trade-related measures than that afforded by the IPOA-IUU:

> The worldwide implementation of the Agreement coupled with better performance by flag States, supported by effective Monitoring, Control and Surveillance (MCS) and supplemented by market access and trade measures

> would not only strengthen international efforts to curb IUU fishing but would, as a result, also support the strengthening of fisheries management and governance at all levels. This will constitute a substantial contribution to protecting our oceans and ensuring that their wealth can be handed over to the next generations. (FAO 2009, pp. vii-viii)

However, the *Agreement on Port States Measures* suffered from the same limitations in international law that had made the control flag state behaviour deficient. First, the exclusive jurisdiction of states over their ports, and the inability or reluctance of many states to enforce controls, gave rise to the practice of 'ports of convenience', which was as prone to irregular behaviours as 'flags of convenience' had been, (Molenaar 2007, p. 226). These behaviours also stemmed from the fundamental problem of unregulated fishing, masked by the use of the IUU acronym: 'The basic problem with unregulated fishing activities within a RFMO area is that it [sic] is not illegal' (Schmidt 2005, p. 493). Finally, the port state measures were necessarily aimed at foreign vessels since national boats were already subject to national legislation (Witbooi 2014, pp. 291, 4). This had the potential to establish different yardsticks of inspection, monitoring and compliance for national and foreign vessels, coming into conflict with the trade law regime, as seen in the Chile–EU WTO dispute over the landing of swordfish in Chilean ports[40] (Serdy 2017, p. 356).

Underlying this shift towards trade-related measures were policy debates analysing the drivers for IUU fishing, including a three-year study by the OECD Committee for Fisheries. The results of this study were disseminated in research articles (Le Gallic & Cox 2006; Schmidt 2005) and two reports; namely, *Fish Piracy: Combatting Illegal, Unreported and Unregulated Fishing* (OECD 2004) and *Why Fish Piracy Persists: The Economics of Illegal, Unreported and Unregulated Fishing* (OECD 2005). Both reports analysed IUU fishing in a new light, adding the dimension of IUU fishing as an economic activity as a key finding to understand the problem, and providing further justification that IUU fishing distorted market conditions:

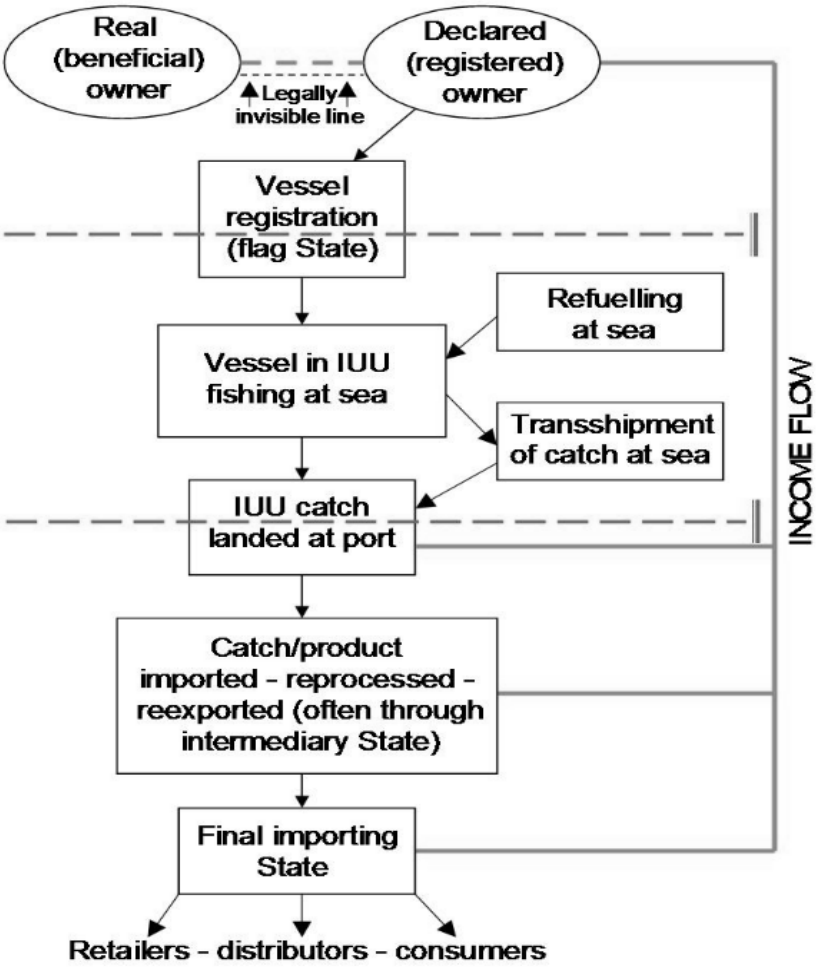
> IUU fishing is a worldwide problem, affecting both domestic waters and the high seas, and all types of fishing vessels, regardless of their size or gear.

[40] Dispute WT/DS 193, 'Chile—Measures Affecting the Transit and Importing of Swordfish', 19 April 2000.

> IUU fishing is harmful to fish stocks and undermines the efficiency of measures adopted nationally and internationally to secure fish stocks for the future.
>
> IUU fishing activities also have adverse effects on the marine ecosystem, notably on the populations of seabirds, marine mammals, sea turtles and biodiversity as a whole (discards, etc.).
>
> IUU fishing distorts competition and jeopardises the economic survival of those who fish in accordance with the law and in compliance with relevant conservation and management measures. (OECD 2004, p. 11; Schmidt 2005, p. 503)

The reports summarised past approaches and the successes and future limitations and challenges of the measures existing at the time, and possible new measures that could be undertaken. Importantly, the reports approached IUU fishing for the first time from the perspective that vessels were the most visible manifestation of this activity, which was itself embedded in larger supply chains. Figure 8 illustrates the place of IUU fishing and vessels conducting this activity within the supply chain.

Figure 8: IUU fishing's operation as part of a supply chain



Source: (OECD 2004, p. 21)

The analysis of IUU as a complex economic activity, rather than as simply a breach of harvesting regulations, sanctioned the move from the regime of the Law of the Sea to other regimes. The reports provided evidence that regimes such as the WTO needed to accept measures other than monitoring, control and surveillance of fishing vessels. They emphasised the limitations of legal approaches based on international law and UNCLOS:

> Earlier attempts to address IUU activities have largely been based on measures of legal and jurisdictional character not necessarily the most appropriate for targeting the economic foundation of the activity. Hence, an important objective for the OECD work is to move the analysis forward, observing that an economic model provides a more realistic analytical framework to understand and address the factors driving the IUU activity. (Schmidt 2005, p. 482)

The limitations of the current international governance framework in dealing with IUU fishing and the awareness that this activity would continue for as long as operators could profit from it led to the consideration of other measures that would disincentivise operators from engaging in IUU fishing. The analysis conducted in the OECD studies revealed that a variety of measures with no trade effects had already been attempted, as demanded in the IPOA. Actors were also acutely aware of the need to ensure that schemes would be designed and implemented 'in a fair, transparent, and non-discriminatory form' to stand against WTO scrutiny. The US–Mexico shrimp-turtle case[41] demonstrated the difficulty in making environmental provisions compatible with the WTO regime. In addition, the two disputes that arose concerning port state measures, the Chile–EU swordfish dispute and the Faroe-Herring dispute[42]—both of which were settled before a WTO ruling—illustrated (inconclusively, to the regret of law scholars [Witbooi 2014, p. 316]) the possible clashes between the regimes of the Law of the Sea and the WTO.

The role of port states in deterring IUU fishing by depriving IUU operators from competitive advantages (Molenaar 2007, p. 266) drew attention to another set of measures that some RFMOs had been implementing: trade and catch documentation schemes that accompanied the fish from boat to market and accredited the legality of the product's source. Trade and catch documentation schemes had previously aimed at protecting endangered species under the CITES Convention or preventing the trade of species fished in specific manners (Hosch 2016, p. 6). Trade documentation schemes (TDS) were first developed by the International Convention for the Conservation of Atlantic Tuna (ICCAT) in 1992 in the form of certificates issued by flag states containing information on the catch that operators had to provide to allow importation of the species into the territory of a contracting party. By 2003, TDS were applied to Atlantic bluefin tuna, bigeye tuna and swordfish in ICCAT; southern bluefin tuna under the Convention for the Conservation of Southern Bluefin Tuna (CCSBT) and bigeye tuna in the Indian Ocean Tuna Commission and Inter-American Tropical Tuna Commission areas (Hosch 2016, p. 9). While TDS trace the transit of fish to the first point of entry into international trade, catch documentation schemes (CDS), an

[41] Dispute WT/DS58, 'United States—Import Prohibition of Certain Shrimp and Shrimp Products', 8 October 1996.

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

evolution of TDS, go further, to trace the transit of fish through international trade to the end market, and certify the legality of the catch (Hosch 2016, p. 10). Again, CCAMLR was a pioneer in CDS, being the first RFMO to adopt one in 2000, while ICCAT and CCSBT only moved from TDS to CDS in 2008 and 2010, respectively (p. 10). These three CDS remain to date 'the only fully fledged multilateral documentation schemes that cover the full supply chain, with the objective of combatting IUU fishing' (p. 10). The potential of these schemes was demonstrated when Japan, a world-market destination for tuna and a member of ICCAT, successfully removed, to a large extent, illegally sourced Atlantic bluefin tuna from its market thanks to the enforcement of the CDS (pp. 19–21).

In the OECD reports, catch certification schemes were included in the possible toolbox of actions to prevent IUU fishing, with an interesting footnote in the main text, as reproduced below:

> Measures that work on the trade of IUU products. This could include various forms of restrictions on trade on landings, on marketing including the introduction of catch and trade document schemes, and labelling.[26]
>
> [26]This is a promising area that needs further attention. To some extent it has been successfully applied to tuna and Patagonian toothfish. More work is needed on understanding how traceability and responsibility can be ensured throughout the chain of custody i.e. from catch to consumer's plate. Also more work is needed to understand the links between the use of trade measures and the rules of the international trading system. (OECD 2005, p. 42)

Such measures were not restricted to RFMOs, but it was envisaged that they could apply to single countries, as mentioned below and on pages 138 and 147 of the report:

> As shown above, the net returns of legal fishing operators are influenced by illegal, unreported and unregulated fishing activities: fishing costs increase, fewer fish can be caught, and as the illegal or unreported fish may be marketed in competition with legal catch prices are driven down. Processors and legal fishers therefore have an important incentive to ensure that such activities are discovered and stopped. In support of that, nation states could usefully consider applying trade measures, including catch and trade documentations schemes, labelling and embargoing of IUU catches, all of which have a high potential pay-off, with relatively low costs of implementation. In this process, operators

> along the value chain can and should be encouraged to contribute to ensuring that IUU fish are detected and removed. (OECD 2005, p. 50)

The OECD analysis provided an extensive review of the anti-IUU fishing measures implemented by states and multilateral organisations, reviewing the legal challenges and adopting an economic analysis of the components of IUU fishing. The analysis represented a departure from the jurisdictional approaches based on state and inter-state governance and the roles of flag, port and coastal sovereignties. It ordered responsibilities and actions according to the subjects that were emerging in the governance space: multilateral organisations, states and the private sector. It sanctioned the role of non-state actors in governance arrangements, particularly that of the private sector, NGOs and the 'good fishers' or large industrialised fishing companies that abided by regulations. It also sanctioned the connection of IUU fishing to other forms of transnational crime, providing a foundation for states to ensure the 'legality' of fish in their national legislation. It focused attention on the role of markets 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 to all scales and forms of fishing, and all countries. This represented an endorsement by liberal democracies of regulation in the post-harvest space for environmental purposes and enabled two major markets and members of the OECD, the EU and the US, to further explore the opportunities, challenges and implications of tracing fish from the point of harvest along the supply chain.

6.2.2. The European Union and United States' unilateral trade-related measures

In 2011, EU Commissioner for Maritime Affairs and Fisheries Maria Damanaki and the Under Secretary of Commerce for Oceans and Atmosphere and Administrator of the National Oceanic and Atmospheric Administration (NOAA), Dr Jane Lubchenco, issued a joint statement on IUU fishing, signalling cooperation between the US and the EU to advance in the measures contained in the relevant international instruments, including multilateral CDS (Damanaki & Lubchenco 2011a). The EU and the US fisheries authorities were deeply involved in the international debates around IUU fishing. Both are members of the OECD as well as ICCAT and CCAMLR, two of the RFMOs that had implemented multilateral trade measures. Moreover, both had been involved or were involved at the time in WTO disputes that had at their core the

compatibility of fisheries management measures with environmental, trade and Law of the Sea regimes, and both had a long tradition of large- and small-scale domestic fishing and were among the largest import markets for seafood in the world.

The EU took the first step to adopt a 'new strategy' to prevent, deter and eliminate IUU fishing in 2007 (Commission of the European Communities 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', providing an estimate of the value of illegal fisheries imports into the EU, and concluding 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.' (p. 2). The publication on 19 September 2008 of EU Regulation 1005/2008 *Establishing a Community System to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing* (EU 2008) formulated how this strategy would be implemented. The regulation made trade of IUU products illegal in the EU territory (p. 2) and contained the measures that would enforce this obligation: 1) inspections of third-country fishing vessels in member state ports (port state control); 2) a catch certification scheme for the importation of fishery products (and the mention of a catch certificate for exports); 3) an EU-wide alert system for possible third-country faults in compliance; 4) a list of fishing vessels engaged in IUU fishing; 5) the identification and listing of non-cooperating third countries; and 6) measures and sanctions for vessels in the IUU list, non-cooperating third countries and nationals of member states engaging in IUU fishing.

Regulation 1005/2008 was embedded in 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*. The reform of the common fisheries policy stressed the fundamental role of the post-harvest space in fisheries management policies and presented a trade-off for the industry: the guarantee of economic opportunity in return for the tightening of conservation measures (such as the controversial 'no discard' policy):

> The CFP [common fisheries policy] 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. The CFP should contribute to the Europe 2020 Strategy for smart, sustainable and inclusive growth, and should help to achieve the objectives set out therein. (EU 2013b, p. 22)

Scrutiny of the EU measures by trade scholars has led to the acceptance of the need for trade-related measures to combat IUU fishing (Leroy, Galletti & Chaboud 2016, p. 89; Young 2016, p. 216). Scholars have taken this need on board in view of the failure of traditional monitoring, control and surveillance approaches to minimise IUU fishing (He 2017, p. 196), and they have noted the general consistency with WTO principles of the transparency, non-discrimination and justification of the measures (Leroy, Galletti & Chaboud 2016, p. 89; Young 2016, p. 216). The catch certificates have raised no disputes at the WTO as of 2019. However, scholars have also identified a number of challenges, including 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 deterrent for the effectiveness of the regulation (Leroy, Galletti & Chaboud 2016, p. 89).

The US soon joined the EU in the advancement of tools to fight IUU fishing that were compatible with WTO requirements. In 2012, another joint statement progressed the idea that IUU fishing undermined fair competition:

> As the EU and US continue the hard work of rebuilding domestic fisheries, we are also making progress in combating pirate fishing to level the playing field for law-abiding fishermen. As two of the largest harvesters of seafood and two of the largest markets for it, we have a responsibility to ensure that seafood provided to consumers, whether domestically produced or imported, is fished in accordance with responsible fishery management measures. (Damanaki & Lubchenco 2012, p. 2)

The joint statement underlined the moment of reform of the domestic fisheries in the EU and the US and the jurisdictions' common roles as fishing potencies and market

states. In the US, this move coincided with a reopening of key debates in fisheries management. In 2002, the moratorium on the establishment of individual quota systems included in the *Sustainable Fisheries Act 1996* was lifted and in 2006 the *Magnus-Stevenson Fishery Conservation and Management Act*, the US's main legislative instrument regulating fisheries, was reauthorised. It contained a commitment to end overfishing and establish annual catch limits for most fisheries by 2011. Several studies and recommendations made to the Obama presidency in this period pushed for the establishment of catch shares[43] (Department of Commerce, NOAA & National Marine Fisheries Service 2017, p. 8). The NOAA finally released its *National Catch Share Policy* in 2010, recommending that catch share systems be established where possible in fisheries management and ecosystem plans (p. 3).

The joint EU–US statement also pointed to common lines of reform in fisheries management and to the trade-off that was being offered to the industry in return: a stringent regime for fisheries management (including hot issues such as the discard policy in the EU and further implementation of catch shares in the US), coupled with 'strong measures to combat pirate fishing because it leads to unfair competition for law-abiding fishermen in the marketplace' (Damanaki & Lubchenco 2012, p. 1). The proxy for sustainability—primarily environmental, but with the economic and social sustainability of legitimate fishers in the foreground—to justify anti-IUU fishing measures was established in the following terms:

> Pirate fishing—often called illegal, unreported, and unregulated fishing—deprives an estimated half-billion law-abiding fishermen and their communities of up to $23 billion worth of seafood annually. And, because an estimated three billion people depend on seafood as their primary source of protein, pirate fishing has significant food-security and humanitarian consequences as well. Moreover, illegal fishing operations are known to subject people aboard pirate ships to unsafe and unfair working conditions at sea.

