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Certification Schemes and Third Party Accreditation: Hybrid Governance in the Marine and Aquaculture Sector

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Abstract

Certification and third party accreditation schemes are examples of private-social partnerships that make up a form of hybrid governance. In this paper we examine the rise of third party certification and the challenges these governance arrangements bring to traditional governance. We examine this through two case studies based on the Marine Stewardship Council (MSC) and the Aquaculture Stewardship Council (ASC). Using these cases, we argue that hybrid governance is changing the way traditional governance is being utilised. Market and consumer driven responses are challenging government policies and if and when the state should be involved in evaluating sustainability practices.

Keywords: hybrid governance, third party certification, corporate social responsibility, social license to operate, Aquaculture Stewardship Council, Marine Stewardship Council

1. Introduction

Global demand for seafood has increased over the last century to levels that if they continue at current rates will be unsustainable. Wild fisheries capture production plateaued in the mid-1980s at around 80 million tonnes. Aquaculture – from both fresh water and marine sources – increased in production and relative share of global fisheries production from this period. The aquaculture sector's practices around the world are highly contentious, however, it provides over half of the world's supply of seafood (Bush, Belton, et al., 2013) and is a major source of employment in both developed and developing countries (Food and Agriculture Organisation of the United Nations, 2014). Production from capture fisheries and aquaculture provides important sources of protein to many millions of the world's people, as well as providing commodities for a range of non-food uses (Food and Agriculture Organisation, 2016).

The level of wild catch and the increasing level of aquaculture has heighted concern, first at the state of global stocks and second due to impacts on marine environments and ecosystems. One outcome of these drivers has been the development of external third party assessment and certification systems. These approaches step outside state based governance and address market and consumers directly through product certificates and ecolabels (Potts & Haward, 2007). Certification and labelling initiatives have been seen as 'tuning the market' (Teisl, Roe, & Hicks, 2002).[1] Third party certification organisations and schemes encourage industry best practices that influence shareholders and the market while also adding another layer of legitimacy for community groups in providing their social license to operate (SLO). Although self-regulatory industry measures, policies and standards can also be effective in environmental governance, they are less so than those developed by third party NGOs (Abbott, 2012).

The most recognised of such third-party assessment and certification systems is provided by the Marine Stewardship Council (MSC). MSC made an early commitment to focus on wild capture fisheries rather than include aquaculture operations within its standard. MSC does include 'enhanced fisheries' within its standards that include wild caught fisheries that

[1] This term was a play on the use of 'dolphin free' labels on canned tuna sold in the US market to address concerns over dolphin by-catch in purse seine tuna fisheries (Potts and Haward 2007).

include some human interventions outside the harvest process. A separate certification body for aquaculture, the Aquaculture Stewardship Council (ASC), was established in 2010.

Certification and third party accreditation schemes are examples of private-social partnerships that make up a form of hybrid governance. Hybrid governance is market driven and can be influenced by the corporate social responsibility (CSR) policies of industry or non-state actor's (such as the broader community, NGOs and media) ability to give or withhold SLO. These arrangements are present in co-management, private-public partnerships and private-social partnerships (Bäckstrand, 2008; Lemos & Agrawal, 2006). In the hybrid governance model for aquaculture, introduced by Haward and Vince (2016, 2017 *accepted for publication*), regulation is still a part of the overall linkage between state and the community, and the state and the market, but it is noticeably absent from the social-private relationship. Specifically, the drive of non-state actors, the community's ability to give or withhold SLO, CSR policies and the listing of companies on the stock exchange are key factors in the hybrid governance of aquaculture (Vince & Haward, 2016, 2017 *accepted for publication*). The relative infancy of the ASC and the community's ability to accept or reject market driven initiatives demonstrates that certification, ecolabelling and CSR policies require its consent.

We argue that hybrid governance is changing the way traditional governance is being utilised. In this paper we explore whether such hybrid governance arrangements also exist in the management of wild capture fisheries. Market and consumer driven responses are challenging government policies and if and when the state should be involved in evaluating sustainability practices. There are similarities and differences between both certification schemes and this paper begins by examining the MSC and ASC. It then analyses these certification schemes and sectoral responses to them, particularly through different community groups and market driven tools.

