BOUNDARY-WORK IN SUSTAINABILITY CERTIFICATION

A CASE STUDY OF THE ASC STANDARD ON RESPONSIBLE SHRIMP FARMING

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The picture depicts shrimp on a market in Bangkok, Thailand. The photo is taken by the author.

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by

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ABSTRACT

Sustainability certification, covering both social and environmental dimensions, is a relatively recent yet prominent feature of aquaculture governance. In sustainability standards certain sites, issues and experts are included while others are not. There is also a difference made between environmental on the one hand and social on the other. How are social and environmental challenges defined, institutionalised and regulated in practice? In this thesis, sustainability certification is considered to be a political process in which boundary-work is happening. These symbolic boundaries define what is in-and excluded and how things are categorised (as environmental or as social). Yet these boundaries can change over time. The aim of this thesis is to make these boundaries explicit. There are three approaches to boundary-work that this thesis aims to combine: boundaries as a categorisation, as a form of in-and exclusion; and as change of boundaries over time. This thesis aims to do this by retracing process of the Aquaculture Stewardship Council's Standard on Responsible Shrimp Farming (ASC). The analysis focuses on Principle 2 and 3 of the Standard that concern both the environmental and social impacts of the location of the shrimp farm. By focusing on sustainability certification as an assemblage, the paper analyses how social and environmental principles represent negotiated boundaries: how they have been constructed, including and excluding spaces, objects, subjects, experts and expertise. The results demonstrate the consequences of making boundaries through a Standard. The thesis concludes that the environmental-social boundary is mainly related to expertise, that boundaries are more flexible in their interpretation than in the negotiation, and that the boundaries are negotiated and renegotiated at different sites. These results show the value of a poststructuralist approach in researching sustainability certification.

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LIST OF ACRONYMS

ASC	Aquaculture Stewardship Council
ASI	Accreditation Services International
B-EIA	Biodiversity-Environmental Impact Assessment
CAB	Conformity and Assessment Body
CAR	Certification and Accreditation Requirements
FAO	Food and Agriculture Organisation
FSC	Forest Stewardship Council
GAA	Global Aquaculture Alliance
GAP	Good Agricultural Practices
ISEAL	International Social and Environmental Accreditation and Labelling
MSC	Marine Stewardship Council
NACA	Network of Aquaculture Centres in Asia Pacific
NGO	Non-Governmental Organisation
p-SIA	participatory-Social Impact Assessment
STS	Science and Technology Studies
TPC	Third-party certification
UNEP	United Nations Environmental Programme
WWF	World Wildlife Fund

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While it can be terrifying to expose one's thoughts—half-baked as they may be—to others, not least one's informants, the dividends are high. Others' experience and their various ways of making associations usually provide new perspectives and insights about one's work and the existing truths worth taking up arms against. The most striking thoughts sometimes come from places one would least expect, from people working within and without one's area, historical period, field, and discipline.

(Lund, 2014: 231)

I am exceptionally grateful for the ones that were willing to listen to my half-baked thoughts, and for all the striking thoughts others were willing to share with me while I was in the process of this Master's thesis.

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It is a bit ironic that this thesis has boundary-work as a subject since I had trouble with the boundaries of the size of a Master's thesis and the boundaries of time. It turned out to be a long read and I apologise.

1.INTRODUCTION

> ***Bubba:*** *Anyway, like I was sayin', shrimp is the fruit of the sea. You can barbecue it, boil it, broil it, bake it, saute it. Dey's uh, shrimp-kabobs, shrimp creole, shrimp gumbo. Pan fried, deep fried, stir-fried. There's pineapple shrimp, lemon shrimp, coconut shrimp, pepper shrimp, shrimp soup, shrimp stew, shrimp salad, shrimp and potatoes, shrimp burger, shrimp sandwich. That- that's about it.*
>
> Bubba in Forrest Gump (Zemeckis, 1994)

If the movie *Forrest Gump* was made in 2016 instead of 1994, Bubba, the character that names all the different shrimp, might have added: organic shrimp; Fairtrade shrimp; turtle-safe shrimp; sustainable shrimp; and responsible farmed shrimp. All these kinds of shrimp are based on quality labels. There are so many labels in the seafood industry that a benchmark tool for seafood standards and certification has recently been developed, in order for stakeholders to assess what the difference between these standards is (Global Sustainable Seafood Initiative, n.d.)

1.1 SUSTAINABILITY CERTIFICATION

Sustainability certification is a relatively recent, but prominent feature of the contemporary economy (Belton, Haque, Little, & Sinh, 2011; Havice & Iles, 2015). The idea of sustainable certification comes from a narrative that blames the state for being unable to protect its environment and it citizens (Vandergeest & Unno, 2012; Vandergeest, 2007). Other actors, such as private sector associations and non-governmental organisations (NGOs) aim to fill this perceived regulatory gap by creating sustainability standards and certification schemes (Ponte & Cheyns, 2013). This trend, of involving other actors than the state in policymaking and policy execution, is called the shift from government to governance[1]. It indicates a shift from state-led technocratic and reactive decision-making to stakeholder-led decision making and open debates in a civil society manner (Eden & Bear, 2010). According to Mutersbaugh, Klooster, Renard, & Taylor (2005) certification can be described as a market-based system that involves (i) setting standards for social and ecological interactions, (ii) auditing compliance with these standards, (iii) granting labels to corporations and products that meet these standards, and (iv) creating institutions to perform these functions. In the case of sustainability certification, certification programmes define what production can be classified as sustainable and what practices producers must follow to attain a label to their product (Havice & Iles, 2015). Sustainability certification often involves three parties: an external third-party (the auditor) that assesses if the first party (the producer) complies with the standards of the second party (for example a commodity roundtable or a multi-stakeholder process) (Hatanaka & Busch, 2008). It is therefore also sometimes called third-party certification[2].

1 However, private authority has not led to a full retreat of the state. Sometimes it is difficult to disentangle private and public governance, because states work together with private actors: there is not a clear division between state and market (Vandergeest, 2007). Therefore it would be more accurate to state that there are hybrid forms of authority (Ponte, 2014)

2 In this thesis the third-party certification and sustainability certification are used as synonyms.

One of the reasons why third-party certification is so popular, is because it is believed to be objective and technical: stakeholders must base their arguments on sound science; the parties and their interests are separated; and the auditors that audit the farms are considered to be independent (Konefal & Hatanaka, 2011). Another reason for the popularity of sustainable certification is that the involvement of non-state actors in the creation of environmental and social standards is supposed to increase the 'inclusiveness' and thereby establish good governance (Boström & Hallström, 2010; Konefal & Hatanaka, 2011). The idea is that there will be greater societal involvement, and that this leads to more preventive, proactive and socially relevant decision-making (Pierre and Peters, 2000 in: Eden & Bear, 2010) In sum, third-party certification is perceived to be technical, science-based and democratic.

The democratic nature of sustainability standards has been criticised. Some scholars claim that the standards that are underlying sustainability certification reflect vocal stakeholders' interests instead of global sustainability (Belton et al., 2011; Belton, Murray, Young, Telfer, & Little, 2010; Bush et al., 2013; Ponte & Cheyns, 2013). Vandergeest and Unno (2012), for example, state that in transnational eco-certification, predominantly Northern-based actors are ignoring national or local actors and replicate imperialist patterns in "protecting" people and environments in the South. And Ponte and Cheyns (2013) argue that sustainable networks are not as transparent, participatory and inclusive as they claim to be.

Besides the critique on the perceived democratic nature of sustainability standards, there is also critique on the claim that standards are of a technical nature: by calling it technical it ignores the political processes and implications (Cheyns, 2014; Havice & Iles, 2015). Emmannuelle Cheyns (2014) observed in the Roundtable on Sustainable Palm Oil that the debate on sustainability has focussed on the negotiation of technical criteria instead of having substantive discussions on the principles of sustainability itself. Another example of this critique is the article by Havice and Iles (2015), in which they point out that scholars often refer to "the rules" that underlie certification as a closed, apolitical, scientific or technical artefact. These rules are not questioned but assumed to represent a scientific truth. This thus depoliticises the standard and makes it seem objective.

This thesis gives insight in how sustainable certification processes work and whether they are a desirable governance tool. It takes the stance that sustainable certification must be regarded as a political process because the standards are negotiated and the result of a political trade-off of multiple parties. There is room for manoeuvre and negotiation within the rules and procedures of a particular standard. Seeing sustainable certification as something political does not mean that it is not based on science (Konefal & Hatanaka, 2011). Using science does not necessarily make something a-political and objective but the choice of which science to use is a political one (Konefal & Hatanaka, 2011). There are different forms of science and knowledge, and often, as Konefal and Hatanaka (2011) address, some forms of knowledge are privileged and other forms of knowledge are marginalised. It is not only chosen what knowledge to use and what knowledge not to, it is also decided who has the knowledge and who does not. Who is for example able to conduct an audit and who is allowed to make the rules through a standard-setting process and who is not? And also, to what does a certificate apply to: is it made for coffee, rice, tea or shrimp. Or for whom does it apply: to farmers, processors or feed producers? In other words, there are boundaries

set throughout the process that decide what is in and what is out. These boundaries are symbolic, and they can always be drawn differently. Therefore they are considered to be constructions (Forsyth, 2005). These boundaries are often taken for granted and that is problematic because boundaries have consequences. When there are people who benefit from these boundaries, it is very well possible that there are also people who do not. This thesis aims to make these boundaries that are set in sustainability certification explicit and it questions them.

In the next paragraphs it is described what approaches to boundary-work are used and combined in this thesis and what the research questions are. Thereafter the case in which these research questions are asked is presented, after which the set-up of the thesis is explained.

1.2 THREE FORMS OF BOUNDARY-WORK

This thesis considers three means to assess boundaries in a sustainability certificate: 1) what is in- and what is excluded in a particular standard; 2) how the boundaries that are set, change over time; 3) what categorisations are drawn within a sustainability certificate. These three questions all come together in the main question of this thesis: How do boundaries work in sustainability certification?

The first consideration of boundaries relates to what is in- and what is excluded in a particular standard. As mentioned above, a standard is negotiated and different opinions exist on what is sustainable and what is not. This implies that classification and categorization is happening during the process. Certain issues are addressed, while others are not. A standard might only take organic farming methods into account for example, without looking at animal welfare. Vandergeest, Ponte & Bush (2015) show that 'boundary-work' is constantly taking place in which space, objects, subjects, experts and expertise are included and excluded in the sustainability domain (Vandergeest et al., 2015). Therefore, this thesis starts by asking the first sub question: What space, objects, subjects, experts and expertise are included in sustainability certification? This question relates to a political ecology approach to boundaries that focusses on processes of in- and exclusion. This addresses the critique on the inclusiveness of sustainability certification as described above. If the effect of the boundaries is exclusion, how does sustainability certification then contribute to more inclusive practices? Are certification schemes just highly politicised processes that only benefit the interests of the actors involved? And if exclusion takes place, how can we change them in order to be truly inclusive?

A second way of assessing boundaries is related to the second critique of sustainability standards: that the rules that underlie certification are not objective unchangeable artefacts but that they are revisable and negotiable (Ponte & Cheyns, 2013)and that they respond to the environments through which they move and operate and they are critically reflected upon (Havice & Iles, 2015). This takes a more processual approach to boundaries and asks how they change over time. The second sub question therefore is: How do the boundaries in sustainability certification change over time? This question relates to a poststructuralist approach to boundaries. It is a relatively recent development to use a post structural lens to address third-party certifications. This thesis can contribute to the academic debate by asking whether

this is a useful approach. Also, if a standard is defined in a certain manner, that does not necessarily mean that it is implemented in that particular way in every context. If it is understood when and how these boundaries are fixed, it also makes it easier to change and steer these boundaries, if the outcomes are not desirable.

A third way of addressing boundaries is by looking at categorisations. This comes forth from Science and Technology Studies (STS) and it relates to a specific boundary that is drawn between two things that are considered to be distinct. In STS it is mainly used to differentiate between science-and non-science or between science and lay knowledge. This thesis however, addresses another categorisation. There is one categorisation that is gaining importance in Third-Party Certification and this is related to the difference between 'environmental' and 'social'. This might be a reflection of a general interest towards the social dimensions of development (Lehtonen, 2004). Several standards make a distinction between environmental and social issues, sometimes in only addressing social or environmental issues, or they are both taken into account referring to them as essentially different[3]. This boundary is taken for granted and it is of particular relevance, since addressing social issues is gaining popularity in sustainability certification. The third sub question of this thesis therefore is How is the environmental and social categorised?

Understanding the boundaries in place and their consequences, makes it easier to grasp if having these boundaries is desirable, and how to deal with boundaries in order to get desirable outcomes. Third-party certification has the ability to reshape economic, political and social relations (Hatanaka & Busch, 2008) . The aim of this research is to gain insights into how sustainable certification processes work and whether they are a desirable governance tool. Secondly, this thesis might contribute to theory by combining three ways of boundary-work into a comprehensive framework to assess sustainability certification. Political Ecology, Science and Technology Studies and Poststructuralism all consider boundaries (although not always framed in this term) but they have not yet been combined in researching sustainability certification. This theoretical understanding has the possibility to open up the discussion on how to assess third-party certification.

1.3 THE ASC'S STANDARD ON RESPONSIBLE SHRIMP FARMING

This thesis studies the Aquaculture Stewardship Council's (ASC) Standard on Responsible Shrimp Farming as a case. In this paragraph I introduce the shrimp farming sector and the standard and explain why it is highly useful to address the three main research questions of this thesis.

[3] A few examples: Fairtrade has a minimum price and a social premium, and now also addresses environmental criteria. The Rainforest Alliance's certification is built on environmental protection, social equity and economic viability. UTZ differentiates between management, farming practices, working conditions and the environment. The Marine Stewardship Council only addresses environmental criteria but recently announced a policy on forced labour. The Aquaculture Stewardship Council addresses both environmental and social issues. The Roundtable on Responsible Palm Oil addresses both environmental responsibility and employees, individuals and communities.

In the seafood sector a difference is made between wild caught fish (captured fisheries) and farmed fish (aquaculture). Aquaculture is a rapidly growing sector, that already provides more than forty percent of the global seafood supply (FAO, 2014). Asia produces more than 88 percent of global aquaculture by volume (FAO, 2014). Yet aquaculture is also characterised by several problems such as water pollution, the degradation of ecosystems and labour issues (Bush et al., 2013). The sector does not have a particularly good reputation, as for example the Food and Agriculture Organisation of the United Nations faces difficulties to find funding because donor countries and development organisations view aquaculture as an extremely damaging and negative human activity. This view is slowly changing, however, since it is also seen as a way to solve overfishing and to meet the growing seafood demand.

The focus of this thesis lies on one particular aquaculture species: shrimp. Multiple sustainability certificates for farmed shrimp exist because of the following reasons. The industry has faced severe critique by environmental and social groups and there were successful consumer campaigns launched by NGOs (Béné, 2005; Vandergeest, 2007). Farmed shrimp is mainly produced in the South and consumed in the North, and this makes it easier to frame it as an overconsumption issue (Vandergeest, 2007). Also, technical experts in the industry and environmental groups agree for a large part on how to solve the environmental problems related to shrimp farming (Vandergeest, 2007). States have difficulties to comply to these proposed best practices by monitoring and enforcing them, and retailers also see third-party certification as an opportunity to compete because of product quality and corporate image (Vandergeest, 2007).

As mentioned, various certification schemes for farmed shrimp exist. In this thesis it is chosen to assess the ASC Standard on Farmed shrimp. I firstly shortly describe the history of this Standard after which I discuss the reasons for choosing this particular Standard. As discussed, NGOs and researchers have raised the issue of environmental impact and social disruptions of the shrimp farming industries in the 1990s (Béné, 2005; Vandergeest, 2007). This has led the World Wildlife Fund (WWF), the UN Food and Agriculture Organization (FAO), the World Bank and the Network of Aquaculture Centres in Asia Pacific (NACA) to form the Consortium on Shrimp Farming and the Environment in 1999 (Béné, 2005; WWF 2011). This Consortium developed principles, which were adopted in 2006 by the FAO. These principles were the starting point for the Shrimp Aquaculture Dialogue (ShAD) process that was led by WWF USA. This ShAD process was a so-called multi-stakeholder initiative that was initiated in 2007 and developed the Responsible Standards for Shrimp farming in 2011. They handed this Standard over to the Aquaculture Stewardship Council (ASC) in 2012. ASC thereby became the holder of the standards, and they translated the standards into an audit. From here, Accreditation Services International qualified various Certification and Accreditation Bodies (CABs) to certify shrimp farmers with the ASC logo for responsible shrimp farming (Shrimp Aquaculture Dialogue, 2010a). At the moment the first farms are certified with the ASC logo (Aquaculture Stewardship Council, n.d.-b).This process is visualised in Figure 1.

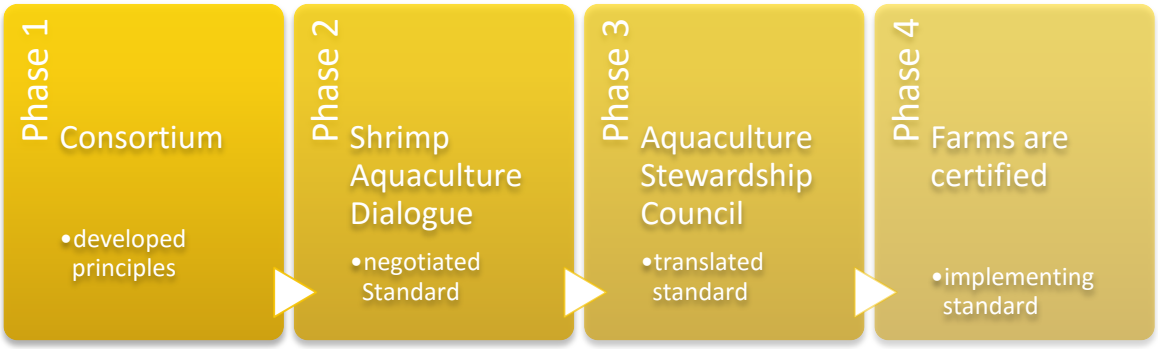

FIGURE 1: FOUR PHASES IN THE ASC SHRIMP PROCESS

This process shows that the Standard and principles are defined and redefined at multiple sites. They were first formed by the Consortium, then they were adjusted in three drafts during the ShAD process, and thereafter they were translated into an audit, which is now implemented by several auditors all over the world. The time it took to develop a draft standard was considerable (between 2007 and 2011) and this indicates that there were boundaries that were contested and discussed. This makes it a good case for this study, since there are different sites of negotiation to take into account. The case can thus be analysed from a processual perspective. In addition, there are practical reasons to research this case: The Standard is negotiated via a multi-stakeholder process that was quite transparent and this makes it easy to access the data.

Another reason for researching this particular standard is because it explicitly draws a boundary between environmental and social, which is the categorisation that is the topic of this thesis. Issues, impacts, NGOs, costs, skills, and standards are supposed to be either social or environmental. As an example: *Principle 2 covers the impacts associated with the initial siting and the construction and expansion of shrimp farms: social considerations associated with siting are addressed in Principle 3* (Shrimp Aquaculture Dialogue, 2011: 15) These two principles make a particularly good case for analysis, since the boundary is explicitly made and they can be compared. Principle 2 of the standard centres on: *site farms in environmentally suitable locations, while conserving biodiversity and important natural ecosystems* (Aquaculture Stewardship Council, 2014: 9) and Principle 3 addresses the development and operation of: *farms with consideration for surrounding communities* (Aquaculture Stewardship Council, 2014: 9).

The ASC Standard for Responsible Shrimp Farming (ASC Standard) consist of seven principles that range from shrimp health and welfare, stock- and resource management, labour rights to the siting of the farm (Aquaculture Stewardship Council, 2014). It is beyond the scope of this study to research the development of all these principles. The reason why I have chosen for Principles 2 and 3 is because these principles entail the same issue: the siting of the farm, but have a different angle, which is either environmental or social. This gives a good case to compare the development of the principles.

1.4 THE SET-UP OF THE THESIS

In this thesis I make an explicit division between environmental and social myself by looking into the development of two principles: Principle 2 and Principle 3 of the ASC Shrimp Standard. I assess both principles individually by looking at the change of the boundaries of that principle. This will be done by assessing five variables: space; objects; subjects; experts; and expertise, over four timeframes: 1) Entering the Certification Market; 2) Negotiating the Standard 3) Translating the Standard 4) Implementing the Standard. In this way I combine three approaches - a critical political ecology approach, a poststructuralist approach and a science and technologies studies approach - on boundary-work while analysing the ASC Shrimp Standard.

This thesis starts with elaborating on the theoretical concepts that are used in this thesis. After explaining the (Ch 2) conceptual framework, a separate chapter (Ch 3) follows on the operationalisation of these concepts in the methods and the methodology. Because the two principles that are the subject of this study are part of a standard and of a larger process, the boundaries of the ASC Shrimp Standard are firstly explored in a chapter (Ch 4) about the historical process of the ASC Shrimp Standard. The environmental-social boundary is made explicit in the two result chapters that follow: The environmental chapter (Ch 5) and the social chapter (Ch 6). Each assess how space, objects, subjects, experts and expertise are assembled and how they change over time. In the discussion (Ch 7) the boundaries are further analysed, in addition to zooming out and addressing what the relevance of this thesis is. After drawing the main conclusions (Ch 8) this thesis ends with some recommendations (Ch 9).

2. CONCEPTUAL FRAMEWORK

In order to answer the research question, it is necessary to understand the different concepts and comprehend from which theories they originated. This section aims to provide this understanding. As explained in the introduction, this thesis aims to combine three forms of boundary-work. In this Chapter I firstly explain where the term boundary-work comes from, after which I explain the three forms of boundary-work. At first, boundary-work as a categorisation is explained, which relates to the boundary between environmental and social. The scholar that is mainly used in regard to this categorisation, or purification, is Bruno Latour. His way of understanding this boundary is firstly explained. As I explain below, I think that the notion of assemblage is a good way to understand the boundary between environmental and social. The Conceptual Framework thus continues with explaining this concept as it is understood by Manuel DeLanda (2006). Although DeLanda does not use the term boundaries, he discusses the idea that boundaries are fluid. Assemblage theory thus adds the idea of the stability of boundaries and different timeframes. This is the second way of assessing boundaries. And thirdly, boundary-work in its most known form is explained. The concept of boundary-work originates from Science and Technology Studies and specifically from Thomas Gieryn. It is seen through a Critical Political Ecology lens, as understood by Tim Forsyth (Forsyth, 2003). This adds the in- and exclusion comprehension of the concept. After explaining the notions of assemblage and boundary-work and how they can be combined, it is investigated how other scholars in fishery and aquaculture have operationalised these concepts and then it explains its own variables.

2.1 BOUNDARY-WORK

The concept of boundaries has gained importance in the social sciences: it is used in literature on social and collective identities; in inequalities on class, gender, ethnicity; in literature on communities, identity, and spatial boundaries; and in literature on professions, knowledge and science (Lamont & Molnár, 2002). Boundaries can be symbolic or social. Symbolic boundaries are conceptual divisions in order to categorise practices, objects, people, and time and space. When symbolic boundaries are widely accepted, they can result in a social boundary. Social boundaries are something more: here the boundaries are related to social distinctions having unequal access and unequal distribution of resources and opportunities (Lamont & Molnár, 2002). The boundaries in this thesis are mainly symbolic: it is assessed how objects, subjects, space and expertise are categorised inside or outside the ASC Standard and if they are categorised as being social or environmental.

When creating boundaries is something active, it can be referred to as “boundary-work”. The concept of “boundary-work” comes from ‘Science and Technology Studies’ (Forsyth, 2003) and is mostly attributed to the sociologist Thomas F. Gieryn (Eden, Donaldson, & Walker, 2006). He used this concept mainly to discuss the boundaries around science and non-science (Eden et al., 2006). The concept is also used in the following ways: to demarcate and reinforce the boundaries around science to gain influence and legitimacy (Eden et al., 2006); to differentiate between disciplines from one another and experts from lay-

men (Lamont & Molnár, 2002); and as a way to explain how science and politics are categorised and therefore are different (Vandergeest et al., 2015). Because boundary-work comes forth from STS it is mainly used in relation to science and experts. But, I think it can also be used to assess symbolic boundaries that exist in the ASC assemblage.

As mentioned, there are three ways to think of these symbolic boundaries, which I aim to combine in this research framework. Boundary-work as a categorisation (some things are social while others are environmental), as a process (how stable are the boundaries from one period to the next), and as in-and exclusion (what is in, and what is out). All three forms are elaborated on, as well as how they are combined in this thesis.

2.2 THE BOUNDARY BETWEEN ENVIRONMENT AND SOCIAL: CATEGORISATION

In the ASC Standard on shrimp farming a difference is made between social and environmental. Some things are categorised as social and others as environmental. This boundary is a construction: issues can also be categorised in other manners. The boundary between social and environmental however does not come out of the blue, as I believe it relates to the difference between nature and culture. This distinction between nature and culture is also reflected in yet another categorisation: that of the three pillars of the concept of Sustainable Development. These categorisations and their consequences are elaborated below.

The distinction between environmental and social can be thought of as a reflection of the division between nature and culture. This nature/culture division has a long history and this subject is much broader than the environmental and social divisions that are part of the ASC. The categorisation is a result of the intellectual knowledge production in the West (Inglis & Bone, 2006). 'Human nature' was conceptualised in two ways: by Greek and modern natural scientist seeing humans as part of wider 'nature' and by Christian theologians and post-Platonic philosophers as humans being 'above' nature (Inglis & Bone, 2006). This way of seeing humans above nature resulted in the division of natural sciences studying the organic and the physical, and the social scientists researching the symbolic and cultural of the human (Inglis & Bone, 2006).

As mentioned above, there are some scientists that reject the distinction because they think that humans are part of nature. Another group also rejects the boundary, but not because humans are part of nature, but because nature is part of socio-culture (Inglis & Bone, 2006). The idea is that we nowadays live in a 'post-natural' condition since there is no environment or environmental phenomenon that is untouched by humans (Inglis & Bone, 2006). Again, there is numerous literature about the boundary between nature and culture and I do not aim to address this entire literature. However, there is one scholar that in my humble opinion has to be mentioned in this context and this is Bruno Latour. In his book 'We have never been Modern' (Latour, 1993), Latour stresses that humans and non-humans are separated by a false and simplified dichotomy. Nature and society are interrelated and there are hybrid blends between nature and culture. Latour calls the process to separate them out the "work of purification". This is the first false dichotomy (Forsyth, 2003). The second, and again false, dichotomy is between the categorised objects into

human and non-human, and the objects that are not yet categorised. This is called the "work of translation" (Forsyth, 2003). He visualises these dichotomies, see Figure 2. The point of Latour is that the work of purification might only reflect social choices (Forsyth, 2003).