[43] Catch shares is 'a general term for several fishery management strategies that allocate a specific portion of the total allowable fishery catch to individuals, cooperatives, communities, or other entities. Each recipient of a catch share is directly accountable to stop fishing when its exclusive allocation is reached. The term includes specific programs defined in law such as "limited access privilege" (LAP) and "individual fishing quota" (IFQ) programs, and other exclusive allocative measures such as Territorial Use Rights for Fisheries (TURFs) that grant an exclusive privilege to fish in a geographically designated fishing ground'. (Department of Commerce, NOAA & National Marine Fisheries Service 2017, p. 2)

> Fishing piracy also undermines the livelihoods of law-abiding fishermen in the United States and Europe. When illegally caught fish reach the global marketplace, fish prices fall and less fish are left to catch legally. And, to make matters worse, illegal fishermen often use highly destructive gear that destroys habitats, endangers marine wildlife, and threatens healthy fisheries. (Damanaki & Lubchenco 2011b, paras 1–2)

Soon after, the US initiated work on its own plan to prevent IUU fishing through a presidential task force in 2014, comprising representatives from 12 agencies (Presidential Task Force on Combating IUU Fishing and Seafood Fraud 2014, p. 3). The program built on a long history of US measures against violations in seafood trade, from the *Lacey Act of 1900* to seafood inspection programs and CoOL regulations (Willette & Cheng 2018, p. 25). A study of product substitution produced in 2014 estimated that in 2011 illegal and unreported catches made up between 20–32 per cent by weight of the wild-caught seafood imported into the US in that year (Pramod et al. 2014, p. 102). Further, fish have also been found to belong to the food groups 'historically linked to fraudulent practices' (Schug 2016, p. 109). The US plan linked sustainable fisheries management, international obligations and trade with a strong emphasis on legality as a necessary basis for seafood trade, echoing the 'good fishers' (domestic) versus 'bad fishers' framing:

> 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, fueling illegal trafficking operations, and undermining economic opportunity for legitimate fishermen in the United States and around the world.
>
> It is in the national interest of the United States to promote a framework that supports sustainable fishing practices and combats seafood fraud and the sale of IUU fishing products. (White House—Office of the Press Secretary 2014, para 2)

In developing their unilateral initiatives, the EU and the US extended the implications of the fight against IUU fishing into a new area. IUU fishing was presented not only as undermining sustainability efforts but as providing grounds for trade-related measures

to prevent seafood fraud and unfair market conditions. Both regulations share this final shift of linking the anti-IUU fishing goals of conservation and fairness for 'good' fishers to consumption through the organisation of the seafood market. In both cases, the responsibility of fisheries management to pursue sustainability goals justifies their intervention in the markets, with these goals including a foregrounding of the economic and social components of sustainability, taken as legitimate market competition. As will be explored in Section 6.4, the verification of the route of the fish from the point of harvest to the internal market through traceability schemes is an important new tool in this domain. If such programs are to succeed, one possible condition might be their adoption by other countries in the form of rising harmonisation between programs, or their multilateralisation through trade agreements or joint initiatives. The Australian case can throw some light into the likelihood of this emerging role for traceability schemes in the fisheries management of advanced liberal democracies.

6.3. Australia and the fight against illegal, unreported and unregulated fishing

Australia had a fundamental role in promoting the initial fight against IUU fishing and was also among the three state actors, together with the US and the EU, that promoted the CDS for toothfish within CCAMLR (Österblom & Sumaila 2011). Unlike these two other actors, however, measures to prevent IUU fishing by the Australian government continue to be primarily based on monitoring, control and surveillance capabilities targeted at the fishing node of the chain, and IUU fishing remains largely framed as an issue related to Australian fishing interests in export markets, rather than as a seafood-importing state. Analysing the initial framing of IUU fishing and the actors involved, as well as the institutional framework in place, may help explain why trade-related tools such as traceability are not yet considered in Australia as an option to ensure the sustainability of imports in the domestic market.

6.3.1. Australian policy responses to illegal, unreported and unregulated fishing

Efforts towards the prevention of IUU fishing in Australia have focused on two main areas in the Indo-Pacific region—the Antarctic EEZs within the CCAMLR area and the Northern waters along the maritime border with Indonesia—as well as on reporting problems with the southern bluefin tuna fishery (Christensen 2016, p. 140). Policy

responses in the Indo-Pacific have tended to frame IUU as a security issue and to link fisheries management to interests in security and border protection, foreign trade and regional cooperation. The concerns with IUU fishing in the Antarctic high-value fisheries contributed to the adherence of the Australian government to comprehensive approaches to the prevention of IUU fishing, including trade-related measures such as the CCAMLR CDS. However, the management of fisheries subject to CDS, as well as the control of imports and export permits and biosecurity controls, remains at the federal level in the portfolio of the Department of Agriculture. Representation in policy forums is also at the federal level, including the Departments of Agriculture and Foreign Affairs and Trade. This federal bureaucratic sphere is largely disconnected from the larger portion of Australian fisheries, which are under the jurisdiction of the states and oriented towards the domestic market (except for abalone and rock lobster, which are export oriented).

Australia's involvement in the Southern Ocean fisheries led to its prominent role in the identification of IUU fishing as a concern within CCAMLR (Christensen 2016, p. 140). As a coastal state, Australia's involvement in the prevention of IUU fishing was prompted by the threat to the toothfish fisheries in the EEZs surrounding Macquarie, Heard and McDonald Islands, which are under Commonwealth management:

> *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. (Respondent#1917, fisheries manager)*

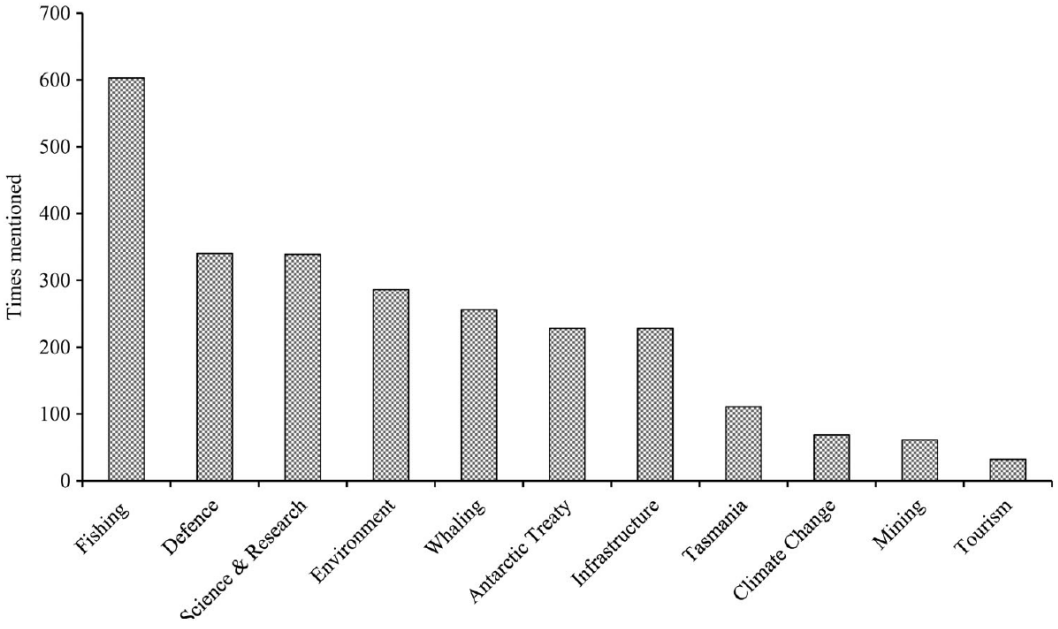
The Australian government's motivation to prevent IUU fishing lay in the threat to the economic returns of the national fishery resources in the Heard Island and MacDonald Island EEZs, which were initially exploited by two licenced operators (Baird 2006, p. 191). However, the Australian government was well aware that the mobility of fish stocks and fishers made joint action imperative to counteract the IUU fishing in the whole convention area. As early as in the 16th meeting of CCAMLR, the Australian delegation was among the first to stress the convenience of an approach centred on a comprehensive set of measures that went beyond monitoring, control and surveillance,

including measures in the post-harvest space (CCAMLR 1997, p. 12). The awareness that IUU fishing required a plurality of approaches in different policy areas led the Australian government to draft measures such as the CDS for toothfish in CCAMLR, together with the US and the EU (Agnew 2000, p. 367) and the Trade Information Scheme for Southern Bluefin Tuna in the CCSBT (Department of Agriculture, Fisheries and Forestry 2005, p. 37); contribute to the drafting and negotiation of international instruments such as the IPOA-IUU and the *Port State Measures Agreement*; and participate in high seas task forces in the UN and OECD (Department of Agriculture, Fisheries and Forestry 2005, p. 5; Department of Agriculture 2014, p. iii).

However, this holistic approach remained circumscribed to the protection of the Australian toothfish fishery, and the hierarchy of policies responded to a securitised approach that situated the problem as an attack on the national borders performed by foreign fishing vessels, which could be intercepted, apprehended and prosecuted. Monitoring, control and surveillance measures under the Southern Ocean Policy were awarded priority in the policy response (Baird 2006, p. 195). Patrolling of the Southern Ocean waters was conducted by civilians, including AFMA staff and customs officers (p. 198), although the Australian Defence Force collaborated in several vessel apprehensions (p. 196). The policy response focused on surveillance operations to deter fishing within the EEZs and on the improvement of capacities to prosecute apprehended foreign vessels. The small number of operators, the fact that Australian fishers were sending most of their catch to export markets and the focus on actions on the high seas isolated the problem from domestic markets. Possible connections to issues affecting domestic fisheries were not illuminated.

The framing of IUU fishing as an illegal appropriation of national resources emerged as politically relevant in the 39th Parliament (10 November 1998 to 8 October 2001) and became the most-discussed Antarctic-related issue in the 40th Parliament (12 February 2002 to 31 August 2004) (Hodgson-Johnston 2015, p. 187). The criminalisation of IUU fishing as a threat to Australia's sovereign borders was evident in the association made between fishing and sovereignty during the 39–44th Parliaments, as shown in Figure 9.

Figure 9: Context of sovereignty statements regarding Antarctica and the Southern Ocean in the 39th to 44th parliaments (1998–2015)



Source: (Hodgson-Johnston 2015, p. 188)

The framing of the IUU fishing issue as 'good fishers' versus 'bad fishers' and 'national' versus 'foreigner' followed a pattern set by ISOFISH that detached IUU fishing from the supply chain and located the problem exclusively at the point of harvest:

> ISOFISH exploited this duality in an effort to publicly split the licensed and unlicensed fishers into "bad fishers" and "good fishers." ISOFISH arbitrarily labelled those involved in downstream processing as "good fishers" in order to highlight the extent to which illegal fishing was concentrated among fishing-only companies. (Fallon & Kriwoken 2004, p. 236)

Focusing the narrative on fishing boats entering the country illegally enabled parallels with another perceived attack on sovereignty in the oceanic space: asylum seekers arriving by boat. Such was the argumentation that Prime Minister John Howard offered when announcing a plan in 2003 to increase patrolling resources in the Southern Ocean:

> Just as deterrence has worked very effectively, indeed remarkably, in relation to illegal immigration to this country, it will also be the case that the deterrent effect of this new capacity that I'm outlining this morning, and to which we are committing significant resources from the Commonwealth Government, will act as an effective deterrent to illegal fishing operations in our waters. The

> waters in the Southern Ocean that were described by Senator Macdonald are a very important part of the extended national sovereignty of this country and it's very important that we see illegal fishing operations precisely for what they are—not only an attempt to take something that does not belong to the people who are attempting to take it, but also very much as an attack upon Australia's sovereignty. (Howard 2003, para 5)

Presenting the fight against IUU fishing as a war on foreign fishers was evident in the language used to communicate surveillance measures, with press releases bearing the eloquent titles of 'Government to get tougher on Toothfish poachers' or 'Australia steps up the battle against illegal fishing' (cited in Baird 2006, pp. 197–8) and in the primacy of surveillance in the budget awarded to the prevention of IUU fishing. Overall, measures reinforcing monitoring, control and surveillance of IUU fishing were allocated A$15.8 million in 1998–2003, plus an additional A$10.8 million in the 2003/2004 budget (p. 196). In 2004, A$89.2 million was announced to fund patrols in 2004 and 2005, following in 2005 by a commitment of A$217.2 million to maintain the patrols until 2010 (p. 199). In Australia's Northern waters, where illegal fishing had been an issue of bilateral concern with Indonesia since the 1950s, a pledge of A$88 million over four years for surveillance of IUU fishing was announced in 2005 (Vince 2007, p. 694). A similar surveillance program in the Southern Ocean had led to the apprehension of eight vessels in hot pursuits between 1997 and 2004, with the cost of apprehending one of these vessels, the *Viarsa*, alone estimated at A$4–5 million (Baird 2006, pp. 218-19). In the Northern waters, out of 13,018 illegal vessel sightings in 2005, 600 vessels were seized (Vince 2007, p. 685).

The efforts in monitoring, control and surveillance in the Southern Ocean produced successful results and well-publicised hot pursuits. However, monitoring, the cost of control and surveillance measures to protect the economic returns of the fisheries for the companies exploiting them was posing problems for the efficiency of the measures (Baird 2006, p. 149; Vince 2007, p. 696). Other limitations became evident in the early 2000s: chronic levels of IUU fishing continued along the Indonesian border, despite bilateral cooperation and surveillance (Vince 2007, p. 685); legal loopholes led to the release of vessels, such as the *Chen Long*, apprehended in Australian waters in 2006 carrying fish harvested in Indonesian waters (p. 695); and diplomatic action towards the enforcement of flag state and port state responsibilities by Uruguay and Mauritius in

regard to toothfish landings produced mixed results (Baird 2006, pp. 234–5). The Australian policy response revealed the limitations of the international law framework for deterring IUU fishing, and Australia participated in the forums that advanced the economic analysis of the activity and shifted attention to the roles of port and market states. However, policy continued to be largely restricted to the control of vessels and nationals, as explored in the next section, reserving trade-related measures only for the valuable export fisheries.

6.3.2. The role of port- and market-related measures

The shift towards the construction of IUU fishing as an economic activity embedded in supply chains can be seen in the two National Plans of Action that Australia has produced so far to prevent, deter and eliminate IUU fishing. However, while these National Plans reflect international perspectives on IUU fishing, they continue to frame IUU fishing as a concern of international relations and export markets, rather than the Australian domestic market.

The National Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (NPOA-IUU), published in 2005 (Department of Agriculture, Fisheries and Forestry 2005), brought together the actions and measures taken by the Australian government following the release of the IPOA-IUU. This National Plan framed IUU fishing in a language reminiscent of the domestic framing of IUU fishing, as 'activities of national and international criminal groups and syndicates' (Department of Agriculture, Fisheries and Forestry 2005, p. v) or 'increasingly sophisticated multi-national criminal activities' (p. 6). Consequently, the implementation of measures was characterised as a 'war on IUU fishers' (p. v), with those measures affecting the enforcement capabilities of fisheries regulations against domestic and foreign vessels and nationals having the most detail. Measures aimed at eliminating the incentive for IUU fishing were based on the success of monitoring, control and surveillance measures, such as the modification of legislation to increase fines and require the forfeiture of vessels (p. 15).

The framing of IUU fishing as an activity conducted in the harvest space was evident in the port state- and market-related measures. Port state measures were mostly deferred to

the outcomes of the *Agreement on Port States Measures* underway and market-related measures were related exclusively to the landing of catch by vessels:

> Australia's current port State measures (see paragraphs 91–94 above), particularly for the landing of catch from foreign fishing vessels, have potential market-related implications. However, 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. (p. 36)

The overall supply chain, including imports, was isolated from IUU concerns and made further trade measures unnecessary in the domestic market:

> 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 [Australian] 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 view that there was 'little need' to respond to concerns along the supply chain continued in the second National Plan of Action, published in 2014 (Department of Agriculture 2014). This plan adapted Australia's action to the evolving reality of IUU fishing but still did not consider the rising role of market states. It abandoned combative terms such as 'pirates' or 'pillagers' in favour of neutrally denominating such fishers as 'illegal', and referred to cooperation rather than calling for war on rogue flag states. The Plan reflected the shift in focus of IUU fishing concerns to the Northern waters and Australia's interests in the Pacific, where fisheries are earmarked as a key component of the Australian strategy to promote regional economic growth, receiving funding of up to A$45 million between 2015 and 2018 (Department of Foreign Affairs and Trade 2018b).

This second National Plan of Action reflected the construction of IUU fishing as an economic activity embedded in international trade, found in international policy forums:

> IUU fishing risks millions of dollars of investment and thousands of jobs for Australia. IUU fishing threatens the Australian harvest of fish stocks both

> within and beyond the Australian Fishing Zone, and thus impacts fishing industries and communities in Australia and in neighbouring countries.
>
> IUU fishing continues to threaten Australia's commercial fishing interests. It causes:
>
> - damage to fish habitats through destructive fishing practices rapid and severe depletion of fish stocks
> - reduced value and condition of fish due to poor handling and illegal processing
> - pressure on legitimate markets and producers due to unfair competition
> - threats to fisheries officers and legitimate operators.
>
> IUU fishing can have serious environmental impacts. IUU fishing operators have little regard for minimising bycatch or eliminating catch of rare, threatened and protected species. (Department of Agriculture 2014, p. 2)

Despite the inclusion of the supply chain in the analysis, the Plan continued with monitoring, control and surveillance of fishing as its main measures. It also provided data on the success of these measures in the Southern Ocean and Northern waters: illegal fishing of toothfish had been undetected since 2005, and the apprehension of foreign vessels in the Northern waters had decreased from 365 (in 2005–2006) to 26 (in 2013–2014). Moreover, monitoring, control and surveillance at the national level were explicitly related to the necessity to avoid IUU fishing products from entering the market through the implementation of catch landing and fish receiver schemes (Department of Agriculture 2014, p. 10), as well as e-monitoring in the Commonwealth fisheries (p. 8).

The section on market-related measures in the Plan acknowledged the discussion of traceability underway in the international sphere, but did not contribute to advance it. Of the four paragraphs in the section, the first situated trade-related measures as secondary to fisheries management measures. The second placed traceability under the jurisdiction of the *Australia New Zealand Food Standards Code* and, along with the third paragraph, described the traceability system in general terms. Finally, the fourth paragraph was dedicated to the CCAMLR and CCBST schemes (Department of Agriculture 2014, p. 9). The description of traceability omits any reference to policy goals, challenges, changes or achievements. It states that traceability provides ‘a mechanism for the government to investigate the movement of seafood product from source to market’ (p. 9) and relates it

to the CITES convention; however, the main objectives of the Australian traceability system—food safety and biosecurity—are left implicit. Any role for traceability as mentioned in the US and EU documents (e.g., transparency, legality, prevention of fraud) is absent from the section. Any interaction between traceability, border control and the trade regime is left unstated, and the link between trade-related measures such as import regulations and the domestic market is not established.