2. Certification and third-party accreditation in fisheries and aquaculture

Third party non-state actors have long been active in debates over sustainable resource exploitation. These actors include producer-based self-certified and labeled 'appellation contrôllée' approaches through to rigorous third party independent certification, using processes external to, and separate from, the producer. With the development of third party

assessment and certification of sustainable resources management, these actors have become significant players in rule making (Vandergeest, Ponte, & Bush, 2015) and governance (Foley & Hébert, 2013). The following sections outline the key differences between the MSC and ASC.

2.1. Marine Stewardship Council

The Marine Stewardship Council (MSC) was established in 1996, taking its lead from the Forest Stewardship Council (FSC). MSC did, however, consciously set up a different structure and process to FSC, 'designed to learn from and correct the apparently overly burdensome democratic governance structure of FSC, while having an essentially identical business model' (ISEAL, 2007, p. 20), that is following a similar basis of assessment against a standard with clear principles, criteria, performance measures, and processes for 'third party', independent certification of fisheries. It was established as a joint initiative between the World Wide Fund for Nature (WWF) and Unilever, a major global fisheries business enterprise. The MSC separated from WWF and Unilever in 1999, with its first fisheries certified in 2000 (Ponte & Cheyns, 2013) and has been re-established as an independent non-profit, charitable trust under UK Law.

The heart of the MSC process is the certification of 'sustainable fisheries' under its standard defined by Principles and Criteria, and linking this certification to a logo that influences consumer behaviour and provides price signals (Lee, 2009). The management of the certification process and the standard are the core functions of the MSC. Debate persists on the nature of the standard being applied in such certification processes (Gale & Haward, 2011). The MSC fishery standard was developed over 18 months 1996-1997, with an initial draft developed from a workshop of invited experts at Bagshot United Kingdom in September 1996. The workshop outcomes – the draft standard was presented at series of meetings, and finalised at a second workshop in Washington DC USA in December 1997 (Gale & Haward, 2011; May, Leadbitter, Sutton, & Weber, 2003). The draft standard was submitted to the MSC Board that had been recently been established. The standard drew on a number of initiatives including work a by the UN Food and Agriculture Organization's (FAO) *Code of Conduct for Responsible Fisheries* (May et al., 2003). The FAO continued to work in the area of fisheries certification and eco-labelling – 'setting forth minimum standards for credible certification and eco-label program for the sustainability of wild-caught, ocean fish' (Martin, 2014). This has been described 'as an action unique to fisheries'

and ‘at once put a fence of requirements around the programs such organizations offer *but* in effect, validated private standard setting organizations that meet the guidelines (Martin, 2014, p. 10098 emphasis in original).

The initial standard centred on three principles that were elaborated in a series of criteria or indicators, that in turn form the basis of assessment and certification. The three principles are:

> PRINCIPLE 1:
>
> A fishery must be conducted in a manner that does not lead to over-fishing or depletion of the exploited populations and, for those populations that are depleted the fishery must be conducted in a manner that demonstrably leads to their recovery.
>
> PRINCIPLE 2:
>
> Fishing operations should allow for the maintenance of the structure, productivity, function and diversity of the ecosystem (including habitat and associated dependent and ecologically related species) on which the fishery depends.
>
> PRINCIPLE 3:
>
> The fishery is subject to an effective management system that respects local, national and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable (MSC 2014).