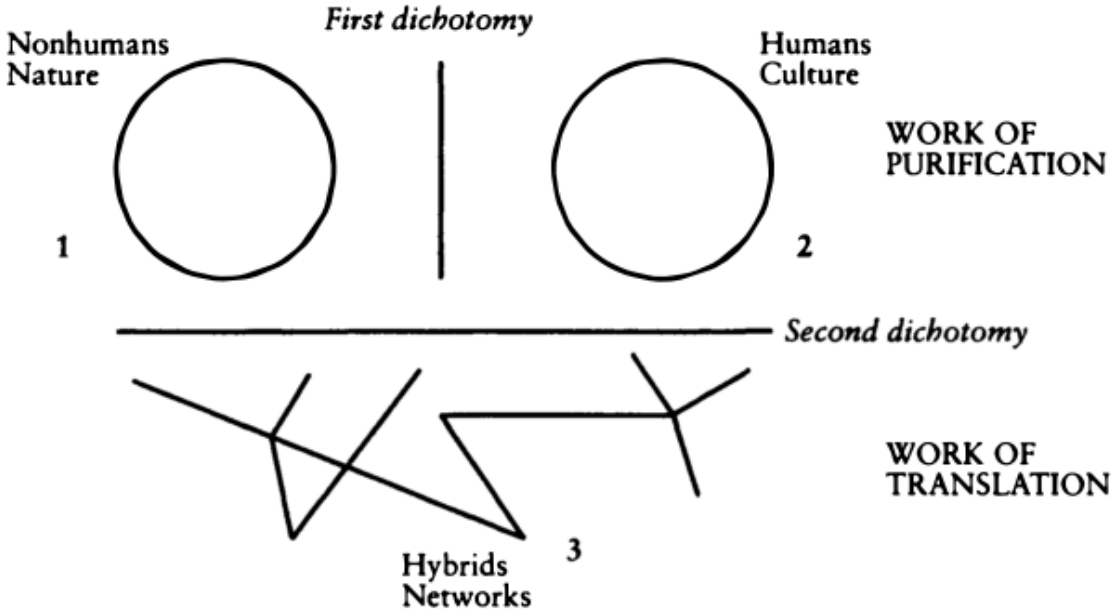

FIGURE 2: PURIFICATION AND TRANSLATION. SOURCE: LATOUR, 1993: 11

In governance arrangements the work of purification, in using Latour's vocabulary, is happening. In third-party certification, for example, social issues are separated out from environmental issues. The notion of sustainable development is another example, which separates out three 'pillars': environment, economic and social (Lehtonen, 2004). Some people criticise the idea of those three pillars because they are entangled, while other state that they should be considered to be distinct (Lehtonen, 2004). This distinctness is mainly reflected in how the different dimensions should be analysed: what tools and analytical framework are to be used (Lehtonen, 2004). The idea is that the tools for addressing environmental change are different than the ones that you need when thinking about social or economic issues. But why does it matter that these divisions are made?

The concern is that the division between social and environmental might have consequences. Bruno Latour, again, regards the nature-culture distinction as a political order (Inglis & Bone, 2006). The distinction divides the world into the objective, certain and true nature domain, and the subjective, uncertain, and mere opinion domain of culture (Inglis & Bone, 2006). Since 'nature' is an unquestionable, pure and material externality, scientists, environmentalists and ecologists claim to speak for it (Inglis & Bone, 2006). Science acts as an intermediary for nature (Latour, 1993). In effect, the interests of lay people and non-humans are performed by the 'nature professionals' and therefore they are silenced. Since nature is seen as an objective domain, the people that are enabled to speak for nature, are politically enabled, while others are disabled (Inglis & Bone, 2006). In the context of standards, this danger was exemplified by an article of Vandergeest (2007) on certification and communities and their involvement in

environmental and social impacts of shrimp farming. Local communities are excluded from the technical domain of the environmental issues, but included in the social domain where they are enabled to speak out (Vandergeest, 2007). It is thus an issue of in- and exclusion.

Another danger with fixing a boundary in a standard between social and environmental is that a similar thing happens with social expertise. By including the social two domains exist instead of one: that of the social and that of the environmental. Bruno Latour, yet again, describes in his book 'Reassembling the Social' (Latour, 2005) that the word 'social' has become a misnomer, in the sense that it is used as a type of material that is distinct from others. There exists a social context that is a specific domain of reality, which cannot be dealt with by other domains such as law, economics and psychology. Specialised scholars study it, because the non-specialised are always inside the social context. Only the trained social scientist can see the full effect of the social world and the social context. They can therefore imitate the success of the natural scientist, because they are objective, thanks to quantitative tools or alternative methods (Latour, 2005). So there might also be a danger in how the social expertise changes by making a clear distinction between social and environmental. The danger with drawing and fixing a boundary between social and environmental is thus one of representation and expertise. How is the environmental and the social represented and does this reflect the diversity of the environment and the social? Who are the people that are enabled to speak for the environment and for the social?

To sum up, there is a categorisation made between social and environmental in the ASC Standard on Responsible Shrimp farming. This distinction does not come out of the blue; it is a reflection of the nature-culture dichotomy that is part of knowledge production in the West. The issue is that this distinction might have consequences, which are related to representation. One way of understanding the differences between the environmental and the social domains within the ASC Standard is through using the notion of assemblage. I explain in the following section why I believe this is a useful approach.

2.3 BOUNDARIES FROM A PROCESSUAL PERSPECTIVE

As explained above, Latour states that there is work of purification done to differentiate between nonhumans and nature on the one hand and humans and culture on the other hand. This assumes a static situation, that the boundaries that are drawn are always drawn in the same way. If one accepts that drawing boundaries and dichotomies is a process, the notion of assemblage is more useful to assess how the social and the environmental change over time. In this section it is explained what assemblage is and what the terminology is, after which I argue why it is a useful way to assess the boundary-work of the ASC Responsible Shrimp Standard.

The notion of assemblage is explained through the understanding of Manuel DeLanda (DeLanda, 2006). The concept is created by philosopher Gilles Deleuze (often in partnership with Felix Guattari). The notion thus comes forth from philosophy. Nowadays it is used in anthropology, in Actor-Network Theory, and human geography (Köhne, 2014). Deleuze and Guattari have written about it in 'A Thousand Plateaus' as well as in other work, but they did not work out the concept in order to interpret in a straightforward

manner (DeLanda, 2006). Manuel DeLanda further developed, or assembled, the theory of Deleuze, adds his own definitions of technical terms and uses his own arguments of assemblage in his book 'A New Philolophy of Society, Assemblage Theory and Social Complexity' (DeLanda, 2006). DeLanda's theory might be named neo-assemblage theory or assemblage theory 2.0. In his book Delanda further explains the concept in order to provide an ontology for the social sciences (DeLanda, 2006). This thesis uses DeLanda's interpretation of assemblage.

The notion of assemblage contests the 'organismic metaphor': that the parts of a whole are constituted relationally to the other parts of the whole. Parts do not have an existence apart from their relation to other parts, and therefore the relations are defined by processes of interiority. To exemplify this, Delanda uses the idea of the human body in one of his lectures (DeLanda, 2011), that was always thought of as a seamless totality. The body is a totality, and a component, for example a heart, cannot exist outside of the body but it is defined by its relationships with other components of the body: by its relation to blood and veins for example. All the human organs are thus fused together for the functioning for the body: they define one another in their relationships, they are defined by relationships of interiority (DeLanda, 2011). The notion of assemblage contests this idea of a totality. In an assemblage, the parts of the whole are not only constituted by the relations to other parts of the whole (Bear, 2012) since they can also have an independent existence beyond their part in the whole: they retain their identity inside the whole and do not get fused into a particular totality. The parts of the whole are self-subsistent and have relations of exteriority. A part can be detached of one assemblage and 'plugged into' another assemblage (DeLanda, 2006). In the words of the example above: nowadays the human heart can be taken out, put in a freezer, and plugged into another body. The body is thus decomposable since it contains of parts that have an identity outside of the whole. An assemblage is therefore not a seamless totality (DeLanda, 2011). An assemblage is defined as *a collection of heterogeneous parts and acts that form contingent relations across time to produce an emergent whole* (Sellar, 2009: 69). It studies how certain arrangements are kept together, while they consist of heterogeneous components. The components are heterogeneous and have a variety of practices, places, things, interests and goals, but at the same time form a whole (Allen, 2011). Practices can thus contradict each other, but simultaneously make up the same institutional arrangement (Köhne, 2014). Another characteristic of the notion of assemblage is that it allows for looking at different scales. An assemblage consists of different parts, but the parts themselves are also assemblages. Different assemblages are component parts of other assemblages which can be part of even larger assemblages (DeLanda, 2006).

As mentioned above, the main reason why I think it is useful in the case of the ASC Standard on Responsible Shrimp farming, is because of its processual approach. However, there are other reasons why it is a particularly useful concept to study multi-stakeholder initiatives and third-party certification because of several reasons. These reasons are explained in relation to the definition of assemblage: *a collection of 1) heterogeneous parts and acts that 2) form contingent relations 3)across time 4) to produce an emergent whole* (Sellar, 2009: 69). Apart from these three characteristics, the notion is useful because it takes both 5) human and non-human components into account, and because it is applicable at 6) different scales.

Firstly, an assemblage is *a collection of heterogeneous parts and acts*. This is particularly useful as a lens for looking at governance. Governance is not seen as something that is internally coherent, but consists of contradictions and heterogeneity (Köhne, 2014). Knowledge and expertise can then be thought of as heterogeneous, as for example environmental and social principles can sometimes contradict each other. This also means that the parts are seen as being heterogeneous and they have a variety of interests and goals (Köhne, 2014). The people that negotiated the standards for example, did all come from different organisations with different interests and goals.

Secondly, the heterogeneous parts and acts *form contingent relations*. This also implies the assemblage is co-produced at the same time and therefore it contradicts the idea of linearity, of cause and effect. In the case of governance, this poses questions at the idea that implementation follows policy making, without changing the meaning and the practices (Köhne, 2014).

Thirdly, an assemblage is co-produced at different sites *across time* (Köhne, 2014). An ASC audit can be done by different auditors in different countries that apply the rules differently, but they are all part of the ASC certification scheme.

Fourthly, the parts and acts *produce an emergent whole*. Assemblage theory aims to interpret the historical processes through which a whole is created and stabilised (Sellar, 2009). However, the whole must not be seen as an end result, but as the process itself (Sellar, 2009). Ready-made formations are contested and the interplay of different forces in time and space make up the assemblage (Bear, 2012; Köhne, 2014; Sellar, 2009). The use of assemblage as a concept thus implies a process-oriented approach and this is valuable to understand the ASC Standard on Responsible Shrimp farming because it not only looks at what the Standard is at the moment, but also how it came into being.

In addition to the characteristics that come forth from the definition, there are two other reasons why this notion is relevant in the case of third-party certification. Firstly, assemblage enables to not only take humans, but also non-humans into account (Bear, 2012; Vandergeest, 2007). This results in including shrimp, the market and the farm site. In a standard that has as a main topic a non-human, this might be useful to approach the ASC Standard of Responsible Shrimp Farming.

Secondly, the notion is especially useful in this thesis because it allows to research different assemblages: the ASC Shrimp Standard assemblage, and the assemblage of Principle 2 (environmental) and Principle 3 (social). This also implies that scales such as 'global' or 'local' can be combined in the same research framework. By this it is meant that the negotiations that were supposedly global because people from all over the world took part in it, are not above the implementation at a local level, but they are both part of the same assemblage. It also means that the 'social' and 'environmental' are part of the ASC Shrimp assemblage, but can be analysed as assemblages in themselves as well: they can be investigated in the same research framework. This is useful in seeing what 'the environmental' and 'the social' consist of, and seeing what the boundaries or territory of these domains and that of the Standard as a whole are. Figure 3 visualises how these assemblages could be related.

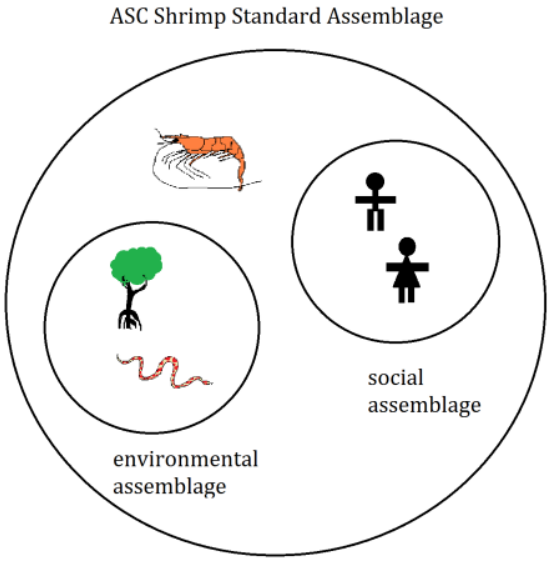

FIGURE 3: THREE ASSEMBLAGES

All these reasons signify why this approach is useful in researching the ASC Responsible Shrimp Standard. Nevertheless, the main reason in this research is that it allows using a processual approach and that it recognises that boundaries can shift and change. In their article on the Tilapia negotiation, Havice and Iles (2015) also use the notion of assemblage. These scholars contest the idea that certification programmes are "immutable mobiles": unchanging objects that can be applied in different contexts. They show that rules that are made in the Aquaculture Dialogues are not final (Havice & Iles, 2015). The rule-making must thus be seen as a part of the assemblage, instead of being an external ordering principle for it (Havice & Iles, 2015). They use multiple sites to see how the rules are defined and redefined. The authors set three rule-making sites in which the sustainability assemblage is informed: 1) the certification market, 2) the rule negotiating process and 3) the process of making a certification scheme operational. This thesis takes a similar approach, whereby one site is added: 4) that of the implementation of the Standard. In the article of Havice and Iles, the Standard was not being implemented, but since this is the case at the time of writing for the shrimp standard, this site can also be added.

This thesis thus takes four time periods into account. 1) Entering the certification market, in which the process is discusses that resulted in 2) Negotiating the Standard. After the Standard was negotiated and there were three draft versions published, there was a period of 3) Translating the Standard. The Standard was translated into an audit manual and a final standard and the first auditing bodies were accredited to certify farms. This resulted in 4) Implementing the Standard. In this period farms became ASC Certified.

2.4 BOUNDARY-WORK VERSUS TERRITORIALISATION

The notion of assemblage relates to a form of boundary-work that recognises that boundaries are able to shift. DeLanda does not use the words boundaries but the term territorialisation. In this section I explain why I chose to use the term boundary-work and then I explain why I think this is relevant.

According to DeLanda (2006), an assemblage is characterised by three dimensions. One dimension concerns territorialisation: the level of identity or internal homogeneity of the assemblage. Territorialisation is the process in which the assemblage gains consistency and the relationships are strengthened and centralised (Sellar, 2009). Processes of deterritorialisation have the opposite effect: new components and relations can be included in the assemblage (Sellar, 2009). See Figure 4 for an explanation of the processes of territorialisation and deterritorialization.

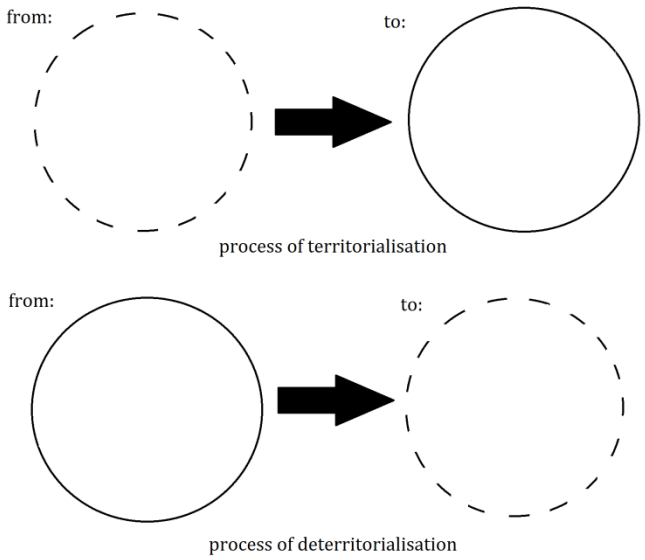

FIGURE 4: PROCESS OF TERRITORIALISATION AND PROCESS OF DETERRITORIALISATION

When the boundaries are open, components can move in or out, and when they are closed this is more difficult. The difference between using the concept of territorialisation and the concept of boundary-work, is that the focus of territorialisation is the assemblage, and the focus of boundary-work is the boundary. By using boundary-work it is evaluated where the boundaries are fixed, because this clarifies what entities are in-and excluded. In Figure 5, I explain this emphasis within the concept of boundary-work. Since I also want to focus on what is in and what is out, I prefer to use this concept.

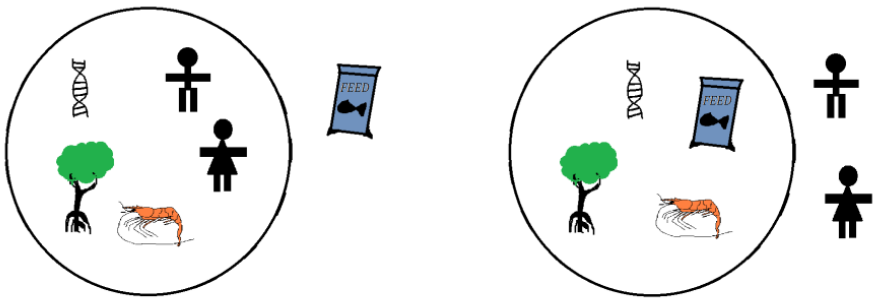

FIGURE 5: BOUNDARY-WORK

Another difference between the concept of territorialisation and boundaries is that assemblage theory has a process perspective: boundaries are processes instead of end-forms. DeLanda (2006) therefore argues that the word territorialisation a better way to conceptualise the process than by the using the word boundaries. Boundaries limit the movement of parts, and this fixed state goes beyond what an assemblage is: something that is in flux (Sellar, 2009). I agree with this argument, but I think that boundary-work also implies something that can change. At certain moments the heights of the boundaries are higher than in other moments, and this is where components can in an easier manner 'jump in' or 'jump out': the boundaries are flexible, or in an assemblage terminology: the assemblage is deterritorialised and new components van be included or excluded. In processes of territorialisation the boundaries are strengthened, they are build up higher and it is therefore more difficult to "get in": the boundaries are fixed and the assemblage is territorialised: components cannot be in- or excluded easily. If one accepts that boundaries can be build up and broken down, the same is meant as processes of territorialisation and deterritorialisation. Boundaries are thus seen as non-final entities: they are constantly being build and rebuild, being fixed and broken down.

Yet another reason for using the concept of boundary-work is that the term territorialisation has a spatial connotation. In this thesis I concern more variables than space, and I also look at the in- and exclusion of objects, subjects and expertise. According to DeLanda (2006) the process of territorialisation and that of sharpened boundaries can be thought of in a spatial way or in a non-spatial way, so I could use the term territorialisation. Nevertheless, the academic field of third-party certification and aquaculture is being researched by geographers, who often have a different association of the word territorialisation. I believe that the term boundaries is easier to understand in a non-spatial way than the term territorialisation.

2.5 BOUNDARIES AS IN- AND EXCLUSION

I have already elaborated that I take two forms of boundary-work into account. One form relates to categorisation, of some things being categorised as environmental and the other as social. The other form of boundaries recognises that the boundaries are in flux. This is a processual approach that addresses the stability of the boundary.

The third form of boundary-work relates to in- and exclusion. Boundaries can be drawn in a particular time and place, in order for a particular policy to fit inside the frame. When a boundary is drawn, it establishes an order (Forsyth, 2003). It is important to notice that boundaries can always be drawn alternatively (Forsyth, 2003). This drawing of boundaries reflects the vision of the creator of the boundary, and it facilitates the objectives of the ones who have the political power (Forsyth, 2003). It is thus a concrete way in which power is exercised. This bounded structure is then a reflection that fits the interests and the viewpoints of the ones that created a boundary, and this structure may have the result that the structure will be perceived as a "fact" (Forsyth, 2003). The boundaries are not always deliberately drawn but they can become normalised and a routine, and therefore they are not challenged anymore but considered as taken for granted (Eden et al., 2006). That the boundaries are once drawn is then forgotten (Eden et al., 2006). When the boundaries are not questioned anymore, and they are considered as a fact, it

can be considered that the boundary is fixed. These fixed boundaries may be replicated and be considered as "fact", but this still enforces the interests and the objectives of the ones that created the boundary (Forsyth, 2003). So this fixing of the assemblage happens for particular reasons and particular decisions will follow on fixing an assemblage in a particular way because there are interests, values and strategies of actors that are involved. But what can be in- or excluded? The next section discusses how this in-and exclusion has been used in studying third-party certification.

2.6 ASSEMBLAGE AND BOUNDARY-WORK IN THIRD-PARTY CERTIFICATION

In studies of aquaculture and fisheries the concepts of boundary-work and assemblage have recently been applied. I am not the first doing this, but it is a relatively recent way of combining the concepts. In the article of Sally Eden et al., (2006), theoretical issues of scientific boundary-work are discussed and they are related to the construction of expertise and socially distributed knowledge (Eden et al., 2006). This is applied to the role of nongovernmental organisations in debates about environmental knowledge and science (Eden et al., 2006). In this article it is recognised that boundaries are always shifting and unstable and that they are continuously renegotiated: the boundaries are different for different users (Eden et al., 2006). The idea that boundaries are unstable and being renegotiated, already hints to thinking of boundary-work within an assemblage theory framework. In an article of Eden and Bear (2010), it is examined how two certification schemes: the Forest Stewardship Council and the Marine Stewardship Council, use science and space in similar ways. By using literature from science and technology studies, political science and geography, the article shows how certification units are defined as socionatural hybrids that are not tied to traditional territories and political boundaries (Eden & Bear, 2010). The certifications move in different directions and at different scales which involve coproduction of the global reach of the certificate with the local socionatures (Eden & Bear, 2010). The space of certification schemes has its own boundaries. Christopher Bear (Bear, 2012) also uses assemblage theory in his article about scallop dredging in Cardigan Bay in Wales. His article shows that not only humans are managing the endangered stocks of bottlenose dolphins, but that also non-humans are active participants in the assemblage. He includes non-humans as being part of the assemblage (Bear, 2012). This article stimulates to use assemblage theory in order to not only investigate the human actions, but also look at non-humans. So three articles already distil five variables: space, objects, subjects, experts and expertise.

These variables all come together in the article of Vandergeest, et al. (2015a), in which they analyse four case studies of sustainability certification in seafood to show that certification involves both state agencies and nongovernmental entities, and that it therefore is not market-based only. The authors argue that space, subjects, objects and expertise are assembled in certain sustainability certifications schemes and that these variables make up a certain territorialisation. The article (2015a) uses the concept of boundary-work as a process which defines these five variables. They state that: *spaces are defined and connected with each other; objects and subjects are included or excluded; different kinds of expertise are accepted or not; and rules regulating movement across boundaries are set* (Vandergeest et al., 2015a: 3). This already hints towards the variables that I will use in this thesis that are in-and excluded through boundary-work.

I combine this form of boundary-work, of in-and exclusion of the different variables, with a processual approach that that Havice and Iles (2015) have used. Havice and Iles (2015) also use the concept of assemblage as they see the: *relationships and connections among producers, consumers, investors, markets, and certifiers built around the pursuit of sustainability as a sustainability assemblage* (Havice & Iles, 2015: 27).

Apart from these two ways of assessing boundary-work: of seeing it as in-and exclusion and as seeing it as a process, I also consider the categorisation of environmental and social. In a visualisation, I do not only assess what is in and what is out of a certification scheme, see Figure 6.

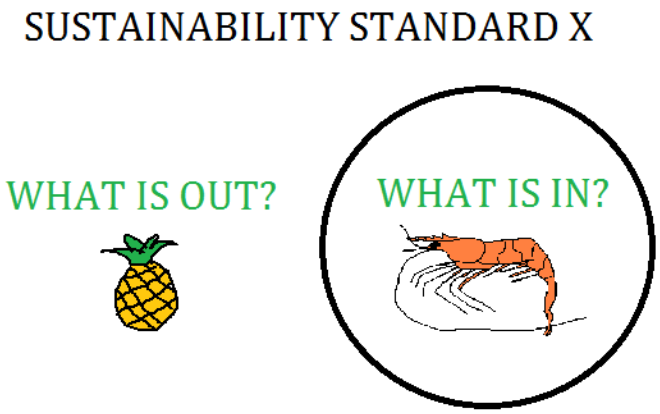

FIGURE 6: BOUNDARY-WORK AS IN- AND EXCLUSION

But I also look at the work of purification between the environmental and social assemblage, through looking at what the boundaries of the environmental assemblage and the social assemblage are, and by comparing them in the end. This can be visualised in Figure 7.

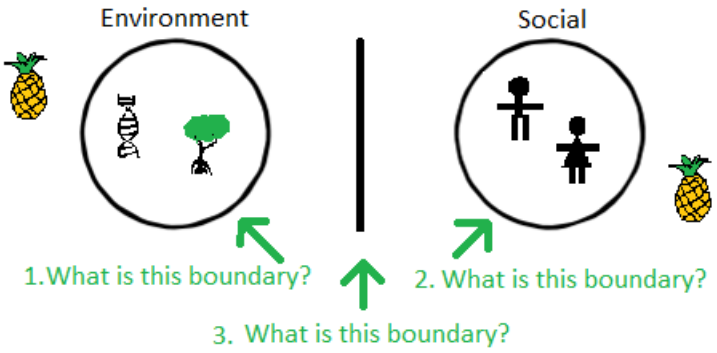

FIGURE 7: BOUNDARY-WORK AS IN- AND EXCLUSION AND AS CATEGORISATION

I do this by recognising that boundaries can change, they can be flexible and fixed, as described in the section of boundary-work above. So the boundaries can be stripes, points and fixed lines. A fixed line means that they are stable, and a point means that they are fluid. This also designates that components can move in- and out over time.

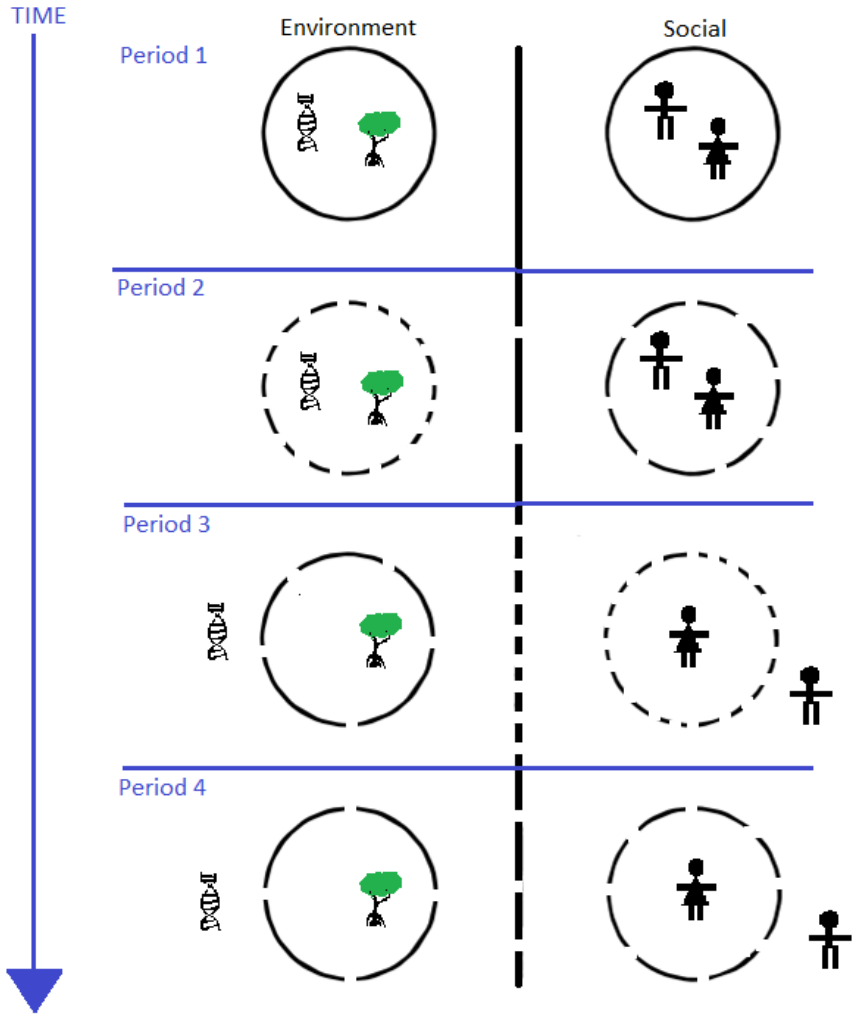

FIGURE 8: BOUNDARY-WORK AS IN- AND EXCLUSION; AS CATEGORISATION; AND AS A PROCESS

Figure 8 shows how the environmental assemblage changed over time and how fixed the boundaries are, thus looking at the four circles on the left of the figure. Then I analyse how the social assemblage changed over time and how these boundaries shifted and if they were fixed. And at last, I compare the two assemblages by looking at the boundary that designates the dichotomy: is this a fixed boundary or did this change? And how did it change? This still leaves the question of the components that can be in-and excluded. And why were they in- or excluded? As described above, in the articles that already use the concepts of boundary-work and assemblage in seafood, there were five variables that were distilled: space, objects, subjects, experts and expertise. This thesis takes the same (although a bit adapted) variables into account. Each variable is discussed below and it is explained how it is used in this thesis.