This silent response to the concerns about IUU fishing as an economic activity has parallels in the research on IUU-related measures. Australia's role in CCAMLR and sovereignty claims in the Antarctic space have garnered the attention of scholars, as cited above (Baird 2006; Fallon & Kriwoken 2004; Hodgson-Johnston 2015; Österblom & Sumaila 2011). Research on IUU fishing in Australia from a criminology perspective was published in 2005 (Putt & Anderson 2007), and research has also been conducted to establish patterns in criminal behaviour in the Northern waters using derelict fishing gear (Edyvane & Penny 2017). Treating IUU fishing as a security issue, an analysis has been conducted of global and regional trends that could influence Australia's interests and enforcement obligations (Mfodwo & Tsamenyi 2011); and stronger governmental connections between fisheries management and foreign affairs have been suggested as a priority for Australian foreign policy in the Pacific (Haward & Bergin 2016). Also in Australia, research on the implications of IUU fishing as an economic activity beyond the harvest space has been conducted in regard to the compatibility of the EU and US traceability schemes with international law (He 2018; Tsamenyi et al. 2010); however, studies on traceability along the Australian seafood supply chain and of seafood product substitution are scarce. Consumer research in the 1990s demonstrating the occurrence of mislabelling and product substitution led to a pilot survey conducted in 2003 (FSANZ 2003). Since then, the burgeoning research on seafood fraud conducted in markets including those of the US, Spain, Bulgaria, Denmark, Greece, Egypt, China and India, using recent technological advances such as DNA barcoding, has had one single equivalent in Australia: a study by Lamendin, Miller and Ward (2015), conducted in Tasmania. This lack of research leads to a lack of knowledge by the actors of the structure of the supply chain and, as seen in Chapter 5, undermines the arguments of those actors advocating for measures such as the standardisation of fish names.

The renewed attention seen in other markets to the connections between IUU fishing, seafood fraud and mandatory traceability requirements is still lacking in the Australian

policy context, where IUU fishing is viewed as an issue for foreign affairs, and increasingly oriented towards international cooperation in the Pacific. With the success of security approaches to IUU fishing in the Southern Ocean, the focus of anti-IUU measures has been shifted to the Northern waters. The focus on the Pacific region has brought increased attention to the possible role of fisheries as a central component of Australia's regional policy, identifying the need for a whole-of-government approach to Australia's fisheries policy in the regional context (Haward & Bergin 2016, p. 9). This approach hinges strongly on pooling the expertise of Australia's fisheries management to foster sustainable practices across the Pacific region through diplomatic action, capacity training and bilateral and multilateral cooperation. Economic objectives are mostly left implicit or tilted towards ensuring food security and development in the region. The linkage between IUU fishing, fisheries management and Australia's seafood trade remains largely unexplored in this report, where the importance of traceability is acknowledged but lacks recommendations or linkages to actions (p. 16).

The Australian government was a key player in shaping IUU fishing as a threat to the conservation and sustainable exploitation of fishery resources. The Australian approach has relied mainly on monitoring, control and surveillance measures, consistent with the framing of the issue as an attack on the nation's sovereignty. Trade-related measures have also had a role, but these have been restricted to multilateral measures aimed at protecting exports, carefully isolated from the domestic market. Policies to prevent IUU fishing do not offer any indication of whether the traceability schemes used to trace toothfish into export markets may apply to the prevention of illegally sourced seafood entering the Australian market. In this context, can traceability be considered a potentially viable policy tool to accredit the legality of seafood in the Australian market as a proxy for sustainable fisheries management? This question will be addressed in Section 6.4.2 after first considering the role of traceability as a regulatory tool in anti-IUU policy.

6.4. What role for traceability?

Traceability is the capacity to track a product all the way along its supply chain, revealing whose hands it has passed through and the batches of product with which it has been associated. It has long been used for the purposes of product recalls, including when food safety issues arise. Traceability is also used to identify seafood sourced from

IUU fishing along the supply chain in the unilateral trade-related measures of the EU and the US. By contrast, in Australia, traceability is still only seen as a measure to ensure food safety, disconnected from its potential role as a proxy to certify the sustainable management of both domestic and imported seafood. As discussed in Chapters 4 and 5, industry demands in Australia for regulatory tools that contribute to the improvement of social licence are still clustered around the connection between CoOL, sustainability and consumer trust in Australian produce, although there is some emerging interest in voluntary schemes that trace fish to their point of harvest. At the same time, the definition of sustainability and the support of sustainability claims are becoming increasingly mixed with issues of social accountability. The traceability schemes advanced by the EU and the US aim to address several related concerns—for example, the economic opportunities for domestic, well-managed fisheries; the occurrence of seafood fraud; and the promotion of consumer trust—and they are proving compatible with the international trade regime. Can traceability be used to address similar challenges in the Australian context?

6.4.1. The roles of seafood traceability in the European Union and United States

Traceability is a tool used in various industries for different purposes (Karlsen et al. 2013, p. 411; Olsen & Borit 2013). In the absence of consensus over the meaning of the term, the following definition integrates the fundamental elements that a traceability system should contain: 'The ability to access any or all information relating to that which is under consideration, throughout its entire life cycle, by means of recorded identifications' (Olsen & Borit 2013, p. 148).

The emergence of traceability as a regulatory tool is linked to a number of food scandals in Europe and the US in the mid- and final years of the 1990s (Arienzo, Coff & Barling 2008, p. 4; Olsen & Borit 2013, p. 142; Thompson, Sylvia & Morrissey 2005, p. 2). Food safety featured prominently as a main driver for the development and improvement of traceability systems (Karlsen et al. 2013, p. 412), and this is its key role in Australian food regulation. However, the complexity of regulating the food chain at a time when globalisation was a hot issue in the public arena has caused regulatory frameworks to use traceability schemes for different goals. These may include the provision of information to build consumer trust, as shown in the traceability schemes of the EU and the US to prevent IUU fishing.

In the EU, traceability schemes were improved in a variety of sectors against a background of repeated food scandals. The provision of traceability information to the consumer acquired a specific role within the larger context of European integration. Transparency and the provision of information to consumers contributed to the legitimacy and efficiency of the European integration process, while also responding to social concerns in the different EU countries (Arienzo, Coff & Barling 2008, p. 24). To this end, labelling was used to bring information related to consumer values to the point of sale (Bitzios et al. 2017, p. 542); this also contributed to economic competitiveness.

The reform of the common European fisheries policy and the seafood market in 2013, which included new labelling requirements, showed these associations between traceability, consumer confidence and European competitiveness:

> There is a need to strengthen the competitiveness of the Union fishery and aquaculture sector, and for simplification in support of better management of its production and marketing activities. The common market organisation for fishery and aquaculture products should ensure a level-playing field for all fishery and aquaculture products marketed in the Union regardless of their origin, should enable consumers to make better informed choices and support responsible consumption, and should improve the economic knowledge and understanding of the Union markets along the supply chain. (EU 2013b, p. 27)

In this reform, the EU traceability scheme contained in Regulation 1005/2008, with its ambitious goal of providing comprehensive information from harvest to the final point of sale for all seafood entering the region, was intended to ensure the double goal of conservation and rational use, with two added advantages: the creation of opportunities for domestic fisheries' competitiveness and the cementing of consumer trust in the common market. Traceability requirements were a means of control of the legality of the seafood sold, justified by the level playing field argument:

> Community rules, and in particular Title II of Regulation (EEC) No. 2847/93, provide for a comprehensive system designed to monitor the legality of catches from Community fishing vessels. The current system applying to fishery products caught by third country fishing vessels and imported into the Community does not ensure an equivalent level of control. (EU 2008, p. 2)

The regulatory tools to ensure consumer trust and domestic competitiveness as a response to food scandals initially took a different approach in the US, revolving mainly around country-of-origin regulation. Food products had long been exempted by the *Tariff Act 1930* (commonly known as the *Smoot-Hawley Act*) from the obligation to indicate visibly their country of origin (He 2018, p. 164). Perceived premiums for domestic produce against the background of food scandals led to the inclusion of meat and meat products in the regulation of CoOL in the *Farm Security and Rural Investment Act 2002* (p. 164). Later, requirements for other natural food produce were included in the *Food, Conservation and Energy Act of 2008* (p. 164). This regulation ended the exemption of natural food from CoOL requirements and incorporated natural food by stages in a manner similar to the Australian CoOL requirements, as seen in Chapter 6. Enforcement was the responsibility of the Department of Agriculture (p. 164).

CoOL became the object of domestic challenges, and a WTO dispute with Canada and Mexico arose on certain requirements for meat products.[44] At that time, the US government seemed 'unlikely to implement mandatory traceability requirements for the US seafood industry' (Thompson, Sylvia & Morrissey 2005, p. 6) destined to restore consumer confidence. The regulatory gap for CoOL was only closed in 2012 following an adverse WTO ruling that did not affect other traceability requirements for food produce (He 2018, p. 164). By that time, the economic dimension of IUU fishing had already emerged, as seen above; the EU regulation on IUU fishing was already in place; an estimate of the worldwide extent of IUU fishing had been published (Agnew et al. 2009); and advances in technology were enabling researchers to provide data on the mislabelling of seafood products. The framing of IUU fishing as fraud justified a new role for traceability, bolstered by technological advances and research on the potential benefits for industry (He 2018, p. 163).

The US's traceability scheme, SIMP, entered into force on 1 January 2018. Like its EU counterpart, SIMP situates the verification of the legality of fish entering the US market at the centre of the fight against IUU through documentation requirements that allow products to be fully traced to the point of harvest. In addition to the economic opportunities, this scheme places emphasis on the existence of seafood fraud:

[44] Disputes WT/DS 384 and WT/DS 386, 'United States—Certain Country of Origin Requirements', 1 December 2008 and 17 December 2008.

> The information to be reported and retained, as applicable, under this rule will help authorities verify that the fish or fish products were lawfully acquired by providing information to trace each import shipment back to the initial harvest event(s). The rule will also decrease the incidence of seafood fraud by requiring the reporting of this information to the U.S. Government at import and requiring retention of documentation so that the information reported (e.g., regarding species and harvest location) can be verified'. (Department of Commerce, NOAA & National Marine Fisheries Service 2016, p. 88975)

However, SIMP and the EU regulation also contain significant differences. In terms of scope, SIMP targets a restricted number of high-value species, whereas the EU regulation's goal is to ensure the traceability of all fish marketed in the EU. A second major difference between the programs is that in SIMP, the requirements for traceability are not linked all the way to the point of sale but stop at the border, whereas in the EU regulation consumer information is at the heart of the objectives and links traceability with labelling at the consumer interface to promote informed consumer choices. New labelling requirements were consequently introduced in EU Regulation 1379/2013 of 11 December 2013 *Common Organisation of the Markets in Fishery and Aquaculture Products*. This path was not followed in the US, where SIMP's traceability information is recorded for the authorities but does not have to be made public at the point of sale. This has been deemed to fall short of ensuring the 'equal entitlement to know and respond' of all market participants; that is, a transparent, accountable and complete traceability system that involves consumers (He 2018, p. 172).

In spite of these differences, both programs offer traceability as a regulatory tool to support the legality of the fish traded, in close association with some of the demands examined in Chapter 4: sustainability of stocks, slave labour and livelihoods, and environmental impact and wildlife mortality. In addition, in both cases, the regulatory tools are expected to establish a level playing field in which well-managed fisheries may find in traceability a competitive advantage, rather than being disadvantaged against more cheaply produced products. So far, studies evaluating EU Regulation 1005/2008 have focused on the technical aspects of the tool, its efficacy to deter IUU fishing (Borit & Olsen 2012; EC 2015) and the interactions with third countries and RFMOs (Elvestad & Kvalvik 2015; Miller, Bush & Mol 2014). The EC has focused on the results of the tool in improving fisheries management in third countries, including in

terms of increased revenue for states, 'which would otherwise be lost to the benefit of IUU operators' (EC 2015, p. 10), although this revenue is not quantified. Other studies have focused on the costs, benefits and opportunities of traceability (Frosch, Randrup & Thorup Frederiksen 2008; Karlsen et al. 2012). The use of traceability schemes to ensure legality as a proxy of conservation has proved admissible to the trade regime where other environmental provisions have not. However, it remains to be seen whether traceability schemes will make supply chains more transparent and prevent seafood fraud, and contribute to fisheries management goals aimed at the conservation of stocks and continued consumption of the resource.

6.4.2. Australia: An emerging role for traceability?

As discussed in Chapters 4 and 5, in Australia, discussions around the assurance of sustainability in the post-harvest space have revolved around what evidence should be provided for claims at the point of sale, as required by either voluntary or mandatory regulation. Chapter 4 highlights the role of certifications and the challenges posed to supply chains by the different demands for the accreditation of sustainability and social concerns associated with seafood. Chapter 5 presented the different actors involved in the mandatory regulation of CoOL and the role of labelling in the institutional framework and for the actors involved. It also ventured that the window of opportunity to extend CoOL to the foodservice sector may have closed after the new CoOL regulation came into force in 2016. In this context, what is the likelihood that governance actors with an interest in regulating seafood imports for sustainability at the harvest node of the chain may converge around anti-IUU fishing measures implemented through traceability schemes?

Traceability schemes were debated in 2014 during the Senate inquiry into seafood labelling analysed in Chapter 5 (Commonwealth of Australia 2014b). The inquiry directly asked stakeholders to report on 'whether the current requirements allow for best-practice traceability of product chain-of-custody' (p. 1) and on the labelling reforms contained in EU Regulation 1379/2013. The evidence presented in the submissions and hearings, as well as the selection of perspectives in the report, showed a firm alignment of the public governors with the current framework, which ascribes traceability to the food safety area; timid discussions on the presence of product from IUU fishing or potential seafood fraud; a clear alignment of environmental NGOs with

the arguments used in the EU and the US to press for policy change towards labelling modifications; and mixed positions by private actors on the possible advantages of increased labelling and traceability requirements beyond mandatory CoOL. The arguments that justify the prevention of IUU fishing in the EU and the US legislation were associated in the inquiry with CoOL. Only a minority of actors related traceability to the prevention of product substitution or the acknowledgment of well-managed fisheries.

The discussion of traceability requirements in the Committee report was anchored in the current regulatory framework in which traceability 'allows food businesses to target the product(s) affected by a food safety problem, minimising disruption to trade and any potential public health risks' (Commonwealth of Australia 2014b, p. 8). The public governors participating in the inquiry unanimously referred to the current framework as providing adequate coverage for food safety, CoOL and other labelling information, and rejected other roles for traceability as a mandatory tool. This was the position of the Queensland Department for Agriculture, Fisheries and Forestry, the NSW Food Agency and the Department of Agriculture. In the private sector, SIAA and MFMA also took this position; these associations represent actors at the middle nodes and retail end of the chain (e.g., wholesalers, importers, distributors and 'sellers') with interests in both exports and imports—those 'invisible' actors of Chapters 3 and 4. Their submissions highlighted that traceability requirements for food safety are already in place and left other requirements (e.g., sustainability and social accountability) under the umbrella of the private sector. At the other end, submissions by environmental NGOs such as WWF, AMCS and Greenpeace urged a broader role for traceability: 'Seafood traceability is required to meet public health and safety needs, to ensure rule of law, maintain proper fisheries management, and to regulate fish marketing' (Commonwealth of Australia 2014b, Submission 6, p. 6).

The submissions and the report section on EU Regulation 1379/2013 showed that it was difficult for industry actors and public governors to come to terms with a rationale linking traceability requirements to prevent illegal fishing and seafood fraud with the competitiveness of domestic industries and consumer awareness. The report offered criticism from industry actors (MFMA, the Sydney Fish Market, NT Seafood Council and FRDC) and public governors (NSW Food Authority, Queensland Government), who rejected the EU labelling regulation on the grounds of its complexity, costs for the

industry, lack of consumer demand, difficulty of enforcement, potential problems posed for trade and the option of voluntary arrangements. This included a quotation from the Department of Agriculture on the potential adverse trade effects of the EU and US regulations to prevent IUU, in clear contrast with its own position regarding CDS and the current acceptability of these trade-related measures:

> 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 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 2014b, p. 27)

Further, criticism of the EU Regulation brought into question the proxy for sustainable fisheries management that had carefully been lined up throughout the report to argue for CoOL, most clearly in a 'shot-in-the-foot' statement by the FRDC:

> The EU is requiring a whole lot of information. For example, they want confirmation that it does not come from an illegal source. They also want confirmation that the source of stock is sustainably fished. Verifying that across Australia, in terms of the different processes—you have picked a good example with the South East Trawl because that is relatively easy; the Commonwealth fisheries have very good systems—they are not always the same in every jurisdiction and territory. (Commonwealth of Australia 2014b, p. 37)

The concerted efforts by the industry actors advocating for CoOL and the AFNS to highlight these demands resulted in the downplaying of traceability and anti-IUU fishing measures. The need for greater transparency, prevention of product substitution, the level playing field and the competitiveness of domestic (seen as sustainable) fisheries was associated with the extension of CoOL to the foodservice sector and the mandatory use of the AFNS, as discussed in Chapter 5. However, the link between the demands of improved traceability requirements and prevention of IUU fishing was not made. This is seen in two submissions from industry actors and NGOs: one by the CLG,

and the other a joint submission by SSIA and the NGO TRAFFIC. Both submissions pointed to the gaps and problems in the system (i.e., sustainability and seafood fraud) and the avenues through which enhanced traceability requirements and labelling could address them. However, both reports also demonstrated the compromise reached by industry actors and environmental NGOs in terms of the scope of their demands. The joint SSIA and TRAFFIC submission denounced the lack of sustainability controls for imported shark ('flake') in contrast to the stringent regulation for the harvest of domestic shark species, which led to an uneven playing field between domestic and international producers and to the likely presence of seafood sourced from IUU fishing in the Australian market. However, the demand for improved sustainability and traceability requirements was expressed in concrete form as a demand to make the AFNS mandatory and to extend CoOL to the foodservice sector. The same occurred with the submission of the CLG, a working group formed by industry, NGOs and fisheries departments: their demand for greater transparency of the origin of products (Commonwealth of Australia 2014b, Submission 17, attachment 2, pp. 19–20) and claim that substituted products constitute around one third of product sold (p. 20) were translated into the same Committee-identified key demands of mandatory use of the AFNS and the extension of CoOL to the foodservice sector.