The Standard was refined ‘in minor adjustments made from time to time in response to ad hoc issues and it was clarified in a major review in 2008’ (Martin, 2014, p. 10097).[2] The 2008 review was in part a response to increasing criticism of the MSC’s governance and application of the standard. In 2004, the report *An Independent Review of the Marine Stewardship Council* (Wildhavens, 2004) released by the Wildhavens Consultancy for a number of environmental organisations. The Wildhavens report provided strident criticism of

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2 A second major review of the MSC Fisheries Standard took place in 2013-2014, and ‘focused on the assessment process and fishery client performance requirements’ (MSC 2015). This included the risk based framework (RBF) developed to address criticism from researchers and industry in developing states (Perez-Ramirez et al 2012) that the MSC standard could not be met by data-poor fisheries fisheries that did not have long time series of quantitative data.

the MSC standard, and its governance. This criticism focused on the fact that much of the standard 'left a considerable amount of discretion to the assessment teams in assessing scores' (Martin, 2014, p. 10100) for a fishery. Inconsistencies in scoring similar fisheries provided additional sources of criticism (Martin, 2014). In response, in addition to a review of the standard and methodologies underpinning assessment, major reforms took place within the MSC.

In 2007-08 the MSC developed 'a 'default assessment tree' which assessment teams are required to follow in analysing the indicators under each Principle, and a methodology that the teams are required to follow in determining scores the scores – regardless of the type of fishery that is under assessment' (Martin, 2014, p. 10100). The assessment tree and methodology is included in the MSC standard (MSC, 2014a). The assessment tree and therefore the MSC standard has specific modifications for three specified fisheries: enhanced bi-valve fisheries, salmon fisheries, and introduced species based fisheries (MSC, 2014a).

Certifiers move from the generic Principles to specific scoring benchmarks using a multi-criteria analysis with hierarchical subdivisions to translate the 28 performance indicators linked to the three principles leading to an overall performance score (Potts & Haward, 2007). 100 is near perfect performance, 80 is the global best practice and 60 is minimum acceptable performance. A fishery failing to gain 80 for any performance indicator may be given a conditional pass and enter into an improvement program to address this particular indicator. Certification is gained for a maximum of five years, subject to an annual surveillance audit, and applies to the fishery and harvesting operations, up to the point where the catch is landed. A separate standard, with its own principles, PIs and data requirements, applies to any organisation that processes, wholesales or retails the certified MSC product, through what is known as a 'chain of custody' certification. The MSC label (a symbol linking a fish and a tick) is found on more than 22,000 seafood products, with more than 200 certified fisheries worldwide (Blomquist, Bartolino, & Waldo, 2015).

MSC processes are 'consistent with ISEAL (the International Social and Environmental Accreditation and Labelling Alliance) Code of Good Practice for Setting Social and Environmental Standards and the United Nations Food and Agricultural Organization's Guidelines for Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries' (MSC, 2015). It is important to note that the MSC does not directly perform certifications but

remains a standard setter rather than a certification body, and accredits qualified certification organisations and trains them in the methodology. The audit process is at the key to enhancing the MSC standards. MSC currently accredits 27 organisations, termed Conformity Assessment Bodies (CABs) for MSC certifications. The CABs are also subject to monitoring by Accreditation Services International (ASI), providing further checks and balances in the process.

> An annual Tripartite meeting between Conformity Assessment Bodies (CABs), Accreditation Services International (ASI) and the MSC has been established. It provides opportunities for all parties to review and enhance program performance, by identifying credibility and integrity risks, and find ways to resolve them (MSC, 2015).

The work of the MSC reflects the increasing importance of non-state actors as stakeholders in fisheries management in the entire production cycle. Fish certified under the MSC standard and products with MSC labels attract market premiums (see Blomquist et al., 2015; Roheim, Asche, & Santos, 2011; Sogn-Grundvåg, Larsen, & Young, 2014). The MSC notes that:

> Independent academic studies of retail sales have shown that MSC certification of some species draws a price premium. This includes retail price increases of 14% for MSC-certified Alaska pollock; 10% for MSC-certified haddock and 13% for MSC-certified whitefish. The MSC certification of the Vietnam Ben Tre clam fishery opened up new markets in Europe and North America, bringing a 30 to 50% price increase (MSC, 2014b).