2.7 FIVE VARIABLES

The first variable that is used is space. The two principles of the ASC Standard on Responsible Shrimp Farming that I use to assess the differences between environment and social are related to the space of the farm. The second principle entails the impact of the farmer on the environment, and the third principle concerns the impact of the farmer on the local community. Since these two principles are related to the location of the farm, I think it is interesting to see if and how space is perceived differently in the social and environmental domain. In the article of Eden and Bear (2010) and of Vandergeest et al. (2015), sustainable certified space is seen as a territory over which a certification scheme has a certain form of control, through establishing rules and standards. Different sites in a value chain, for example the farm site and a processing plant can be connected through a certification scheme because the same rules apply.

Space can be both contiguous and topographically distant. So it can be territorial in the sense that the space is connected because it is geographically close to each other, but it can also be close because the connections are through relations. This again explains the spatial/non-spatial dimension of boundary-work. An example of this is that the cousin of the farmer is the manager of the processing plant, although the processing plant is not topographically close to the farm. Space can thus be seen as both relational and territorial. I define space in the same way as Bear & Eden (2008) and Vandergeest et al. (2015:3) do: *sustainable territories redefine bounded spaces for the purpose of controlling activities; these spaces, which may be contiguous or topographically distant (Bear & Eden, 2008) are connected to each other through processes of certification*. The aim of using the variable space is to understand how environmental and social space, over which the certification scheme has a certain form of control, differs. Do the environmental and the social space entail the same territory and the same relations? An example of the variable space is a certain site in the value chain, such as a processing plant, a shrimp farm, or a shrimp hatchery.

Apart from space being a variable, objects of concern and subjects are variables that are used in this thesis. Objects are the contents of the standards, the things that should be taken care of in order for a practice to be responsible: such as mangrove forests, wetlands, feed, shrimp, and local communities. The subjects are the ones that take care of the objects: farmers, processors, local authorities. Vandergeest et al. (2015) use the same variables, but they define these two variables differently than I do. The reason for this is that they use the notion of boundary-work and assemblage differently, which is explained in a footnote[4]. Vandergeest et al. (2015a) base their 'object of concern' loosely on Latour's 'matter of concern'[5]:

[4] This thesis aims to combine the concept of assemblage of DeLanda (2011) with boundary-work. There are two theoretical points that are defined differently in this thesis than in the article of Vandergeest et al. The scholars have a different understanding of the concept of territorialisation, which they define as *a process of creating a territory through the delineation of boundaries, and claiming the authority to control what people do inside these boundaries through enforceable rules* (Vandergeest and Peluso, 1995; in Vandergeest et. al, 2015). Territorialisation is a interaction between different actors and actants that are assembling sustainable territories. Assembling is a way how sustainable territories are produced as well as a recognition that the sustainable territories are in constant flux (Vandergeest et al., 2015). The concept of fixing is also used in this article, in the sense that a certification label fixes a variety of problems and their repair into a logo or label (Vandergeest et al., 2015). The authors define assembling as an active form

we understand them not as inert 'matters of fact' but, rather, as active participants in the assembling of sustainable territories (Vandergeest et al., 2015a: 3). Yet, Vandergeest, Ponte and Bush use the concept 'object of concern' instead of the concept 'matter of concern'. Where Latour does not make the difference between objects and subjects, Vandergeest et al. do make a difference between objects of concern and subjects. They define subjects as the ones who: *use rights and the authority to manage objects of concern within the rules set out by state or non-state authorities. Third, they specify what we call 'objects of concern' (and, simultaneously, objects of non-concern)* (Vandergeest et al., 2015a: 3) Thus the subjects are managing and specifying the objects of concern. The subjects are the ones that are assembling the objects that constitute the assemblage. As Vandergeest et al. explain, the subjects are the ones that are assembling the objects that constitute the assemblage. It therefore seems as if the subjects are external to the assemblage itself. I recognise that subjects are not entities external of the assemblage doing the assembling, but that they are part of the assemblage. I want to explore when certain components of the assemblage are considered passive: components that are manageable, and at what times components are considered active: they are managing. The difference in this thesis between objects and subjects is that the objects are passive, the components that should be taken care of, and the subjects are active: the ones who should take care of the objects. I therefore define objects of concern as passive components of the assemblage, and subjects as the ones who use rights and the authority to manage the objects of concern, they are active components. Objects can be both human and non-human: the local community can be an object of concern, just as a mangrove forest.

The last two variables are experts and expertise. As the literature above shows, experts and expertise are key in certification schemes, because they make the rules and assess if a farmer complies to these rules. Again, I use slightly different definitions as Vandergeest et al. (2015). The authors (Vandergeest et al., 2015) state that: *sustainable territories are defined by expertise, which we understand in terms of a bundle of codified and concentrated knowledges (Mitchell, 2002), and the 'experts' who have the exclusive capacity and qualifications to create or apply these knowledges, produce the rules that define the central objects of concern, and thus the ecologies that need to be protected*. (Vandergeest et al., 2015a: 3). The authors make the difference between experts that define the central objects of concern, while the subjects manage and specify the objects of concern.

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of boundary-work. So there is boundary-work that is being done, of which assembling is one part. Assembling is used as a verb and not as a noun in this article. This implies that there are entities that are doing the assembling, or the boundary-work for that matter, that are outside of the assemblage. This thesis states that an assemblage (a noun) is constructed through boundary-work. Boundary-work (or territorialisation and deterritorialisation) is one of the dimensions of the assemblage.

[5] In a lecture in 2004 (Latour lecture at TATE), Bruno Latour explains the difference between a matter of fact and a matter of concern via the metaphor of the Colombia space shuttle disaster[5]. Before the shuttle exploded, the shuttle was seen as a matter of fact: the idea that there is total control and there is no concern about the organisation that is behind the shuttle, the NASA. The way you consider a matter of fact after it would have been exploded, it becomes a matter of concern, in which the whole network and life support becomes visible. In other words, by matter of concern Latour means to use the ontological question of *what is there*, instead of an epistemological question of *how do we know it* that relates to the matter of fact (Latour, 2004).

Because I look at the historical process of creation and implication of the standards, it is more difficult to differentiate between the people that, according to Vandergeest et al., define (experts) and the people that specify (subjects) the objects of concern, since the rules that define the standards are changing over time as well. Is this changing of the rules then specifying or defining? Since this difference is difficult to make, the experts are considered to be doing the defining and the subjects are considered to be doing the managing. I define expertise as a bundle of codified and concentrated knowledges. This can be the knowledge of what is an endangered species or not, or the knowledge of Vietnamese labour rights. I define the experts as the ones who have the exclusive capacity and qualifications to create or apply these knowledges, produce the rules that define the central objects of concern, and thus the ecologies that need to be protected. These are the people that negotiated the Standard or the people assessing if a farmer complies to the Standard, an auditor. To simplify this framework, Table 1 gives an overview of the definitions and examples of the variables.

Table 1: Overview Variables

Variables	Space	**Objects**	**Subjects**	**Expertise**	**Experts**
Definition	Sustainable territories redefine bounded spaces for the purpose of controlling activities; these spaces, which may be contiguous or topographically distant (Bear and Eden, 2008), are connected to each other through processes of certification	Passive components of the assemblage.	Use rights and the authority to manage the objects of concern.	A bundle of codified and concentrated knowledges	The ones who have the exclusive capacity and qualifications to create or apply these knowledges, produce the rules that define the central objects of concern, and thus the ecologies that need to be protected.
Examples	Farm site, processing plant	Mangrove forest, local community	Farmers, local authorities, workers	Labour rights Knowledge of endangered species	Ecologists, Auditors

2.8 CONCLUSION

In this thesis I combine three forms of boundary-work. The first form relates to boundary-work as a categorisation, or work of purification, between environmental and social. This can result in unfair representation. This form is particularly relevant for researching standards, since there is a recent development of taking more social issues into account in third-party-certification. The second form of boundary-work relates to a processual approach to boundaries. For this the notion of assemblage is used, and it mainly relates to the idea that boundaries can shift over time. In assessing this form of boundary-work, it is analysed how the boundaries change over time in four different time periods. This is particularly relevant for studying third-party-certification, because it is often assumed that standards are immutable and fixed things that are applied in different context in the same way. However, using this approach allows to see if they are fixed at all and how they are fixed. The third form of boundary-work assesses what is in- and excluded through these boundaries. Boundaries namely have consequences and this is in- and exclusion. From literature of third-party certification there are five variables distilled that

are said to be in- and excluded in the sustainability assemblage. The relevance of this form of boundary-work is that it shows that it is a political process in which certain forms are in- and out, although they might be seen as objective entities that reflect recent scientific findings. Given that this is a broad issue that extends the ASC Standard on Responsible Shrimp Farming I think that this framework can also be applied in different studies and that it has broader relevance. In the next chapter I explain how I operationalise the concepts in this research.

3.METHODOLOGY AND METHODS

In this chapter I explain what methodology and methods I used in operationalising this thesis. This thesis is a case study, which I elaborate below. I explain the methods I used by dividing the research in data collection and data analysis. In the end of this chapter I reflect on my position within the research.

METHODOLOGY

This research is a case study, which is described by Eisenhardt as a: *research strategy which focuses on understanding the dynamics present within single settings* (Eisenhardt, 1989: page 534). Although a single setting points to a micro-level locality, it can also be thought of in more abstract terms. Lund (2014), for example, considers abstract and aggregated cases to be case studies too. He describes a case as:

> *an edited chunk of empirical reality where certain features are marked out, emphasized, and privileged while others recede into the background. As such, a case is not "natural" but a mental, or analytical, construct aimed at organising knowledge about reality in a manageable way. This covers many forms.*
>
> *(Lund, 2014: page 224)*

This definition demonstrates that cases are constructed. Case studies provide context-dependent knowledge (Flyvbjerg, 2006). The knowledge it produces is historical and not unambiguous but this does not mean that it is uninteresting, because cases can relate to other studies (Lund, 2014). Case studies can be used to generalise, abstract and theorise. Generalising means that a researcher is stepping out of the context, it happens when the research is said to resonate for a larger group than the case was a case of (Lund, 2014). A case can then serve as an example and other researchers can compare and challenge this research (Lund, 2014). Abstractions are different than generalisations as they relate to found properties in the data that are decontextualized. An abstraction is a way of understanding and explaining things in another way, by seeing things as something else (Lund, 2014). Theorisation is yet another step as it is a move from the empirical data to say something about the qualities in other contexts by using concepts (Lund, 2014).

This research is thus a case study, which means that I organise empirical reality and draw boundaries. I describe a bundle of settings that I consider to be one case: the sustainability assemblage of the ASC Standard of Responsible shrimp farming. I do not claim to be objective, and I do not want to discover a hidden truth inside of this case. Readers are invited to, just as Flyvbjerg mentions, discover their own truths inside of this case (Flyvbjerg, 2006). I make choices which follow from my conceptual framework, and I hope that it allows me to generalise as this sheds light into standards in general, and that it allows me to abstract, and say something on how standards can be approached differently. Finally, I also hope it allows me to theorise to see if the concept of boundary-work is valuable in order to understand sustainability certification. In order to understand what the choices are that I made, this chapter continues to describe the methods I used. I try to be as reflexive as possible, so it is clear how and why I made the choices I did.

Case studies often involve different levels of analysis and different methodologies (Eisenhardt, 1989). This research does so too as it is based on interviews, field visits and literature, and it uses several steps of analysis (as discussed in the next section).

As mentioned above I draw boundaries myself. The ASC Standard on Responsible Shrimp Farming consists of seven principles, and I only included two principles: Principle 2 that concerns the environmental impacts of the farm site, and principle three that entails the impact of the farm on the surrounding communities. I chose for these two principles because the boundary between environmental and social is explicit in these principles. The reason why I did not use other principles is because of the scope of this study as it is a Master's thesis. I also made categorisations as I structured the data by using time periods and variables. I used four time periods: 1) Entering the Certification Market; 2) Negotiating the Standard; 3) Translating the Standard; and 4) Implementing the Standard. I structured my data along these periods, which I describe in the data analysis section. I found data for each time period, although some periods have more data than others. Apart from categorising time into four periods, I categorised five variables: space, objects, subjects, experts and expertise. I went 'into the field' with having these variables as well as the time periods in mind.

The main data I used was acquired via semi-structured interviews. The basis of all the interviews rely on the same structure. However, it was dependent on the involvement of the interviewee what direction the interview would take. I structured the interviews in relation to the variables and the time periods and I also asked specific questions in relation to these time period and variables, such as: 'Can you take me to the beginning of the process' or 'For whom is the standard written?' or 'What do you think should be in (or out of) the standard?' or 'Why did you chose to only address the farm site?'

These interviews took place between April 2015 and May 2016 in the Philippines (five days in June 2015), Vietnam (six weeks in June-August 2015), Thailand (two weeks in July-August 2015), and via Skype. I spoke to 44 people for this thesis, and I had 35 formal interviews that were recorded or conducted via e-mail. I held interviews with people that were: involved with the time before the Standard came into being (4); part of the Global Steering Committee of the Shrimp Standard (11); that were involved with standard holding and accreditation (3); working with the Standard because they are farmers (6), of which there are small-scale (1) and large-scale farmers (5); auditors (2); consultants conducting impact assessments (3); academics (2); or NGOs helping farmers to become certified (6). Apart from that, I also spoke to people that provided context, such as people working for international organisations (5); or NGOs criticising the Standard (2). Of the people that had a specific country context in which they worked, eleven knew about the Vietnamese context, three about the Thai context, five about the South-East Asian context in general, two about the Latin American context, two about the context in Madagascar and one about the context in Bangladesh.

The interviews were arranged via the network of my supervisor and via my own network. When I held an interview I asked the interviewees if they knew people I could interview, the so-called snowballing

method. Being aware that I would miss people outside of the networks of my interviewees if I only used this snowballing method, I also tried to reach out to people via websites or searched for them on the internet if I knew that they were involved.

The interviews were conducted in person or via Skype. About half of the interviews were conducted via Skype. There were clear differences between interviews via Skype and in person. I could connect more in person, and received more contacts and tips. The interviews in person took longer and I sometimes met again with the interviewee, mostly informally.

I transcribed all the interviews. I see a transcript as an interpretation of a situation that results in a new text by the researcher (Denzin, 1995). I conducted all interviews and I transcribed them myself. I used denaturalised transcription, so I did not write down body language, breaks in speak and mumbling (Mero-Jaffe, 2011). After I transcribed the interviews, I send it to all interviewees, giving them the possibility to justify or change the content of the interview. I did this because of decency, but also to avoid errors in the transcript and to make sure that the interviewees could correct things they said and did not want me to use. Not every interviewee did check the transcript, but they did have the opportunity to do so. Transcribing costs a lot of time (I even lost nine transcriptions and had to transcribe them again), in general it costs me about four times the length of an interview to transcribe it. I have around 33 hours of recordings, so it was a lengthy process. Nevertheless, I believe that transcribing is an essential step in the research process. The reason for this is that it allowed me to understand the interviewees better, and in a more detailed manner. It also allowed me to revisit the interviews again and again, and to get a better overview of the data. Just as Lapadat & Lindsay (1999) have done, I want to stress that the process of transcribing is a valuable process that facilitates analysing the data. After having done an interview, listened to it, and transcribing it, you have a better grasp of what has been said, than by only conducting it. Since I transcribed after having done the interview, it also gave me the possibility to reflect on my interview and the way I posed questions. It also gave me the opportunity to pose additional questions when things were not clear in the interview.

I also visited some farms and events for this thesis. I went to a Global Seafood Expo in Brussels in April 2015, which is a seafood industry trade event. This was my first encounter with the industry and I visited sessions of the ASC and the GSSI there. I also went to the Responsible Business Forum on Food and Agriculture in Hanoi in June 2015, including a workshop of ASC. This was of particular importance, since it enabled me to arrange interviews. I did not want to write a research around shrimp farming without having ever visited a shrimp farm. I therefore visited two shrimp farms in Vietnam in July 2015 of which one was a large-scale farm that was in the process of becoming certified and a small scale farm that was not certified, but which received NGO support to assess if it could become ASC certified. During the visits of the farms I did observations and asked the farmers to show and tell me how the ASC influenced their farming activities. In February 2016 I visited the SeaWeb Seafood Summit in Malta. At this conference the seafood industry, conservation community, government, academia and the media come together to discuss sustainability in seafood. In Malta I saw what the relevant issues concerning sustainable seafood

are and I went to a meeting on social issues in fisheries. The data I attained from these meetings were captured in field notes and photographs.

Next to that there were several documents that capture every time phase that I analyse. The WWF and the ASC posted almost all documents online and I gained access to other documents via a research project. In total I used around 100 documents. These documents are for example the FAO guidelines on Responsible Shrimp Farming; the different drafts of the ASC Shrimp Standards; the public comments made to the standard; notes of Shrimp Aquaculture Dialogue meetings; presentations at Shrimp Aquaculture Dialogue meetings; the Shrimp Standard itself; the audit manual; all audits that are done in Vietnam at the time of writing; and two versions of the Certification and Accreditation Requirements.

METHODS: DATA ANALYSIS

The data are analysed with a bricolage approach: I use mixed methods and analytical techniques (Kvale, 2007). I used an analysing programme (ATLAS.ti) to organise and code the data. The documents are organised in three shifts that relate to the three forms of boundary-work. At first the data is divided into four time phases. I used the four time phases as codes in the analysing programme. Secondly, the environmental and social division is made and thirdly the data is separated into five variables: space, objects, subjects, experts and expertise.

As a first step, I organised the documents chronologically. The time frames were 1) before the negotiations started; 2) during the negotiations; 3) the translation from the draft standard into the audit guide; 4) the implementation of the standard. Figure 1 that is added in this thesis represents the time line of the ASC Standard process and it demonstrates the four time phases. The notes of the Shrimp Aquaculture Dialogue meetings, the presentations, the different versions of the standards and the audits were all chronologically ordered in relation to when they were written. The interviews did sometimes only relate to a specific time period, however, most interviewees often had things to say about more than one time period. One limitation is that some events happened a long time ago, so I had to rely on the memory of people on how the events happened. I regarded the interviews as a narrative, or a story. A narrative has a beginning, a middle and an end (Roe, 1994). I structured my interview around time, so I asked about the beginning of the process and I asked questions to reflect: if you would do it again, what would you do differently? This assumes that the interviewees told linear narratives during the interviews, but this was not always the case. In an interview it was often switched from the past, the present and the future. Just as Nordstrom (2013) has done, I understand language as *a heterogeneous and variable reality* (Deleuze & Guattari, 1987: 100) and I used transcription to understand the interviewees language that construct reality and the realities to come (Nordstrom, 2013).

As a second step in the analysis I divided a document that consisted of a specific time period into two documents: an environmental document and a social document. So then I would have Phase 1: Environmental and Phase 2: Social. The Standard differentiates between principle two (environment) and three (social). Every time when something was placed in either of these principles, I placed this in the

environmental or social document. So when mangroves were discussed (part of principle 2) I considered this as environmental and when local community members were discussed (part of principle 3) I regarded this as social. I also paid attention to when the words 'social' or 'environmental' were used. When I had written the two result chapters, I tried to understand the boundary between social and environmental better. I did this by asking the question: 'Why this categorisation now?' This question comes from Membership Categorisation Analysis (MCA). MCA was created by Harvey Sacks and concerns how persons interpret a scene and how they characterise the actors in the scene (Schegloff, 2007). Since there are always more than one category available for a person, it is always asked 'Why this categorization now' (Peräkylä, 2004). In MCA this method is used to see in which category people are placed, but I asked the question: why this categorisation now, in relation to why interviewees would place the word social or environment to something.

After doing this I had eight documents, four time periods regarding the environmental and four time periods regarding social. Within each document I again made a chronological order (some time periods span a considerable amount of time) and within this chronology I categorised the data in relation to the five variables. It was quite obvious when something was related to space, experts and expertise. Interviewees would for example say: 'I am not a social expert'. In relation to objects and subjects I focused on the dynamics of the story. In a narrative it can be focussed on the structure of the narrative (begin-middle-end), and also on the dynamics (Urhammer & Røpke, 2013). Certain narratives privilege certain objects and subjects. Who are the ones who have agency to protect the vulnerable? Or in other words: who are the subjects and the objects? The ones that should be protected are the objects of concern, and the heroes and villains are the ones to manage these objects of concern. Or, as Béné (2005) calls it: the Good, the Bad and the Ugly. I thus assessed the interviews in how it was talked about whom. Apart from doing this, I was able to use the standards in how they changed as what the objects of concern are. In the Standard it is quite explicit what should be taken care of, because these are the things that are addressed in the Standard. In the Standard it is also addressed for whom the Standard applies, so there are rules for smallholder farmers and large scale farmers for example, or for local authorities.

These three steps: categorising according to time, to social or environmental and according to variables was how I organised the data. Then I started writing what I thought was relevant and what not. I thus did some boundary-work myself and for this reason I believe it is important to reflect on my own position in the research because this influenced how I collected, analysed my data and how I decided if something was interesting or not.

REFLEXIVITY

This section explains how I position myself in the research, as these factors could have influenced the data. In an interview I positioned myself as someone who did not know about the process (I did not know anything about shrimp farming before I started this thesis) and wanting to understand it better through asking questions. I mostly listened and asked follow-up questions. The balance of listening and talking however differed per interview.

There were gender, cultural, language and age differences between the interviewees and me. I am a Dutch-German 27 year old woman. Almost all interviewees and informants were men that were older than me. I talked to three woman and forty men, and only a few interviewees were around my age and the rest were older. Almost all interviewees had another cultural background as some were from the US, Canada, the UK, Germany, Switzerland, Italy, France, Bangladesh, the Philippines, Thai or Vietnamese. Almost all interviews were conducted in English, except for two in Dutch and two interviews with a translator from Vietnamese to English.

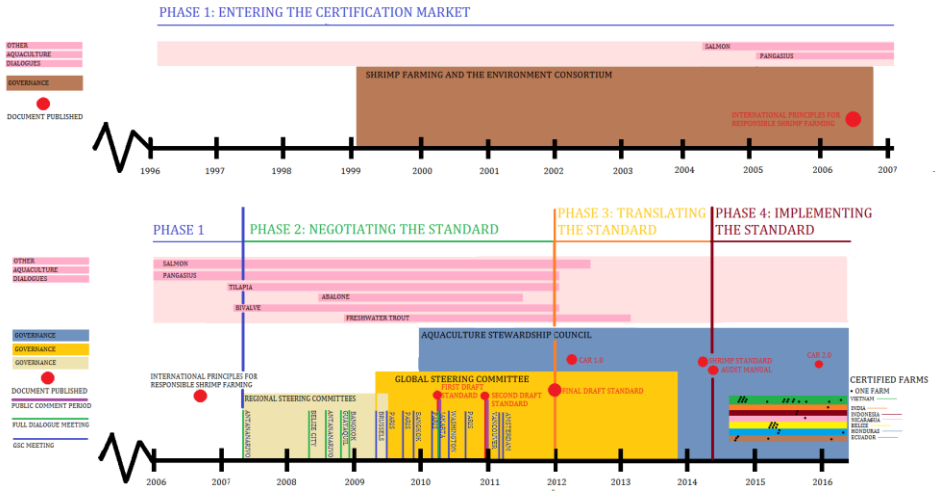
I also positioned myself as a social scientist. This might have influenced the data, since I look at the difference between environmental and social, and I asked how they view social expertise and so forth. In correspondence with interviewees I stated that I am a Master's student in International Development Studies at Wageningen University, and when I conducted the interview and people asked, I stated that I am studying social science. I also realise that Wageningen University is known as an agriculture and technical university, so it might also be that some interviewees had the impression that I had a technical background.

I have a certain small-is-beautiful upbringing and I normally buy organic food or farm my own food. I thus tend to have a bias towards small-scale agriculture, considering them as the good guys. I also have a bias towards the excluded, which might result from or is the cause of studying International Development Studies. I am sceptical of large-scale agriculture and I am also sceptical of NGOs, being aware that they also have a certain interest and that they rely on donor money. In the industry versus NGO dichotomy I view both parties as neither good nor bad, rather as grey. This might have influenced how I collected, analysed my data and wrote my thesis.

4. HISTORY OF THE ASC STANDARD ON RESPONSIBLE SHRIMP FARMING

This thesis consists of three empirical chapters: 4, 5 and 6. Chapter 5 discusses the development of Principle 2 that relates to environmental impacts of the farm while Chapter 6 describes the development of Principle 3 of the Aquaculture Stewardship Council's Standard on Responsible Shrimp Farming, which relates to the farm's social impact. These chapters focus on how the five variables (space, objects, subjects, experts and expertise) are changing over time. In order to better understand the development of principles 2 and 3 of the standard some background information about the ASC Standard and its history is provided in Chapter 4. All three result chapters fit the same chronological structure. I have defined four phases: 1) Entering the Certification Market; 2) Negotiating the Standard; 3) Translating the Standard; and 4) Implementing the Standard. Figure 9 represents a timeline showing these phases and the events that define them. A full-blown version of this figure is provided as Appendix 1.

FIGURE 9: TIMELINE OF PROCESS ASC STANDARD



4.1 ENTERING THE CERTIFICATION MARKET

This section explains how the Shrimp Aquaculture Dialogue that resulted in the Standard, began. It assesses the period before the negotiation process. The timeline on Figure 1 shows what events took place in this time period.

4.1.1 ISSUES IN SHRIMP FARMING

For centuries, shrimp farms existed in some regions in South-East Asia and were based on traditional systems (Hall, 2003). Shrimp farming production systems are commonly categorized as extensive, semi-intensive, and intensive. Extensive systems or traditional farms have a relatively low density of shrimp per cubic metre and low inputs of feed and labour. They are located in the tidal zone, where the incoming tide provides shrimps and feed. The labour at these farms is mostly directed at enclosing the tidal areas so the

shrimp do not escape (Hall, 2003). Semi-intensive and intensive systems require a higher level of inputs, specifically feed and capital. Shrimp are first raised in hatcheries and pumps replace the tides of the traditional system (Hall, 2003). Large quantities of fresh and salt water are mixed to make brackish water, and the use of agricultural chemicals and machinery is more common (Hall, 2003). The difference between semi-intensive and intensive shrimp farming lies in the density of shrimp, the yields and the level of management.

Shrimp ponds in Asia are typically clusters of medium- and small-scale farms of one to five hectares (Hall, 2003). This is slowly changing, however, as shrimp farms are becoming larger and the systems are intensifying. Shrimp farming in Latin-America is characterised by larger areas and more intensive systems compared to Asia.