The narrative in the report of the Committee aligned the same drivers that justified the EU and US regulations with the demand to lift the exemption to CoOL in Standard 1.2.11:

> The committee holds the view that mandating country of origin labelling in relation to fish products sold in restaurants and other cooked seafood outlets comprises an effective, simple and cost-effective means of achieving a level playing field for Australian and overseas seafood producers. To this end, the committee recommends the immediate removal of the exemption under Standard 1.2.11 of the Code. (Commonwealth of Australia 2014b, p. 27)

The Senate inquiry thus offered a snapshot of the different positions explored in Chapters 4 and 5: the reluctance of the public governors to assume roles for fisheries management in the post-harvest space and the concerted effort of industry to establish the Australianness of seafood as a proxy for sustainability. It also showed the reluctance by a majority of actors to consider IUU fishing and its associated elements (e.g.,

seafood fraud, human rights and sustainability) as issues requiring traceability improvements that could apply in the domestic market. Both the submissions and the Committee report failed to state that CoOL and the AFNS were part of a broader need for greater traceability and transparency along the supply chain. While coalitions of interest between market actors and NGOs did occasionally advocate for improved traceability as a potential tool to extend to imports the control reserved for Australian domestic produce and exports, this need was expressed exclusively in terms of CoOL and AFNS. Recurrent in the discussion was a prevailing view by public and private actors of mandatory regulation as a tool of last resort, commonly referred to as 'red tape' and a burden, something that governments should aim to avoid or wind back. In this context, the EU Regulation failed to be acknowledged as a means of improving traceability to address the interests of the domestic fishing sector.

Interviewees offered further insights into the disconnection between IUU fishing, good domestic enforcement and traceability to establish controls of imports. IUU fishing was commonly considered a problem of illegal fishing by foreign vessels in Australian waters, contrasted to the high compliance of domestic fisheries. Mislabelling was mentioned by various actors in connection with the AFNS, but references to product substitution stressed its lack of salience:

> *And I think there's a lot of stuff going on here which really flies under the radar and dovetails into questions of traceability and substitution which a subject which nobody wants to talk about here, even though overseas studies have shown repeatedly somewhere between 30 to 70 per cent of the fish is substituted. Nobody has ever gone through any of the retailers with a DNA kit and I'd be interested to see what the results would be. (Respondent#0117, private researcher)*

In line with the low profile of IUU fishing and seafood fraud, the Senate inquiry scarcely touched on the role of traceability as a potential tool to ensure a more equitable level of control for imported and domestic product and as a proxy for environmental or social concerns. The Australian small-scale fishers, cooperatives and retailers interviewed mentioned traceability as a tool to address consumers in an ocean-to-plate chain that could work to improve the differentiation of the local industry. The ability to trace product to the point of harvest was related by the interviewees to the demonstration of business credentials through voluntary schemes, except for two of the

fishers interviewed that advocated for the use of informational regulation. Regarding the voluntary schemes, lack of funding was a concern for those involved in them, as seen for the Oceanwatch QR Codes discussed in Chapter 4. The preference for a voluntary traceability arrangement extended to part of the environmental NGOs, which moved forward to lead discussions on feasible traceability requirements, with long supply chains and big companies taking centre stage. In Australia, this produced a first statement on traceability in 2017, under the leadership of WWF:

> *We thought at least what we can do is start the conversation with the seafood industry around the importance of traceability and where the gaps are in the Australian market and how we take that forward and we've produced this really simple two-page document. It's really, seriously just words. It's not that it's not ambitious but it's what... We let the group decide that. We provided the space and the time and the facilitator and participated ourselves but we were really cautious not to push for something that we thought should be in there, it needed to be the group. So that had a whole bunch of fishing associations, it had Coles and Woolies and John West and Hilton, Blackmores, Tassal, all the selling companies, government, FRDC, were all involved in that and we ended up with a list of what was the minimum required traceability. So key data points essentially to track through the supply chain, and what industry should be looking for. (Respondent#0817, NGO representative)*

While still in an early stage, traceability is emerging in discussion as a voluntary tool accessible to large commodity-like seafood supply chains; and one that reproduces the divide between large companies (e.g., fishing companies, supermarkets and hotels) and small-scale domestic fishers and small retailers, as seen in the preceding chapters. The adoption of the regulations of the EU and, especially, US may lead public regulators in other countries to institutionalise traceability as a policy tool for fisheries management:

> *I think they [traceability requirements] are just going to tighten up over the coming years. If you look at what the US and the EU are doing it's pretty obvious what's coming. We had a workshop on this a while ago that actually the FRDC organised and we were asked to give a vision, a five- or ten-year vision of what we thought about traceability. The group I was in were sitting down we were thinking well, look, there's only one answer here. And they said, every fish that's sold anywhere can be traced right back to where it was caught, in space and time. So, you know, which fishery where and which fishery of*

which boat, what date with which type of fishing gear. So we know that that's the end point of all this. And so as a regulator all that we do is that we make sure that the way we design our rules enables that to happen because we know the fishing industry is going to come and say, "We have to comply with what these guys are telling us in the supply chain, does that line up with what you're doing?" and we want to be able to say, "Yes". We don't want to say, "Well, we've got to change a whole lot of stuff". We want to say, "Yeah, it works". (Respondent#2617, fisheries manager)

6.5. Conclusion

Several relevant circumstances that were present in the EU and the US do not seem to be present in Australia to make traceability a feasible tool to establish pre-competitive requirements for all seafood at the point of sale in the near future. The importance of social and (broader) economic sustainability objectives has not yet led fisheries management to venture into the post-harvest space and issue regulations in this area. The presence and costs derived from IUU fishing and seafood fraud in the domestic market remain to be estimated and fisheries reforms are dispersed across the state jurisdictions, none of them offering a trade-off between fisheries reforms and measures to increase competitiveness in the post-harvest space. A shift in the demands of the industry from CoOL to a new story line might unlock positions and enable realignments of the actors in governance. These actors could bring this new formulation when a window of opportunity in the politics stream might open again for the discussion of labelling requirements. For example, estimates of the penetration and cost of IUU fishing and different forms of seafood fraud could offer the potential for a discursive construction compatible with the present regulatory framework. For the time being, the tools to address this problem and its formulations in the policy stream are still floating in the 'primeval soup'. Whether the sense of opportunity will spill from export fisheries under Commonwealth management to the small-scale domestic fishing industry under state jurisdiction remains to be seen. Will a demand to control legality for imports be advanced by an industry representing such mixed identities, as seen in Chapter 3? Will importers see the opportunity in it to demonstrate good practices in imports that are already adapting to the US and EU markets? Will fisheries management venture into the post-harvest space? Can a framing of IUU fishing measures as a proxy for sustainability and social accountability gain sufficient acceptance? Will current unilateral measures

reach a degree of harmonisation and/or be adopted elsewhere? Will they have a sensible influence on the international supply chains?

Conclusion

‘Go for the girl power’ was how the CEO and Chair of the new national peak body for the Australian seafood industry were welcomed to the industry’s biennial conference, Seafood Directions, in 2017. Seafood Industry Australia (SIA) is the latest attempt to provide a unitary voice to represent the industry’s interests, and the two senior roles are filled by women: Chair Veronica Papacosta, a seafood retailer and marketing specialist, and CEO Jane Lovell, an expert in food safety and quality assurance. In an industry traditionally dominated by male producers, the choice of these candidates stood out as noteworthy. SIA has proclaimed as its main objective the improvement of the social licence of the seafood industry and the modification of CoOL for seafood in the foodservice sector as a proxy for domestic competitiveness and sustainable choices. However, the responses of the public governors so far have indicated where the boundaries to these objectives may lie. On the one hand, the new availability of funding for marketing through the FRDC and the recent example of public–private partnerships to facilitate third-party certifications of the domestic fisheries indicate that the tools to improve social licence may increasingly need to involve the post-harvest sector. On the other hand, the lack of regulatory responses to demands for labelling implies that the current *status quo* in the regulatory framework governing seafood will not be altered. Consumer values such as origin and sustainability are not assumed to be objects of regulatory intervention.

It remains to be seen whether an industry with conflicting interests regarding domestic versus imported seafood and a lack of resources can improve its social acceptability without the assistance of policy changes in the regulatory frameworks that reflect social concerns related to commercial fishing. This would include a redefinition of the policy boundaries of fisheries management and further fine-graining of the relationship between consumer issues, social concerns, and policy tools. Social concerns related to professional fishing include an increasing number of issues related to seafood locally and globally—overfishing, bycatch issues and slave labour, to name but a few. Some of these concerns have already been constructed as policy problems, as in the case of IUU fishing, and the policy tools deemed appropriate to tackle the problem include the consideration of fishing as an economic activity that extends from ocean to plate, and of consumers as members of the public involved in the management of the resource. The

policy tools formulated to tackle IUU fishing through traceability and labelling schemes for overseas and export fisheries recognise the implications of post-harvest processes on the sustainable management of fisheries; they extend policy objectives for sustainability to include not only the fish harvested but also the seafood traded in a particular jurisdiction. This is consistent with social concerns both local and global and with the realisation that unsustainable practices benefit from laxer controls, distort market conditions and undermine management efforts to ensure the biological, social and economic sustainability of fisheries.

Therefore, public trust in commercial fishing could be improved through a combination of voluntary and regulatory responses based on enhanced communication to consumers and community and improved traceability in the supply chain. However, there are some barriers to combined action for addressing issues related to sustainability in the post-harvest space in Australia; namely, the construction of the fisheries management discursive space; the difficulties in achieving agreed positions within industry, and between industry, government and civil society actors, that may enable policy change.

The reforms in fisheries management objectives in the 1990s transformed notions of why fish and fishers are managed in the Australian jurisdictions in several ways. First, the process of state intervention to reform fisheries on behalf of the owners of the resource produced a transformation in the relationships between the governors and the governed. The fishing industry was no longer an economic sector to develop, but an economic activity to be controlled to sustain fish stocks. The result of these reforms was a command-and-control management system that monitors fish stocks and the compliance of human activity with conservation measures. This system constructs fishers as subjects to be controlled to prevent overfishing. This discursive construction is partially translated into management objectives when recreational and/or indigenous fisheries are characterised as providing social and broader economic benefits, while ‘commercial’ fisheries continue to be viewed as a purely economic activity to be tightly managed to prevent overfishing. This construction has been compounded by changes in public opinion arising from the combination of fishery collapses, increased environmental awareness and events portraying fishers as plunderers. This construction of fishers as subjects in the governance arrangements seems to be an important obstacle towards increased public trust in their activity.

Second, in return for the reduction of effort and stringency of the control measures, fisheries management objectives seek to maximise the economic returns for harvesters, understood as the landed value of the catch. The focus of the management system on fish stocks and their economic value excludes consideration of broader social and economic links between fishers, fish and communities, such as food provision, tourism, rural employment or biodiversity conservation. The exclusion of these linkages and of the participation of broader sectors of the community in policy processes may be another obstacle to raising public awareness of the efforts that have built the international reputation of the Australian fisheries management in academic and policy fora. Emerging research continues to explore possible ways to define, include and report on the economic and social components of fisheries sustainability. This may assist in redefining fisheries management policy objectives, and its boundaries may well begin to expand towards a more holistic understanding of why fish and professional fishers are managed. However, possible realignments of fisheries management objectives are currently stalled by the construction of sustainability as a consumer value in the post-harvest space and by the implications of this understanding for the policy tools deemed feasible to address it.

In the post-harvest space, public governors and some of the private governors discussed in Chapter 4 (i.e., NGOs, wholesalers and large retailers) adhere to the prevailing understanding that the assurance of sustainability to consumers is best achieved through non-government tools, such as third-party certifications. This is justified by the underlying rationale that market forces provide responses to consumer demands and public governors pursue a limited set of policy objectives on behalf of the population. Along the supply chain, this means that government controls are implemented for food safety and biosecurity. At the consumer interface, this means that only those consumer choices related to public health are guaranteed by regulation; other information on food labels remains subject to consumer demands and market responses. Information related to sustainability, in the post-harvest space, becomes an attribute for brand differentiation and is not the object of regulatory controls other than the prevention of false claims.

This consideration of sustainability prevails despite the problems associated with voluntary tools. First, third-party certifications are not suitable for the small-scale, low-value fisheries that are concerned with the low public trust in their operations. In addition to their lack of affordability, these tools address corporate social responsibility

and do not necessarily provide incentives in the form of price premiums for domestic product; therefore, they are of limited value to supply chain actors driven by price, such as small producers, wholesalers, fish shops, fish and chip shops and restaurants. Further, the voluntary tools are not necessarily employed to respond to consumer demand or, as the examples of Western Australia and Tasmania illustrate, to tackle community concerns. Conversely, the refusal to use government regulation to address sustainability post-harvest for domestic markets has a number of implications that negatively affect the ability to pursue fisheries management objectives more broadly. The regulatory framework produces inconsistencies whereby different fisheries—Australian fisheries for export, Australian fisheries for domestic markets, and imports—are subject to different regulatory requirements. This occurs even when the industry widely accepts the failure of voluntary mechanisms to tackle problems relating to the pressures of the seafood trade on the sustainability of fisheries.

The framing of CoOL demands by the industry as a consumer-oriented tool based on the construction of a proxy for sustainability has demonstrated the limitations of this approach for achieving policy change, as analysed in Chapter 5. One limitation is visible in the responses to the legislation on seafood labelling in the Northern Territory, while another can be seen in driving policy change based on the current role of consumer values in the framework. On the one hand, the introduction to other jurisdictions of the NT approach of modifying licensing conditions was successfully opposed by the food regulatory system and by fisheries management agencies that have not made the linkages between their objectives and other sectors of the economy, such as tourism. On the other hand, the industry presented CoOL for seafood as a regulation demanded by consumers, with country of origin as a proxy for quality and sustainability. The demand to clarify CoOL regulations in the foodservice sector was powerful enough to take the issue out of the food regulatory system and move it into the consumer policy framework. However, the resulting clarifications did not extend to addressing the industry's demand to lift the exemption on CoOL for the foodservice sector, a demand that was seen as geared towards achieving increased profitability for the Australian fishing industry at the cost of imposing an additional regulatory burden on the much larger foodservice sector. The new regulations for CoOL came into force in 2018 and it is unlikely that the policy window will re-open at a national level in the near future to allow further modification of these regulations. At the state level, the recent failure to

pass a bill on CoOL regulations for seafood in NSW shows that regulatory demands that frame sustainability as a consumer value may have reached an endpoint.

The discussion of traceability as a policy tool to prevent IUU fishing provides another example of the reluctance of the regulatory framework to acknowledge the implications of fish as a traded product for the management of domestic fisheries aimed at domestic markets, and the imported seafood with which domestic fisheries compete. It also illustrates the fragmented interests in the seafood industry around adopting traceability regulations as a tool to increase transparency in the supply chain. Regarding the first aspect, the framing of IUU fishing in Australia demonstrates that the disconnections between the harvest and post-harvest spaces are bridgeable in the case of the high-value, export-oriented fisheries. However, IUU fishing continues to be viewed as a problem of foreign fishing in national waters and domestic compliance, rather than of the transparency of supply chains. The current regime in fisheries management has given no indication that recent developments in regulation to prevent IUU fishing may be applied in Australia. Quite to the contrary, these regulatory changes are perceived as trade-restrictive, perpetuating the disengagement between the prevention of IUU fishing and the domestic market.

This disconnection between IUU fishing and the level playing field for domestic fisheries in the market is shared by a number of industry actors. In the Senate inquiry analysed in Chapter 5, only one submission from industry, produced jointly by producers and civil society, argued for the role of traceability in preventing product substitution, mislabelling and the presence in the market of product sourced from unsustainable fisheries. The remainder of the industry and government stakeholders participating in the inquiry insisted on the consideration of traceability as a tool for food safety; rejected its use as a tool for fisheries management; and opposed as unnecessary and costly the NGO demands for the adoption of sustainability controls based on the provision of traceability documentation. The reluctance of the governors to alter the regulatory framework in Australia is consistent with a shared understanding between industry and the governors that the fishing industry has the main responsibility for the improvement of their public image in order to increase the social acceptability of its activities. It is also consistent with the shared understanding that the Australian fishing industry is subject to stringent regulations that ensure the sustainability of fish stocks and in some cases aim at maximising the profitability of the fisheries. However, these

understandings, and the voluntary measures that they imply, have been thus far unable to address the societal concerns related to seafood.

The emergence internationally of the construction of traceability as a proxy tool for sustainable management, for use as a legitimate trade-related measure for the prevention of IUU fishing practices, is largely absent in Australia. In the EU and the US, such tools are justified as establishing a level playing field for domestic fisheries subject to high regulatory costs derived from sustainability objectives and competing against imports that may originate from IUU fishing activities. In the EU, bringing traceability requirements to the consumer interface has gone a step further by constructing consumers not only as individuals engaged in transactions, but as participants in the governing of the resource. In both jurisdictions, these regulations come under the purview of fisheries management and articulate the space in which fisheries management operates. In this space, domestic fisheries are subject to management efforts to sustain stocks and compete against imports in the marketplace; consumer concerns are dynamic, operating at different and overlapping scales that range from global concerns about overfishing to concerns around local resource access; and measures to regulate sustainability are a regulatory pursuit throughout the supply chain. These regulations contain implications for the construction of consumers and the public that are discussed below (p. 239). The Australian context shares these conditions except that fisheries management objectives do not take into account the relation between the conservation of fish stocks, the regulation of fishing as an economic activity and the response to social concerns. This explains the urgency to develop fisheries management objectives that integrate the post-harvest space into the management of the resource in a way that allows the participation in management of consumers and the broader public.

‘Girl’ power. The salutation used to refer to the new leaders of SIA may contain a warning for future developments in the construction of fishers, fish and management. The individuals that participated in the reform of fisheries in the 1990s—as fishers, managers, industry actors, wholesalers, representatives, consultants and scientists—are being succeeded by a younger generation. In the two years since this researcher started conducting interviews, a number of respondents in senior roles have retired. Their joint achievement in building the reputation of the fishing industry, as well-managed, efficient and as quality producers of high-value exports, is complete. Their successors are now charged with bringing these efforts back to the community to ensure the

sustainability of fish stocks and the future access of industry to the resource. These efforts are revolving around increased participation, transparency and information in seafood supply chains. The EU's and the US's anti-IUU measures show that increasing the transparency of the supply chain for consumers and the public will require a combination of voluntary initiatives and regulatory changes. Traceability and labelling are very likely to be part of the policy tools used by those jurisdictions that aim to develop a level playing field for sustainable fisheries in the marketplace. The Australian industry actors hope that this objective will be achieved through CoOL. A new generation of public governors may have to revise whether regulating markets to enable a level playing field for well-managed fisheries and prevent the presence of IUU produce is a matter for governmental action, to what ends, and with what tools.