Notwithstanding these outcomes the MSC, its processes, its certifications and claims, have been subject to criticism. These criticisms provide insights into the development of certification and labelling more broadly and link to issues such as the concept of social license to operate and corporate social responsibility – see following. Criticism was levied at the interpretation of the standard, particularly in the first decade of MSC operations (Gale & Haward, 2011; Ponte & Cheyns, 2013). MSC assessments have had formal objections process from its establishment, non-governmental groups had criticised the failure of this process to adequately address concerns in key fisheries (Christian et al., 2013; May et al., 2003), or over MSC ongoing certification of fisheries that had been subject to significant downturns. Concerns from a range of environmental groups over MSC certification centred

on the focus on the technical fisheries science, such that assessments appeared not to adequately account for what has become known as 'social license' in fisheries and aquaculture operations (Cullen-Knox, Eccleston, Haward, Lester, & Vince, 2016; Cullen-Knox, Haward, Jabour, Ogier, & Tracey, 2017).

The MSC made an early commitment to focus on wild capture fisheries rather than include aquaculture operations within its standard. This gap in coverage eventually led to the establishment of a separate standard for aquaculture, the Aquaculture Stewardship Council (ASC) in 2010.

2.2. Aquaculture Stewardship Council

While fish and shellfish have been farmed for generations, finfish aquaculture has grown rapidly in the last thirty years. In some areas aquaculture production now outstrip wild capture fisheries in terms of production and value. For example, the salmon aquaculture industry in the south east of Tasmania (farming non-native salmonid species Atlantic Salmon and trout) is Australia's most valuable fishery, increasing by 194% in value in the last decade (ABARES, 2015). China's aquaculture production is significant (Liu, 2016) and provides over 60 percent of world production (FAO 2016) although there is been debate in the past over the accuracy of Chinese fisheries statistics (Pauly et al., 2014). Marine aquaculture operations are evolving; moving away from traditional inshore areas to deeper offshore waters (Froehlich, Smith, Gentry, & Halpern, 2017) in many cases driven by concerns over environmental impacts of farming operations in-shore areas.

Finfish aquaculture has involved significant scientific development and involves ongoing scientific monitoring of water quality and environmental impacts and managing debates over different values and opinions about how coastal waters and resources should be used. Nevertheless, the aquaculture sector is a major source of employment in both developed and developing countries (FAO 2016) and demand for aquaculture products is increasing across the globe. As demand has increased, so to have requirements for sustainable production and production, encouraging the development of third part certification schemes (Lee, 2009).

The Aquaculture Stewardship Council (ASC) was established in 2010 through collaboration between WWF and IDF (The Sustainable Trade Initiative) based in the Netherlands. The

ASC emerged as an outcome of a series of aquaculture dialogues - roundtables initiated and coordinated by WWF (Kalfagianni & Pattberg, 2013). The Dialogues were conducted between 2004 and 2015 (initiated first by the WWF) and included 8 species roundtables involving in total over 2,000 participants (ASC, 2016b). These roundtables led to the development of '8 standards [covering] 12 species' groups: salmon, shrimp, tilapia, pangasius, trout, abalone, bivalves (oysters, mussels, clams and scallops) and seriola/cobia' (ASC, 2016a).

The ASC standards are to be reviewed and managed according to ISEAL codes of practice assessed by independent assessors – accredited, like MSC certifiers, by ASI. These standards are science, performance and metrics-based (ASC, 2012b). The standards are to be reviewed and managed according to ISEAL codes of practice assessed by independent assessors – accredited, like the MSC certifiers by ASI. This also complies with the ISO/IEC Guide 59 Code of good practice for standardization, and the World Trade Organisation's Technical Barriers to Trade (TBT) Agreement Annex 3 Code of Good Practice for the Preparation, Adoption and Application of Standards (ASC, 2012a). The ASC label can only be applied to products that are sold through a consecutive, certified chain of custody resulting in each product being traced from production to point of sale.