Since shrimp is a valuable crop, it has been promoted by aid organisations and regional governments (Béné, 2005; Hall, 2003). Shrimp are valuable and, if farmed intensively, can be harvested every three months. Some interviewees have compared the earnings of the industry with illicit drugs. Others stated that shrimp farming resembles gambling, since not only the earnings but also the losses are high. Shrimps are vulnerable for deceases, and often shrimp farming efforts fail. Promotional activities of governments and aid organisations, combined with a growing market for shrimp, resulted in an intensification and expansion of the sector (Béné, 2005; Hall, 2003).

The intensification of shrimp farming was accompanied by an expansion of the area which resulted in environmental and social issues (Béné, 2005). Because of these issues shrimp farming was criticised by Non-Governmental Organisations (NGOs), scientists and environmentalists in the late eighties and the beginning of the nineties (Béné, 2005; Hall, 2003; Havice & Iles, 2015; Vandergeest, 2007). NGOs increasingly resisted further expansion. Some created a network to address the issue of mangrove loss and to stop the shrimp farming industry. International NGOs organised consumer campaigns targeting consumers in northern countries (Vandergeest, 2007) and stating that by buying shrimp one contributes to the loss of mangroves. This resulted in consumer boycotts of farmed shrimp which influenced retailers who were concerned about how a reduced demand would impact their business (Havice & Iles, 2015). Apart from consumer campaigns, NGOS developed additional efforts to halt shrimp farming. A group of more than twenty NGOs approached the United Nations Commission on Sustainable Development to make a statement on unsustainable aquaculture (Béné, 2005). In 2006 a group of southern-based NGOs together with Greenpeace organised an 'NGO Forum on Shrimp Farming' and as a result formulated a declaration to call for a moratorium on shrimp farming (Béné, 2005; Vandergeest, 2007). Such increased attention to shrimp farming led several governments to take action and introduce policies to stop the expansion of shrimp farming (Béné, 2005).

At the same time concerns were raised about overfishing (FAO, 2002, in: Havice & Iles, 2015) and aquaculture was considered to be a suitable alternative to counter these concerns (Havice & Iles, 2015). In 1994 the WWF conducted a study to compare shrimp aquaculture with shrimp trawling (WWF, n.d.). One of its conclusions was that shrimp trawling had considerable adverse impacts and that the scope for improving trawling technologies and practices was limited. Yet there were a few shrimp aquaculture

producers that did have a good environmental performance. Shrimp farming, in contrast to trawling, provided an opportunity for improvement in terms of environmental impacts. Hence by the end of the 1990s some people at WWF realised that the future of seafood was in aquaculture rather than in wildlife.

As described, shrimp farming did not have a spotless record. The discussion was perceived to be polarised between NGOs on one side and the shrimp industry on the other. NGOs may be stereotyped as recycling arguments of the past that were not necessarily true anymore and industry members were stereotypically downplaying and denying terrible issues surrounding shrimp aquaculture. The WWF believed that both parties were partly right, but they needed to cooperate. Henceforth, the WWF wanted to identify the most important issues in shrimp farming. The Fund raised money from different sources and in 1999 created the 'Shrimp Aquaculture and the Environment Consortium'. In this consortium the WWF, the World Bank, the Food and Agriculture Organisation of the United Nations (FAO), the Network of Aquaculture Centres of Asia and the Pacific (NACA) and the United Nations Environmental Programme (UNEP) participated (Aquaculture Stewardship Council, 2014). The group identified several areas for in-depth study concerning the environmental and social aspects of shrimp farming (Vandergeest, 2007). Consecutive studies resulted in papers and reports covering several issues in several countries. As a result the Principles for Responsible Shrimp Farming were created that were adopted by the Committee of Fisheries Subcommittee on Aquaculture of the FAO in 2006. These 'International Principles for Responsible Shrimp Farming' consist of the following seven Principles: 1. Farm Siting; 2. Farm Design; 3. Water Use; 4. Broodstock and Postlarvae; 5. Feed Management; 6. Health Management; 7. Food Safety; 8. Social Responsibility (FAO/NACA/UNEP/WB/WWF, 2006).

4.1.2 THE FIRST BOUNDARIES OF THE STANDARD

The shrimp industry often felt misrepresented and being associated with a negative impact on the environment. They reacted by defining codes and standards themselves. Examples of these standards are EurepGAP (now GLOBAL GAP). Another initiative was the establishment of the Global Aquaculture Alliance (GAA) which developed the *Code of Practice for Responsible Shrimp Farming*, to be refined into the *Best Aquaculture Practices* (BAP) in 2005 (Béné, 2005).

In the 1990s, having founded the Forest Stewardship Council (FSC) and the Marine Stewardship Council (MSC), WWF wanted an entity that was similar to FSC and MSC for aquaculture. First, they asked if the MSC wanted to include aquaculture into its standard, but were refused. WWF then prepared a prototype business plan to see if the Aquaculture Stewardship Council would be financially feasible, which the business plan concluded it would. The reason why the WWF was keen to develop standards related with the fund's overall market transformation work. WWF wanted to address the fifteen commodities they identified as influencing key biodiversity hotspots[6]. Only about 100 companies traded about 25 percent of the volume of commodities that threatened the biodiversity hotspots. The fund decided to target these

6 These fifteen commodities are: palm oil; pulp and paper; cotton; biofuels; sugarcane; sawn wood; dairy; beef; soy; fish oil & meal; farmed salmon; farmed shrimp; tuna; tropical shrimp; and whitefish(Clay, 2010).

companies because of their environmental impact (Clay, 2010). Another, more cynical, argument for an NGO to start working with the corporate sector and the largest companies, is that having a partnership with corporate buyers can also have financial benefits (Vandergeest et al., 2015).

There were already aquaculture standards that existed at that point. An interviewee stated that these were *good in rhetoric, but less in content*[7] and that they did not *address the real environmental issues*[8]. The Global Aquaculture Alliance (GAA), especially in North America, had defined sustainable aquaculture (Havice & Iles, 2015). The WWF criticised the GAA standard and did not want to join the GAA to build one standard, because it thought that the views between the two organisations were not compatible (Havice & Iles, 2015). They therefore wanted to define a standard that could compete with the GAA (Havice & Iles, 2015). An interviewee mentioned that the two organisations had a different philosophy on what the standard should do. The GAA's philosophy was to:

> *[…] create standards that many or most farms could become compliant with; and therefore have a larger impact on the theme of responsible aquaculture. It was to be based on what is understood as best practice in the industry and this can be flexible as times change or as farms become more sophisticated.*[9]

whereas the WWF wanted to:

> *[…] have a system that would be more demanding in standards […] consumers would drive farms to adopt these more strict standards because consumers would pay a premium for the product. Whereas in the beginning there may only be a few companies adopting the standards; the fact that they received more money for the product would incentivize more and more farms to adopt these standards.*[10]

The WWF aimed to compete with the existing standards, and especially with the GAA, by developing a demanding standard for the top of the industry with the idea that the rest of the industry would then follow their lead.

The WWF aimed to compete in three other ways with the existing standards. The first relates to the measurability of the standard. WWF commissioned a study that criticised the existing aquaculture standards as being based on existing production practices, and that this did not improve the environmental conditions in a quantifiable manner (Havice & Iles, 2015). It was believed that using a measurable standard, something quantifiable, would be superior to a standard based on better management practices. One interviewee summarises this concisely by saying: *don't ask people to do something, ask them to achieve something*[11]. Another way to compete with the existing standards was by developing a standard through a multi-stakeholder initiative and following a participatory process (Havice & Iles, 2015). When the GAA was being formulated, it brought in experts that also participated in the Shrimp Aquaculture and the Environment Consortium, but the initiative lacked engagement of NGOs

[7] Interview 3
[8] Interview 3
[9] Interview 18
[10] Interview 18
[11] Interview 35

(Havice & Iles, 2015). The WWF thus wanted a standard that was truly multi-stakeholder where NGOs and the private sector would collude. A standard established through a multi-stakeholder process was thought to be more credible. And the third way of differentiating their own standard with other standards was by including social issues, which other standards at that time did not do (Havice & Iles, 2015).

What other standards did, and what the WWF also aspired for their standard, was addressing the farm site as the spot for certification. According to several interviewees this is where the largest impacts are to be expected. The idea comes from several studies conducted by food companies, suggesting that primary production represents up to sixty percent of the impact. The farm level is also considered to be the scope to demonstrate best practices.

These initial plans became reality in 2004, when the WWF started the Aquaculture Dialogues for eight different farmed species, that ultimately lead to farm standards (Havice & Iles, 2015). These species were selected because they represented the largest volume by global trade. Subsequently the Aquaculture Dialogues began. The first dialogue was on salmon aquaculture in 2004, which to some extent shaped the other aquaculture dialogues. The timeline in appendix 1 shows additional dialogue processes.

4.1.3 BOUNDARY-WORK

These perceptions of what the standard should become already indicate boundaries within which a standard was negotiated. These boundaries relate to the five variables that are central in this thesis. The boundaries defined that the standard should: be at the farm level (space); assess social and environmental issues that were already defined in the consortium process (objects); target the top of the industry (subjects); be negotiated through a multi-stakeholder process (experts); and be measurable (expertise).

4.2 NEGOTIATING THE STANDARD

WWF initiated eight roundtables for aquaculture species, and one of these was for shrimp. All aquaculture dialogues consisted of multi-stakeholder processes with different governance structures where the private sector and the NGOs met (Havice & Iles, 2015). The idea was that all stakeholders would participate, not only by sitting at the negotiation table but also online accessing documents and meeting reports that were posted on the WWF website, and the drafts of the standards were posted for public comment (WWF website). Some of the boundaries were already fixed: the idea was that the standard were to be written for the top 20 percent of the industry (subjects); the standards was to be based, but not bound by, the FAO International Principles for Responsible Shrimp Farming (objects of concern and expertise) and was to address the site of the farm (space).

In this paragraph it is questioned what the boundaries are that followed from the negotiation process of the standard. The attached timeline provides milestones of that process. The Shrimp Aquaculture Dialogue process started in 2007 and over a period of almost five years three drafts of the standard were created (in the timeline these drafts are shown as First Version Standard, Second Version Standard, and Final Draft Standard). The governance structure consisted of both Regional Steering Committees and a Global

Steering Committee. All the meetings are shown in the timeline figure in appendix 1, as are the timing of the publication of subsequent versions of the standard. The final draft of the standard came out in 2011.

4.2.1 THE REGIONAL STEERING COMMITTEES

The WWF coordinated all the Aquaculture Dialogues which were organised for eight different aquaculture species. They notified the International and Environmental Accreditation and Labelling (ISEAL), a global membership organisation for sustainability standards, of their intention to comply to the "Code of Good Practice for Setting Social and Environmental Standards", and were accepted as an associate member (Aquaculture Stewardship Council, 2014). In 2007 they started the dialogue for Shrimp. As an information sheet of WWF describes:

> ***Join the Shrimp Aquaculture Dialogue***
>
> *We encourage you to support the Shrimp Aquaculture Dialogue – a roundtable discussion to develop standards for minimizing or eliminating the key environmental and social issues associated with shrimp farming. The standards will be measurable, science-based and created by the world's leading shrimp farmers, academics, NGOs and others.*

(WWF, 2008: 2)

Because the WWF targeted the top of the industry, they started by asking those industry partners whom they believed that were doing the right thing. The fund had partnerships with shrimp producers in countries that they perceived as good examples to follow. An interviewee explains:

> *We also have this partnership with the WWF running since more than ten years. And there are various environmental aspects on which we are collaborating, you know, for ten years we are pursuing this partnership with them (biodiversity Action Plan, etc.). So they were the ones that asked us to be involved in this process, to defend our model*[12]*.*

The WWF already collaborated with the shrimp producers association of Madagascar (Shrimp Aquaculture Dialogue, 2008b) and with the shrimp industry in Belize. In 2006 and early 2007 the collaboration between the Madagascar's shrimp producers association and WWF resulted in the preparation of draft criteria for shrimp farming standards for *Pennaeus monodon* (a shrimp species). They organised a stakeholder meeting in Antananarivo, which was the first so-called Full Dialogue meeting of the Shrimp Aquaculture Dialogues to take place in April 2007. The other Full Dialogue Meetings took place in Belize, again in Madagascar, in Ecuador, Thailand and Indonesia. The WWF started on three different continents, because the regions differ in farms, constraints and species (Shrimp Aquaculture Dialogue, 2008c). During these meetings multiple stakeholders, producers, producer associations, NGOs and government officials gathered to develop standards for shrimp farming. The participants discussed how they could operationalise the International Principles for Responsible Shrimp Farming, which had been adopted by the FAO in 2006. There were three Regional Steering Committees to be formed in the three

[12] Interview 28

regions: Asia, Latin-America and East-Africa. They consisted of volunteers and were to serve as the prime decision-making body (Bernard, 2008). Ideally the Regional Steering Committees consisted of ten people with a fifty-fifty division between NGOs and industry members (Bernard, 2008). In November 2008, one and a half year later after the first Full Dialogue Meeting in Madagascar, the first meeting was held in Asia, in Bangkok. The number of participants, compared to the other Full Dialogue Meetings thus far, tripled to 158 participants. The participants of the Bangkok meeting revised the work of the other regional meetings and commented that shrimp production is different in Asia than in the Americas and Africa; and that the standard should be adapted to the Asian context (WWF, 2008b). The standards were thought to be a reflection of the context in Madagascar, Belize and Ecuador, because this is where the Standard process started.

After the Bangkok Meeting in November 2008, the Regional Steering Committees were dismantled. One interviewee mentions in this regard that the people did not really participate in the regional meetings. They did not really feel that they would own the process. So the WWF decided to change the management structure of the dialogue process.

4.2.2 REPRESENTATIONAL GAPS IN THE GSC

The governance structure changed into a Global Steering Committee (GSC). The GSC consisted of representatives of the Regional Steering Committees, which were later renamed into the Regional Advisory Committees (ShAD GSC, 2009c). The GSC was inaugurated in April 2009 and was said to be open to any stakeholder. According to an interviewee: *Everybody could be part of it. Of course, you need to spend time, associate, and everything. But if you want, basically, you have a possibility*[13]. In practice, however, there were some representational gaps in the GSC. When the GSC started, it was commented that the GSC was regionally not representative towards the producing countries and that there were mainly Westerners participating (ShAD GSC, 2010b). The top producing countries were not represented. One interviewee explained:

> *Well, you would need participation of all the stakeholders. Equal representation or at least representation. And their representation should at least have a general feeling for being balanced. At least.[…] You have a guy from Madagascar and a guy from Belize, do you think that that is the representation of the shrimp producers? As simple as that. So at least you should have something where you say listen: we are going to try to have one representative from Vietnam, one from Thailand, one from China, one representative from Ecuador, because these are the top of the producing countries, for example*[14].

When the GSC was formed, they recognised that they had representational gaps. Consequently the GSC members engaged the key stakeholders they knew (ShAD GSC, 2009c). In November 2009 three new members were added to the group: one producer from Belize, a Latin-American producer and a representative from the NGO Oxfam NOVIB (ShAD GSC, 2009a). A little bit later it was again recognized

[13] Interview 3
[14] Interview 7

that there was not enough input from Asia, from the industry and from smallholders. The GSC discussed this, and in September 2010 someone joined the group representing smallholder farmers in Vietnam (ShAD GSC, 2010a).

Still, the GSC consisted mainly of representatives of international NGOs that were not necessarily experts on shrimp farming. Yet they made an effort to study shrimp farming. Two familiarization trips were for example made to Thailand. Most GSC members mentioned that the negotiation table was dominated by NGOs and that it would have been better to have more shrimp experts, and especially industry members involved. In the end, this is how the GSC looked like:

Table 2: Global Steering Committee members.

Sector	Country
Producer	Madagascar
Producer and Distributer	Madagascar/EU
Producer	Belize
Distributer	UK, but with farms in Latin America
Certification Body	France
Producers/NGO/Government	Vietnam
NGO	USA
NGO	USA
NGO	Bangladesh
NGO	Philippines
NGO	USA
NGO	The Netherlands
NGO	The Netherlands
NGO	USA
Coordination	
Coordination institute	USA
Coordinator, with background in NGOs	Canada

Source:(Aquaculture Stewardship Council, 2014)

Another point of critique on representation was that the GSC did not have a local community representative. During the Shrimp Aquaculture Dialogue (ShAD) this point was criticised by several NGOs and others. The affected communities were not heard or represented, there was no credible southern community organisation or leader involved in the GSC itself. The most vocal group to stress this critique was the Mangrove Action Project. There were additional groups that attended the ShAD meetings to protest. Ecuadorian community group representatives attended the first day of the regional meeting in Ecuador. They stated that certification would legitimise mangrove destruction and human rights violation, and they therefore opposed certification (José López et al., 2008). In Jakarta there was a group that protested against the ShAD too. At the regional meeting in Bangkok, the same critique was aired, that community and minority representatives were not able or willing to participate in the ShAD meetings, even though that their voices were important to be heard (WWF, 2008b). The group also mentioned a need to involve government agencies and communities to develop the standards.

Apart from the lack of local community members at the negotiation table, the lack of smallholder farmer engagement has also been criticised. The ShAD reached out to small-scale producers to attend the Full Dialogue Meetings. There were some smallholder farmers in Bangkok and in Jakarta to talk about the

challenges. In Jakarta these smallholder farmers did not always understand the meetings because the meetings were not well translated. Those discussions that smallholders could understand because they were in Indonesian, entailed technical language and were focussed on intensive systems, far from their reality, and that did not fully understand discussions about topics such as biodiversity (van Schaik, 2010).

The GSC recognised that smallholder farmers and community groups were under-represented. To address this, they made an effort to actively seek feedback on the standards they had proposed. Two GSC members did this in the Philippines and in Bangladesh, where they were from and had connections with NGOs or local community groups. GSC members also participated in regional consultations and targeted high production regions, hard to reach groups, and potentially critical voices. They also had studies conducted. One of these studies was done by the Coastal Development Partnership and was called 'Lessons from the Ground: An outreach effort of the Shrimp Aquaculture Dialogue (ShAD) to solicit feedbacks from the local Communities & Shrimp Farming stakeholders in Bangladesh'. The study identified as a main challenge of shrimp farming that small-scale farmers are the weakest stakeholders in the Bangladesh shrimp value chain and that they are unfamiliar with standards, international markets and certifications (Masum, Jalil, Bashu, & Islam, 2010).

In sum, there were representational gaps in the GSC. The GSC was dominated by international NGO members that did not necessarily have a background in shrimp farming. It was criticised that there were not enough industry members; smallholder farmers; and local community members in the GSC. In order to address this under representation, the GSC actively looked for feedback and they conducted several studies to include these voices.

4.2.3 THE WORK OF THE GSC

The Global Steering Committee continued with the work that the Regional Steering Committees started. Each GSC Member was assigned to a committee to develop draft indicators and standards (ShAD GSC, 2009c). All the members had different priorities and everything would be discussed. As a member explains:

> *I am not sure, when you put ten, ten or twelve people in the Global Steering Committee and every person has a main focus, his main focus, his main goal, his main priority[…] For some people it was the social issue, for some it was the loss of biodiversity aspect, for some it was the requirement of the feed, for some it was the input of the raw material of the seed. For some people it was how this would be practical at the end of the day. So all the points… there was discussion on every single point of the standards*[15].

GSC members worked on the principles that they were interested in or had expertise in, but everything was discussed in the plenary and decisions were made by consensus.

The Global Steering Committee made three drafts of the Standard. The first was published on March 1, 2010, after which a sixty days public comment period began. The GSC then used these comments and

[15] Interview 4

made another draft, which was published on December 1, 2010, after which a second public comment period began. The purpose of the public comment periods was to involve more stakeholders in the process in order to receive comments and improve the standards. The GSC members contacted stakeholders and asked them for comments, and the successive draft standards were also posted online. The GSC responded to the body of comments as a whole, or to individuals. Despite the efforts of the GSC, some people who made comments did not feel that they had been heard. One example of this is from this interview:

> *We were invited by World Wildlife Fund to input our ideas to the early stage of their purpose to develop these Standards, and they had sent us a draft of these Standards. And I commented on it pretty thoroughly and they never responded. XXX, who is a renowned mangrove expert, commented on certain sections of their draft, and his comments about restoration were also ignored, though he has been involved with mangrove restauration for over thirty years. He was asked about their mangrove restauration criteria, and he basically said that it is not going to work because their approach was full of faults. They didn't listen to him either. So we were all pretty discouraged.*[16]

The GSC did read through all the comments and during the first public comment round they reacted on each comment (but very briefly) and the comments of the second comment period were also sometimes used (as can be seen in the following chapter). However, several interviewees did state they did not receive a reply. The replies may not be communicated to the people that reacted. And in the end it was still the GSC (member) who decided to include a comment or not, thus in a position to draw boundaries.

The GSC published their final draft in December 2011. This draft was then used for Guidance Development and Field testing, which is explained in the next paragraph. The members of the Global Steering Committee indicated that the ShAD process was both tiring and interesting. As an example:

> *You come into those meetings with your own set of perceptions and your own set of ways you think that things need to be done and you leave with some new understandings and some other people's perspectives. But it is challenging to go through that process of basically being put in a room with people that you are going to disagree with in one way or the other. A long process, it took us a long time, it was very difficult to reach agreement around everything, around something that is so complicated as shrimp farming.*[17]

There was a general feeling of fatigue in the end of the process. Although most interviewees complained about the time it took and the amount of discussion, especially in comparison with other Aquaculture Dialogues, they also mentioned that is was an interesting exercise. They learned about each other and everyone was open for discussion and willing to reach consensus. As an indication of the time it took and how well the GSC members knew each other, one interviewee told me that there were five babies of GSC members born during the process.

[16] Interview 31
[17] Interview 22

4.2.4 BOUNDARIES OF THE NEGOTIATION PROCESS

Just as in the Tilapia Dialogue (Havice & Iles, 2015), the main work was done by the Global Steering Committee members during the ShAD. Although it was a multi-stakeholder process and everyone could be involved, only a few people decided on what would become the final standard and what would not. In other words, there were only a few people who were involved with the boundary-work, that defined what was in or out and who had the legitimacy and power to do so. Who could participate was defined by four criteria.

The first reason why people would not become a GSC member was because they needed: *commitment to the theory of change of the aquaculture dialogues and the accompanying goals for certification* (ShAD, 2010: 4) and *understand that the GSC is developing an international, multi-species, performance-based set of standards using a consensus-based process* (ShAD, 2010: 4). The GSC member needed to be in favour of certification. Industry members more sceptical of certification were therefore not likely to join. A GSC member explains:

> *All these certification processes, or requirement has been perceived as an additional burden, and the cost of production with no direct benefit for farmers. And so that is the view of a certain category of farmers and others companies in the sense would say, we already do that, all these things you are talking about. So just tell us what you want and we will do it.*[18]

Likewise, some NGOs opposed certification in general. These groups did therefore not participate in the Global Steering Committee, because they did not want to legitimise the process to come up with yet another certificate.

Another feature of the GSC membership was that the GSC members had to be willing to commit time and money. It was on a volunteer basis and the meetings took place all over the world. This aspect excluded people who did not have the time and money, or who did not work for an organisation that was willing to pay their travel expenses. Many of the GSC meetings took place in Europe, and only two out of ten meetings were held in a shrimp producing country (Aquaculture Stewardship Council, 2014). The GSC members also had a time commitment to make. They had to go to several meetings, respond to e-mails, look through all the public comments and give feedback and come up with standards. There were some rumours that some NGOs were funded by the organizers to participate in the GSC in order for them to be represented; however, this subsidy did not exist for industry members.

A third obstacle for people to become involved was the requirement to discuss everything during a consensus-based process; thus excluding everyone who did not speak the language (both English and the jargon) or simply their unwillingness to become part of a talk shop. This is illustrated by the Indonesian smallholder farmer going to the meeting in Jakarta. Another interviewee faced similar difficulties when he

[18] Interview 27

visited a Full Dialogue Meeting that used a language he did not understand. One interviewee even points to a cultural bias of Western companies willing to be part of such multi-stakeholder initiatives.

And finally, most people who were member of the GSC were asked to participate by the WWF or by someone who was already a member of the GSC. The WWF started with involving the people they knew, and the GSC members tried to involve people via their own networks. In the public comment rounds there were some people stating that they were not aware of the ShAD process (ShAD, 2011). To become part of the GSC you thus needed to have a connection with WWF or someone else who was part of the GSC.

The GSC membership was defined by these criteria which can also be thought of as boundaries. The members of the GSC were 1) in favour of certification in the first place, they 2) needed to have the money and time, 3) speak a 'negotiation language', and 4) needed to have some connection with the WWF or people in the GSC. It thus was, just as in the Tilapia Dialogue, a participation limited to those that were able to sustain resources to participate and were willing to spend their time to conclude the process (Havice & Iles, 2015).

4.2.5 BOUNDARY WORK

The negotiations of the Shrimp Standard started with so-called Full Dialogue Meetings in cooperating with people that the WWF considered as the best performers. Steering Committees were formed in three regions: Latin-America, East-Africa and Asia. Later the WWF changed the regional governance system into a system with a single Global Steering Committee (GSC). The GSC was dominated by international NGO members that did not necessarily have a background in shrimp farming. It was criticised for not having (enough) representation of industry members, smallholder farmers and local community members. The members of the GSC were 1) in favour of certification in the first place, they 2) needed to have the money and time, 3) speak a 'negotiation language', and 4) needed to have some connection with the WWF or people in the GSC. The GSC members drafted three versions of the standard, which were commented on. Received comments were reviewed and the council members decided which to be used in the final version of the standard. They made decisions by consensus. Although there was a general feeling of fatigue in the end of the Shrimp Aquaculture Dialogue process, it was also considered to be interesting by the GSC members. The GSC membership was defined by the following boundaries.

4.3 FROM DRAFT TO IMPLEMENTATION

The final draft of the shrimp standard was completed in December 2011, after which the standard was handed over to the Aquaculture Stewardship Council (ASC). The ASC translated the final draft of the Standard into the first version of the shrimp standard and into an audit manual, which are documents that are used by the auditors to certify the farmers. The timeline in appendix 1 shows when the documents were published.

4.3.1 THE OPERATIONALISATION OF THE STANDARD

The WWF started the Aquaculture Dialogues without knowing who would be responsible for the Standards when they were finished (Havice & Iles, 2015). They first asked the Marine Stewardship Council (MSC) to govern the Aquaculture Standard, but that council was not interested (Havice & Iles, 2015). The WWF then partnered with the Sustainable Trade Initiative and together they launched the Aquaculture Stewardship Council (ASC) in 2009 and founded it in 2010 (Aquaculture Stewardship Council, n.d.-a; Havice & Iles, 2015).

The reason why the ShAD did not manage the Standard themselves was because of an potential conflict of interests. To enhance credibility of the standards, a separation is needed between those setting the standard and the holder of the standards (Havice & Iles, 2015). As is written in the draft standard:

> *The organization that generates revenue from the labelling of products and distribution of certificates must not have any connections with the standard-setting body, as this could create an incentive to increase revenues by weakening standards.*
>
> (Shrimp Aquaculture Dialogue, 2010: 6)

The interviewees mentioned that there was pressure to finish the ShAD process. The Shrimp Standard was one of the last dialogues to finish as most other dialogues already had led to standards. The WWF Aquaculture Dialogues were partly funded by retailers, who wanted to sell sustainable fish, so there was a hurry to finish the process (Havice & Iles, 2015).