Theoretical contributions of the thesis

This research intends to assist in this process by contributing some of its findings and pointing to its limitations. In theoretical terms, interrogating the construction of the subjects in the governing interactions has demonstrated its relevance. In this dissertation, this has particular importance in the definition of the 'industry', 'consumers' and the 'public' in the governance arrangements. In the case of the former, the overlapping of 'industry', 'seafood industry' and 'fishing industry' to refer to the governed in the policy process obscured the distinctions between the different professionals—fishers (small- or large-scale, coastal or offshore), aquaculturists, processors, distributors, seafood retailers— and of the different subject positions in regard to the policy debates. For example, lifting the exemption for country of origin in the foodservice sector is a demand of the 'seafood industry', as the umbrella organisation Seafood Industry Australia is currently pursuing this objective, but actually only the fishing part of the seafood industry is interested to have CoOL made mandatory. It is then useful to question whose interests are represented, in what social practices, and how they influence access to the policy debate. The analysis of the actors in Chapter 4 shows the relevance of actor and interest mapping at the stage of policy formulation and consultation.

The use of CDA can contribute an answer to this question and its use in this research shows its usefulness as well as its limitations. The two examples of CDA analysis demonstrate not only that the construction of the subjects is the result of unequal social

practices, but also how resources are deployed to construct these subjects in text and practice. Together with the other data sources, this has been used to describe the discursive practices and the unequal roles of the actors in governance, including practices of inclusion and exclusion. However, the use of CDA techniques has not explored its full potential in this dissertation. A detailed CDA of the data in this research could explain when this conflation occurs, and to what purposes. It could also analyse the data to show how subject positions shift: for example, a number of interviewees had multiple roles and spoke from different positions in their interviews. A detailed CDA would explain when they shift roles in the interviews, and to what purpose. This researcher was aware of the difficulty to conduct this research as part of the thesis and the CDA analyses were intended in its design as complementary. Nevertheless, the researcher is aware that such a task would have provided much greater depth of analysis.

Future research agenda

One area where this is particularly relevant is the other overlapping terminology in this research between 'consumers' and 'consumer concerns', 'public' and 'social concerns'. In Chapter 5, the reform of the consumer value 'country of origin' to include it as a mandatory requirement (in Australia) undermined the food labelling hierarchy to the extent that it was taken out of the food regulatory framework and regulated through a consumer information standard. When do governments act on behalf of consumers, when do these regulations respond to social concerns? When can a consumer value be described as a social concern? What threshold indicates that this concern is apt to be regulated? This research demonstrates that the answers to such questions are part of a political process, and that this process results from specific contexts, reflecting specific social practices and interactions, and that neither the 'governors' nor the 'governed' are static entities within these processes. Closer examination of these social practices can be a valuable contribution to case studies of conflicts in interactive governance for fisheries. Furthermore, this overlap between 'consumers' and the 'public' in the government policy drivers for seafood labelling is a field that merits further research. Are the EU labelling reforms directed at informing the choices of consumers who are unlikely to read these labels? Would the consideration of 'consumers' as 'resource owners' (both within the national EEZ and in the high seas) alter government policy drivers for labelling and traceability? Is this already happening in some jurisdictions? These

questions constitutes an immediate agenda for further research and they will be addressed in the publications planned to disseminate the research findings.

Appendices

As discussed in Chapters 1 and 2, these Appendices complement the analysis offered from the perspective of deliberative policy analysis with two examples of how CDA contributes to the construction of subjects and, at the same time, stages social conflicts. The first text chosen to illustrate this kind of analysis is an ordinary 'text', in the sense of a piece of writing, in this case, a weekly news article issued by AFMA. The text offers insights into the construction of governors and the governed in the harvest space, complementing the analysis in Chapter 3 of the construction of the notions of fish and of fishers in interviews, conference observations and company websites. It also illustrates how the conflicts over resource access reproduce conflictive constructions of fish and fishers for the managers, other fishing sectors and the public.

The second text analysed is a multimodal text; that is, one in which meaning is not conveyed by one single mode of language (the written word) but by a combination of modes, such as colour, light and sound (Machin 2007, p. x). The text is a video on the WWF and Tassal partnership to prepare Tassal for assessment by the ASC. The analysis reveals how the subjects and objects of government position themselves when the state withdraws from the governance arrangements. It also shows the underlying conflicts in the governance arrangements for third-party certifications and the complex relationships between producers, certifiers, the public and the state. This complements the analysis of the governance arrangements in the post-harvest sector conducted in Chapter 4.

Critical discourse analysis and multimodality

The linguistic analysis of 'representative' texts in the critical discourse tradition provides an example of how actors struggle to make sense and convey their particular understandings of subjects, objects and problems. CDA finds its grammatical foundations in the functionalist school of linguistics (Martin & Rose 2007, p. 3; van Leeuwen 2008, p. viii). Systemic functional linguistics understands 'texts' as particular 'instances of language' (Halliday 2004, p. 3) that realise in particular ways the potential of meaning that the language system offers (p. 26). Functionalist grammar analyses the means by which language constructs the individual experiences of reality (for discourse analysis, relevant constructions of the subjects and objects of language) embedded in

social interactions (which in discourse analysis is relevant for the enactment of social roles):

> The ideational metafunction pertains to content-related aspects of language; it serves to construe our experience of reality (both internal and external experience). The interpersonal metafunction, on the other hand, refers to speaker-related aspects of language; it is concerned with the enactment of roles (social as well as speech roles) which are taken up by speaker and hearer in a linguistic interaction. The textual metafunction pertains to the creation of texture, i.e. cohesive and coherent stretches of discourse which have relevance in a particular situation. The second-order role of the textual metafunction lies in the fact that it enables the integration of ideational and interpersonal meanings by providing them with a texture, i.e. by presenting them as texts. (Taverniers 2011, p. 1107)

In the two texts selected, the construction of reality selects the meanings for the subjects of governance, such as fishers or fish, in the first text, or aquaculture companies and NGOs, in the second. These subjects are positioned according to a particular view of the struggles in the background: the campaigns in 2016 against the presence of super-trawlers in Australian waters, in the first case; and the environmental impacts of salmon farming in Tasmania in 2014–2015, in the second.

CDA comprises a cluster of approaches rather than a precise methodology and there are several 'toolkits' available to provide methodological guidance for the analysis of texts (Gee 2011; Gee & Handford 2013; Martin & Rose 2007; Reisigl & Wodak 2009). The analysis contained in these appendices follows, generally, the recommendation to adapt the wide variety of approaches to linguistic analysis to the object of research:

> Many methods of textual analysis have been developed in linguistics (phonetics, phonology, grammar, semantics, lexicology), pragmatics, stylistics, sociolinguistics, argumentation analysis, literary criticism, anthropology, conversation analysis and so forth. In principle any such methods might be recontextualised within CDA, though note that this implies that they may need to be adapted to fit in CDA's principles and purposes. The particular selection of methods for a particular research project depends upon the object of research which is constructed for the research topic. (Fairclough 2010, pp. 6–7)

The object of this analysis is to investigate the construction of social actors and their positioning in political conflicts, and it restricts its tools to the lexical, semantic and syntactic levels of grammar, as well as to the units above the clause. Guidance for this type of research has been obtained from the discourse-historical approach. Martin Reisigl and Ruth Wodak (2009, pp. 93–4) provide the questions that guide the analysis:

> 1. How are persons, objects, phenomena/events, processes and actions named and referred to linguistically?
>
> 2. What characteristics, qualities and features are attributed to social actors, objects, phenomena/events and processes?
>
> 3. What arguments are employed in the discourse in question?
>
> 4. From what perspective are these nominations, attributions and arguments expressed?
>
> 5. Are the respective utterances articulated overtly; are they intensified or mitigated?

The guidance offered in Reisigl and Wodak's (2009, p. 95) article, together with Theo van Leeuwen's (2008) toolkit for discourse analysis to analyse the representation of social actors, have been the main sources for the template employed to analyse the first text. Both of these methods have in common the importance of intertextuality in the staging of conflicts:

> *Intertextuality* means that texts are linked to other texts, both in the past and in the present. Such connections are established in different ways: through explicit reference to a topic or main actor; through references to the same events; by allusions or evocations; by the transfer of main arguments from one text to the next, and so on. The process of transferring given elements to new contexts is labelled *recontextualization*. (Reisigl & Wodak 2009, p. 90)

Table A1 contains the template used for the CDA of the written texts.

Table A1: Template for critical discourse analysis

Background	Specific to the issue Date and time Relevance to the issue, reason for choice
Context of production	Author, publisher, location
Genre	Genre Text position in the web/newspaper/publication/website Text formatting Multimodal elements (e.g., images, videos)
Content structure	Main ideas and argumentative structure
Subjects and objects	***Nomination*** How are persons, objects, phenomena/events, processes and actions named and referred to linguistically? Who are they? What linguistic tools are used to identify and qualify them? membership categorisation devices, deictics, anthroponyms tropes, such as metaphors rhetorical figures: metonymies and synecdoches verbs and nouns used to denote processes and actions, etc. patterns of exclusion and inclusion: backgrounding, suppression, assimilation or individualisation, passivation ***Predication*** What characteristics, qualities and features are attributed to social actors, objects, phenomena, events and processes? stereotypical, evaluative attributions of negative or positive traits explicit predicates or predicative nouns/adjectives/pronouns ***Collocations*** Explicit comparisons, similes, metaphors and other rhetorical figures (including metonymies, hyperboles, litotes, euphemisms) ***Perspectivisation*** deictics direct, indirect or free indirect speech quotation marks, discourse markers particles metaphors theme, rheme and scope ***Intensification or mitigation*** diminutives or augmentatives (modal) particles, tag questions, subjunctive, hesitations, vague expressions, etc. hyperboles, litotes indirect speech acts (e.g., question instead of assertion) verbs of saying, feeling, thinking, etc.
Intertextuality	How does the text relate to past events? What other texts, genres, styles are recontextualised?

Source: Adapted from Reisigl and Wodak (2009) and van Leeuwen (2008).

The choice of van Leeuwen's toolkit for analysis in Appendix 1 is complemented by the choice of his approach for the analysis of multimodal texts (Kress & van Leeuwen 2001). Multimodal analysis examines how the various resources employed in a text combine to make meaning (Baldry & Thibault 2006, pp. 1–2). Rather than being hierarchically organised modes of expression brought together by editing, multimodal texts make meaning 'in multiple articulations' (Kress & van Leeuwen 2001, p. 4). In addition to Kress' and van Leeuwen's guidance, the analysis in Appendix 2 is complemented by the work of Anthony Baldry and Paul J. Thibault (2006) in multimodal analysis of audio-visual documents. Technical concepts have been taken from Bordwell and Thompson (2013) and online resources have been accessed for examples and clarifications (e.g., New York Film Academy 2019). Transcription of the video and text follows the conventions in Baldry and Thibault (2006).

Analysing multimodal texts increases the levels of analysis compared to analysing documents and choices must be made on which of the different resources that combine to produce meaning will be analysed. The analysis of the video focuses on the interaction of visual elements with language that enables a construction of the subjects in the video and explains the inequality of their interactions. However, while aspects related to visual image—such as distance, perspective or light—are taken into account, other aspects—such as rhythm (e.g., the use of slow-motion throughout the documentary), colour or sound—are excluded from the analysis. Although these aspects contribute to the construction of the subjects—powerfully in this case in the use of light and colour—they would render the analysis disproportionately minute in relation to its intended goal. In view of this scope, each frame of the video is reproduced through a screen capture, with the transcript alongside, complemented where necessary by mention of other relevant elements, such as printed text.

Appendix 1: New boat in the small pelagic fishery

Chapter 3 explored how episodes of overfishing in the 1990s and conflicts over resource access constructed a control-and-command mode of governance that constructs fishers as objects of governance and fisheries managers as the stewards for conservation measures. The construction of this command-and-control mode of governance evokes the Foucauldian combination of power and knowledge that emerged with the modern systems of discipline: 'a corpus of knowledge, techniques, "scientific" discourses is formed and becomes entangled with the practice of the power to punish' (Foucault 1991, p. 23). The news article analysed here (presented below) is an example of the governance arrangements in the harvest space. It is an example too of how social actors construct and position themselves and others in these governance arrangements: in this case, how the public governors of the resource describe themselves and the governed. Finally, the analysis evokes past campaigns against super-trawlers in Australian waters and illuminates what tensions underlie the construction of fisheries managers and commercial fishers in contemporary governance arrangements. This discursive construction, as explored in Chapter 3, is one main stumbling block towards the improvement of social licence for the commercial fishing industry.

> New boat in the Small Pelagic Fishery
>
> 29 September 2017
>
> AFMA has been advised that a 40m mid-water trawl fishing boat will commence fishing in Small Pelagic Fishery (SPF) off the south-east coast of Australia from early October.
>
> Like all fishing operations in Commonwealth managed fisheries, this mid-water trawl operation is subject to strict rules and conditions.
>
> This includes a strict limit on the amount of catch that can be taken from the fishery. This 'total allowable catch' limit will not change with the introduction of this boat or any other boats. That is, one boat or 100 boats could fish in the SPF, and the total allowable catch would remain the same.
>
> Fisheries are a resource to be shared by all. Small pelagic fish are versatile with a wide range of uses including as a healthy source of protein for humans and animals and bait for both recreational and commercial fishers.
>
> More information on AFMA's strict, science-based management can be found at afma.gov.au.

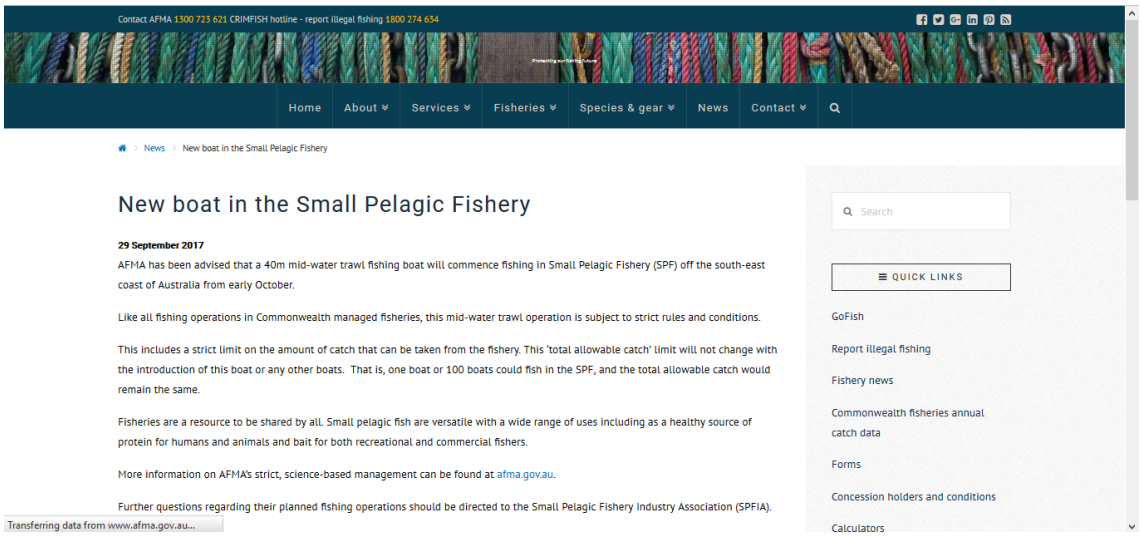
Further questions regarding their planned fishing operations should be directed to the Small Pelagic Fishery Industry Association (SPFIA).

(AFMA 2017)

Background and genre

AFMA is the agency responsible for the management of Commonwealth fisheries in an efficient manner consistent with ESD principles (Borthwick 2012, p. 21). Every Friday, AFMA distributes a selection of news to an online mailing list. The mailing list is addressed to subscribers and the news items are stored online on the agency's website. Brief texts inform on the activities of the Agency and generally contain no multimodal elements (e.g., videos). Elements of the fixed structure are a title, date and text under the heading of the website section. News topics cover different aspects of AFMA's activities, such as meetings, training, publication of TAC estimates, apprehension of foreign boats in Australian waters, and notices of public consultation procedures or tenders. Figure A1 shows a screenshot with the piece of news in its visual environment.

Figure A1: 'New boat in the Small Pelagic Fishery' source

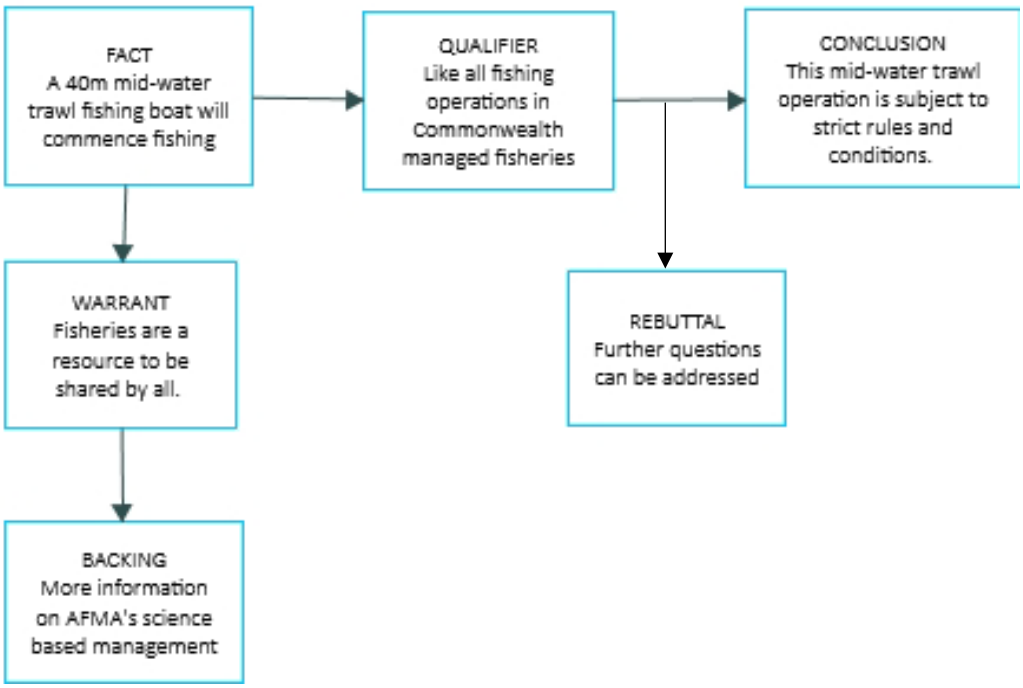


Source: (AFMA 2017)

Content structure

The theme 'New Boat' is the main entry point to the text, followed by an adjunct indicating the circumstance. The piece contains six paragraphs, each with a main clause as a relevant information unit. The piece of news presents the argumentative structure shown in Figure A2.