The ASC standards aim to be applied globally, covering diverse 'types, locations and scales' of aquaculture production systems (ASC, 2012a, p. 7). Each principle is assessed by reference to a set of criteria. The Salmon Standard, for example, requires data on 37 items of farm performance data to be submitted. These data include species, benthic quality, chemical composition of water, lethal interactions with marine mammals or birds fallowing period. Sea lice levels and loads, escapes, feed, copper anti-foulants, mortalities, antibiotics and parasiticides, water quality analysis (ASC, 2012b Appendix VI: 89-92). The issue of social acceptability of aquaculture operations is addressed through requirements to address 'environmental and social performance' in the standard (ASC, 2012b, p. 88).

Industrial marine aquaculture operations for finfish are controversial. Conflicts have arisen over siting of cages and associate shore-based infrastructure (Haward 2016), of concerns over mixing of wild and farmed stock and over environmental impacts farming operations (VanderZwaag, 2016). As in wild fisheries, industry operators have sought to used third party certification to address community concern over environmental sustainability of operations,

but as with MSC there has been criticism of these approaches by environmental groups as ‘greenwashing’ (Gale & Haward, 2011; Richardson, 2016). The process in establishing the ASC was not without difficulties (Vandergeest & Unno, 2012). Upon its launch over 70 international NGOs campaigned against the creation of the scheme stating that ‘the proposed certification by WWF promises to legitimize environmentally and socially damaging forms of aquaculture in the name of cheap prawns and salmon. It's high time that WWF stops 'pandering' to the interests of big business, and instead begins to listen to the voices of real people that rely on the oceans and forests to survive’ (World Rainforest Movement, 2009). More recently, community debate over salmonid aquaculture operations in Tasmania, Australia, has led to calls from NGOs for the ASC to remove its accreditation from a major aquaculture company.

3. Hybrid governance: community, market and the state

The three social mechanisms or modes of governing (community, market and the state) have relationships that result in four types of governance arrangements – market and the state (private-public); community and the state (social-public); market and community (private-social); and networks (private-public-social) (Howlett & Ramesh, 2015; Steurer, 2013). In hybrid governance the social mechanisms have a triangular relationship where the state is positioned as the top tip of the triangle linking to the market and community; and the community and market linking to each other (Lemos & Agrawal, 2006).

As Alexander, Andrachuk, and Armitage (2016, p. 160) argue that this can create challenging conditions, with regard to ‘uncertainty about the roles and responsibilities of different actors, a lack of clear checks and balances (especially where private actors are involved), and concerns about the transparent flow of information.’ Hybrid arrangements through public-private partnerships that are illustrative of third party certification are based on ‘non-hierarchical steering’, are voluntary and market driven (Bäckstrand, Khan, Kronsell, & Lövbrand, 2010). Private-social partnerships also accentuate non-hierarchical steering and market driven governance. Unlike public-private partnerships, the community is a powerful actor and it is the relationship between the market and the community that has allowed new actors to participate and steer decision making.

Third party certification organisations are part of the category of 'private co-regulation' (Steurer, 2013) and provide a bridge between state and market, and are the heart of hybrid governance:

> Although collaboration and networking play a key role in co-regulation and respective practices represent the quintessence of both new governance and CSR, one should not overlook that the steering mechanisms at work here are, again, strongly aligned with the market mode of governance, that is, with business concerns about brand reputation, competitiveness and the urge to ease or pre-empt potentially costly civil regulation and hard governmental regulation. In this sense, co-regulation often represents network governance in the (sometimes hardly visible) shadows of both markets and hierarchies (Steurer, 2013).

3.1 Sector responses to emerging hybrid governance

Third-party certification has emerged in response to regulatory failure and increasing community demand for safety, quality and sustainability of food production. Certification arrangements in fisheries and aquaculture introduce community and market into what has been a governance system traditionally dominated by the state. Marine resource management involves establishing various tools and arrangements to regulate harvests and other impacts on stocks. While in the 19th and early 20th centuries the commonplace view was that the great sea fisheries were 'inexhaustible' (Huxley)[3] biological and environmental impacts of the harvesting of marine resources had have been recognised for many hundreds of years (Roberts, 2007, pp. 136-137).

