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Behind certification and regulatory processes: Contributions to a political history of the Chilean salmon farming

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ABSTRACT

This text follows the public regulatory and the private certificatory paths undergone in the last decade by the widely criticized salmon industry in Chile, with the purpose of exploring the political process that underlies this path. The discussion focuses on the several instances in which both industrial actors and oppositional groups have stabilized those conflicts by sitting down at formally established dialogue tables, which, as we will see, have conducted public and private processes of regulation. In particular, we follow two paths: one promoted and overseen by the public sector and the other a process of self-organization and self-control of the industry at the national and global levels, which initially led to processes of self-certification and third-party certification. We argue that it cannot be reduced to an industrial learning due to the economic cost of disease outbreaks but rather that it is the outcome of a contested political process with interplay between global and local actors. This argument challenges the learning narratives espoused by the industry, contributing to a political ecology of certification processes. It analyzes the outcome of this process showing its contested political and social legitimacy, and the interplay between labor and environment within this regulatory path.

1. Introduction

This text follows the public regulatory and the private certificatory paths undergone in the last decade by the widely criticized salmon industry in Chile, with the purpose of exploring the political process that underlies this path. We argue that it cannot be reduced to an industrial learning due to the economic cost of disease outbreaks but rather that it is the outcome of a contested political process with interplay between global and local actors. This argument challenges the learning narratives espoused by the industry, contributing to a political ecology of certification processes. It analyzes the outcome of this process showing its contested political and social legitimacy, and the interplay between labor and environment within this regulatory path.

The salmon farming industry has been one of the fastest growing agro-industries in Chile. It was introduced at the end of the 1980s and by 2006 had already reached a total exportation of USD$2.500 that is 37.8% of global salmon production. The farming and processing facilities are located in the austral regions of Chile, a traditionally isolated area with low levels of urbanization and oriented towards artisanal fishing and peasant agriculture. The farming operations have been spatially concentrated around the Chiloe Island and Reloncaví, in only 300 km of coast (compared with the 1700 km of the Norwegian industry). Only recently, farming areas have expanded further south. This concentration in a traditional isolated area has a major impact on the Regional GDP, that is very affected by aquaculture operations, and on employment creation: between 2006 and 2010 the industry has employed 35,000 people directly and 15,000 indirectly (Katz et al., 2011).

The development of the salmon industry raised expectations for its potential positive impact on the communities' livelihood. However, the overall evaluation of impacts has been mixed. The industry has been praised for its GDP contribution and employment generation. However, it has been questioned for its environmental and labor practices. In terms of the environment, the global salmon industry has been denounced for promoting overfishing, to produce fishmeal used to prepare salmon feeds, salmon escapes that threaten and compete with native fishes, and for polluting water sources due to salmon feces, uneaten salmon feed, and the use of antibiotics, fungicides, and algaecides (Buschmann, 2001). Since Chile does not have native salmonids,

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environmental issues are not focused on the impact on the wild salmon stock – as is common in the northern discussion – but on the overall degradation of water ecosystems, that affect fishing communities whose livelihood is threatened by the decline in fishable biomass and on the enclosure of traditional fishing and diving areas. Thus, the use and regulation of water resources has become grounds for contestation between the salmon industry and the coastal and lakeshore communities.

In terms of labor, the major concern is that, despite the creation of employment – especially for young women – the jobs are so precarious that they contribute to reproducing poverty while displacing peasant economies (Díaz, 2004; Pinto and Kremerman, 2005). Occupational risks are also in the discussion, particularly the high recurrence of overuse muscular injures among process workers and the morbidity and mortality rates of divers in salmon farms. Thus, the establishment of minimum labor standards, and especially the enforcement of labor legislation – which is critical given the inaccessibility of productive sites, preventing actual inspections – have also become grounds for contestation. Environmental and labor issues have been the main topics of conflict and regulation; sometimes the demands articulate, but they are often contradictory, especially due to the enviromentalization and scientification of the regulatory narratives.

The first stages of the salmon industry development have been described as a *socio-ecological silence* under the *economic imperative* to promote the industrial growth. (Barton and Fløysand, 2010). Between 2007 and 2010, the salmon industry suffered a major health crisis marked first by a massive infestation of Caligus – also called the salmon louse – and then an epidemic of the virus ISA – Infectious Salmon Anemia. Both outbreaks were linked in the media to bad sanitary and environmental practices. Particularly notorious was the harsh article published in the *New York Times* on March 2008 that linked the massive use of antibiotics to control disease outbreaks – which concerned consumers – with poor environmental conditions that affected both workers and local communities (Barrionuevo, 2008). This translated into a sharp decline of salmon exports and the dismissal of thousands of workers. Thus, the environmental crisis turned social.