Figure A2: Argumentative structure of 'New Boat in the Small Pelagic Fishery'



Subjects and objects

The title, as usual in the register, is a nominal group from which the verbal process is elided and which refers to a theme and its scope. Information on the nucleus of the nominal group 'New Boat' is developed in the first three paragraphs, and the scope is developed in the fourth. Paragraphs 5 and 6 close the article directing the reader out of the text in search of more information.

The title refers to a boat, but the news item begins with AFMA foregrounded as subject and theme of the first sentence:

> **AFMA has been advised** that a 40m mid-water trawl will commence fishing.

The theme AFMA is passivised: it is the first item in the sentence, the theme, around which all information is structured. However, it is neither the subject nor the actor of the sentence. The actor has been suppressed, leaving it unknown who has advised AFMA. The passivation of the subject and the use of indirect speech give the perspective from where the pieces of news are issued: AFMA is exempt from any agency in the event other than having been the beneficiary of a communication. The validation of the information, and ultimately the responsibility for the event, lies somewhere else.

The acronym AFMA is not explained in the text, since other elements in the format present the full title of the organisation and its acronym, both in the subject of the email and in its introduction. The organisation is also positioned as theme and thus assumed as known, but its role in regards to the fishing boat remains backgrounded:

> AFMA has been advised that a 40m mid-water trawl will commence fishing.

The boat is defined by technical specifications referring to its length and fishing methods. The boat remains unspecified both by the deictic 'a' and the lack of reference to its name. The main clause of the first paragraph activates the boat by means of a usual metonymy in the field of action of fisheries management: the personification of boats. In this case, the personification of the boat completes the removal of human actors from the first paragraph. The piece of news is about an animated object and its circumstances, but human actors are so far elliptic.

The use of indirect speech also turns a material clause into a mental clause, mitigating the force of the phenomenon and casting questions into its materiality. Thus, the next paragraph continues:

> Like all fishing operations in Commonwealth managed fisheries, this mid-water trawl operation is subject to strict rules and conditions.

The boat has suffered a further transformation. It is no longer a concrete object, but an abstraction:

> new boat
> a 40m mid-water trawl
> this mid-water trawl operation
> all fishing operations.

This abstraction reinforces the mitigation that has taken place in the previous paragraph, but also projects mitigation forward, including it in a group that is passivised. The abstraction enables trawling to be assimilated into a group of similar phenomena by means of an adjunct placed in a marked position at the beginning of the sentence. This group of phenomena are characterised by two attributes: 'rules' and 'conditions'.

Again, the actor remains suppressed, both in the adjunct theme clause and in the main clause. The role of AFMA as the manager of Commonwealth fisheries and the source of the rules and conditions remains implied and relies on external knowledge. However, two lexical items reinforce these links: the repetition of 'strict' in paragraphs 2, 3 and 5 to qualify rules, limits and AFMA's management, and the use of 'managed' in paragraph 2 and AFMA's 'management' in paragraph 5.

The next paragraph is dedicated to these rules and conditions by means of the deictic 'this'. If 'this' had 'rules and conditions' as a referent, it would be in the plural form these, but its use in singular draws to the one condition that is explained in the paragraph: the concept of 'total allowable catch'. Thus, the paragraph has a parallel structure, with three main clauses of nested explanations. The first clause identifies the concept by means of an attributive clause indicating possession:

> This includes **a strict limit on the amount of catch** that can be taken from the fishery.

One of the conditions/rules is a concept defined as the 'total allowable catch'. The deictic[45] 'this' links the second clause to the first:

> **This 'total allowable catch' limit will not change** with the introduction of this boat or any other boats.

The 'total allowable catch' is now subject and actor in material process (change), direct speech, declarative mood and negative polarity, in sharp contrast with the perspective of the previous paragraphs. The determinatives referring to the boat cover all degrees of proximity to the speaker, thus emphasising the adscription of the boat to the category and the universality of the rule. The concept now explained, an appositional adjunct introduces a third clause that further explains the rule:

> **That is,** one boat or 100 boats could fish in the SPF, and the total allowable catch would remain the same.

The subjection of the 'boat' to the condition is reinforced through numerals, and the universality of the rule is reinforced by the simultaneous use of grammatical means: by

[45] Deictics are words whose meaning cannot be fully apprehended without contextual information. Demonstratives such as 'this/these' indicate proximity/distance.

reversing the negative to the positive, thus covering all possibilities of polarity; and by covering in the paragraph the three aspects of mood, both in its tense (present, future, conditional) and modality (low, median, strong).

The paragraph thus reinforces control over all operations in the Commonwealth-managed fisheries, even if the agent of control remains unspecified in the text. The language of control points to the earlier analysis of the construction of the governors and the governed that has been framed in Australia as one of reform and contestation.

The structure of nested explanations also draws attention to the target reader. The text is intended for both those who are familiar with the concept and those who are not; those who will understand it quickly and those who may need further explanations. But who are these readers?

Paragraph 4 develops the scope of the title to answer where the boat is fishing by explaining the concept of fisheries:

> Fisheries are a resource to be shared by all.

The *Fisheries Administration Act 1991*, Part 1, 4(1) defines the concept of 'fishery' as 'a class of activities by means of fishing'. However, in the text, fishery is not an activity or a class of activities: its meaning is recontextualised as a resource. This description of a fishery as a resource is found in related texts (see below) and relies on a synecdoche: it takes part of the elements of a fishery as the whole.

Fishery resources is the term that designates, through a possessive nominal group, the element harvested in the fishery, in this case small pelagics (e.g., sardines, blue mackerel, jack mackerel and redbait; AFMA 2018). Fishery resources are 'any stock of aquatic living animals (except those specifically prohibited by law) which can be caught by fishing, and their habitat' (FAO 2017). The synecdoche gives further ambiguity to the referent of the pronoun 'all' and draws the reader out of the text to look for the reference: 'All Australians'? (owners of the elements of the fishery that constitute natural common-pool resources), 'all fishers'? (class of persons participating in the fishery).

If the fishery resource (i.e., the small pelagics) is a common-pool resource, 'all' may refer to the writer and the readers, maybe belonging to the group 'public' or the group

‘Australians’. If ‘all’ refers to the fishery as an activity, it may be referring to a particular class of persons. The second clause of the text explains the role of small pelagics and sheds light on the possible implied referents of the pronoun ‘all’.

> Small pelagics are versatile

Small pelagics, defined in regard to the marine environment, receive an attribute that is often used in the domain of cooking, when small pelagics are called sardines or mackerel and associated with a variety of components—for example, health, leisure, culture—that constitute the notion of food. The incoherence in the use of lexical items and the reluctance to relate fish to food and fishing to food provision continues in the complement:

> with a wide range of uses including as a healthy source of protein for humans and animals

The meaning of fish as a source of protein is a powerful restriction of the meaning of fish as food. While ‘fish’ and ‘food’ are semantically related, the relation of ‘protein’ is with nutrients, therefore with food (for humans) and feed (for animals). The uses of small pelagics for human consumption and animal consumption (i.e., the use of sardines as fishmeal for aquaculture farms) are placed in the sentence at the same hierarchic level, and are collectivised as part of a larger group. This arrangement of uses in which food is not privileged shows a discursive battle lost by the commercial fishers: the provision of food against the right to fish. The loss of pre-eminence of fishing as the provision of food is highlighted in the recent policy statement on the Commonwealth fisheries:

> Australians love to fish and Australians love to eat seafood.
>
> Our love of fishing and seafood is at the very heart of our nation and this policy statement.
>
> Approximately 3.4 million Australians are regular fishers, and on average, every one of us eats 140 serves of seafood every year. (Department of Agriculture and Water Resources, p. 3)

The hierarchy of uses demonstrates the evolution of the social construction of fishing in Australia that was described in Section 4.2.1. The importance of commercial fishing as an activity that merits public acceptability depends on the importance that is given to the provision of food.

If fish as food is not privileged in regard to a hierarchy of importance, the same occurs between fishing sectors by means of a second conjoined complement:

> and bait for both recreational and commercial fishers.

The use of fish as bait introduces the first human beneficiaries of an action in the text. Bait is associated with both kinds of fisher, and both categories are the only possible referents within the paragraph for the pronoun 'all'.

The final paragraphs contain the last mention of AFMA, in parallel to the construction of a new subject:

> More information on AFMA's strict science-based management can be found
> Further questions regarding their planned fishing operations should be directed to the SPFIA

The parallel structure contrasts both subjects in lexical and grammatical terms of finiteness, and the combination of tense and modality:

> AFMA: Information, science-based, present, low modality: certainty
> SPFIA: Questions, planned, future, median modality: uncertainty

In structural terms, the construction opposes the responsibilities for the backing of the claim (AFMA's) to the rebuttal of the claim (SPFIA's): possible grounds for rebuttal cannot be found in AFMA's situation of the event, but outside it. The agency of AFMA is clearly established as communicating the event, as in the opening sentence, while the warrant for AFMA's role in issuing the communiqué remains implicit. Moreover, the closing sentence introduces another subject unrelated to AFMA in a parallel construction: the SPFIA. The SPFIA is responsible for the event and, especially, for the 'questions' around the event. It is possible that SPFIA is the actor suppressed in paragraph 1#, although the link between the Association and the operations is reinforced by the use of the deictic 'their':

> Further questions regarding their planned fishing operations should be directed to the Small Pelagic Fishery Industry Association (SPFIA).

'Their' is a plural deictic referring to the actor planning the fishing operations but has no direct referent within the paragraph. Who is this actor? If the boat is singular, is this

referring to the crew? The fishers? The company? The members of the Association? The commercial fishers two paragraphs above?

The text's arrangement of pronouns without direct referents expects the reader to deploy cognitive resources to compensate for the ambiguities. These resources mobilise other texts, other discursive practices, the baggage that the potential reader brings to decoding the text and that the writer has brought to the process of production. The use of intertextuality as an analytical tool may explain the gaps in the text in terms of discursive struggles related to the allocation of the resource, its uses and in the construction of the receiver of the message in the public sphere. This is analysed further in the next section to show the tension between the subjects in the text: whose responsibility is it to inform the public?

Intertextuality: The echo of keystone episodes

In 2012, the Tasmanian company Seafish Tasmania employed the *FV Margiris*, one of the world's largest trawler boats measuring over 130 metres, to fish small pelagic species off the coast of Tasmania up to a total of 16,000 to 18,000 tonnes. The boat operations met AFMA requirements and were due to respect the TAC in the fishery, as determined by the scientific research underpinning AFMA's management. The announced fishing operation sparked massive opposition from a diversity of civil society groups, resulting in the passing of legislation banning operations of trawlers larger than 130 metres for two years, and in the review of the Commonwealth fisheries management and policy. In April 2015, the same company brought the Geelong Star, another factory freezer trawler, this time of just under 100 metres, to Australian waters, with a quota of 16,000 tonnes in the small pelagic fishery. Again, conservation groups and recreational fishers campaigned against the operations—including through the formation of a political party by Tasmanian recreational fishers to lobby against trawling—and on 22 November 2016, AFMA announced that the Geelong Star had left Australian waters. The text of that announcement bears a strong resemblance to the text being analysed in this appendix, although the subjects are individualised in this piece and AFMA is foregrounded. Further, the source of the news is omitted, since the name of the operator (Seafish Tasmania) is not specified:

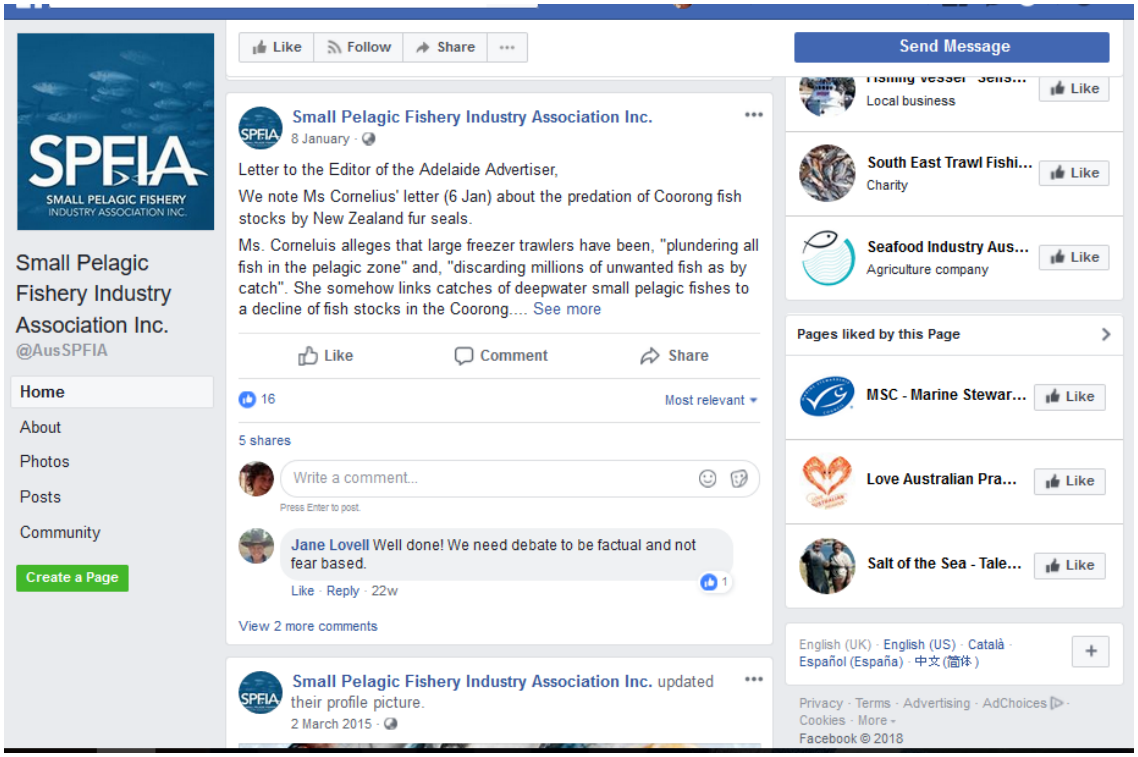
> Departure of the Geelong Star from Australian waters
>
> 22 November 2016
>
> The Australian Fisheries Management Authority (AFMA) can confirm that the mid-water trawler, the *Geelong Star* which has been operating in Australia waters since April 2015, is no longer under Australian jurisdiction.
>
> Enquiries about the decision to leave Australian waters or future fishing operations of the *Geelong Star,* should be directed to the operator.
>
> The *Geelong Star* is not currently subject to any investigation by AFMA for breaches of Commonwealth fishing regulations. (AFMA 2016b)

After the extensive coverage of the presence of the Geelong Star, the AFMA communiqué was met with the following comment from the Greens' spokesperson:

> This situation is bizarre. The fisheries authority has posted a mysterious statement on their website about the Geelong Star no longer being in Australian waters. They haven't said when it left, where it is has gone and if it is coming back. (Whish-Wilson 2016)

The issue of the sources of communication reflects a tension between the governor and the governed over the responsibility to communicate. The industry organisation mentioned in the text, the Small Pelagic Fishery Industry Association, lacks a website and issued a Facebook post on the departure of the boat referenced in the news (Gorton & Wisbey 2016); however, the timeline of the SPFIA's Facebook account shows no posts between 2 March 2015 and 8 January 2018, as seen in Figure A3.

Figure A3: Facebook posts between 2015 and 2018, SPFIA



Source: (Small Pelagic Fishery Industry Association 2018)

This tension over the responsibility to communicate to the public has been discussed above and explains the distinction between AFMA's and SPFIA's roles in the text, as well as the backgrounding of AFMA as a recipient of the information.

The key sectors opposing the trawler's operations were environmental groups and the recreational sector, which came together in the platform 'Stop the Trawler' (Stop the Trawler Alliance 2012). This alliance contributes to explaining paragraph #4 in more detail, where the lack of referent for the pronoun 'all' points both to the public ('all', as in 'all Australians' or 'all public') and especially to the harvesters, both recreational and commercial, as the sentence is juxtaposed to the uses of fish in the next sentence. These uses reflect one socio-culturally specific characteristic of the Australian fisheries: the lack of pre-eminence of the activity of fishing for the provision of food. This in turn affects the social acceptability of commercial fishing, influences the lack of involvement of the post-harvest sector in the governance of the harvest space, and explains the lack of involvement of the public governors in the post-harvest space.

The balance of uses for fish and the order of the subjects in the paragraph echo the recommendations produced in November 2016 by the Senate inquiry on the environmental, social and economic impacts of super-trawlers:

> Recommendation 1
>
> 6.22 The committee recommends that the Australian government ban all factory freezer mid-water trawlers from operating in the Commonwealth Small Pelagic Fishery.
>
> Recommendation 2
>
> 6.25 The committee recommends that the Australian government expedite its 2013 election commitment to appoint a National Recreational Fishing Council. An Agriculture and Water Resources portfolio minister should chair the Council.
>
> Recommendation 3
>
> 6.26 The committee recommends that the government expedite its 2016 election commitment to amend the Fisheries Management Act 1991 to specify that the Australian Fisheries Management Authority is required to consider the interests of all users of fisheries including recreational, Indigenous and commercial fishers. (Commonwealth of Australia 2016a, p. vii)

The 'Stop the Trawler' campaign, which questioned the regulator's assessments of environmental impacts, such as the localised depletion of stocks, bycatch and threatened marine wildlife, had as a key outcome the recognition of recreational fishing (and Indigenous fishing) as equal in importance with professional fishing and increased monitoring of the commercial fishing industry. The strong views of the Senate panel committee that the management of the Small Pelagic Fishery was conducted 'in a way that sidelines recreational fishers, conservationists and the public from the decision-making process' (Commonwealth of Australia 2016a, p. 99) was the main reason for Recommendation 1. Thus, and as indicated by the dissenting Senators' report in the inquiry, the science underpinning the management of the fishery was not contradicted (pp. 105–7). Against this background, the focus on TAC in paragraph #3 rather than on measures of bycatch and interactions with marine life is not only a reinforcement of the importance of stocks as the key component of sustainability, but also an acknowledgment of the political nature of the management process as found in the next

paragraph: the allocation of a limited resource among competing users who struggle to win public support.