Community, too has long been important. Fisheries have been adaptively managed on the basis of local knowledge about the marine environment and observed responses to different fishing methods for hundreds of years, as found with Maori in New Zealand (see Meredith, 2006). In the twentieth century, government regulatory controls began to increase in response to broadening of fisheries activities. Developments in information and communication technologies revolutionised data management and development of sophisticated stock

[3] Huxley did, however, recognise that many fisheries could be exhausted, and that management was needed to ensure that this did not occur.

assessment modelling, providing new tools to fisheries managers. This, too, reinforced the role of the state as major actor in fisheries, and later, aquaculture, management.

Marine resource management includes a range of tools and controls, all aimed at controlling the level of catch. These tools include restrictions on fishing gear, size or catch limits. As ongoing developments in fishing gear and technology made vessels more efficient, catches tended to rise (Roberts, 2007). Increased contestation over sustainability is possible (see Vandergeest et al., 2015). The development of the MSC and ASC has occurred at a time when data and information on fisheries and aquaculture has developed in both scale and sophistication. As a result, non-state, private co-regulation certification provides a governance solution to deal with state 'failure' over questions of sustainable production.

These certification schemes have joined other non-state actors which have long been active in debates over sustainable resource exploitation and that do not fit the traditional top down regulatory approach to governance. The fishing and aquaculture sectors involved in these changes to oceans and fisheries governance now have increasing challenges with market and shareholder expectations; their relationships with non-state actors and the wider community; and the implementation of ecosystem based management strategies and sustainable practices.

3.2 The community and social license to operate

A broad overview of community as a social mechanism reinforces the view that it is an 'open textured concept' (Taylor, 1982), made up of a multitude of components. It includes local communities, broader/wider communities, the international community, non-state actors such NGOs. Non state actors, in addition to third party certifiers, that are prevalent in private-social partnerships include civil society organizations and NGOs, fishermen's cooperatives, and private businesses (Alexander et al., 2016). The media is also a powerful player in such governance arrangements (Vince & Haward, 2016, 2017 *accepted for publication*). These actors come to the fore when they are most likely affected by the practices of a fishery. The hybrid form of governance utilizes these relationships and gathers support from groups in ways that the traditional state centered approach is unable to do so through the establishment of shared interests and values. When these shared interests and values come into conflict with fishery or aquaculture practices the community then exercises its ability to withhold SLO.

Third party certification organisations and schemes encourage industry best practices that influence shareholders and the market while also adding another layer of legitimacy for community groups in providing SLO. Although self-regulatory industry measures, policies and standards can also be effective in environmental governance, they are less so than those developed by third party NGOs (Abbott, 2012). Certification schemes can therefore be considered 'new markets of governance' through their organisational set up, consultancy services and contractual arrangements (Foley & Hébert, 2013).

SLO is an intangible, unwritten and impermanent social contract between industry and social groups (Parsons & Moffat, 2014). By giving or taking away social license, community can steer change in industry, the wider market and also state driven regulatory measures. SLO can be driven by different community actors at different times. In some instances, it is the local communities that challenge a company's SLO, while at other times it can be a media driven initiative that can influence the broader community to accept or reject a corporate activity. SLO is also not a precondition to carry out a legal activity, but it does assist in gaining legal approval if the situation is legally or politically uncertain (Haward et al. 2013). Having both social and legal approval through a social license to operate provides a business legitimacy for their activities.

Consumers and other non-state actors have the power to give or withhold social license by utilizing their shared interests and values (Alexander et al. 2016) in their approach to an issue or activity. To maintain their legitimacy, industry actors recognize the importance of holding on to their social obligations beyond their regulatory requirements. However, legitimacy is referred to as the 'minimum' requirement for achieving social license. Full community acceptance and trust offers stronger and higher levels of social license (Parsons & Moffat, 2014; Thomson & Boutilier, 2011).

The media have become more than just lobbyists in in fisheries and aquaculture practices and are also involved in influencing political outcomes (Abbott, 2012; Schaferhoff et al. 2009). It has the ability to influence community views and can affect how industry is scrutinized through social license (Lester, 2016). The role of activism has also been changed due to the media, and in particular due to the ease of access to media outlets (Cullen-Knox, Eccleston, Haward, Lester, & Vince, 2017). Consequently, social license has moved from being a metaphor to a useful tool to bring about change (Boutilier et al. 2012).