Each dialogue needed to create an audit manual in order to apply the standard. However, this did not happen the Shrimp Aquaculture Dialogue, because of a certain hurry and fatigue with the GSC members. The process of formulating audit manuals was thus delegated to the ASC. Two GSC members were assigned to a Technical Advisory Committee that would guide the process. The ASC firstly translated the final draft of the Shrimp standard into a first version of the ASC Standard. The ASC changed some formatting, and some words to improve legibility, but the changes between the draft and the final standard are minimal. Though the ASC is not allowed to change the standard, they can change the audit manual, so there is some room to manoeuvre. The ASC is therefore also involved in making rules, although by design a separation had been foreseen between the rule-making body, the participatory process, and the holder of the standards (Havice & Iles, 2015). Since the ASC felt that it did not have the expertise, they asked Accreditation Services International (ASI), an accreditation company to write the audit manual. ASI hired a consultant to do this. The ASI then discussed the guidance document with the Technical Advisory Committee of the ShAD. Thus two ShAD members were involved in translating the document. Parallell to developing the audit manual, they were field-tested, so as to ensure that these would be applicable. This process of translation into an audit manual is not as well documented as the ShAD process. I could for example not find out who wrote the audit manual, only that there was a consultant hired by the ASI that was in turn hired by the ASC.

4.3.2 THE ACCREDITATION AND CERTIFICATION BODIES

After the standard and the audit manual were released in March 2014, the first audit companies were accredited to certify for ASC. Accreditation is the process through which Conformity and Assessment Bodies (CABs) are authorised to verify the compliance with the standards. It can be seen as a certification of CABs. The ASC created Certification and Accreditation Requirements (CAR) to which a CAB must comply, to be able to accredit farms for ASC. This CAR can be seen as a standard for CABs. The body that accredits the certification body is Accreditation Services International (ASI). The ASI is responsible for the evaluations of the CABs against the requirements in the CAR (Aquaculture Stewardship Council, 2012) . The CAR is not only applicable for the shrimp Standard, it applies to all the standards of the ASC. The first version of the CAR was released in March 2012, and was prepared by the Technical Advisory Group of the ASC.

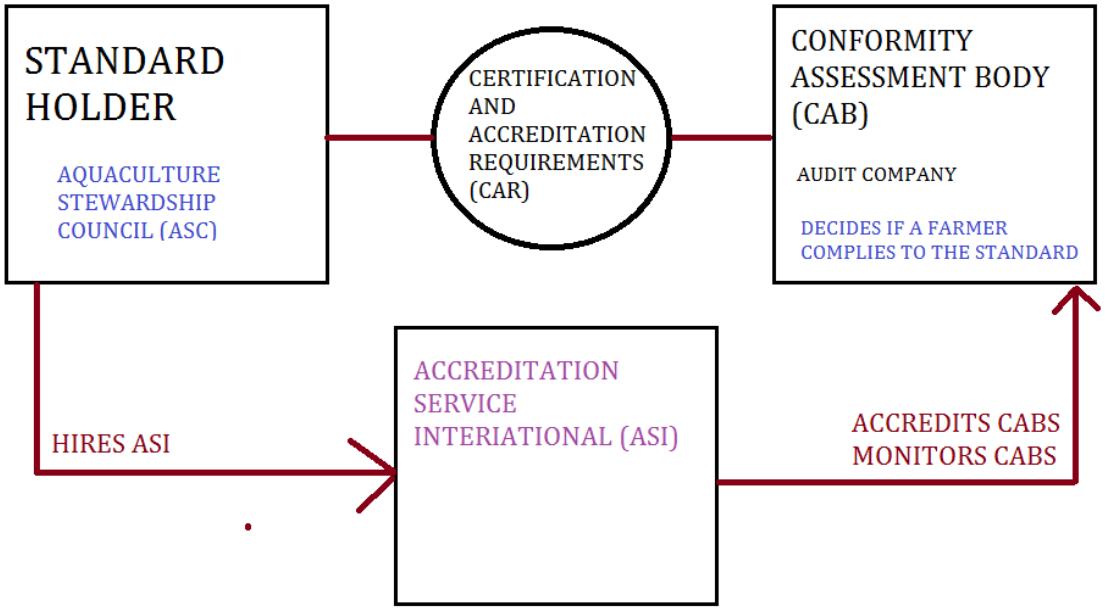


FIGURE 10: BODIES INVOLVED IN CERTIFICATION

The ASI thus accredits Conformity and Assessment Bodies (CABs). The accreditation first consists of a desk research followed by an office assessment, whereby the head office of the CAB is visited and the management system is scrutinized. If there are no major issues, an on-site witness assessments follows, where ASI observers the CAB auditing and contacting the first audit on a selected standard. Then ASI documents it's decision in a report handed over to an external accreditation committee which reviews the decision, provides its recommendation to the managing director who approves it. ASI always witnesses the first certification; later they do a risk analysis incorporating the standard, location and audit team. For five years there are surveillance office assessments and at least one other witness assessment, which is dependent on the certification body's size. There are also desk-reviews done on two or three audit reports.

In the case of shrimp three CABS were accredited to certify. ASC witnessed the initial assessments of all the three CABs. The CABs were already accredited for other certification schemes and they were already accredited for another ASC standard, such as Tilapia or Pangasius. So when they applied to become accredited for the shrimp standard, they did not have to do that much adjustments. The assessment of the ASI for them was called a scope extension, which was a much faster process.

An audit manual and a Standard were developed by the ASC in this period. There were also two GSC members involved with writing the audit manual. The process through which this happened, was not as transparent as the ShAD process. After the documents were published, the first CABs were accredited to certify ASC shrimp.

4.4 IMPLEMENTATION

Shortly after the ASC Shrimp Standard was published and the first Conformity and Assessment Bodies (CABs) were accredited to certify, the first producer farms entered the process of certification. The implementation phase is defined as the period from the moment of first certification in Mid-2014, until the end of observations in this study, April 2016. The timeline illustration (Appendix 1) provides details about when and in which country farms are certified. This paragraph addresses the boundaries of this time period. It discusses three topics: the boundaries to become ASC certified; the boundaries for smallholders to become certified; and the audit practices and their critique.

4.4.1 THE BOUNDARIES OF THE CERTIFIED SUBJECTS

This section assesses the boundaries of the subjects being certified for the Aquaculture Stewardship Councils Standard on Responsible Shrimp Farming. The aim of the Shrimp Aquaculture Dialogues process was to develop stringent Standards aimed at the top twenty percent of the industry. But what farms ended up becoming certified? And what are the boundaries of becoming certified? The first focus is on what certified farms have in common to identify the boundaries. Then a comparison is made between two contexts of certified and non-certified farms to see where the boundaries are.

What are the characteristics of the farms that are ASC certified and what boundaries can be drawn from this analysis? In March 2014, the shrimp Standard came out. Six months later the first farm was certified in Ecuador. In October 2014 the first Asian farm was certified, in Vietnam. By the end of 2014, eight farms were certified in Vietnam. In April 2016 the number of certified farms had increased to 38 as shown in Table 3.

Table 3. The number of shrimp farms certified and in the process of being certified until April 2016

Country	Certified farms	Farms in assessment
Vietnam	19	8
Belize	8	
Ecuador	5	2
Honduras	2	4
Indonesia	2	
India	1	4
Nicaragua	1	
Thailand		1
Saudi Arabia		1

Most of the certified farms are in Vietnam, followed by Belize. Interestingly enough there is no certified farm in Madagascar, although two Global Steering Committee members negotiating the ASC Standard were from Madagascar. The sizes of the certified producer farms in Vietnam are variable, as shown in Table 4.

Table 4. The size of certified producer farms in Vietnam

Number of farms	Number of ponds	Farm area	Water surface
1	1	52,640m2	
1	4		123,679
1	7		
1	>25		
1	33	16,46	
1	37		32.5
1	50	41	
1	62	686,345 m2	
1	79	50 ha	
1	86		
1	1		104.3 ha
1		10 ha	
1		40 ha	
1	1	150 ha	
1		220 ha	
1		330 ha	
3	unknown	unknown	unknown

Source: Audit reports (Note differences in describing farm size)

Table 44 shows that nearly all farms certified operate more than 10 ponds or 10 hectares, which suggests they are large farms. Indeed, only two of the farms certified depend of family labour only. There are four farms that can be characterised as medium-sized farms. Ten certified farms in Vietnam are larger farms. There are three farms where there is nothing stated on the size of the farm. There are also a few shrimp farms certified with an extensive production system (5). The rest farms with intensive or semi-intensive aquaculture. The first boundary is thus that farms that are certified are mainly large-scale farmers.

Most certified farms are vertically integrated or have a close connection with a large processing plant. Although farms are the target of certification, they do not exist in a vacuum. Often the farms that are being certified belong to the same company as the processing plant. If not, it is often the processing plant that

demands their supplying farms to become certified, because their buyer requires this. The processor may pay for the training, the inspections and the product in order for a farm to become certified but this is not always the case. An arrangement between farmer and processor may exist whereby the farmer pays a lower price for processor-provided shrimp feed. In this case the costs decreases and this might be an incentive to become certified. Often, however, the farmer is the one to pay the price for certification, without getting a much better price. Hence, most farms that are certified have a close connection with a large processing plant or are vertically integrated with a processing plant.

Some certified farms have a relation with WWF. The WWF provides consultancy services to help farms to improve so as to comply to the ASC. They also hold workshops on the matter. The WWF is not the only organisation supporting farmers to become certified. In one case, a producer explained that his motive to become certified with ASC is that WWF required the producer to become certified as a condition for collaboration with the shrimp farm. And in Belize a producer explains that the quick uptake of the ASC Standard was thanks to the support of the WWF. Thus a close relationship with the WWF (or another NGO) makes it more likely that a farm is ASC certified.

The majority of the farms in Vietnam that are ASC certified have multiple certificates. Retailers generally require a specific standard, and a company may sell to many retailers and therefore multiple certifications are required. The proliferation of the number of standards has created a headache for the industry. One interviewee explains:

> *And last time when the workshop some people complained that too much certification, so we are confusing … so they said: 'Gentlemen, could you please show me your mobile phone. And they pick up their mobile phone with different branding. And I am asking so why, what is the purpose of your cell-phone. Calling, hearing, internet checking, picturing, and does this, why do you buy i-phone, you don't have the Nokia, Samsung, something like that. Why do you buy the other? So that is the current certification.*[19]

There are some initiatives to have the standards to mutually recognise other standards, such as the GSSI, or that the ASC, GAA and the Viet GAP are working together in Vietnam. Most interviewees stress that the ASC certification is the most difficult to achieve, although others stress that they did not have to do a lot extra to become certified, or that organic certificates are more difficult to obtain. Another boundary is thus that farms often are familiar with certification and are already certified. So the characteristic of a typical ASC certified shrimp farm is that it is a vertically integrated large-scale farm with other certificates, has and with a relationship with the WWF.

Apart from looking at the characteristics of the farms that are certified, certification boundaries can be assessed by comparing a country with certified farms, with a country where there are no such farms. As the table above indicates, several farms are certified in Vietnam, although there is none in Thailand yet. Interviewees provided several reasons for why there is no farm certified in Thailand and at the same time so many farms certified in Vietnam.

[19] Interview 8

Firstly, the involvement of the governments are mentioned. The Vietnamese government pushes for certification. They target the export market, so they will do what the foreign markets and the buyers want. They depend on the international market as a source for economic growth. The government even signed MOUs with different certification schemes. Domestic consumption in Thailand is significant in comparison with Vietnam, and therefore they depend less on the international markets. They also put quite some effort in developing a Thai certification scheme, Thai GAP, which they support strongly. The department of fisheries promotes this standard, and they oblige their farmers to comply to Thai GAP first.

Secondly, it was mentioned that the business culture in Vietnam would be more sensitive to rules. They might even be too eager, because they would respond to what the buyer assumedly wants, instead of looking if there is market demand for the product. In Thailand, there is more resistance against foreign interference. Certification schemes are seen as foreign schemes that are telling the Thai what to do (Vandergeest & Unno, 2012).

Thirdly, the US market is powerful in Thailand, whereas in Vietnam they export more towards Europe. One of the reasons for shrimp farmers to comply with a certain standard is because their buyer demands it. Retailers in the US are more focussed on GAA, whereas retailers in Europe are more focussed on ASC.

Related to this is that in Vietnam already a lot of work was done with ASC and Pangasius. There was a group of people who knew what the ASC standards were about, and they were trained to carry out assessments. Since the expertise was transferrable to shrimp, they were better capable to help farms to become certified.

So the four reasons given by interviewees why several farms are certified in Vietnam and none in Thailand include: the position of the government, a different business culture, the export market and connections between farmers and 'ASC consultants'.

The reasons given by interviewees indicate boundaries for shrimp farmers to become certified. These boundaries do not apply to all farms, but most farms that have ASC certificates can be placed within these boundaries. The typical ASC certified farm is a) a large-scale farm; b) that is vertically integrated with other value-chain sites or has a close relationship with a processing plant; c) exports to Europe d) has other certificates e) has a relationship with the WWF, f) is connected to a network of ASC experts such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; and g) has a government in favour of certification and somehow stimulating it.

4.4.2 THE BOUNDARIES FOR SMALLHOLDERS TO BECOME CERTIFIED

A lot of interviewees criticize smallholders for not being able to become ASC certified. This section explores what the boundaries for these smallholder farmers are. Interviewees mainly state that smallholders are excluded because of the costs of becoming certified, and because smallholders lack the technical capacity that the Standard requires.

Financially it is difficult for smallholder farmers to comply because they have to pay for two impact assessments, an audit, and a technical upgrade. In addition their general costs increase because the feed the ASC Standard requires is often more expensive. Thus the costs for certification are significant. There are some interviewees who state that the price paid for the ASC certified products is not high enough to compensate for these extra costs, and that it is therefore not viable for farmers to become certified. Where the consumer does pay a higher price for shrimps that are ASC certified, that premium does not normally go to the farmers but to the processing plant. Especially smallholder farmers do not often know the retail price for shrimp. Small scale farmers are not linked to the value chain actors that demand certification. What makes it difficult is that shrimp, once harvested, should be sold without re-freezing (every time when shrimp is frozen the quality decreases). The farmer therefore needs to stick with the price he receives at the time of his harvest. Farmers are actors in the value chain with the highest risk and they do not earn a high margin. The benefit for the farmer is in receiving more money for his product, it is in selling his product at all. What the standard provides is market access. Certain food service and retailers require a standard and therefore farmers become certified.

Apart from the costs involved with ASC certification limiting smallholders to become certified, smallholder farmers may not have the technical capacity. The technical upgrade lies in being able to measure water levels, building dams or dykes and having buffer zones between pond and river or the coast. Also, some indicators are logistically very difficult to achieve, such as a different type of feed farmers have to use, and some indicators are not practical. The standard itself is also difficult to understand. A lot of the people I interviewed did not understand the jargon.

If the ASC only targets the top twenty percent, why then is it an issue that smallholder farmers are not certified, as they were not targeted in the first place? The market demand for ASC shrimp can easily be satisfied by the large-scale vertically integrated farms. The reasons that are given in the interviews why it is important for smallholder farmers to become ASC certified are twofold. First, the shrimp industry is mainly constituted of smallholder farmers. If they cannot ever become certified, the theory of change will likely not work because they cannot follow the lead of the best performers. The philosophy of the Theory of Change is thus questioned because some people think that to lift up the whole industry it is necessary to assist a large percentage of farmers to improve their practices. Another reason why it is considered to be an issue that smallholders cannot comply is that they could be pushed out of the market. In the words of an interviewee:

> *So what happens if you attack the big ones, get the big ones to adopt to this stuff, is that useful, in terms of them having the biggest environmental impact. Or does it have a perverse impact. And the big ones switch over, they capture the market share of sustainable shrimp, and the little guys disappear. Because they can't prove it. That is possible.*[20]

[20] Interview 33

Having fewer smaller farmers would have a negative effect on the benefit of shrimp farming on local communities (World Bank et al., 2002, in Vandergeest, 2007). In that sense the ASC Standard can have a negative social impact in itself.

These discussions already took place during the negotiations of the standards and the Global Steering Committee asked the ASC to take up group certification in the future to enable smallholders to become certified in groups or in clusters. This would reduce the costs of both the audits and the impact assessments. This group certification standard has been released in 2016. It appears that the ASC does not and did not hurry to come with this group certification standard. It is more difficult for a shrimp importer to verify Chain of Custody against twenty-five small farms rather than just one big farm. The ASC also makes money through volumes so there is not really an incentive for the ASC to certify smallholder farmers, especially since their business case is to have the top 20 percent of production certified.

Helping smallholder farmers to become certified is also on the agenda of several NGOs. There is support from organisations that want to source better shrimp or NGOs trying to engage small-scale farmers to become involved with ASC. In these projects training courses to enhance technical capacity are conducted and the costs for assessments and audits are sponsored. Some interviewees were sceptical of these projects, because the only incentive to join for farmers is that they receive money. Also, one interviewee told a story that there was a project in Vietnam that supported a group of farmers with technical and financial support to become certified for another standard. However, after the group was certified the project stopped and the group did not have the capacity to remain certified. Being certified does not stop after a certificate is handed out.

The main point of this section is to illustrate current issues for smallholder farmer to obtain certification. Interviewees explained why it is more difficult for smallholder farmers to become certified and that this has consequences. In the standard the smallholder farmer is not seen as an object of concern, as someone who should be focused on. Yet there are initiatives in that direction and there are discussions about how the smallholder can become an object of concern, someone that should be taken care of.

4.4.3 A CHANGE OF THE THEORY OF CHANGE?

As mentioned before, the WWF targeted the top of the industry, because they believed that the rest will follow its lead. One could, however, question if it will work this way. In the words of an interviewee:

> *I think the larger question is: does the larger market transformation approach at the standard setting make sense. What have we learned about that? And the jury is still out, but I think you know not to cheer it and say: 'It is so great!'.*[21]

[21] Interview 33

When a group is excluded from becoming certified in general or there is no market-incentive to become certified, the majority of the industry might not become certified. An interviewee now recognises that the biggest omission made in the beginning is not targeting the lowest segment of the industry:

> *But figure out how to start a continuous improvement programme globally so that everybody can get better. Everybody may never be able to be certified, but they can all get better […] especially by moving the bottom. […] The bottom is what drags the entire system down, it is also what creates the reputation of the industry. The industry is never defined by what the best people do, it is defined by what the worst people do [...] So everybody has an incentive to make the worst better, but we kind of missed that when we started, because we were being a traditional NGO, we didn't literally thought about it as a business proposition, we thought about it more as a way to reduce environmental impacts* [22].

It still remains to be seen if addressing the top 20 percent of the industry leads to the industry becoming better, and thus if this Theory of Change works. And although there are people who are critical of this causality, even those defining the Theory of Change, it still remains the mission of the ASC to target the top of the industry.

4.4.4 THE AUDIT PROCESS

An audit for ASC Shrimp in Vietnam typically is done by two or three auditors, including a social and an environmental auditor. The two auditors visit the farm together, but they report separately: the environmental auditor focusses on environmental criteria and the social auditor considers social criteria. About three man-days per audit are needed, depending on the size of the farm. This means that if there is a team of two auditors, one auditor will be there for two days and the other only one day. In Vietnam the costs amount to about three hundred dollar per day per auditor. An auditor explains the process:

> *When it comes to the audit, first thing we have to organise meetings, […] we discuss about the schedule, our plan what we do, like the methods, how we approach the process […] So some arrangement for the audit. After that we have a general overview, about the shrimp farm […] And then we talk to the middle man or something and also we request to visit the nearby households. In Vietnam we also visit the local authority, they come to see the chairman or the vice president of the local authority and we interview, and then we go back to see the project, after everything we have to communicate.* [23]

In the previous Certification and Accreditation Requirements (the rules the auditor needs to comply with, the CAR), there were no unannounced visits. The farmer would know when the auditors visit. In the new CAR unannounced audits are mentioned: the CAB (the audit company) may choose to notify none, some or all potential stakeholders and interested parties prior to an unannounced audit (Aquaculture Stewardship Council, 2015). After the audit, the auditors write their report. According to the CAR, they have twenty days to write a draft report and send it to the ASC. After the report has been published, stakeholders have ten days to comment, after which the CAB has ten days to finalise the report, which will then be placed on

[22] Interview 35
[23] Interview 21

the website. Stakeholders can give comments to the draft report, which is called reviewed involvement. However, some interviewees stated that this is not working, because they did not get any reply or response. The newest CAR states that the CAB need to take the comments of the stakeholders into account and respond to how the comments were addressed by the audit team (Aquaculture Stewardship Council, 2015).

There was much scepticism with interviewees around companies being certified for ASC shrimp. Several interviewees mentioned companies of whom they think that they should not be certified, because they do not comply to the standards. Some tricks were mentioned about how to get around certification, such as bribing an auditor, and being audited for more products than you actually can produce, so you import shrimp and resell these under the certificate. It is also mentioned that the criterion on antibiotics (in another principle) is too difficult for the farms to comply with. One auditor even admitted that he sometimes knows the farm to use antibiotics, because the farmer cannot allow his shrimp to die. But it is difficult to prove this, as there is no objective observation for ASC Shrimp. At the moment two certification bodies are accredited for shrimp. One certification body has stopped operations. One interviewee mentions that for the same issue, different auditors judge compliance differently. Some reports have empty parts and some audit reports are not complete. There are complaints about a difference in quality between certification bodies. Not only are there differences between the CABs, there are also differences within one CAB in different places such as for example in Ecuador and Vietnam. In other words, the audit process is questioned. What are the reasons for audits not to have the expected quality?

In Vietnam there were several companies interested to become certified in a short time period, and auditors thus were under pressure to cope with a high workload. In some of the audit reports the same sentences re-occur with the same language errors, which indicates copy-pasting and thus time pressure. In the new CAR the time period for reporting is lengthened to avoid such time pressure.

Another reason for errors in the audits involves the income system of CABs. The revenues of certification bodies is based on the amount of farms they certify, so a certification body wants to sell certificates: The more certifications, the more income earned. But there are different certification bodies and to be competitive as a certification body you want to lower your price for a certificate. In order to be less expensive you need to reduce the time on the sites (and the time working on it) and this has a negative effect on the quality of the audits. It is costly to run the ASC schemes for a CAB. It is ten to a multiple of tenfold the price in comparison with Global GAP, which means that the CABs need a tenfold number of certificates to pay for the programme.

According to an interviewee, since there are no control mechanisms and the CAR is not working, farms are complying which in reality are not compliant. However, a new CAR has recently been published and went into force in June 2016, which may have improved internal quality control mechanisms of the CAR. Apart from the rules of the CAR not being stringent enough, the implementation of these rules may also be lacking.

Another critique concerns the independence of the CAB. The farm and the certification body are said to have separate interests. Yet, farms may request a specific certification body, and sometimes they also request a specific auditor, which is not accepted all the time. However, in Vietnam there is no opportunity of getting another auditor, because there is only one team of auditors per certification body. In total there are five people that audit the farms in Vietnam thus far.

The main critique is that the quality of the audits is questioned. The reasons for a low quality of audits is related to time pressure (a lot of farms wanted to become certified at the same time but there were only a few CABS; to the system in which the CABs operate (they earn their money with certification, so there is an incentive to certify quickly and this might influence the quality negatively); the control mechanisms of the audits (the CAR not being strict, or not being implemented); and the independence of CABs.

4.4.5 BOUNDARY-WORK

This section showed several boundaries. Firstly, it showed that the typical ASC certified farm is a) a large-scale farm; b) that is vertically integrated with other value-chain sites or has a close relationship with a processing plant; c) exports to Europe d) has other certificates e) has a relationship with the WWF f) is connected to a network of ASC experts, such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; and g) has a government that is in favour of certification and somehow stimulates it.

Secondly, this section showed that smallholder farmers are somehow not becoming certified and that this is a problem because they make up the largest part of the industry and excluding them is a negative social impact itself. Also, the boundary of targeting twenty percent of the industry is questioned, because it is not sure if this will actually help improving the industry. And thirdly, this paragraph showed that the quality of the audits is questioned. The reasons for a low quality of audits are related to time pressure; to the system in which the CABs operate; to the control mechanisms of the audits; and to the independence of CABs.

4.5 CONCLUSION

This chapter discusses the history of the ASC Standard and boundaries that result from processes occurring throughout this period. In this concluding section a short overview is provided of boundaries that appeared throughout ASC's Shrimp Standard history.

The WWF set out to create Aquaculture Standards because they believed that careful production techniques had the potential to be more sustainable than wild caught fish. In order to do so they wanted to compete with already existing standards. They decided that the new aquaculture standards were to focus the farm level; assess social and environmental issues; target the top of the industry; be negotiated through a multi-stakeholder process; and be measurable. These qualities of the standard were the first boundaries of all the aquaculture standards. The WWF created multiple standards for several species, of which one was shrimp.

The Shrimp Aquaculture Dialogues (ShAD), which was the process that would result in the Shrimp Standard, firstly started with Full Dialogue Meetings in three production areas: Latin-America, East-Africa and Asia. Steering Committees were formed for each of these regions, but these were abandoned for a system with a Global Steering Committee (GSC) that created three draft standards. The GSC was said to be open for everyone, nevertheless, the members had the same characteristics. They were: 1) in favour of certification in the first place, they 2) needed to have the money and time, 3) speak a 'negotiation language', and 4) needed to have some connection with the WWF or people in the GSC.

When the final draft was published, this draft was translated into a first version of the Standard and an audit manual. These documents were developed by the ASC in cooperation two GSC members involved with writing the audit manual. The process through which this happened, was not as transparent as the ShAD process. After the documents were published, the first Conformity and Assessment Bodies (CABs) were accredited to certify ASC shrimp. There are three CABs that became accredited.

The first farm acquired certification in September 2014. From an analysis of the certified farms in Vietnam and by comparing the Vietnamese situation with the Thai, it seems that the typical ASC certified farm is a) a large-scale farm; b) that is vertically integrated with other value-chain sites or has a close relationship with a processing plant; c) exports to Europe d) has other certificates e) has a relationship with the WWF f) is connected to a network of ASC experts, such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; and g) has a government that is in favour of certification and somehow stimulates it. Smallholder farmers are less likely to be certified and this bias is being questioned by interviewees. Also, the theory to target the top twenty percent of the industry is questioned, because it is not sure if this will actually have an effect on the overall industry. The farms are assessed through an audit. The quality of the audits is questioned. The reasons for a low quality of audits are related to time pressure; to the system in which the CABs operate; to the control mechanisms of the audits; and to the independence of CABs.

This history shows that there are boundaries that define what is included in and what is excluded of the ASC Shrimp Standard as a whole. The negotiators had to comply with certain rules about what the Standard would become, and some other boundaries restricted certain people to become certified. The initial idea of the Standard was that it should: 1) apply to the farm level (space); 2) assess social and environmental issues (objects of concern); 3) target the top of the industry (subjects); 4) be negotiated through a multi-stakeholder process (experts); and 5) be measurable (expertise).

Apart from these boundaries, it seems that there is another boundary that determines what is included and what is not. This concerns social relations. As described above, the people who were member of the Global Steering Committee were asked to join by someone in the GSC or the WWF. And companies that are certified often have a relationship with WWF or with an NGO helping them to become certified. These farmers also sometimes have a connection to an auditor, or to someone conducting an impact assessment. In other words: social relations matter. They can be seen as another boundary for what is included or not, in the ASC Shrimp Standard assemblage.