It is generally agreed that the ISA outbreak diminished the centrality of the economic imperative. The industry developed an important process of re-regulation that involved a territorial reorganization, important changes in the General Law of Fishing and Aquaculture (law 20.434,) and the expansion of private eco-certifications. Industrial actors describe these changes as the salmon industry 2.0, alluding to its renewed character (Vallejos et al., 2014). These changes have been understood as part of a normal modernization of the industry, reaching maturity and being capable of learning from the past mistakes. In the words of an industrial actor: *this true catastrophe forces the industry to rethink the business; they saw that the goose that laid the golden eggs was plucked everywhere (. . .). This industry, due to hard lessons, has learned the importance of innovation* (Andrade, 2012). This paper reviews the regulatory process within the Chilean salmon industry to contextualize this current "greening" within a contested political ecology struggle in which global and local actors interplay, in micro-political processes. It analyzes the question of the social and political legitimacy reached by the certificatory process, and its contested environmental and labor outputs.

2. Political ecology, regulations, and certifications

This part reviews the political ecology literature on regulations and eco-certifications in aquaculture, focusing on its contested nature that undermines its pretentions on political and social legitimacy. Political ecology focuses its attention on the interrelation between ecological dynamics and socioeconomic power relations concerning the intermediation between nature and society (Nightingale, 2002). In a Gramscian vein, the focus is on the actors that drive environmental changes; in particular, the emphasis is on how actors are able to shape their environments through discourse, use of science, coalitions, strategies, alliances, and interest groups; in sum, the mobilization of power (Veuthey and Gerber, 2011). As such, it recognizes the diversity in positions, perceptions, interests, and rationalities in relation to the environment, and how they interbreed with larger gender, class, caste, and ethnic struggles (Agarwal, 2003). Aquaculture has long been a concern of political ecology. There is extensive literature regarding the environmental impact of aquaculture in general and salmon culture in particular: (1) how local landscape, environment, and local society are transformed by aquaculture farming operations (Cruz-Torres, 2000; Mansfield, 2011); (2) the "tragedy of the enclosures" by which public coastal environments are enclosed by private capitalist operations and how local populations struggle to preserve their means of livelihood (Veuthey and Gerber, 2012); (3) industrial restructuring, particularly the relationship between the socioecological process of small-scale aquaculture production and the larger industrial operations (Vandergeest et al., 1999); (4) how pertinent current regulations and certification regimes are in addressing the environmental challenges of aquaculture (Belton et al., 2011); and (5) the discussion of how social and political processes interplay with the governance of aquaculture.

The classic work of Karl Polanyi highlights that self-regulated market operations encounter important civil society resistance, thus actual markets need to enter into several processes of institutional embedment to regulate market operations. Private eco-certifications have been in the processes of global embedment in which the aquaculture industry has engaged worldwide. Sustainability certifications are described as market-based systems oriented towards increasing consumer trust and providing legitimacy to producers. They attempt to coordinate two contradictory political economic trends: a sympathy with market mechanisms and economic liberalism as well as a consensus on the need to "democratize" global economic governance (Bernstein, 2007). Certifications involve (i) setting ecological and social standards, (ii) traceability and auditing, (iii) labeling the products that meet the standards, and (iv) institutions – usually private organizations – that perform these functions (Bush et al., 2013). Hatanaka (2014) adds to this list the use of scientific norms and practices as a source of legitimacy.

Certification systems are mainly promoted by global retail giants of consuming countries and by non-governmental organizations (Tran et al., 2013). They are often characterized as market driven (Cashore, 2002) or privatized governance (Gereffi et al., 2001), that move outside from the boundaries of the westphalian sovereignity (Cashore et al., 2007b). As a result, certification systems have been seen as an *increasingly pervasive forms of market governance through which retailers and NGOs are able to exert control over producers of primary products in order to secure their commercial and institutional interests* (Belton et al., 2011, pp. 289).

Several factors underline the trend toward certification. First, a change in consumption patterns combines awareness around food scares – with the state seen as incapable of regulating food safety (Fulponi, 2006) – and a growing public concern about environmental impacts of seafood consumption, as part of a wider movement of 'sustainable and ethical consumerism' (Young et al., 1999). Second, there are the options taken by some traditional environmental groups, such as the WWF, that are abandoning the focus on the state and are turning instead to mobilizing large numbers of buyers to use environmental, social, or ethical criteria in their purchasing decisions (Vandergeest, 2007). Third, there has been increasing recourse to certification of seafood by global and regional buyers in response to NGO campaigns that have