In the case of salmonid aquaculture in Australia, the community has heavily influenced the industry's growth and capabilities (Vince & Haward, 2016). Decisions regarding farming practices, the environmental, social and economic impact of the industry have been scrutinized by local community groups, environmental NGOs and the media. Even though Tassal, one of the largest salmonid growers in Australia became the first aquaculture company in the world to receive full 'gold standard' ASC accreditation for all its sites (ABC News, 2015) and won the Australian Business Award for Sustainability (Hanson, 2015) the community has still withheld its SLO. In this case, the NGO and media's ability to steer the broader community's perception of the industry was more powerful than the third-party accreditation. Since the ASC is new and not well recognized by the broader public in the Australian market, social license can only be gained by mutual trust and support over time (Vince & Haward, 2016).

3.3 Corporate social responsibility (CSR) and third party certification

Industry can also obtain a social license to operate through CSR (Gjølberg, 2009). Although social license and CSR concepts are interrelated and overlap there are key differences (Parsons & Moffat, 2014). Through social license, communities and consumers can instigate changes to corporate policies and products (Morrison, 2014). According to Steurer (2013) 'new governance and CSR are complementary concepts that both fundamentally reshape the roles of the public and the private sectors in similar directions.' Industry is, however, ultimately in control of its CSR policies and activities. CSR can be driven by community support through social license or government regulation (Vince & Hardesty, 2016). Industry can use their CSR policies to gain consumer confidence and to demonstrate their commitment to social and environmental issues. The ultimate achievement for industry that is invested in CSR is community as well as shareholder support. CSR policies are therefore also useful business tools that contribute to sustainability and economic outcomes.

CSR and socially responsible investment (SRI) have recently become more prevalent in corporate commitments in environmental sustainability (Richardson, 2016). SRI integrates social, environmental and ethical concerns and is known as the 'core of shareholder capitalism' (Steurer, 2010). For example, companies in Europe such as Tesco and Sainsbury's have CSR policies that require that they sell MSC certified seafood. They also

financially support Fishery Improvement Projects that assist fisheries from developing countries in the certification process (Bush, Toonen, Oosterveer, & Mol, 2013). However, as Bush, Toonen, et al. (2013) argue the MSC's legitimacy and effectiveness has been driven by such market mechanisms and community support. In addition, its credibility lies with its use of scientific assessments.

Unlike the MSC where scientific assessments have provided legitimacy and credibility, ASC has faced difficulties with the use of science to foster greater community support in the case of Australian salmonid aquaculture. Scientific assessments have been scrutinized with other aquaculture fisheries discrediting their data and leading scientific enquires from other non-state actors. In addition, Australian consumers are not influenced by ecolabels as accreditation schemes such as the ASC and MSC are not widely known or recognized by the public (Lee, 2009). When communities are provided information of ASC accreditation of salmonid aquaculture it does not necessarily sway their influence for or against farming practices or locations.

For example, the success of the industry in Tasmania and its rapid expansion has meant that new sites need to be located around the state to facilitate the industry's growth. The local community in the south of Tasmania in Lady Bay were particularly vocal about the environmental damage that salmonid aquaculture could do to their waterways if relocated there. The ENGO group Environment Tasmania supported these claims and released video footage of this environmental damage in 2014 and it was shown by the media through Australia's national public broadcaster's nightly current events television program *The 7.30 Report* (Atkin, 2014). This expansion was also opposed by the abalone aquaculture industry (Coulter, 2014). A three-year scientific study by the University of Tasmania showed that Tassal 'was one of many factors influencing the waterway' (Atkin, 2014). Environment Tasmania produced their own scientific report which contradicted the University' findings that found that there were major gaps in environmental management and that all new farm developments need to be stopped (Atkin, 2014).