The analysis of this text thus complements the analysis of the other sources of data. It highlights the importance of the interactions between the governed and the governors in constructing the present discursive domain that frames the governance of the Australian harvest space. It echoes the influence of keystone episodes in the construction of subjects and their positions in the system; that is, the stakeholders involved in asymmetrical positions of power. It draws attention to the strong boundary in the governance of fisheries and the prevailing governance model, based on a control-and-command structure, which is increasingly open to consultation, albeit by a narrow group of stakeholders. It points to the challenges in communicating to the post-harvest space and the public, in terms of both arenas and responsibility. It highlights the critical importance of earning and maintaining social licence for the commercial fishing sector, and the importance of communicating to the public to achieve these goals.

Appendix 2. Governors and the governed in the certification universe

In November 2014, Tassal became the first company in the world to obtain ASC certification for all of their salmon farms (Tassal Group 2018). The ASC scheme is one of the most recent initiatives in global aquaculture certification after BAP, Friend of the Sea and GLOBAL GAP certification (Auld 2014, pp. 212–4). The ASC certified its first farm, in 2012, in Vietnam (Auld 2014, pp. 214–6). Following the pattern that led to the foundation of the MSC, the establishment of the ASC stemmed from the involvement of the WWF in dialogues towards promoting better aquaculture practices, followed by a partnership with another organisation, the Sustainable Trade Initiative (Auld 2014, p. 213). The non-profit ASC is fully independent from its founding partners (ASC 2018).

The seven-minute short film analysed below presents the partnership between the WWF and Tassal that enabled the salmon-growing company to receive assistance towards achieving ASC certification. The document presents the collaboration between these actors and the benefits of certification, providing support for this form of private governance. In the process, a particular discursive field is established: actors in the private governance of fisheries, here a company and a non-state (civil society) organisation, interact to construct the discursive domain in which the governance of certifications takes place. In doing so, they delineate a particular universe in which the NGO struggles to assert its authority over the company, and in which two key actors in the governance of fisheries—the public governors and the public—are situated in marginal positions. The video supports the earlier analysis on the key role of certifications as tools to address reputational motivations. When the video is viewed in context, larger implications emerge relative to the complex relationships between technical, standardised global processes of private governance and the messy realities of the local scale. The commentary of the video affirms the earlier analysis that described certifications as failing to meet the needs of those actors seeking to communicate to communities to improve their social licence (despite claims to the contrary by their advocates, as seen below). It shows too that in the universe of private governance, authority and credibility are valuable and vulnerable qualities, subject to the actions of the actors involved. Further, the video emphasises the importance of profit, which is often silenced in favour of non-profit motivations, and demonstrates how the universe

of private governance is dependent on the actions of the public regulators, who have been excluded from its construction.

Background and genre

At the time that the analysis was conducted,[46] the video could be found on two websites: as part of a press release issued by the ASC (2014), with a broken link; and in the sustainability section of the Tassal Group's (2018) website. It was not available on the WWF webpage on Tassal (WWF-Australia 2018), where another video was instead presented. The location of the video raises questions as to its design, production and audience. Although the video was found on Tassal's website, the responsibility for the design belongs to WWF, as shown below. Do the choices in design and resources in the production of the video suit the interests of both actors in the partnership? Who is the intended audience of the video? What is the video for?

Content structure

The narrative of the video can be segmented into 11 content units (see Table A2), marked by two features: the use of technical resources, such as music and printed text on screen, to distinguish the introduction and closure from the rest of the video; and the change of leading characters for each section, alternating the views of Tassal and WWF on ASC certification.

[46] The links were available during the period of data collection and analysis up until June 2018. When links were revised in the lead-up to thesis submission, in October 2019, the only link available was from the film company, on vimeo: https://vimeo.com/110840366 (viewed on 30 October 2019).

Table A2: Content structure of the WWF–Tassal partnership video

00:00–00:20	Introduction	Aerial shot, music and printed text
00:20–01:09	Presentation of the partnership between WWF and Tassal	WWF: Peter Trott, unidentified worker
01:09–02:50	Presentation of Tassal's values and efforts with sustainability. General definitions, ASC standard, fish feed	Tassal: Linda Sams
02:53–03:54	Tassal and wildlife interactions: ocean-based	Tassal: Andrew Hunter
03:58–04:26	Tassal and wildlife interactions: conclusion	WWF: Peter Trott
04:26–04:59	Tassal and wildlife interactions: land-based	Tassal: Linda Sams, Pam Burton
04:59–05:13	Tassal and wildlife interactions: conclusion	Tassal: Linda Sams, unidentified worker
05:13–05:50	Tassal and WWF: benefits of the collaboration	Tassal: Andrew Hunter, Peter Trott
05:50–06:23	WWF and ASC: benefits of the standard for Tassal	WWF: Peter Trott, unidentified worker Tassal: Linda Sams
06:24–06:43	Tassal and training: into the future	Tassal: Linda Sams, unidentified workers
06:43–06:44	Closure	Time lapse, music and printed text

Subjects and objects

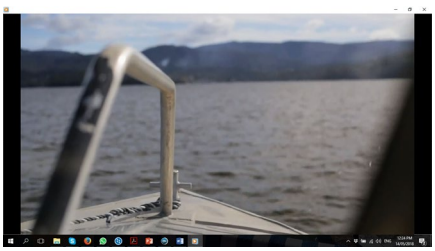
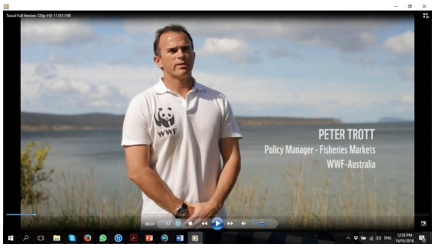
The video starts with a graphic: the logo of the WWF zooming into the foreground, followed by a long aeroplane shot of a boat moving forward through an estuary. The text introduces the WWF as the first subject in two sentences: a mental process of realisation ('WWF recognises') and a material process of action ('we partnered'). These initial seconds establish the leadership of the partnership by means of the logo and of the position of the WWF and Tassal as subject and complement of the clause 'We partnered with Tassal'. The printed text also establishes the first step in constructing a policy issue: that of identifying a pressing collective need (foregrounded as theme of the sentence) to which action must be addressed:

> 'With aquaculture the fastest growing food sector in the world, WWF recognises the need for more sustainable growth.'

This anticipates another role for the WWF, soon to be made explicit: that of a policy-maker. The extent of the policy problem (aquaculture as a food sector in the world) is global, whereas sustainable growth lacks any spatial adjuncts limiting its scope. The

scope of action of the WWF as a policy-maker thus takes place at a global (or above ground) level.

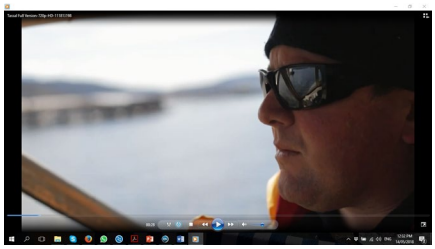
The aeroplane shot over the water is followed by a shot from the water level, to underline the shift from the general to the concrete. The voice of the first character defines the organisation and its identity:

00:20		WWF's a science-based solutions-oriented organisation.	
00:24		We work with seafood companies looking for market transformation.	PETER TROTT Policy Manager – Fisheries Markets WWF-Australia

A medium shot of the first character introduces his role as 'policy manager'. Policy is an area of activity that has expanded to the private sector but is still mainly a function of the public governors. Authority over the policy to address a global collective need is conferred here to the organisation. In addition, the specific position contrasts with the scope of fisheries management in Australia: by bringing aquaculture into the domain of 'fisheries markets', it is conceived as an activity taking place in the post-harvest space. For the local audience, the shot contains another piece of information: in the background, the Hells Gates of Macquarie Harbour introduces Tasmania as the location, which remains unidentified for non-local audiences.

Voice is given to the WWF to define the other actor in the partnership, Tassal. From the first mention of Tassal, a contrast is established that will be used frequently throughout the video; that is, introducing characters by means of close-up shots before identifying them. Contrasting the medium shot, open air, white uniform and natural setting of the WWF as the policy manager, Tassal is represented by a close-up shot of a man wearing black sunglasses and a black beanie, with shallow focus (i.e., an out-of-focus background) of a key object: a salmon cage. This resource will be used a number of

times to underline the goal of the process in which the WWF is engaging: to shed light and offer transparency (with the WWF as an agent) on the activity of salmon farming.

00:28		Working with Tassal has been very rewarding

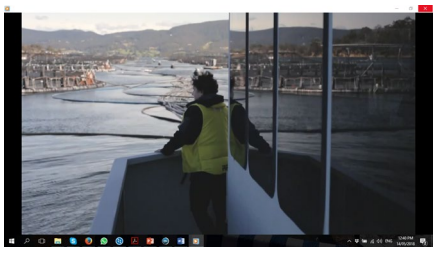
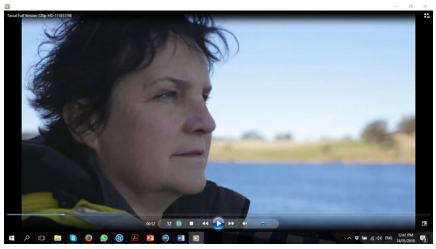
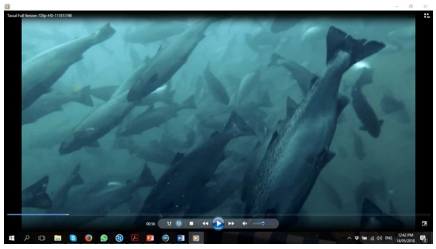
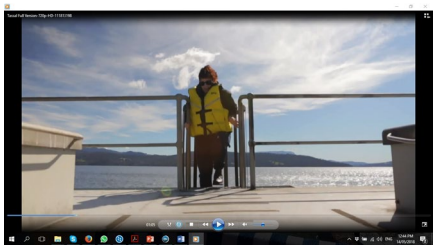
Authority over Tassal is expressed in text and image: the policy manager evaluates Tassal's changes in reactive processes, accentuating not only that the changes have occurred but that they have elicited a response in the manager, not as a manager, but as an organisation: 'it's been rewarding' and 'pleasing to see some changes'. The camera shows shots of a second unidentified character with its back to the camera, engaged in activity; both characters remain collectivised as Tassal, with their actions subject to the voice of the WWF.

Authority over the process contains the exclusion of another actor:

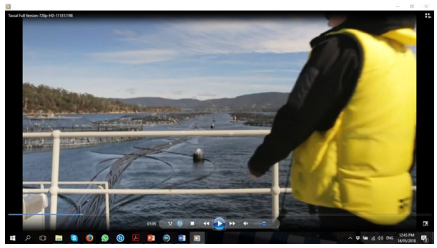
> Prior to that partnership Tassal obviously had a number of issues to overcome as an industry, like any industry starting off from scratch regarding sustainability and what their global standard could look like.

'Starting off from scratch' obviates the existence of any public regulation around sustainable aquaculture and excludes the public governors from this universe, in which aquaculture is regulated by a 'global standard' and is thus subject to regulation by global organisations. Thus, the first 45 seconds of the video present the partnership as reinforcing the discursive authority of the WWF, excluding other actors from authority and locating the process at a global level of governance.

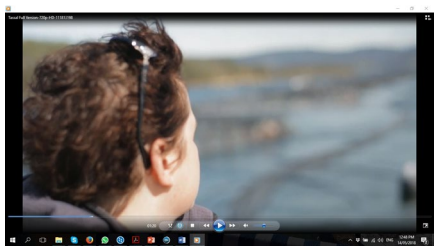
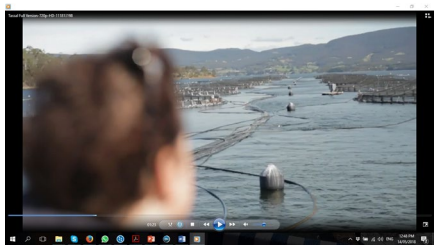
The last part of the intervention by the WWF transitions to the next block of information by Tassal by sanctioning Tassal's ability to have a voice as a result of the partnership with WWF:

00:50		Tassal partnering with WWF in the last few years and definitely
00:52		the leadership from Linda Sams, their technical expert in the sustainability arena
00:56		has absolutely driven Tassal to a new place, a new ground for sustainable and responsibly sourced salmon aquaculture within this country.
01:05		Music

The WWF gives Linda Sams an identification (she was the character, previously unidentified, working with her back to the camera), a position and allows her to take leadership in the scene, which ascends to the clear skies while the camera remains at ground level. However, this leadership, as concerns ownership of the process, is contested between Tassal and the WWF throughout the video. For example, while Linda Sams is first identified by the WWF as 'their technical expert', this is not how she defines herself:

01:09		My name is Linda Sams and I'm Head of Sustainability and I look after the environment

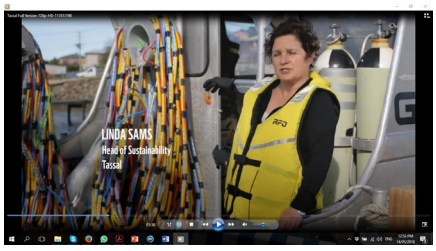
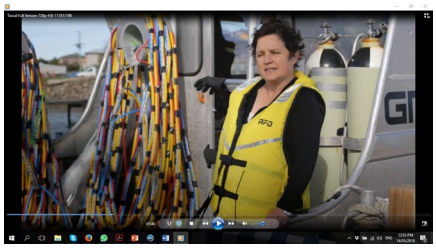
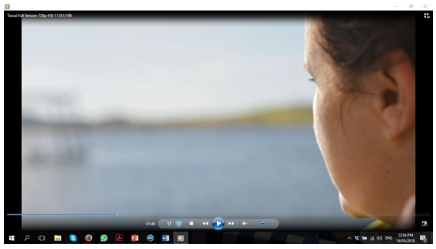
The identifying shot brings her back momentarily to undisclosure by cutting her head off and situating her with her back to the audience while she looks after the environment. However, she is given voice to assert her legitimacy as an expert, during which the location appears in image (by shifting the focus of the camera from object to background) and voice:

01:20		I actually put in some of the very first farms
01:23		on the west coast of British Columbia and it's brought me all the way here to Tasmania in Australia

British Columbia, unlike Tasmania, is not located in a particular country other than through the accent of the speaker. This contrast raises the question of whether the video is addressed at a global (anglophone) audience rather than at the local Tasmanian/Australian audience. This is fostered by the lack of specificity about the sites at which the video is filmed and the juxtaposition of different sites; Macquarie Harbour can be identified by Hells Gates and the white wallaby that features later in the video is endemic to Bruny Island. This juxtaposition remains unidentified but the locations are easily recognisable for a Tasmanian and even a mainland Australian audience.

Linda Sams is given the authority to introduce the ASC, whose logo is zoomed into the foreground. As explained above, the ASC remains independent from its founding

organisations, the WWF and the Sustainable Trade Initiative, and Tassal is given the voice to explain and promote the standard. To facilitate this, Linda Sams' position is briefly acknowledged in printed text:

01:36		to achieve as a salmon farming company and I think what sets	LINDA SAMS Head of Sustainability Tassal
01:41		ASC apart from other standards is one, the transparency and two the high level of	
01:45		stakeholder engagement that has happened.	

The promotion of the ASC against other standards raises again the question of what audience is being addressed, as well as another question: what stakeholders? The image shows an over-the-shoulder shot of a salmon cage in shallow focus to the left, with Linda Sams' ear and cheek to the right, and water in the centre. Except for Sams' ear—listening or being listened to—all other stakeholders remain implied.

Sams goes on to list the priorities of Tassal in three key areas: habitats (frame of kelp), wildlife (frame of a stingray),

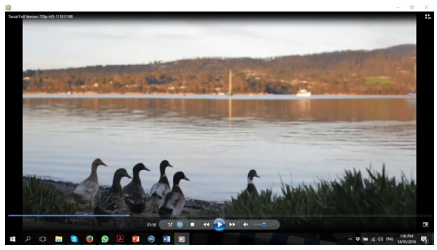
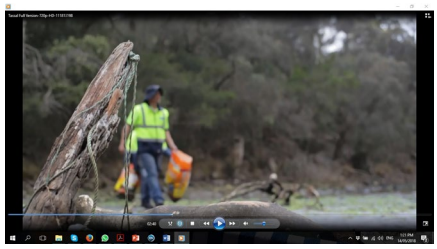
01:55		and the communities around where they're operating.

Image and text highlight a salient characteristic of the video: the absence of any human characters other than Tassal workers and the visual absence of any urban space other than wharfs, even when referring to humans. This is complemented by the text: aquaculture operations take part 'around' communities, not 'in' them. This lack of integration with communities contrasts with the claims that will presented later on the ability of certification to provide social licence.

Once the main actors have been presented, sustainability is defined. Minute 2:40 introduces the next character in the narrative by means of the same resource previously used: the character is an unidentified person in work gear and a wide brim hat, advancing towards the wharf, out of focus.

02:40		Sustainability isn't just

To illustrate what sustainability is about, the camera takes two low-eye shots of the man from the waist to the feet, followed by a close-up shot, still from below the man's position, of the face obscured by the hat. The subject will be identified next:

02:53		Andrew Hunter is actually our wildlife officer.