5. THE ENVIRONMENTAL IMPACTS OF THE SITE OF THE SHRIMP FARM

The following two chapters explore how the five variables (space, objects, subjects, experts and expertise) of the Aquaculture Stewardship Council's (ASC) Standard on Responsible Shrimp Farming changed in the period from its inception to April 2016. The ASC Standard addresses an environmental impact of the shrimp farm on its immediate location and the impact of the shrimp farm on the surrounding communities separately: *Principle 2 covers the impacts associated with the initial siting and the construction and expansion of shrimp farms: social considerations associated with siting are addressed in Principle 3* (Aquaculture Stewardship Council, 2014: 23). This thesis also draws this boundary: Chapter 5 addresses the environmental assemblage and Chapter 6 the social assemblage. This explicit categorisation of the environmental on the one hand and the social on the other, allows the evaluation of how the two assemblages differ.

Principle 2 of the ASC Shrimp Standard covers: *Site farms in environmentally suitable locations while conserving biodiversity and important natural ecosystem* (Aquaculture Stewardship Council, 2014: 23). The aim of this chapter is to understand how this principle came into being and how it developed over time. More specifically, it explores how the five variables: space, objects, subjects, experts and expertise changed over time, if at all. The chapter is divided into four periods: 1) Entering the Certification Market; 2) Negotiating the Standard; 3) Translating the Standard; and 4) Implementing the Standard. A timeline is attached to this thesis (Appendix 1) that provides an overview of the events of the process. Using this appendix while reading through this Chapter may provide additional perspective.

5.1 – ENTERING THE CERTIFICATION MARKET

The Shrimp Aquaculture Dialogue (ShAD) process did not come out of the blue. In this paragraph it is explained how the ShAD process developed, that resulted in the creation of the ASC Standard. This paragraph addresses the environmental issues in shrimp farming, which environmental objects were defined through the Consortium process, and how the boundaries of the Aquaculture Dialogues influenced the five variables in the environmental assemblage of Principle 2. The end of this paragraph provides a table which summarises the space, objects, subjects, experts and expertise of this time period.

5.1.1 ENVIRONMENTAL ISSUES IN SHRIMP FARMING

As described in Chapter 4, shrimp farming became popular in the seventies and eighties and this resulted in an intensification and growth of the industry. In order to allocate space to ponds, additional land was needed which sometimes caused a destruction of the existing ecosystems such as mangrove forests and wetlands (Hall, 2003). These ecosystems provide numerous ecosystem services (Hall, 2003). Apart from this issue related to acquiring new land for farming, there are environmental consequences of the operation of shrimp farming. Shrimp farming uses considerable amounts of groundwater which not only leads to a decreasing volume of available groundwater, but in some instances to salinisation (Hall, 2003).

This affects the land and makes it less suitable for agriculture (Hall, 2003). Also, the effluent of shrimp farming is sometimes dumped in communal waterways, thus affecting water that is used for other purposes (Hall, 2003).

According to some interviewees, mangrove destruction happened to different degrees in different countries. In some countries massive farms were constructed and large areas were cleared for shrimp farming. In South-East Asia, according to some interviewees, the clearing of mangroves did not happen to the extent as in Latin America. In the case of Thailand and Vietnam, some interviewees explained that the mangroves were initially cut for getting charcoal for villages. After that, rice farmers turned the rice paddies into shrimp ponds, because they would make more money with producing shrimp. Other interviewees stressed that mangrove destruction took place on a massive scale in Asia and that it is still happening.

In the late eighties and the beginning of the nineties, both local and international NGOs stressed their concerns over the growth of shrimp farming. South-East Asian Non-Governmental Organisations (NGOs) addressed the more local issues, such as the access to land, salinization and water pollution (Hall, 2003). In Latin-America the local NGOs were said to be much more vocal than in South-East Asia. International NGOs mainly concentrated on the destruction of mangroves instead of targeting local issues such as salinization (Hall, 2003). These NGOs successfully linked mangrove destruction with aquaculture in their consumer campaigns. As one interviewee explained:

> *Ninety percent of all global aquaculture takes place in Asia, and eighty to ninety percent is not even based in the marine environment [...] and because of some scorners aquaculture has been put in the spotlight, the entire global production has been deemed to be socially abusive, divisive you know, it has been a hell of a campaign they had.*[24]

As a result of such campaigns the industry felt misrepresented as they did not feel that criticism around mangrove destruction applied to all farms.

5.1.2 THE CONSORTIUM OF SHRIMP FARMING AND THE ENVIRONMENT

The WWF, not knowing who was right in this discussion: the NGOs or the industry, wanted to map out the negative and positive impacts of shrimp farming. They did this together with international organisations through establishing the 'Consortium of Shrimp Farming and the Environment' in 1999. Among technical experts and environmental groups there was significant agreement that addressing these issues would solve environmental impacts related to shrimp farming (Béné, 2005; Vandergeest, 2007). The problems were believed to be environmental (and not so much social, see Chapter 6) and the solutions were believed to be technical (Béné, 2005).

[24] Interview 23

The Consortium formulated principles that were published in 2006. The principles that relate to the environmental impact of the site of the farm were threefold and entailed 1) Farm Siting; 2) Farm design; and 3) Water Use. The first principle is: *Locate shrimp farms according to national planning and legal frameworks in environmentally suitable locations, making efficient use of land and water resources and in ways that conserve biodiversity, ecologically sensitive habitats and ecosystem functions, recognizing other land uses, and that other people and species depend upon these same ecosystems* (FAO/NACA/UNEP/WB/WWF, 2006: 4) The things that should be addressed (the objects of concern) are defined as biodiversity, ecologically sensitive habitats and ecosystem functions. This principle also relates to people, who depend on the ecosystems. The second principle is: *Design and construct shrimp farms in ways that minimize environmental damage* (FAO/NACA/UNEP/WB/WWF, 2006: 5). The surrounding ecosystems here are an object of concern, and should not be negatively affected by farm design. The Third principle is: *Minimise the impact of water use for shrimp farming on water resources*. (FAO/NACA/UNEP/WB/WWF, 2006: 6). The main object of concern here is fresh groundwater that should be protected. The objects of concern that were defined at that time were biodiversity; ecologically sensitive habitats; ecosystem functions; surrounding ecosystems and fresh groundwater.

5.1.3 THE FIRST BOUNDARIES OF THE STANDARD

The principles of the Consortium were translated into several codes and standards. The WWF criticised the existing standards and wanted to create its own standards. They created the Aquaculture Dialogue processes in several farmed fish species of which one was for shrimp. As Chapter 4 shows, because the WWF wanted to position itself among the existing standards, they already did some boundary-work in defining features of their standards. The Standard needed to be: at the farm level (space); target the top of the industry (subjects); negotiated through a multi-stakeholder process (experts); and measurable (expertise). The objects of concern at that time were already defined by the Consortium process. These boundaries laid down the groundwork for the ASC Shrimp Standard. It influenced the space, objects, subjects, experts and expertise. Table 5 shows an overview of the variables.

Table 5: Environmental variables in entering the certification market

Space	Objects	Subjects	Experts	Expertise
Farm site	As defined by the Consortium: • Biodiversity; • Ecologically sensitive habitats; • Ecosystem functions; • Surrounding ecosystems; • Fresh groundwater.	Top industry	Consortium	Metric-based

5.2. NEGOTIATING THE STANDARDS

This paragraph looks into the second phase (see timeline) in which Principle 2 is negotiated. It is assessed how the objects, subjects, experts, expertise and space of the principle are defined during these negotiations.

5.2.1 THE ENVIRONMENTAL OBJECTS OF CONCERN

This section assesses the objects of concern when the Standard was negotiated. Which environmental issues needed to be addressed? As described, the Consortium already defined some objects of concern. Now it is focussed on how the Full Dialogue Meetings and the Global Steering Committee organised and defined the objects they thought would need protection. First it is assessed how the Full Dialogue Meeting defined and organised them and thereafter how the Global Steering Committee did the same. Also, it is analysed how these objects were changed by the GSC in the different versions of the Standard and what the critique of these objects entailed in the public comment rounds.

During the Full Dialogue Meetings that were part of the Shrimp Aquaculture Dialogue Process (see Appendix 1), stakeholders reviewed the principles that were defined by the Consortium and assessed how they could operationalise these principles into criterions for the Shrimp Standard. At these first meetings they still grouped potential environmental impacts of the location of the farm in the same way as the Consortium did. They had these principles: 1) Farm siting; 2) Farm design and construction and; 3) Water use. At both meetings in Madagascar and in Belize they decided that an Environmental Impact Assessment was a good tool to be used for certification (Shrimp Aquaculture Dialogue Central America & Mexico, 2008; Shrimp Aquaculture Dialogue, 2008c). The full dialogue meeting decided that: *All farms should do an EIA to determine best location and possible negative environmental impacts* (Shrimp Aquaculture Dialogue Central America & Mexico, 2008:1) However, in the Asian regional meeting in Bangkok the standards were criticised. For instance, in some Asian countries Environmental Impact Assessments were not common; yet they were included as a criterion. Further, the regional standards were criticised by the Asian Dialogue meeting because they would reflect large-scale farming operations that are common in Madagascar and in Latin-America but not in Asia, since Asian shrimp farming is characterised by smaller farming operations (WWF, 2008b).

In November 2008 the Global Steering Committee (GSC) was established. The GSC rearranged the inputs from the Aquaculture Full Dialogue Meetings and developed a draft standard. The draft standard changed considerably in comparison with the standards that were prepared in the Regional Steering Committees. The GSC made new principles and changed Principle 2 into: *Site farms in environmentally suitable locations while conserving biodiversity and important natural habitats* (Shrimp Aquaculture Dialogue, 2010: 12), and of Principle 3: *Develop and operate farms with consideration of surrounding communities* (Shrimp Aquaculture Dialogue, 2010: 33). In this draft the boundary between the environmental and the social impacts in relation to the site of the farm was thus made.

The second draft of the GSC had considerable differences compared to the first draft, but in this document the final structure of the standard was defined. This structure entails five criterions: the 1) Biodiversity-Environmental Impact Assessment; 2) Conservation of protected areas or critical habitats; 3) Consideration of habitats critical for endangered species; 4) Buffer zones, Barriers and Corridors; and 5) Prevention of salinisation of adjacent freshwater and soil resources.

The first criterion was the Biodiversity Environmental Impact Assessment (B-EIA). Farms need to commission a participatory Impact Assessment that centres on biodiversity concerns and the farmers need to distribute the results in a locally appropriate language. The farmer needs to hire an expert who could conduct the assessment. This impact assessment was established at the same time as the participatory-Social Impact Assessment, which is elaborated on in the next chapter. These two impact assessments were thought to be done together. The B-EIA also included a participatory element, which means that local community members are also involved in the research. The GSC was quite proud of this assessment. One interviewee mentioned:

> *The other milestone in the ShAD that I think we did, which is still a little bit controversial, but I think it was a good issue, was the, what we called, the Biodiversity-Environmental Impact Assessment. B-EIA. And the B-EIA was controversial because we did not know much about it. I mean, everybody knew what an Environmental Impact Assessment was, but this added another layer of complexity. And on doing a B-EIA and how to evaluate a B-EIA. So we were not even sure who would be qualified to do a B-EIA for a farmer on the field. But we knew it was good. We knew this was something important and it would give the shrimp farming community if it qualified a social license to operate.*[25]

Although the GSC was proud of the B-EIA, it received much critique during the public comment rounds. One of the issues was related to measurability. As described, the Standard was supposed to be metric-based, as part of the competitive market strategy of the Standard. On the one hand, people commented that flexibility is needed for protecting mangroves, critical habitats, wetlands and endangered species, because every context is different. Other comments stressed that a strong rationale is needed to avoid subjectivity and differences of interpretation between auditors, consultants and countries (ShAD, 2011).

The GSC accommodated both the people who stated that a metric-standard was needed and those who wanted context-dependency. When discussing this with a GSC member he stated:

> *And, so personally I don't think there is a good way of establishing some universal rule, and that is where the idea of trying to work out solutions throughout the B-EIA process was the most sensible thing to do because depending on the national regulation, depending on the specifics of the site we are considering, an environmental expert could have a very good recommendation.*[26]

This is illustrated by the fourth criterion that concerns ecological buffers, barriers and corridors. The idea of this criterion is that buffer zones are needed between ponds and between ponds and rivers. These buffer zones are intended for wildlife and for people to cross the farms, and to prevent the adjacent land to become salinized. At first, the GSC decided that the barrier between pond and coast must be 100 metres wide, and the barriers between pond and natural water, such as a river, lagoon or lake must be 25 metres wide. However, some people commented that the buffer zones expressed in metres are too narrow, others that the proposed buffer zones are too wide (ShAD GSC, 2010b; ShAD, 2011). Expressing zones in metres was also criticised because they have a universal validity, which might not always be what's needed: rivers

[25] Interview 3
[26] Interview 27

are dynamic in tropical countries because of natural modifications of watercourses and they can therefore change (ShAD GSC, 2010b). The GSC chose to have both metrics as well as context dependency. It decided that the coastal barriers and riparian buffers, which are permanent barriers between the farm and a marine environment or natural aquatic or brackish environments, should be defined as in legislation at the time of construction, as determined by the B-EIA or following the indications in the guideline. The guideline indicates a coastal barrier between pond and coast of at least 100 metres and a buffer zone between pond and river or lagoon or lake of at least 25 metres (Shrimp Aquaculture Dialogue, 2011). So on the one hand the B-EIA defined a need for buffers and corridors, and on the other the GSC defined the metrics to which the buffer zones should comply to. If the B-EIA consultant requires a larger buffer zone, this is what the farmer should comply with. Nevertheless, if a B-EIA consultant states that the buffer zone is slimmer than 100 or 25 metres, the metrics in the standard apply.

The B-EIA was also criticised because it became an object of concern in itself. Thai farmers criticised:

> *It appears the most important task for this standard is to pay someone to develop a report. Thai farmers are prepared to change practices to attempt to be more environmentally friendly, but there is a threshold beyond which farmers cannot adopt such standards that require several thousands of dollars just to have an assessment performed, much less [sic] adjust farming to the outcomes of the assessment.*
>
> (ShAD, 2011: 87)

Farmers need to make sure that they commission a B-EIA, even if there were no biodiversity, endangered species or critical habitat to protect. What complicates this issue for Thai farmers is that an Environmental Impact Assessment is not obligatory or mandated within national legislation and is therefore not always available (ShAD, 2011). This also means that there is no network of experts available or enough capacity of experts to conduct such an assessment.

The first criterion was the B-EIA, and the fourth criterion addressed the buffer zones, barriers and corridors. There were three more criterions, which will not be further discussed. The second criterion is the *Conservation of protected areas or critical habitats* (Shrimp Aquaculture Dialogue, 2011: 2) . The idea here is that farms are not allowed to be sited in protected areas or mangrove ecosystems or other natural wetlands. As a third criterion they address the *Consideration of habitats critical for endangered species* (Shrimp Aquaculture Dialogue, 2011:2) which states that new farms are not allowed to be situated in critical habitats of endangered species and that the habitats critical for endangered species within the farm boundaries should be protected. The fifth and last criterion of this principle is the *Prevention of salinisation of adjacent freshwater and soil resources* (Shrimp Aquaculture Dialogue, 2011:2). This criterion concerns the allowance of discharging saline water to natural freshwater bodies; the allowance for the use of fresh groundwater in ponds; the water specific conductance or chloride concentration of freshwater wells; soil-specific conductance or chloride concentration on adjacent land; and specific conductance or chloride concentration of sediment prior to disposal outside of the farm. This is all quite technical but the main idea is that farmers should not have a negative effect by salinisation.

The final objects of concern included the B-EIA, that became an object in itself; ecological buffers, barriers and corridors; critical habitats (such as protected areas, mangrove ecosystems or other natural wetlands); Habitats critical for endangered species; and adjacent freshwater and soil resources.

5.2.3 ENVIRONMENTAL SPACE

This section assesses what the implications of the Standard are on the environmental space of Principle 2. How is this defined? The initial idea of the Standard was that it should apply to the farm level. Other parts of the shrimp value chain are not yet addressed in the Standard[27]. There were discussions during the negotiations about whether the Standard should apply to the farm level or to the pond level, but in the end the farm level was chosen[28]. Yet, Principle 2 also addresses issues beyond the farm site. As mentioned above, there are buffers and barriers that the farmer needs to take into account. Further, the farmer is also responsible for adjacent freshwater and soil resources. The rules that a farmer needs to comply to, thus extend beyond the gates of the farm. This is illustrated in Figure 111 showing the environmental space of buffer zones and coastal barriers.

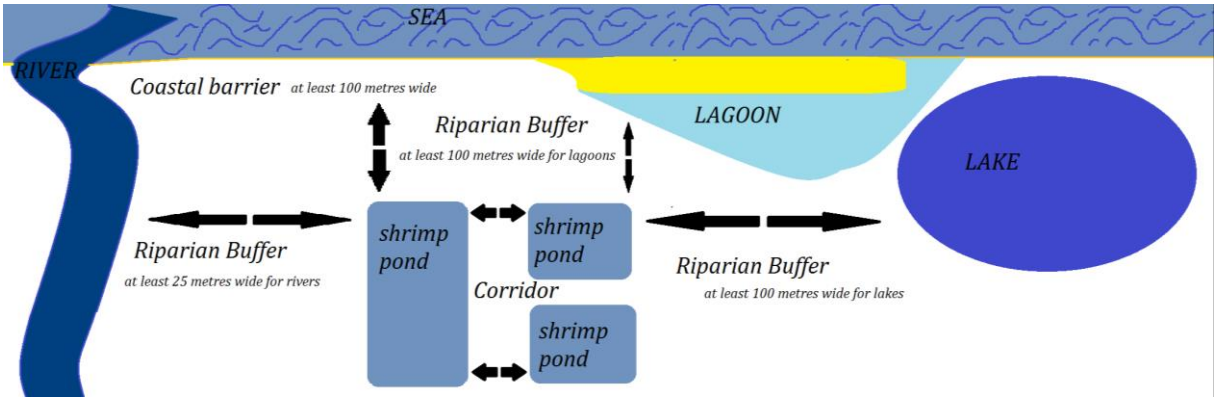


FIGURE 11: ENVIRONMENTAL SPACE

5.2.3 ENVIRONMENTAL EXPERTS AND EXPERTISE

This section explores the environmental expertise during the negotiations of the standards. It aims to answer the question who the experts where and what the expertise was they relied on during the negotiation process. Who was given the legitimacy to have a say in environmental matters? And who was considered to have the expertise to take the standards further?

Who were the experts of the GSC? Sometimes expertise was projected onto someone merely because he worked in the same organisation. An example here is someone from IUCN who was seen as the biodiversity expert and when he wanted to include the IUCN Red List, everyone would agree and there was no negotiation. I have the impression that principle two was mainly written by two people, because I

[27] There are also other principles in the standard that go beyond the farm site, because they for example concern feed, but I will not go into detail about that here.
[28] There are some exceptions in other principles, for example concerning antibiotics.

kept hearing the same two names when I asked who was involved with writing Principle 2. I also heard that there were two people working closely together that were both involved with the development of Principle 2 and Principle 3. They also decided that the p-SIA and the B-EIA could be conducted at the same time. Although there were a few people of the GSC developing the individual Principles, the GSC made decisions by consensus, so everyone in the end was involved in all the principles.

But what about the expertise these GSC members relied on? As mentioned, it was the aim of the GSC to develop a standard based on objective measurements. When I asked someone in an interview about the metrics of the Standards, he replied:

> *Yes. That was the target, but in the end we realised that there are some requirements that are difficult to be measured, so it becomes a combination of measurable and BMPs [Best Management Practice], but we tried to limit the number of BMPs and increase the measurable. Because that was the target.*[29]

This boundary of including metrics in the standard was thus questioned. The GSC members sought to have as much metrics as possible but they did not always succeed. Yet they did try to come up with metrics in relation to the coastal buffer zones and riparian buffers. As described above, these buffers should be according to national legislation, the B-EIA and metrics that were defined by the GSC, whichever was greater. They decided that the metrics were 100 metres between the coast and the farm, and 25 metres between the farm and a natural water environment such as a river. These metrics count as a minimum. When asking why the GSC still chose for a 100 metre buffer zone, some GSC members answered that this was because they had to come up with quantifiable criteria, and this was the most reasonable figure. One GSC member explains:

> *But I think that some colleagues with experience in biodiversity recommended or found references saying that one hundred metres should be a minimum. Now a point of debate is that some national regulations would state less, like 50 metres of 75 metres or whatever.*[30]

I did not interview the Global Steering Committee members that were said to have come up with these numbers in Principle 2. However, I explored documents to find the origin of these numbers. In the Standard, coastal barriers are considered permanent natural or artificial barriers between a farm and marine or aquatic environments (Aquaculture Stewardship Council, 2014: 39). The Standard mentions that coastal mangrove buffers are mostly between 100 metres to two kilometres in width (Aquaculture Stewardship Council, 2014: 39). There is a reference of a study conducted by the FAO on 'Integrating Aquaculture into Rural Development in Coastal and Inland Areas' (Aquaculture Stewardship Council, 2014: 39), showing an example of a successful integration of rural development and coastal aquaculture in Thai Binh Province in Vietnam and how it addressed the issues of typhoons. It states that in Vietnam the best way to protect from typhoons is by:

[29] Interview 5
[30] Interview 27

> *planting a mangrove buffer zone in front of the sea-dyke system to reduce the water velocity and wave strength striking the defences, and to absorb some of the wind energy (if the mangrove trees are tall enough). Various nongovernmental organization (NGO) supported projects helping to plant mangrove buffer zones (ranging from 100 m to 2 km wide) along much of the coastline.*
>
> (Haylor & Bland, 2001: 77)

This example thus refers to planting a buffer zone in front of a sea-dyke, and the distances are based on what NGO involved projects considered worth to support. I am not sure if from this case one can conclude that coastal mangrove buffers are commonly from 100 metres to two kilometres in width. This distance of 100 metres is also used as a measure between farm and lagoon, or farm and lake.

Where did the 25 metres between natural rivers come from? Again, I did not interview the people that were said to have come up with this numbers, but I looked up references. In the footnote of the ASC Standard it is already stated that:

> *[…] there is no one-size fits-all description of an ideal riparian buffer strip. While other ASC Shrimp Standard addresses water quality and salinization, recommended widths for ecological concerns in buffer strips typically are much wider than those recommended for water quality concerns .*
>
> (Aquaculture Stewardship Council, 2014: 39)

The reference that is placed with this footnote, refers to a study on riparian buffers in Denty County, Texas, on riparian buffers in the United States. When I looked for the 25 metres, I could find:

> *Little information is available on the relationship between riparian width and herpetofaunal communities. In general wide riparian areas support more amphibians and reptiles than narrow areas. In the south eastern United States, Dickson (1989) determined that streamside zones >30 m (98 ft) wide supported more amphibians and reptiles than narrower (i.e.,<25 m (82 ft)) zones in southern forests.*
>
> (Barry, Hoffman, Dickson, & Zimmerman, 1999: 6)

The other study refers to the width of riparian buffers for birds, also conducted by the US Army Engineer Research and Development Centre (Aquaculture Stewardship Council, 2014: 39). If the Standard already indicates that there is no one-size fits all rule for riparian buffers, and then finds a 25 metres barrier from a study done in South Eastern US in 1989, it seemed that the GSC desperately wanted something measurable.

Since the GSC did find it difficult to come up with a universal rule, even though they had defined a minimum, they decided to have a B-EIA. The B-EIA provides context-dependent expertise on Mangrove ecosystems as well as: Other natural wetlands; Areas of ecological importance; Critical habitats of endangered species; Coastal barriers; Riparian buffers; Corridors; Saline water; Freshwater wells; and Adjacent land ecosystems. Thus the B-EIA covers nearly all areas expressed in Principle 2. The expertise was somehow transferred from the GSC to B-EIA experts to provide context-dependent knowledge. The Thai farmers commented on this shift during a workshop that was part of the second public comment round:

Why doesn't the ShAD specify what habitats are critical, Thai farmers can protect those areas, but paying for an outside organization to tell Thai people what is critical habitat for Thai species seems unfair.

(ShAD, 2011: 90)

They did not agree with this impact assessment. Who was trusted with the expertise to conduct this impact assessment? The final draft indicates that the B-EIA must be carried out by a nationally accredited body. And where no such body exists, farms must ensure that the B-EIA team has competent and qualified environmental scientists, biologists and ecologists with a Master of Science degree as a minimum (Shrimp Aquaculture Dialogue, 2011: 80). Apart from the B-EIA assessor there is also an environmental auditor to assess if the farm complies with the rules. They determined that two auditors are required to audit a farm site, one for social and one for ecological issues.

5.2.4 ENVIRONMENTAL SUBJECTS

This section analyses the environmental subject. Who were managing the Principles? In negotiating the Standard there were some concerns about neglecting the interests of smallholder farmers. The B-EIA for example drives up the costs of becoming certified and these costs do not live up to the benefits that producers gain from it. Cluster certification was suggested as a solution, so the farmers could share the costs of such an assessment (ShAD GSC, 2010b; ShAD, 2011). As a reaction, the GSC decided that a distinction is to be made between the B-EIA for small farms and large farms. On large farms, the accessor needs to be an accredited EIA expert whereas a smaller farm can hire someone from an NGO (Shrimp Aquaculture Dialogue, 2011). The GSC thus did make it easier for smallholder farmers to conduct a B-EIA, adjusting the criterions for hiring an expert, which would enable them to have a B-EIA conducted. Also the buffer zones were criticised in the context of the Asian smallholder farmer (ShAD GSC, 2010b; ShAD, 2011). Small farms were excluded because of these buffer zones: they are located very closely to each other because certain areas are densely populated and people have limited land resources. The metrics that are defined by the GSC only allowed large scale farmers to become certified. The small farms did not get an exemption from the buffer zones and coastal barriers (Shrimp Aquaculture Dialogue, 2011). The only exception for smallholder farmers in comparison to large scale farmers was to hire a more expensive team of experts.

5.2.5 THE VARIABLES

The variables were negotiated and renegotiated in the following manner. The environmental space of the standard remained to be the farm site, but it now extended into the buffer zones and barriers that are beyond the farm site.

The shrimp Standard was based on, but not bounded by, the International Principles for Responsible Shrimp farming that already defined objects of concern for which farmers were responsible. During the negotiations of the shrimp standard, the objects of concern did not change considerably: the ASC standard also addressed endangered species, buffer zones and barriers, salinisation levels, and mangroves and

wetlands. The structure of the ASC Standard did change in comparison to the Consortium principles., The Consortium principles were general and the ShAD aimed to specify the principles for them to become measurable and implementable. One object of concern that was added to the ASC Standard was the Biodiversity-Environmental Impact Assessment (B-EIA). Although this object initially was a method through which other biodiversity and the context dependent issues related to the environmental impacts of the shrimp farm on its surroundings were measured, the B-EIA became an object in itself, since it also had to be conducted if there were no issues with the objects the B-EIA had to measure. It became another responsibility for farmers to take care of.

One point of common criticism was that smallholder farmers were not able to comply with the standard. The Global Steering Committee responded to these comments that it is the task of the ASC to take this further, but at the same time they made it easier for smallholder farmers to hire a consultant to conduct a B-EIA.

The ASC standard initially had to be measurable. Nevertheless, the ShAD members could not always come up with quantifiable indicators, and when they could not, they decided that an independent assessor would conduct the B-EIA and act as the one to decide if the farmer is able to comply to the Standard. Hence, the expertise that was in the ShAD was transferred to the consultant conducting the B-EIA.

Table 6: Environmental variables in negotiating the Standards

Space	Objects	Subjects	Experts	Expertise
Farm site, plus buffer zones, barriers and riparian buffers	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.	Twenty percent top performers industry. Mainly based on non-Asian context and only a few exceptions for smallholder farmers	Biodiversity experts The B-EIA experts has context-specific knowledge	Metric based and context dependent via B-EIA.