Shareholder influence and stock exchange listing can have a positive impact on sustainability practices. Publicly listed companies endure more scrutiny from the public, government and shareholders than as private companies. In the case of aquaculture, Vince and Haward (2016) found that their drive to achieve the highest environmental standards correlated with their

ASX listing. Their CSR policies demonstrate that their economic strength is tied to environmental and sustainable practices. This has also driven innovations in operations, focusing on reducing environmental impacts and footprint and encouraging movement of fish farms to areas further offshore or with less competition from for other uses or users (see Froehlich et al., 2017). Tassal was listed on the Australian Stock Exchange (ASX) in 2003 and now holds 50 percent of the domestic salmon market (ABC News, 2015). Its major Tasmanian competitor, Huon Aquaculture, listed on the ASX in 2014 but has not embraced ASC certification. Since its listing Tassal has made a substantial effort in the sector to improve sustainability and environmental performance, including increased transparency of operations. Tassal has embraced CSR policy and sustainability reporting (Tassal Group Limited, 2014). Huon Aquaculture, too, has focused on environmental performance and has been involved in conflict with Tassal over aquaculture operations in Macquarie Harbour in western Tasmania.

According to Gunningham (2009), what companies decide to do with regard to their CSR will often be influenced by the way it 'interprets and responds to the various license terms' and that by empowering this social license may be a powerful leverage for large corporations (Gunningham, 2009). There are, however, negative consequences to CSR policies that do not quite achieve their social or environmental objectives. This includes the 'greenwashing' that was mentioned in the section on MSC above. Communities may become resistant to projects and NGOs can utilize these actions to threaten the withdrawal of social license (Owen & Kemp, 2013). In other instances, communities decide to give contingent consent where they accept some of the negative consequences resulting from industry activities because the positives are too valuable (Levi, 1997; Owen & Kemp, 2013).

Third party accreditation through MSC and ASC standards, while providing consumers with information to aid purchase and consumption of sustainable seafood, can at the same time increase market access. For non-European producers MSC accreditation such certification has been critical in supporting access to and operation within European markets. In this way MSC and ASC certification directly and increasingly contributes to a company's SLO and CSR. While early assessment of the MSC's third party certification was seen in terms of 'tuning a market' to accept higher standards, a focus on SLO and CSR emphasises that consumers in that market can ensure that producers also keep in tune with demands for sustainable production.

4. Conclusion

This paper centered on a core question: what does third party certification in fisheries and aquaculture tell us about hybrid governance? Third party certification emerged from over state failure – concerns over sustainability of fish stocks – and a belief that the market and consumers are able to address such failures. As we have noted, non-state accreditation is a form of private-social partnership. Unlike traditional governance arrangements, the state is a necessary not sufficient, condition for accreditation. Third party certification is market driven and encourages industry best practice. It also engages community, addressing and reinforcing legitimacy of community concerns over sustainability. In engaging the market, community and state, third party certification in fisheries and aquaculture are, on first principles, examples of contemporary governance. We argue, however that the experiences of certification in fisheries and aquaculture highlight the opportunities and challenges of hybrid governance.

We have shown that industry or other non-state actors (such as the broader community, NGOs and media) engage on certification, with this engagement on the issue of social license to operate. Our consideration of current issues facing both wild fisheries and aquaculture suggests that market and consumer driven responses are challenging traditional regulatory norms, particularly if and when the state should be involved in evaluating sustainability practices. Does hybrid governance supporting third party certification guarantee social license? Our experience from Tasmanian aquaculture suggest that the answer is no but we recognise that this case may be affected by the fact that the ASC is in its infancy and its salmon standard has few participants. The MSC is more mature and has broad coverage in both fisheries and seafood products and seeking and maintaining the MSC 'tick' and is clearly a driver in producer's perceptions of their CSR. While hybrid governance is present in the management of both wild capture and aquaculture fisheries, the aquaculture hybrid governance model as suggested by Vince and Haward (2016, 2017 *accepted for publication*) is unique to aquaculture, but does provide an interesting lens to view the changing nature of SLO with respect to wild capture fisheries.

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