Andrew Hunter, whose face is still partially out of the screen, is 'actually' the wildlife officer of Tassal. According to the *Oxford English Dictionary*, 'actually' means 'In action; in fact, in reality, really. Opposed to *possibly*, *potentially*, *theoretically*, etc.' and also introduces a degree of opposition to previous statements. The adverb introduces a dispute over authority that will arise later in the video, when Andrew Hunter interacts with another character, the WWF policy officer. In the meantime, Andrew Hunter is

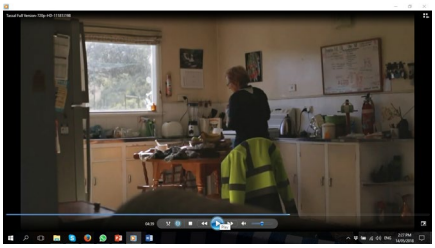
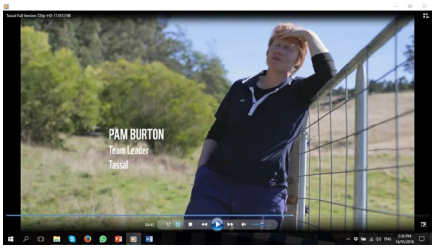
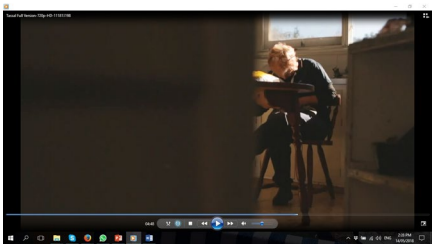
brought to light: after 13 partial or out-of-focus shots since he appeared at 02:40, in minute 03:12 he is given a dominant, medium-long shot from the knees, occupying a similar position to the policy manager, in an outdoors setting. He is also provided with a title:

03:12		The ocean can be quite barren out there at times, but with our, with our farm out there, it's almost like a floating	ANDREW HUNTER Wildlife Officer Tassal

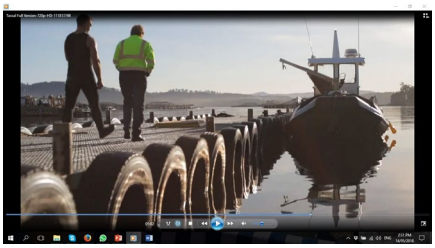
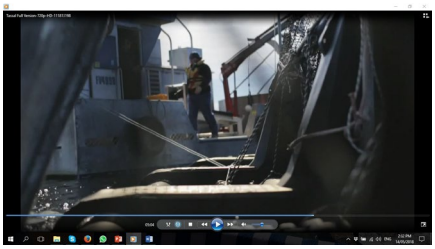
In the next section, Andrew Hunter is given voice to list the measures that Tassal has undertaken to minimise the impact of farming on birds and mammal populations. This happens by means of a series of shots: first an establishing shot of Macquarie Harbour, which remains unidentified as somewhere in Tasmania; and then a technical array of resources, from aerial to underwater shots, to illustrate the measures taken.

The next section, separated by an aerial view of a farm and music, again introduces the WWF, to evaluate Tassal's efforts and provide further technical detail (expressed by specific terms like 'anti-fouling' and clause structures usual in the technical domain). Close-ups of unidentified workers in manual activity emphasise caring by focusing on their hands. Extreme close shots of hands engaged in activity are frequent: 00:31, steering the boat; 00:40 untying the boat; 02:19 and 02:22 examining the fish feed; 02:42 untying a rope; 02:56 and 02:57 securing diving gear belts; 04:06 caressing nets; 04:51 feeding a bandicoot; and 05:53 caressing a salmon.

The technical evaluation leads to a next section and a change of speaker. Linda Sams intervenes again, against a bright outdoor setting, to introduce the next topic: the land-based conservation activities being undertaken by Tassal employees. The subsequent scene begins in a closed indoor setting, where an again unidentified worker is performing an indiscernible action—carrying a bundle in her hands—that will be explained after the worker is identified and given the voice to support Sams' claim:

04:36		but it demonstrates how the employees are actually taking that culture with them home.	
04:43		Tassal has been very supportive of myself as a wildlife carer	PAM BURTON Team Leader Tassal
04:47		outside their normal field where it has been possible. Tassal's helped with	

This land-based operation takes place in a closed setting, behind doors that open. Activity is again illustrated through extreme close shots. Several resources are repeated to follow the pattern established in the video of shedding light on an unclear activity performed by anonymous characters, bringing it to definition and making it transparent. Activity in the video is a closed universe restricted to Tassal and WWF characters, and the locations exclude urban landscapes. Wharves and the woods are the only sites linking farming with the land. The former usually appear filmed from the land onto the shore, as in the shot that introduces the next section:

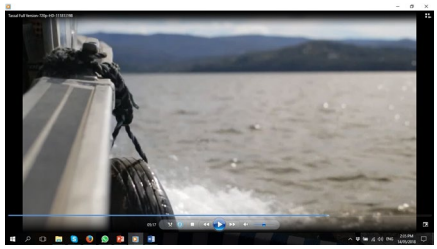
05:00		The people that work on our farms are really resilient.
05:04		I mean they love their job and the reason they're out there is because they love being out in the environment

‘Resilient’ is how Linda Sams introduces this section that concludes the portion of the video relating to Tassal’s land-based conservation efforts. The argumentative structure is as follows:

- (Fact): Tassal employees love their job and care for the environment
- (Backing): Pam Burton is a wildlife carer and a Tassal worker
- (Conclusion): Tassal employees want to do ‘the right thing’.

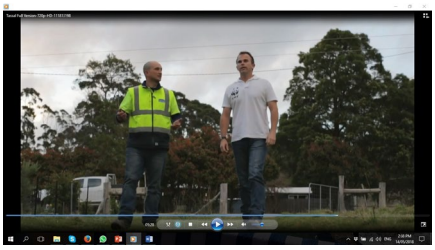
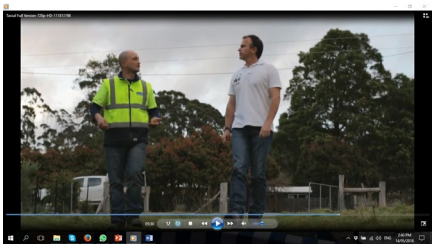
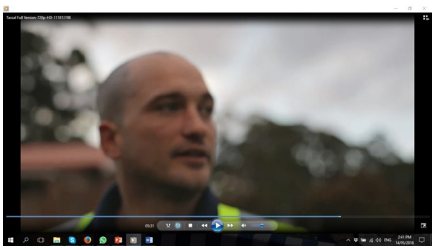
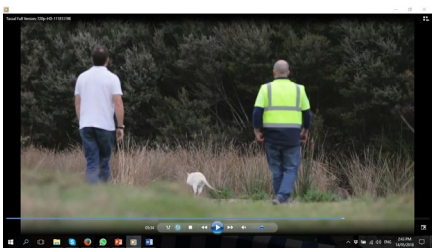
However, there is also a rebuttal in the statement: ‘The people that work in our farms are really resilient’. Resilience is a property of objects, which the *Oxford English Dictionary* defines as ‘tending to resume the original shape or position after being bent, compressed, or stretched; hard-wearing because of being able to recover after the application of force or pressure. Also in figurative contexts’. This rebuttal is dismissed—‘I mean they love their job’—but it opens a gap in the interpretation: what is the objection being made?

The rebuttal is addressed by Andrew Hunter, who is given voice in the next section to summarise the benefits of the partnership:

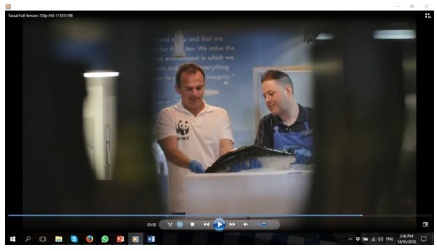
05:13		Fish farming has had a bad history as far as
05:16		environmental stewardship has gone.

This is the only scene in which a boat comes close to an urban shore (with no humans on it); however, the boat is not approaching the wharf but receding from it into the open waters, again detaching fish farming from any other economic or social activity. As with Linda Sams presenting the ASC, Hunter is given the voice to conclude on the

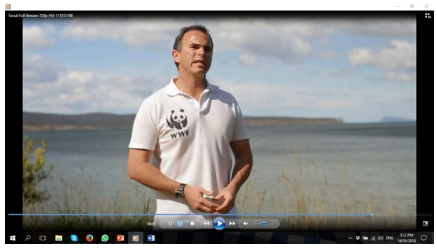
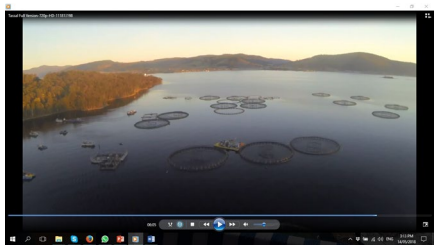
benefits of certification and the partnership, described now as ‘networking support’. The voice he is given is constrained by his visual subordination to the WWF. In the scene, Andrew Hunter (Tassal’s wildlife officer) and Peter Trott (WWF policy manager) walk into the woods, with their dress (Trott in a white WWF shirt and jeans, Hunter in a high-visibility vest) and body positions highlighting who has the leading role in the partnership (Hunter turned towards Trott reporting to him deferentially), and echoing Linda Sams’ previous introduction of Andrew Hunter as ‘actually’ their wildlife officer.

05:28		such as ASC and	
05:30		also entered into a partnership with	
05:31		WWF. This type of networking support is	
05:34		just really rewarding, as a wildlife manager.	[Officer points out a white wallaby to policy manager] Music

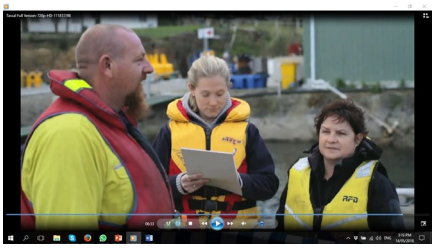
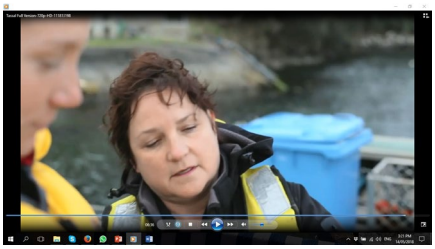
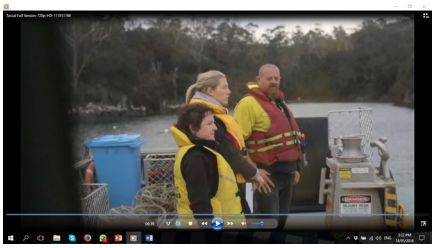
Peter Trott's position of authority is illustrated further in the next scene, in which the camera again sheds light on an activity behind closed doors, and the Tassal worker is turned towards the policy manager, again reporting to him deferentially.

05:50		
05:52		We know that the projections for aquaculture

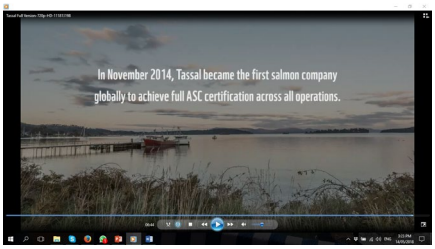
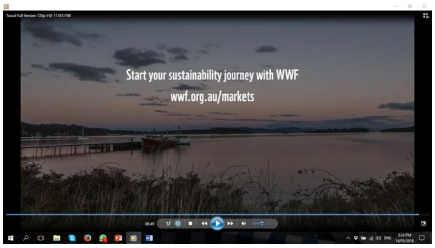
This action is linked to the next two sections, in which first Trott and then Sams evaluate the partnership, introducing a broader social component:

06:01		and it has to be farmed sustainably and responsibly and
06:05		the best standard to meet that is the Aquaculture Stewardship Council. So for the company, it gives them social licence to operate within a marine environment.

The above aerial shot of an estuary, still unidentified, again centres on water, salmon cages and a wooded coastland, to illustrate social licence. A more concrete illustration of social licence is offered in the next section, which focuses on training, transitioning again from open spaces and bright light to a close space and unidentified workers with their backs to the camera. Training takes prominence, and the shift in responsibility takes over.

06:33		We've learned a lot through my generation
06:05		Of what we've done wrong and what the limits are, and I think it's
06:39		this next generation that we're mentoring and bringing forward that'll provide the solutions. (Music).

The closure of the video offers an explanation as to who the intended audience is:

06:43			In November 2014, Tassal became the first salmon company globally to achieve full ASC certification across all operations.
06:49			Start your sustainability journey with WWF wwf.org.au/markets

Intertextuality: The controversies around salmon farming in Tasmania

In 2016, it was made public by the investigative program *Four Corners* that Tassal was paying A$250,000 to the WWF as part of the conditions to promote the partnership between the company and the NGO, plus another A$250,000 to cover the certification costs (*Four Corners* 2016). In the program, Huon's CEO, Frances Bender, also revealed that the WWF had approached Tassal's main rival company, Huon, to engage in a

similar process. This information was contradicted by the WWF in the documentary, but later admitted to be true (Burgess 2016).

This information was made public at the same time that Macquarie Harbour, one of the sites of operation of Tassal and the main location in the video, was surrounded by controversy about the effects of the regulator's expansion of the admitted capacity for salmon farming. In 2012, the capacity of the harbour had been allowed to increase from 9,000 to 20,000 tonnes of farmed fish, doubling the capacity of the industry. In the period between 2012 and 2017, contestation of the expansion and disagreements over Macquarie's Harbour ecosystem health prompted a series of events highlighting the precarious governance arrangements in the harbour. A Senate inquiry on salmon farming was held in 2015 (Commonwealth of Australia 2015), and scientific reports advising caution on expansion in 2014 and 2015 due to decreasing dissolved oxygen levels were leaked to the public. In 2016, a change of the regulator took place and the new regulator capped production at 14,000 tonnes, a move that also proved controversial (Salmon 2017). Finally in 2017, Huon, one of the three main salmon companies operating in Macquarie Harbour, sued the regulator on claims that it had failed to regulate the industry properly and afford sufficient environmental protection (Konkes 2017).

This series of incidents has not negatively influenced salmon consumption in Australia. Quiet to the contrary, the production value of salmonids increased by 14 per cent to A$718 million in 2015–2016 alone, and salmonids remain the most valuable aquaculture species (Mobsby & Koduah 2017, p. 9) and one of the most valuable fishery products in Australia (p. 37). Salmonid production more than doubled between 2005–2006 and 2015–2016 (p. 10). However, the events relating to Macquarie Harbour drew widespread media attention in Tasmania, causing a change in the regulator of the Tasmanian salmon industry, preoccupation in the local industry and public concerns:

> *Also with the salmon industry spat that's been with Huon hating Tassal and Tassal hating Huon we lost 70,000 dollars last year in turnover because people come into my shop and told me I feed my fish petrol. (Respondent#3917, aquaculturalist)*

Preoccupation with social licence was evident in the surveys made to assess the community perceptions on the industry and its expansion (Enterprise Market and

Research Services 2016); the legal action taken against Tassal leases in Okehampton Bay (Dunlevie 2018); and the divided responses to Tassal's plans to move to offshore farming at King's Island, among the company's efforts to address community concerns ('Tassal boss to host "personal tours" of farm sites' 2018; Zwartz 2017). The contrast between rising consumption and negative public image illustrates the distinct roles, as consumers and citizens, that individuals can simultaneously play. It also illuminates the different scales in governance of certifications and farming. The controversy also reveals two important challenges for non-state actors in private governance: the difficulty of maintaining credibility and the struggle over authority. This difficulty has been brought to the fore in the case of eco-labels in such cases as the MSC and Dolphin Safe wild-catch controversy over the Parties to the Nauru Agreement (PNA) tuna fisheries (Miller & Bush 2015). The credibility of the partnership between Tassal and the WWF was questioned in the *Four Corners* program by revealing the cost of that partnership and the accreditation, compounded by Huon's report of their negotiations with the WWF (*Four Corners* 2016). This caused the WWF to enter the public arena to intervene in the controversy. Conversely, the ASC did not produce any public statements, instead relying on other actors to advocate on its behalf, as did the MSC in the PNA case (Miller & Bush 2015, p. 143). The vulnerability of the standard may have been different at the local scale than at the global scale. Locally, the standard may have been compromised:

> *In my view, Sonia, if you need certification there's something not quite right. I know you need certification for lots of things these days but in my view certifications are not designed to be a cover but they are effectively a cover for what reality is, because if you're doing the right thing you don't need all that. Certification really shows to the end user, the customer, that the right thing is being done. But in reality it's a cover for the wrong thing being done. Because if that was the case. If the certifications were effective then there wouldn't be any issues in Macquarie Harbour with low oxygen because they'd have to be doing the right thing. (Respondent#4317, former aquaculturalist, community member)*

At the larger scale, however, the major salmon companies all mention accreditations on their websites: Huon mentions GLOBAL GAP and the British Retail Consortium on its website, and is applying for full ASC certification (Huon Aquaculture 2019). Tassal

maintains ASC and BAP certifications (Tassal 2018). The standards appear still useful to the companies' goals.

Second, the struggle over authority between the WWF and Tassal demonstrated in the video shows, contrary to the universe depicted in it, that mechanisms of private governance 'comprise complex political-economic systems in which competition and conflict amongst actors are playing a critical role in distributing authority and legitimacy' (Miller & Bush 2015). The environmental and regulatory problems in Macquarie Harbour during Tassal's ASC certification process clashed with that certification, such that it did not offer the social licence that the WWF claimed would follow. Instead, when the public governor is omitted from governance, certifications foster a confusion of roles:

> *I was sitting in a natural resource management conference a few years ago and they were, [NAME] from Tassal did a presentation on ASC there. And there were comments from the audience around the legislation in Tasmania and I'm like 'Hang on that's not ASC's problem'. (Respondent#3417, aquaculturalist)*

This confusion of roles appeared also with regard to wild capture in the Productivity Commission report on marine fisheries and aquaculture (Productivity Commission 2016), which tried to answer the question posed by the sector: 'Should certified fisheries be exempt from requirements under environmental laws?' (p. 231). The Commission had to remind readers that certifications were driven by profit and could result in conflicts of interest, and that governments and certifications could have significantly different objectives (p. 232). However, crucially, it did not mention that governments remain accountable to their public, whereas the accountability of certifications is not necessarily linked to a specific constituency. The competition between Tassal and Huon became part of a much wider issue in which the Tasmanian public and its government are negotiating what sustainable development means for the island's economy and society. This scale is different than the globalised governance of seafood and compromises the utility of certifications to ensure social licence for the companies that operate in specific socio-political contexts. In Tasmania, the social licence of the salmon operators will derive from how this political issue is negotiated and how the trade-offs between environmental protection, industry development and employment are solved. (Provisorily, as with all 'wicked problems', new concerns will

appear in the future and new trade-offs will have to be negotiated). Certifications, in this space, may address the reputational concerns of large companies, but their ability to mediate between local producers and the communities upon which these producers' activity depends remains to be proven. Conversely, governments are accountable to these constituencies; their mediating role could not only be more useful, but may be part of their responsibilities.

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