5.3 FROM DRAFT TO IMPLEMENTATION

The final draft of the Shrimp Standard was finished in December 2011, after which the standard was handed over to the Aquaculture Stewardship Council (ASC). The ASC translated this final draft into the first version of the shrimp standard and into an audit manual, which are documents used by the auditors to certify the farmers. This paragraph discusses how the five variables changed within principle 2.

5.3.1 TRANSLATION INTO THE AUDIT MANUAL

The standard was translated into an audit manual. To illustrate how this went, the criterion of the B-EIA is discussed. The first indicator on the Biodiversity- Environmental Impact Assessment is:

Farm owners shall commission a participatory B-EIA and disseminate results and outcomes openly in locally appropriate language. The B-EIA process and document must follow the outline in Appendix A.

(Aquaculture Stewardship Council, 2014: 24)

The Audit manual specifies auditor tasks such as:

Verify farm has a B-EIA report and that the methodology adopted complied with Appendix I. Go through Appendix A checklist point by point. Ensure farm is following B-EIA recommendations and monitoring protocol. Verify the farm is familiar with Appendix A, the B-EIA and that they have been implementing the findings. Verify that workers are aware of the B-EIA content and the measures needed to palliate/compensate the operation effects on the environment.

Additional comment:

During local community interviews, verify that stakeholders were consulted in the B-EIA research by the ecologist. Records from meeting with stakeholders (community) to collect information for the B-EIA development. During surveillance audits verify the implementation of the B-EIA action/monitoring plan.

(ASC, 2014: 2)

Thus the auditor is required to check whether the B-EIA exists, whether the methodology complies with Appendix I; and that the farm follows a defined monitoring protocol. The auditor also needs to verify that farm workers and the local community were involved. The manual further addresses expertise of the assessors of the B-EIA. The Standard specifies expertise of the people conducting the B-EIA as follows:

The B-EIA shall be carried out by a nationally accredited body. Where no accredited body exists, farms must ensure that the B-EIA team consists of ***competent and qualified environmental scientists***, ***biologists*** *and* ***ecologists*** *with* ***a minimum of a Master of Science degree from a university****.*

(Aquaculture Stewardship Council, 2014: 113. Bold emphasis added)

When there is no national accredited body, according to the Standard the B-EIA team is allowed to have a competent Master of Science degree environmental scientists, biologists and ecologists. The audit manual, however, reformulates this requirement. It specifies the expertise to be rendered by a university employed ecologist, or an ecologist with peer reviewed publications within the last 5 years:

In countries where there is no formalized accreditation process, there is the option to ***use an academic (university-employed) ecologist, or an ecologist with peer reviewed publications within the last 5 years****. The name of the ecologist will appear in the publically available report to ensure accountability. Farm has to demonstrate that they are implementing recommendations made in the B-EIA and that a B-EIA monitoring protocol is established. Reviewed every 6 years by relevant assessors or ecologist. During each surveillance audit the B-EIA action/monitoring plan will be monitored.*

(ASC, 2014: 2. Bold emphasis added)

Thus the standard and the audit manual differ, and the audit manual has a stronger criterion than the standard itself.

5.3.2 EXPERTISE OF THE AUDITORS

Auditors work at Conformity and Assessment Bodies (CABs) that visit farms to assess if a farm complies with the standard. Auditors are registered with the ASC and have to complete and pass an ASC training. They have to be qualified and competent as described in the Certification and Accreditation Requirements (CAR) which lists audit requirements (Aquaculture Stewardship Council, 2012). To illustrate what the list consists of, audit teams as a whole need to have knowledge of the relevant national and local laws, such as environmental laws and workplace safety laws. They need environmental expertise, which they define as: *environmental science and technology, environmental management methods and aspects of aquaculture operations* (Aquaculture Stewardship Council, 2012: 13), which includes, amongst others, environmental issues in the area of the operation, the management of natural resources and environmental protection (Aquaculture Stewardship Council, 2012). In addition to technical competences, every auditor and technical expert needs to have qualifications such as analytical skills, audit training, diplomatic skills and ethical skills (Aquaculture Stewardship Council, 2012). Also, there are special competencies for lead auditors, who have the overall responsibility over a specified audit. Every audit team needs a lead auditor who needs to have additional competencies such as audit experience, detection skills and interpersonal skills (Aquaculture Stewardship Council, 2012).There are additional competencies which are needed for group audits. (Aquaculture Stewardship Council, 2012) To summarise, the list of competencies and skills required in an auditor is long and normative. These skills of auditors are checked by the ASI via witness assessments. This is when the ASI joins an audit to assess the auditors.

5.3.3. VARIABLES

After the draft standard was handed over to the ASC, it was translated to an ASC standard and into an audit manual. In the audit guidance some criterions were specified. These were sometimes different from what was stated in the standard, for example, the qualifications of a B-EIA expert, which according to the standard is someone with an MSc diploma, and according to the audit manual an ecologist hired by a university or having published five articles (so rather someone with a PhD status). Thus there is room for manoeuvre in adapting the audit manual from the standard. The Certification and Accreditation requirements of the ASC describe what expertise the auditors should have. The list of qualifications is long and normative, and the ASI checks these soft skills via the witness assessments. This shows that in the environmental part of the translation phase, the objects, subjects and space did not change, but the expertise was specified.

Table 7: Environmental variables in the translation of the Standard

Space	Objects	Subjects	Experts	Expertise
Farm site, plus buffer zones, barriers and riparian buffers	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.	Twenty percent top performers industry. Mainly based on non-Asian context and only a few exceptions for smallholder farmers	B-EIA impact assessors and auditors	B-EIA: academic (university-employed) ecologist, or an ecologist with peer reviewed publications within the last 5 years. Auditors need to comply to a long list of competencies.

5.4 IMPLEMENTATION

After the first Conformity and Assessment Bodies (CABs) were accredited to certify, the first farms entered the process of certification. This phase discusses the time from the moment that the first farm was certified in September 2014 until April 2016. The timeline in the appendix shows this period. This paragraph, again, explores how the five variables changed in this time period.

5.4.1 SUBJECTS

Paragraph 4.4 already explored who became certified and who did not. Certified farms mainly have the following characteristics. They are a) large-scale farms; b) that is vertically integrated with other value-chain sites or has a close relationship with a processing plant; c) exports to Europe; d) has other certificates; e) has a relationship with the WWF; f) is connected to a network of ASC experts, such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; and g) has a government that is in favour of certification and somehow stimulates certification.

In interviewees I sometimes discussed that only largescale farmers achieve ASC certification and smallholder farmers do not. Interestingly, two interviewees of WWF stated that it is an issue that only the large-scale farmers are becoming certified because the small-scale extensive shrimp farmers also have a considerable negative environmental impact and therefore they should be targeted too. The large-scale farmers with close systems are already doing well in environmental terms, but the small-scale extensive shrimp farmers do not. Hence, small-scale farmers are sometimes considered environmental bad guys, and large-scale farmers as environmental good guys.

4.4.2 ENVIRONMENTAL EXPERTISE

The second principle in the ASC Standard addresses several objects of concern such as protected areas, critical habitats of endangered species, coastal barriers and saline water. These objects of concern did not change in the implementation. But how are they addressed through an audit? This section looks into the expertise during the implementation of the standard. The expertise lies mainly in the hands of the auditor and the impact assessor who conducts the B-EIA.

When an auditor makes an assessment she checks the B-EIA for several criterions (see Appendix 6), and she verifies observations with members of the local community and with workers. In addition she consults satellite imagery, checks websites, looks at farm records, and talks with local government representatives. Only the salinisation levels are actually being measured. The auditor thus involves herself with many activities that are not that metric-based.

Auditing the first principle on the B-EIA is illustrative of what the auditor does. An auditor does not need to have expertise on biodiversity. She need to follow a checklist with questions related to the process (are the stakeholders listed, are there meetings attached, is the expert valid, etc.) and which she has to answer with yes or no. She needs to verify that all elements in the B-EIA are covered (the type of farming, an

analysis of opportunities and constants for biodiversity, expected biophysical changes); and to check the proposed methodology and timescale (Aquaculture Stewardship Council, 2014: 120-123). The audit reports of the certified farms in Vietnam show that the auditor sometimes gives comment on how the B-EIA was conducted. This happened six times in fifteen audit reports, whereby one audit company was critical on the B-EIA only once, and the other audit company had critique on the B-EIA conducted on almost half of the audited farms. The critiques covered inaccuracy of measuring salt water used for the farm, missing community signatures, lack of evidence that the B-EIA has been communicated with the community, undefined GPS coordinates. Because of these critiques, the farmer had to request the B-EIA consultants to visit again and improve their studies. The work of the auditor is mainly based on documentation and the specific expertise comes from the B-EIA consultant (team). The auditor is a cross-checker.

In December 2015 new Certification and Accreditation Requirements were published that came into force in June 2016. Not much changed in relation to the criterions of the audit team. But what did change was that the audit team was required to have knowledge and experience in the species or other subject of the standard being audited. In other words, auditors needed to have some knowledge and experience of shrimp farming, whereas before they did not need this.

The more specific expertise for assessing environmental impacts of the farm comes from the B-EIA. The B-EIA provides details about almost all the other objects of concern. A consultant who frequently conducts B-EIAs explains how the process is in practice:

> *Each time about two or three days to collect the documents, and some research to learn about this area to understand about the ecosystem, about the population and the soil, and it takes about two or three days. If the information is available. If the information is not available it takes longer. And then we ask the farm to send an e-mail to us what documents they have, about the farm map, about the regulations, about the contracts with their workers, about everything they have. And we read about it and then we go to this farm to meet the stakeholders. And we collect and we gather and we go back. Analyse this and write a report and we go to the farm again and we ask all stakeholders to come and we report the work and the how, and ask their ideas and opinions. And if there is any problem about the requirements, about the social, about the decease management and community livelihoods, we ask them about solutions. And then after that we finalize the writing and write the report.*[31]

The length of the process depends on the size of the farm, on how many of the documents needed are with the farm already, and on how complex the situation is. The process is participatory, involving the local communities. According to the consultant, this involvement also causes some issues, because some communities are not familiar with the environment in the terms of the Standard. The consultant explains that:

> *They mainly care about their livelihood and anything related to their livelihood. Anything else they don't have much. Because they have a low awareness. So we ask something about, something relating the livelihoods, they*

[31] Interview 12

speak out loud, but something else about, like, the water management, about the soil quality the management, they talk little, you need to ask more about this. And about the natural conservation they don't care much. Like we have of course the white leg shrimp, it is not a native species. And if they come out the pond, they can harm the local ecosystem, and if we ask what is the problem with the local community: 'I don't know, I think it is no problem! If the shrimp comes out I catch it, it is good for my livelihood! It is good, it is not bad!'. Haha[32]

The consultant believes that it would improve the B-EIA if there would be a member of the community who would be part of the assessment team to write the B-EIA. According to a B-EIA consultant, it would be difficult however to find someone with the capacity to do this. According to the Standard, no-one of the community needs to be part of the team of experts.

The expertise of the people conducting the B-EIA depends on the size of the farm. For large farms or groups of farms a small team with relevant academic expertise is required (Aquaculture Stewardship Council, 2014: 119). Medium-scale farms or groups of small farms or individual small farms hire an academic ecologist or a conservation civil society organisation that is familiar with the area and its ecosystem (Aquaculture Stewardship Council, 2014: 119). As mentioned before, the audit manual states that in countries where a formalised accreditation process is absent (which apparently is necessary for hiring a B-EIA consultant) there is an option to use an academic ecologist or an ecologist that has peer reviewed publications within the last five years (ASC, 2014: 2). The audit manual is thus stricter than the standard.

But what people are actually conducting the assessments? In Vietnam, eleven B-EIAs were performed by the same consultancy company. Of this consultancy company there are three people that were the head of the B-EIA team, and all were environmental scientists. In the other audits it was not clear what the consultancy company was. The people conducting the B-EIAs (of the eleven audits of which the names are known) had an MSc in Environmental Science, Forest and Environment, Biology, or Agricultural sciences. The experts had participated in projects for biodiversity, in government and NGO projects for environment protection or in management. The audit reports do not specify that the assessor is a university-employed ecologist, or an ecologist with peer reviewed publications within the last 5 years. Thus compliance criteria of the audit manual appear not to be followed.

One interviewee mentions that differences between the B-EIAs are large. Some B-EIAs are short while others are extensive, with a mangrove specialist looking at mangroves and an ornithologist looking at the birds. But the consistency between the reports is not considered. Another interviewee also mentions that it is not clear what the level of detail of the B-EIA should be. The more detailed the study, the more expensive the study is. Since the farmer has to pay for the costs of the study himself, there might be a preference for having a study that is less detailed. The costs of the B-EIAs are considered high, but differ among regions and among consultancy companies. The size of the farm also influences the level of these costs.

[32] Interview 12

B-EIAs are not published on the ASC website, so it is difficult for stakeholders to assess them. The Standard states that farm owners have to disseminate the results and outcomes of the B-EIA openly in locally appropriate language (Aquaculture Stewardship Council, 2014: 24). At the moment the B-EIA reports are not made public. One consultant has asked the Audit companies for the B-EIAs, but they did not send them. Sometimes one can assess them via a local authority or via the consultant who conducted them, but the B-EIAs are often written in a local language, and therefore certain stakeholders or NGOs cannot read the documents. The standard and the audit however, are written in English. Thus there are differences between the required language and the type of document. The new CAR requires the CAB to report all audit evidence in the audit reports. Audit evidence is defined as: *all the records, statements of fact or other information which are relevant to the audit criteria and verifiable. Audit evidence can be qualitative or quantitative* (Aquaculture Stewardship Council, 2015: 35). The reports, however, are still written in local language, so it might not be possible for everyone to check them.

4.4.3 THE BOUNDARIES OF ENVIRONMENTAL SPACE

The focus of ASC Standard is the farm site. However, some space outside of the farm is considered the farmer's responsibility, in order for him to become certified. The first criterion concerning the barriers is described in table 8.

Table 8: Criterion 2.4.1

Coastal barriers: minimum permanent barrier (or natural) between farm and marine environments	As defined in legislation at the time of construction, or as determined is necessary by the B-EIA, or following the indications in the Guidance below, whichever is greater.

Source: (Aquaculture Stewardship Council, 2014: 38)

The guidance states that: *For coastlines, lagoons or lakes, the zone of natural or restored vegetation must be 100 meters wide* (Aquaculture Stewardship Council, 2014: 40). The audits that have taken place in Vietnam show that the shrimp farms that are certified are all at least 500 metres away from the coast (Aquaculture Stewardship Council, n.d.-b). In Vietnam, the local government requires the farm to be built at least 500 metres away from the sea, so as to protect the shore. Therefore it is not really an issue in Vietnam. Also, the government assigned certain areas for shrimp farming. In Thailand, however, the tidal zone might not even be 100 metres and might not have been covered with marine mangrove species. An interviewee explains:

> *I started working in shrimp farming in Southern Thailand and I can tell you that there are shrimp farms that are converted out of rice paddies and that is was never tidal, it was never mangrove, it was selenite. And they are, maybe, thirty metres, twenty-five metres from the shore. And so, they should not be penalised under this mangrove issue, because A) the land was never mangrove in the first place. And B) they know, the ecology right to the shoreline there, was absolutely placed on a rice paddy.*[33]

[33] Interview 23

Not only in Thailand, but also in the Philippines, there are farmers who can never get ASC certified because they are in the wrong area. Hence, certain localities are excluded from becoming certified for the ASC. Riparian buffers are defined as Table 9 illustrates.

Table 9: Criterion 2.4.2	
Riparian buffers: Minimum width of permanent native and natural vegetation between farms and natural aquatic/brackish environments.	As defined in national legislation at the time of construction or as determined is necessary by the B-EIA, or following the indications given in the Guidance below, whichever is greater.

Source: (Aquaculture Stewardship Council, 2014: 38)

The guidance states that:

> *For coastlines, lagoons or lakes, the zone of natural or restored vegetation must be 100 meters wide. For confined natural watercourses, such as rivers or streams, the zone of natural or restored vegetation must be at least 25 meters wide on both sides. Canals constructed after the release of the Standards cannot replace natural waterways.*
>
> (Aquaculture Stewardship Council, 2014: 40)

An auditor explains that in Vietnam, the ecological buffers can be the knock out, or the reason why farms cannot become certified. It is also typical for densely populated areas, such as in Asia, that farmers build their ponds close to the rivers. Farmers need to sacrifice some land in order to make a buffer zone, but the land is already fully occupied by ponds. In Madagascar and Belize, where the shrimp farms typically have more space, this is not much of an issue. An interviewee explains:

> *But you know, these issues, these are not issues in countries like Belize, where there are only a few farms and a lot of space, and they developed the farms on very large properties and they have the chance to just locate the ponds where it was making sense and they did not need to get into, to get close to the wetlands. But in a country like Thailand where the concentration of ponds in summer is very large, then people have developed closer to the natural areas and wetlands.*[34]

The principle that relates to a river, is only applicable if it concerns a natural river. In Vietnam, if the farm owner has evidence that a lake or river is artificial, he does not need to comply with the principle. Most of the certified farms are close to artificial rivers.

Table 10: Criterion 2.4.3	
Corridors: Minimum width of permanent native or natural vegetation through farms to provide human or native wildlife movement across agricultural landscapes.	As defined in national legislation at the time of construction, or as determined necessary for wildlife by the B-EIA, or access issues identified during B-EIA/p-SIA. Needs for wildlife movement identified during B-EIA

Source: (Aquaculture Stewardship Council, 2014: 38)

In the case of the corridors, no measurable numbers are specified as a minimum requirement to which a farmer should comply. The required size of corridors depends on the B-EIA and the p-SIA. According to

[34] Interview 27

the reports of audit that took place in Vietnam, in nine out of sixteen cases there is no need for a buffer zone, while in the remaining cases the existing corridor is adequate. According to the reports, the local community never mentioned that they would want to use the corridors (Aquaculture Stewardship Council, n.d.-b). A B-EIA consultant in Vietnam also states that the corridors are not an issue for farmers.

4.4.6 THE VARIABLES

This paragraph shows how the five variables: space, objects, subjects, experts and expertise have changed from the moment the first farm became certified in September 2014 until April 2016. The objects of concern are still the same. The farms that are ASC certified are mainly large-scale. Small-scale farmers are sometimes seen as environmental bad guys. The expertise in this implementation phase is defined by the people who conduct a Biodiversity-Environmental Impact Assessment; university educated people with a Masters' degree in Environmental Science or a similar field and with some kind of background in biodiversity projects. They have the expertise understand most of the objects of concern that are assessed through the B-EIA. They have the mandate to determine if a farm complies to the standard or not. Environmental auditors have to base this decision on reviewing impact assessments, checking the law, verifying with workers and local community members, doing direct observations and measuring salinisation levels. The space of which the environmental impact is assessed is larger than the farm site itself. The farmer also has to take into consideration the direct surroundings of the farm, including a strip of natural vegetation with a minimum width.

Table 11: Environmental variables in the implementation of the Standard

Space	Objects	Subjects	Experts	Expertise
Farm site, plus buffer zones and riparian buffers	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.	Mainly large-scale farmers. Small-scale farmers are sometimes considered as the environmental bad guys.	B-EIA impact assessors have context specific knowledge. Environmental auditors	Master's degree in Environmental Science and related studies Environmental auditors mainly check documents, and check with local community members, workers, local authorities and do some measurements.

5.5 CONCLUSION

In the ASC standard for Responsible Shrimp farming, Principle 2 addresses the environmental impacts of the farm. Principle 2 is: *Site farms in environmentally suitable locations while conserving biodiversity and important natural ecosystem* (Aquaculture Stewardship Council, 2014: 23). This chapter investigates how the objects of concern, the subjects, the expertise and the space have changed over time, and therefore how the boundaries changed.

In the beginning of the process, the idea was that the farm site was the only site for certification. This boundary was also considered during the negotiation rounds, when there were some discussions about

the level of certification. However, in the end the environmental space of the farm site included space outside of the gates of the farms. Thus the farmer should take care of buffer zones with native vegetation and coastal barriers outside of the gates of the farm. The required size of these buffer zones and coastal barriers is defined by the B-EIA, by the legal requirements of the country or by guidance developed during the ShAD or by the ASC, whichever is greater. This space is assessed by the environmental auditor.

Table 12: Development Space over time

Entering the Certification Market	Negotiating the Standard	Translating the Standard	Implementing the Standard
Farm site	Farm site, plus buffer zones, barriers and riparian buffers	Farm site, plus buffer zones, barriers and riparian buffers	Farm site, plus buffer zones and riparian buffers

The objects of concern were shaped by the International Principles of Responsible Shrimp farming, which were adopted by the FAO Department of Fisheries in 2006. Through a multi-stakeholder negotiation process, some objects have been removed and others have been added. Areas that have already reached carrying capacity for aquaculture, unproductive ponds, degraded areas, self-pollution and biosecurity are not addressed in the ASC Standard but they were addressed in the Consortium's principles. This change indicates that there is a shift from the larger area to the farm, as the unit of space for certification. Areas that already have reached carrying capacity are not addressed in the ASC standard. That self-pollution is not addressed in the ASC principle indicates that the farmer is not seen as a victim of his own practices. Another change in comparison with the International Principles is that the Biodiversity-Environmental Impact Assessment has become an object of concern. A farm must have a B-EIA, even if it is not situated in an area that constitutes a risk for biodiversity; hence making it an object in its own. After the Standard was negotiated the content of these objects did not change but the way they were assessed differs between audit companies.

Table 13: Development of environmental objects of concern over time

Entering the Certification Market	Negotiating the Standard	Translating the Standard	Implementing the Standard
• Biodiversity; • Ecologically sensitive habitats; • Ecosystem functions; • Surrounding ecosystems; • Fresh groundwater.	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.

The subjects of the ASC Standard were first defined by the theory of change that the WWF had applied in Aquaculture Dialogues in general. The idea was that the top twenty percent of producers would be able to comply with the Standards and that the rest would follow suit. During the negotiations of the Standard, people involved in the committees felt that they were bound by this boundary. Nevertheless, the boundary was questioned both within and outside the Global Steering Committee. It was questioned whether it should be made easier for smallholder farmers to comply with the Standard or not, and whether smallholder farmers would belong to the top 20 percent of production. In the environmental indicators an exception is made for smallholder farmers to make it easier for them to hire someone to conduct a

Biodiversity-Environmental Impact Assessment, but in the rest of the principle, there are no exceptions for smallholders specifically. Hence, it seems that they are considered to have to comply with the same environmental boundaries as large-scale farmers do. When looking at the farms that actually became certified for the Standard, it seems that the following boundaries apply: The typical ASC certified farm is a) a large-scale farm; b) that is vertically integrated with other value-chain sites or has a close relationship with a processing plant; c) exports to Europe d) has other certificates e) has a relationship with the WWF f) is connected to a network of ASC experts, such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; g) has a government that is in favour of certification and somehow stimulates it. It however can be questioned if these characteristics constitute the top 20 percent of production targeted in the theory of change, or that other factors play a role in who is able to become certified and who is not. Smallholder farmers are not seen by everyone as people who should be able to comply to the standards; but rather considered to be environmental bad guys.

Table 14: Development of environmental Subjects over time

Entering the Certification Market	Negotiating the Standard	Translating the Standard	Implementing the Standard
Twenty percent top performers industry	Twenty percent top performers industry. Mainly based on non-Asian context and only a few exceptions for smallholder farmers	Twenty percent top performers industry. Mainly based on non-Asian context and only a few exceptions for smallholder farmers	The farms that are certified mainly have the following characteristics: a) large-scale farms; b) that is vertically integrated with other value-chain sites or has a close relationship with a processing plant; c) exports to Europe d) has other certificates e) has a relationship with the WWF f) is connected to a network of ASC experts, such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; g) has a government that is in favour of certification and somehow stimulates certification. Smallholder farmers are also seen as environmental bad guys.

The experts who were involved in the process were first people of international organisations and people of the WWF who were part of the Consortium on Shrimp Farming and the Environment. During the multi-stakeholder process that followed, several people were involved in developing the Standards. Although there was a lengthy process in which a lot of people participated, the people with most power to decide what would be in the Standard where members of the Global Steering Committee. Two or three GSC members were mainly involved in developing Principle 2. They were involved in developing Principle 3 Too. These GSC members had the feeling that they had to develop a measurable Standard, because this was part of the Theory of Change of the Aquaculture Dialogues. Sometimes, however, it was difficult to develop measurable indicators, and it was also not always possible to find universal measures that were applicable in all contexts. Over time fewer indicators in the standards were actually measurable, and even these were replaced or complemented by a Biodiversity-Environmental Impact Assessment that could give context-dependent information on responsible practices. Thereby the expertise of the GSC was also transferred to the B-EIA experts, and from there defined differently in different documents. The Standard

indicated that the expertise was to be with at least a MSc level ecologist, although the audit manual indicates someone with more or less a PhD level education. In the context in Vietnam, the B-EIA is conducted mostly by people with a MSc background in Environmental Sciences. Another expert who can assess if a farmer complies to the Standard is the environmental auditor, who originally was thought of as a person visiting the farm and measuring farming impact, and thereby being able to determine if a farmer farms responsibly., Such measuring is restricted to salinisation levels; for the rest he reviews documents, impact assessments, lists and reports, and he has to verify his information with workers and local community people. Hence, it can be questioned how measurable principle two of the standard is.

Table 15: Development of environmental experts over time

Entering the Certification Market	Negotiating the Standard	Translating the Standard	Implementing the Standard
Consortium	Mainly NGO members that had time, money, that spoke a certain language and were in favour of certification. Also some industry members and others. The B-EIA experts has context-specific knowledge	B-EIA impact assessors and auditors	B-EIA impact assessors have context specific knowledge and environmental auditors

Table 16: Development of environmental Expertise over time

Entering the Certification Market	Negotiating the Standard	Translating the Standard	Implementing the Standard
Metric-based	Metric based and context dependent via B-EIA. Not much shrimp farming expertise at the ShAD	B-EIA: academic (university-employed) ecologist, or an ecologist with peer reviewed publications within the last 5 years. Auditors need to comply to a long list of competencies	Mainly Master's degree in Environmental Science Environmental auditors mainly check documents, and check with local community members, workers, local authorities and do some measurements.

6. THE SOCIAL IMPACTS OF THE SITE OF THE SHRIMP FARM

The previous chapter discussed Principle 2 of the Aquaculture Stewardship Council's Shrimp Standard. The Standard makes a division between Principle 2 and Principle 3; Principle 2 has environmental impacts as a topic and Principle 3 focuses on social impacts. The development of this third principle is the subject of this chapter. Principle 3 is: *Develop and Operate Farms in Consideration for Surrounding Communities* (Aquaculture Stewardship Council, 2014: 44). The aim of this chapter is to explain how this principle came into being and how it was elaborated. More specifically, it explores how the five variables: space; objects; subjects; experts; and expertise changed over time, if at all. Just as the previous chapter, this chapter is divided into four time periods: 1) Entering the Certification Market; 2) Negotiating the Standard; 3) Translating the Standard; and 4) Implementing the Standard. At the end of the chapter it is assessed whether and how the five variables: space, objects, subjects, experts and expertise changed over time.

6.1 – ENTERING THE CERTIFICATION MARKET

Principle 3 of the ASC Standard on Responsible Shrimp Farming has been formulated for a reason. This paragraph aims to explain how the impact of shrimp farms on the surrounding community became an issue. It discusses the social issues in shrimp farming, how the consortium addressed these, and how the first boundaries of the standard influenced the variables.

6.1.1 SOCIAL ISSUES IN SHRIMP FARMING

From the 1980s the shrimp farming industry grew and intensified (Hall, 2003). Land was needed in order to construct shrimp ponds and this resulted in changing land relations (Hall, 2003). The ownership of land was not always clear and in some cases land was exploited by shrimp farming companies that received an illegal land title. This sometimes happened through corruption involving companies with links to the military and the government. The destruction of mangroves also had social consequences (Hall, 2003). Fish living in these ecosystems disappeared and as a result the income and food supply of local communities decreased (Hall, 2003). Another social issue involves access of fishers and landless people to the coast or fishing grounds because fences were placed around the ponds. Conflicts between farmers occurred as well. As mentioned, shrimp farming influences ground water and polluted or a decreased level of groundwater effects local agriculture. In Bangladesh conflicts between rice and shrimp farmers became violent. There were instances in Thailand where the salt water of the shrimp ponds overflew and destroyed the rice crops of neighbouring farmers. Shrimp farming in itself is vulnerable to economic malaise, as the animals are sensitive and susceptible to diseases. It can result in substantial revenues and large losses that influence social relationships. Shrimp farms are often placed in poor areas and fluctuations in wealth may lead to inequalities in livelihoods. It is not uncommon that shrimp are stolen, which again results in conflicts.

Some interviewees stated that social issues in Asia (especially South-East Asia) were less frequent compared to Latin-America. Some interviewees stated that these social issues were generalised into the Asian context, although it was not happening to the same extent as in Latin-America. They also mentioned that the extent to which land was 'grabbed' by shrimp farms was limited in Asia because of the density of the population. Nevertheless, conflicts occurred. Land that was used for shrimp farms in South-East Asia was legally claimed by the state, but sometimes inhabited by communities (Hall, 2003). Communities that previously managed such land were sometimes driven off their land, and this was sometimes accompanied with violence (Hall, 2003).

In the 1990s advocacy groups and scientists targeted social issues of shrimp farming, such as ruining communities and human rights abuses, and NGOS organised consumer boycotts of farmed shrimp (Béné, 2005; Havice & Iles, 2015; Vandergeest, 2007). Several reports were published on this topic, such as a report of the Environmental Justice Foundation and US WildAid, which stated that people opposing shrimp farming were intimidated and aggressively approached (Béné, 2005). This report also claimed that people were killed and murdered in relation to the shrimp industry in almost every country where it took place (Béné, 2005). When certification and the development of aquaculture standards started in the first decade of the 2000s, there was fierce opposition from NGOs against certification as such (Vandergeest, 2007; Interviews). One of the arguments was that farms that had caused people to move out and traditional users were rewarded by getting certified. The 'NGO Forum on Shrimp Farming' also criticised a lack of involvement of local communities and indigenous people to participate in the creation of certification schemes in aquaculture (Vandergeest, 2007). In 2007 some NGOs in the South decided that they did not want to engage in any certification programme. One of the social issues of shrimp farming was thus certification in itself.

6.1.2 THE CONSORTIUM ON SHRIMP FARMING AND THE ENVIRONMENT

In 1999 the Consortium on Shrimp Farming and the Environment was created. The name of the Consortium already suggests that environmental issues were to be addressed. A report that the Consortium issued had a chapter on 'Employment and Social Issues' but it has no references to articles on conflicts and social unrest, even though several peer reviewed articles existed (Béné, 2005). In relation to the extensive work on environmental issues, the social issues are marginalised in the report (Béné, 2005).

In the International Principles on Responsible Shrimp Farming that were published by the Consortium in 2006, social responsibility was identified as an issue. One interviewee mentioned that the focus of the Consortium was on showing how farms could be constructed and managed that minimised or altogether avoid conflicts. One principle was attributed to social responsibility: *Develop and operate farms in a socially responsible manner that benefits the farm, the local communities and the country, and that contributes effectively to rural development, and particularly poverty alleviation in coastal areas, without compromising the environment* (FAO/NACA/UNEP/WB/WWF, 2006: 11). The objects of protection are the local community and the environment. The farm and the country are mentioned as well, just as rural development and poverty alleviation in coastal areas. In the implementation guide of the principle these

objects of concern are also described: worker welfare; fair working conditions; smallholder farmers for whom the risks should be minimised, and; trainings to farmers and workers.

6.1.3. THE FIRST BOUNDARIES OF THE STANDARD

In the beginning of the 2000s some standards already existed. They were criticised because they did not directly pay attention to social issues in a proactive way and because local communities were not involved in the creation of these standards (Boyd et al., 2002 in: Vandergeest, 2007). The focus of standards began to change: In the creation of the EUREP GAP, Oxfam Novib and IUCN were involved to include this focus.

The WWF initially wanted to create an aquaculture standard because they wanted to protect biodiversity hotspots and vital ecosystem services, and farmed fish production was one of the activities that threatened these hotspots. The WWF nevertheless did decide to include social issues in their standards. It was a way to compete with the existing standards because they did not have social issues included at that time (Havice & Iles, 2015). An interviewee mentioned further reasons for doing this:

> *I think that our sense was that social issues were important on the production side and that they couldn't be ignored. And that was due for two reasons. One was that they were important in their own right. I think a lot of stuff that has happened recently has already proven it [...] And that got buy-in for local communities and a lot of groups that would have been a lot less interested in the environmental side if the social piece hadn't been included. That was pragmatic in some level as well.*[35]

They included a social focus because social issues were important in their own right and including them did get the attention of some NGOs. Some NGOs stated that they were interested because the WWF was the first to include social issues in their Standard. It could also have played a role that in the Marine Stewardship Council was criticised because it did not focus on social issues. The MSC was also established by the WWF.

As previously described the WWF created the Aquaculture Dialogues in 2004 for several species, including for shrimp. Boundaries had already been created to which the standard setters were bound, a result of competition with other standards. These boundaries defined the standard as: 1) a stringent standard for the top of the industry; 2) a measurable standard; 3) developed through a multi-stakeholder process; 4) addressing both environmental and social issues.

One other planned feature of the standards was that they should apply to the farm site. When asking interviewees why the farm site was chosen as the site for certification, the answer was that this is where the most environmental and social impacts occur: *So in shrimp, actually the impacts of production are in the farming, not in the processing*[36]. There were several studies done by different multi-nationals that all identified the main production site as the place where most issues take place. However, I believe that these studies focus on environmental issues and not on social issues.

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[35] Interview 35
[36] Interview 35

These boundaries had an impact on the variables. The space was bound to the farm site, the objects were already defined by the Consortium, the subjects were the top of the industry, the experts were thought to come from NGOs that would be involved in the process and the expertise was supposed to be measurable. Table 177 shows these variables.

Table 17: Social variables in Entering the Certification Market

Space	Objects	Subjects	Experts	Expertise
Farm site	As defined by the Consortium: • Local communities • Farm • Country • Rural development • Poverty alleviation in coastal areas • Worker welfare, fair working conditions • Smallholders • Farmers	Top industry	Social NGOs	Metric-based

6.2 NEGOTIATING THE STANDARD

This paragraph assesses the development of the social objects, subjects, space and expertise during the negotiations of the standards. The Shrimp Aquaculture Dialogues started in 2007 and the final draft of the Standard was published in 2011.

6.2.1 THE SOCIAL OBJECTS OF CONCERN

At first the Shrimp Aquaculture Dialogue (ShAD) entailed Full Dialogue Meetings in the three regions of shrimp farming: East-Africa, Latin-America and Asia. During these meetings that were held in 2007 and 2008 in Madagascar (two times), Ecuador, Belize and Thailand, there were discussions on how to operationalise the FAO principles. As described in the previous paragraph, the 'International Principles for Responsible Shrimp Farming' attributed one principle to 'social'. The Full Dialogue Meetings distinguished between 'Employment and Working conditions' and a 'Community Relations Programme'[37]. A list of grievances was proposed to be incorporated in Environmental Impact Assessments. The regional meetings added a waste sorting and collecting programme, an environmental awareness programme, conflict resolution and the development of community facilities, and access to traditional community fisheries grounds.

The governance system changed from a Regional Steering Committee into a Global Steering Committee in 2009. The Global Steering Committee met thereafter in Paris where they finalised the draft standard for the first public comment period. The GSC did not propose a system for collecting and sorting community waste; an environmental awareness program; and support development of communities facilities, which the Regional Steering Committees had proposed. The topic of access to traditional community fisheries grounds was moved to the environmental criterion of barriers and buffer zones. In the draft version of the

[37] Since this thesis looks at principle three of the ASC Standard, which has the impact of the farm on the surrounding communities, I only discuss the Community Relations Programme.

standard, Principle 3 was defined in the first draft as: *Develop and operate farms with consideration for surrounding communities* (Shrimp Aquaculture Dialogue, 2010: 33). The draft defines a community as:

> *A group of people with possibly diverse characteristics who are linked by social ties, share common perspectives, and are joined by collective engagements within a geographically confined area.*
>
> (Shrimp Aquaculture Dialogue, 2010: 33)

The principle is divided into four criterions. The first criterion is that: *All impacts on surrounding communities, ecosystem users, and land owners are accounted for and are, or will be, negotiated in an open and accountable manner* (Shrimp Aquaculture Dialogue, 2010: 33). The idea is that a farm owner commissions or undertakes a participatory-Social Impact Assessment and distributes the results among at least a local government and a civil society organisation that is chosen by the community (Shrimp Aquaculture Dialogue, 2010a). A p-SIA is defined as following:

> *An assessment of positive and negative consequences and risks of a planned or ongoing project (here: a farm or farm development) undertaken in such a manner that all stakeholder groups have input in process, results, and outcome of such an assessment, and that steps taken and information gathered is openly accessible to all.*
>
> (Shrimp Aquaculture Dialogue, 2010: 33)

The object of concern here is the surrounding community, to be protected from the negative impact of the farm. During the public comment this p-SIA, just as the B-EIA, was criticised. The costs of such impact assessments were considered too high (ShAD GSC, 2010b; ShAD, 2011). Just as in the B-EIA, it became an object in itself. A farmer has to conduct a p-SIA, whether there are issues or not.

When the p-SIA and the B-EIA were negotiated, the two assessments were expected to fit well together. The two people who had developed the impact assessments collaborated in the negotiations and they thought that the two impact assessments could be combined. When a farmer communicates with his neighbours about issues, then the ecological aspect may well be addressed as well. The B-EIA also includes participatory elements.

The second criterion that was created by the GSC is that *Complaints by affected stakeholders are being resolved* (Shrimp Aquaculture Dialogue, 2010: 34). Farm owners need to draft and apply a conflict resolution policy which states how conflicts and complaints are tracked and explains how to respond to such complaints. Furthermore, complaint boxes, complaint registers and complaint acknowledgements receipts are to be used. The Global Steering Committee decided that the conflicts are listed on paper and are shared among the farm, the local community representatives and the local government and that at last 50 percent of the conflicts would need to be resolved within six months, while the remaining fifty percent within another six months (Shrimp Aquaculture Dialogue, 2010: 34). The intention of this second criterion is that possible conflicts with local communities will be resolved through a conflict resolution policy. Here the object of concern is, again, the local community to be protected from the farm.

During the public comment rounds it was commented that having a conflict policy is a far cry from reality (ShAD GSC, 2010b; ShAD, 2011). In Thai villages, for example, it is the community leader who is responsible for solving conflicts in a village, not the farmer. It would therefore be better to have an auditor to ask the community leader if a conflict had been resolved. The village leader would also be a good third party mediator. Another suggestion was made that comment boxes will not provide for meaningful feedback. After the second comment round, the GSC changed the criterion somewhat (Shrimp Aquaculture Dialogue, 2011). The applicant farmer still has to develop a conflict resolution policy for local communities. And the periods of conflict resolution changed in that a farmer should, in the final standard, ensure that the areas of conflict are recorded and shared and that 50% of the conflicts are to be resolved within one year, and 75% between two audits.

The third criterion is to *Provide employment within local communities* (Shrimp Aquaculture Dialogue, 2010: 34). The farm needs to purposely seek to employ people from the surrounding villages before distant workers are hired, and he needs to document evidence to advertise vacancies within the local communities. The assumption behind this criterion is that the rural village economy benefits from employment created by the farm. Migratory workers are only to be hired when the local workers do not meet the farm's requirements. There were comments about the fine line between providing employment within local communities and being discriminatory towards migrant workers (ShAD GSC, 2010b). Local communities were thus regarded as an object of concern, whereas migrant workers were not. After these comments, the GSC changed the third criterion on hiring local labour, in that a farmer needs to report on the application process and explain why he hires a specific worker (Shrimp Aquaculture Dialogue, 2010b). This was again criticised in the public comment round that followed (ShAD, 2011). One critique was that in Thailand, workers on a shrimp farm typically come from the poor areas of the North and from Myanmar. Many local inhabitants are not interested in these jobs because it imposes to live on the farm, and there are alternative jobs for local inhabitants. Why should a migrant worker not be protected (ShAD, 2011)? Although these comments were issued, the standard kept its original criterion (Shrimp Aquaculture Dialogue, 2011).

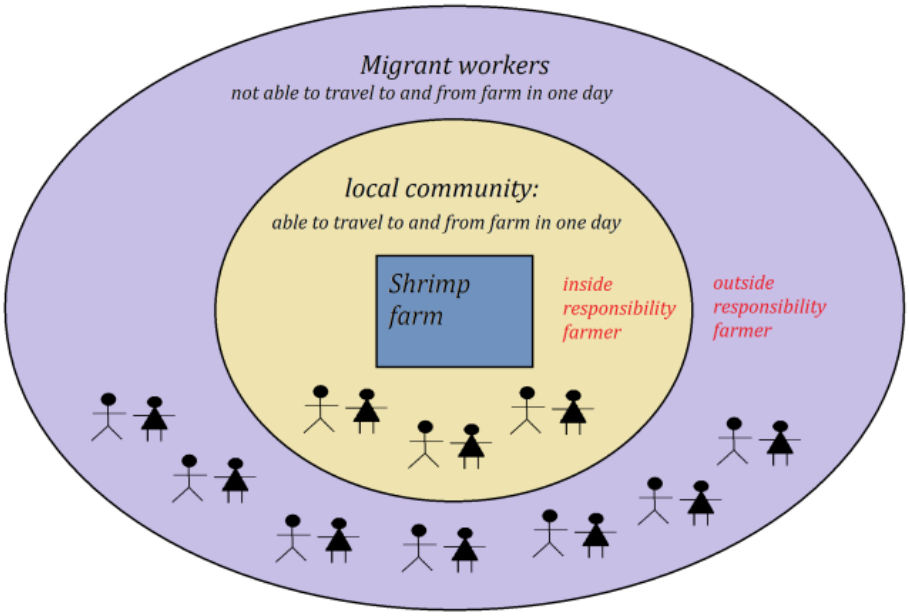
The fourth criterion addresses *contract farming arrangements*, and states that contracts are written in an appropriate language and that consigned copies of these are kept by both signing parties (Shrimp Aquaculture Dialogue, 2010a: 35). The idea here is that, when a farmer has a contract agreement with another farm, its provisions are mutually understood, and that negotiations take place in an open and transparent manner. Meetings should be documented and attended by at least three representatives of the farm group, and contracts should be signed (Shrimp Aquaculture Dialogue, 2010a: 35).

The newly established Standard thus has four criterions that entail 1) the participatory Social Impact Assessment; 2) that complaints by stakeholders are addressed; 3) that local community members are hired; and 4) that contract arrangements are fair. The local community is an object of concern and their complaints should be taken seriously. Migrant workers from outside of the community are no objects of concern, the farmer is not responsible for them.

In comparison to the International Standards on Responsible Shrimp Farming, there are considerable differences. The new Standard does not include rural development and poverty alleviation. Minimisation of risk to smallholders is not addressed. In addition, the standards are formulated to protect local communities and workers from farmers. However, a farmer, are such as a smallholder farmer who, by getting technical and financial support, can improve rural development and poverty alleviation, is not considered a social object . The Consortium's Principles also recognised that the farm should benefit from shrimp farming, however, the newly established criterions appear to picture predominantly as the bad guy who is having a negative impact on his surroundings. The farmer, rural development, smallholders and poverty alleviation disappeared from the Standard as objects of concern.

6.2.2 SOCIAL SPACE

The criterion above shows that a farmer is not only responsible for the workers on his farm, but also for local community members, who should be protected. Local community members are defined as people who live within daily traveling distance from the farm (Shrimp Aquaculture Dialogue, 2011: 29). The farmer is not responsible for migrant workers. A farmer is also responsible for the local community members in the sense that he should not cause any complaints; potential complaints are to be assessed through complaint boxes and the p-SIA. The social space thus extends the territory from the gates of the



farm into the local community. Figure 122 illustrates this space.

FIGURE 12: SOCIAL SPACE

6.2.3. SOCIAL EXPERTISE

This section explores the social expertise during the negotiations of the Standard. It aims to answer the question who the social experts were and how social expertise was constructed during the negotiation

process. Who was given the legitimacy to say something about social matters? And who was given the expertise to take the standards further?

The WWF decided that the Standard needed to address environmental and social issues. Some interviewees of the WWF, however, recognised that, since the WWF is an environmental organisation it is not within its mandate to address social issues, even though social issues were deemed important. Therefore they needed a buy-in from other organisations. At the Full Dialogue meetings there did not seem to be much expertise on social issues in shrimp aquaculture. During a workshop in the regional meeting in Ecuador, the members proposed to use the draft standards of social impacts from the Tilapia dialogue, and they proposed to create a technical working group to focus on social issues (Shrimp Aquaculture Dialogue, 2008a). This indicates that they did not know how to address social issues themselves.

The Global Steering Committee did involve social expertise. At its first meeting in Brussels in 2009 they stated that they needed consultation on how to develop social standards for shrimp aquaculture (ShAD GSC, 2009b). They recognised that there was a lack of social expertise. Two months later the GSC decided that they needed external expertise to address social issues, and they would reach out to find this (ShAD GSC, 2009b). In November 2009 the GSC met again and the committee welcomed three new members, one of whom was of the NGO Oxfam NOVIB (ShAD GSC, 2009a). In my interviews two or three names were mentioned as the social experts within the GSC, often followed by the sentence: 'I am not an expert on social issues'. The principles on social issues were also said to be written by a few people who were given the legitimacy to write them because they were considered as the experts. Their expertise was based on their competence, because of the organisations they represented or because of the experience they had with social issues. The GSC thus had a few social experts, no smallholder farmer or local community member herself was represented in the GSC. Although these two or three experts formulated the social principles, everything was discussed in plenary sessions.

As was mentioned in the chapter on context, interaction occurred between the ShAD and the CO Alliance, the Conscious Objectors or the Critical Outsiders Alliance. Their representatives met two times and a tour was organized for representatives of the ShAD from WWF, Oxfam Novib and IUCN NL, visiting two villages in Bangladesh so as to show the impacts of shrimp farming on a village in Bangladesh. The participants were outside of the ShAD and some of their feedback was used for formulating the principles. Their expertise was considered, but it was still the GSC who decided what was to be included and what not.

Apart from the study in Bangladesh, the ShAD made another effort to learn about social issues in shrimp farming. They assigned the World Fish Centre to conduct a study in social issues in the shrimp farming industry. The study was conducted under a tight timeline and limited budget. After the preliminary result of the outcomes of the report on community social standards, the GSC realised it *needs to take on further ownership of community standards development, complete its own due diligence, as well as lead on community engagement efforts* (ShAD GSC, 2009a: 3). Another field study was conducted in Vietnam to see how the Standard could work for a cooperative of small farmers in the Mekong delta, and in Thailand,

focussing on the p-SIA, to see how farms could get ASC certified. They used this input in the creation of their principles.

But what about the expertise that was assigned for the assessment of the Standard? Since the Standard also addresses social issues, it was decided that regular auditors would not have the skill sets to do this. During the September meeting in 2010, the GSC decided to introduce a social auditor to address social aspects of the audit. They knew that this would drive up the cost of audits, but recognised this as the way that certification bodies industry would be moving in (ShAD GSC, 2010a). So there now are two auditors: one would address the environmental and the other the social issues.

And then there is a p-SIA assessor, or a team, who conducts a social impact assessment at the farm. They decided that *a small team needs to be hired which consists of a senior coordinator and a junior researcher(s) with relevant academic experience* (Aquaculture Stewardship Council, 2014: 128). The engagement with stakeholders is to be structured trough sampling and meetings with representatives. The expertise of this p-SIA assessor is not as well defined as the B-EIA assessor, since no particular technical background in biology or ecology is required. Criticism was voiced that the GSC did not spell out potential social impacts of shrimp farming, but instead relied on outside consultants doing an assessment (ShAD GSC, 2010b; ShAD, 2011). The expertise, just as in the B-EIA, was transferred from the GSC to an impact assessor conducting the p-SIA.

6.2.4. SOCIAL SUBJECTS

This section assesses the social subjects during the negotiations. Who were thought to be the ones to manage the objects of concern? As indicated in the previous chapter, the standard was written for the top 20 percent of the industry. But when the drafts were published criticism was voiced that the Standard was prohibitive for smallholder farmers to become certified.

Just as with the critique on environmental issues, there was a critique stating that for smallholder farmers the social principle was difficult to comply with. A reason provided for this difficulty is that for smallholder farmers a participatory-Social Impact Assessment would be too expensive to finance. They therefore asked to specify and simplify the process of the p-SIA or to have a cluster or group of small-scale farmers to apply for certification together (ShAD GSC, 2010b). The GSC responded to these comments by stating that the ASC would include cluster certification as an option, making it easier for smallholder farmers to comply to the Standard (ShAD GSC, 2010b). Cluster certification means that several farms combine to apply for the certificate so they can share the costs of the audits and of the impact assessments.

Another concern that smallholder farmers were excluded was that there is significant reliance on documented evidence, which smallholders might not have. Community meetings for example, are not recorded and do not count as evidence. The standard relies on paperwork and on farmers being literate, which is not always the case (ShAD GSC, 2010b). Similarly, with the criterion on local community employment for example, farmers would not post advertisements in their village and write justifications

for hiring certain people. It is not as if these farmers have an Human Resources department (ShAD GSC, 2010b). The GSC responded by making an exception in criterion 3.3, that discusses hiring local community members. Criterion 3.3 was only necessary to comply with if the farm is a medium or a large scale farm. This criterion was to apply only for farms that hire more than one permanent worker. And the farm did not need to advertise their positions if they were to hire more than fifty percent of the workers from the local community (Aquaculture Stewardship Council, 2014).

One critique was that local authorities and local leaders were not (but should be) considered as experts (ShAD GSC, 2010b). Just as in the B-EIA, the GSC made an exception concerning what level of expertise a smallholder farmer needs to hire for conducting a p-SIA, with as aim to minimiseits costs. They differentiated between large farms or groups of farms (16 ponds or 25 hectares and above), medium-scale farms or groups (6-15 ponds but no larger than 25 hectares total production area or a maximum of 5 permanent hired workers), and small farms or small groups (local decision making authority over farm, a maximum of one permanent hired worker, and a maximum of of five ponds but no larger than 5 hectares). Large-scale farms still needed a team of professional experts. Medium-scale farms have to hire a consultancy service of an academic or civil society organisation in, or familiar with, the area and its people. Only one person can conduct the p-SIA. Here the methodology is through participatory rural appraisal sessions, which are participatory approaches that emphasize local knowledge and action. Small farms can hire human expertise available within the local community, such as an informal leader with social standing or a local schoolteacher. “Under the mango tree” meetings suffice (Shrimp Aquaculture Dialogue, 2010b). So in the case of a small-scale farmer, local expertise is considered in conducting a p-SIA. Hence, the comments concerning the position of smallholder farmers were taken quite seriously, as they resulted in exceptions from principles. They did not result in an exception for the criterion on conflict resolution and contract farming arrangements.

Apart from the realization that smallholders are excluded, there was an assumption that it is easier for small-scale producers than for large scale producers to comply with social impact assessments since small-scale producers often are more tightly integrated with their communities. A contradiction to this view is a comment of the WWF warning of a potential bias in conducting the p-SIA on large scale, industrial farms, thereby overlooking that small-scale aquaculture can have similar magnitudes of impact with surrounding communities.

5.2.5. THE VARIABLES

This paragraph discusses the time period of the Shrimp Aquaculture Dialogue and how the social space, objects, subjects, experts and expertise changed. Although it was the idea that the farm site is the site for certification, the farmer also has to consider the local community, people who can go from and to the farm within one day. The space thus extends beyond the gates of his farm.

The Shrimp Aquaculture Dialogue process defined several social objects of concern that were to be addressed in the Standard. These objects of concern are the participatory-Social Impact Assessment,

which has to be conducted by a farmer; that complaints by stakeholders are addressed; that local community members should be hired and that contract arrangements are fair. The local community is thus the main object of concern that should be considered and who's complaints should be taken seriously. Migrant workers from outside the community are no objects of concern.

The standards were, just as in the environmental domain, criticised for not being applicable to smallholder farmers. It would be difficult for them to comply with the Standards because of the costs involved, the level of documentation, the technical language and literacy issues. In general there was, however, a belief that smallholder farmers, in contrast to large scale farmers, have less social impact on the surrounding communities. Some exceptions were thus made for smallholder farmers.

Although the WWF wanted to include social issues in the Standards, they recognised that this was not in their field of expertise. During the Shrimp Aquaculture Dialogue process they actively searched for social expertise and therefore they attracted some people that were said to have such expertise. A few people within the GSC were given the legitimacy to say something about social issues. The GSC was criticised for not having local community members or smallholders as members of the GSC. The GSC made an effort by commissioning studies and talking with organisations, smallholders and community groups to deal with social issues. The following table summarises these variables in this time period.

Table 18: Social variables in the Negotiation of the Standard

Space	Objects	Subjects	Experts	Expertise
Farm site, plus local community	Local community members	Twenty percent top performers industry.	A few people in the GSC were attributed social expertise	Expertise because of competence, the organisation they represented and experience.
		There are some exceptions for smallholder farmers	The social auditor	Social auditor has different expertise than the environmental auditor.
	p-SIA		The p-SIA experts has context-specific knowledge	The p-SIA expert has context-specific knowledge and is a professional, a consultant or a local, depending on the size of the farm.

6.3. FROM DRAFT TO IMPLEMENTATION

The Global Steering Committee handed over its final draft to the Aquaculture Stewardship Council. The ASC created a first version of the Standard and an audit manual. This paragraph shows how in this audit manual the five variables changed in principle three.

6.3.1 TRANSLATION INTO THE AUDIT MANUAL

The audit manual specifies how an auditor should check the criterions of the Standard. In this section I will show how the Standard is translated into the audit manual, an what the auditor should do. I illustrate how the Standard is translated into the audit manual by taking a close look at the criterions of the p-SIA. The Standard states that:

> *The p-SIA report adheres to the steps outlined in Appendix II; is available in the local government, the community and through the chosen community civil organisation; and the report lists dates of meetings and names of participants.*

(Shrimp Aquaculture Dialogue, 2010b: 45)

The audit manual specifies how an auditor should assess this indicator. In the audit manual it is stated that the auditor should:

> *Provide a p-SIA inclusive of all items reported in Appendix II. For large scale farms (e.g. vertically integrated operations) the p-SIA must be commissioned to professional experts. A new p-SIA should be conducted at least every 3 years.*
>
> *>Pre-audit preparations to include liaising with stakeholders provided by farms and also the NGO or union and local government*
>
> *> triangulation is applied as audit technique: the verification of p-SIA reports and process includes at least one randomly chosen interviewee from the community stakeholders list the farm provides, and one from the local organisation the farm included in p-SIA processes, and one by audit firm identified local organisation that can be expected to know the area.*

(ASC, 2014: 9)

The auditor has to fill in a checklist confirming the level to which the p-SIA complies to all the criterions listed in the appendix. By this checklist the auditor needs to assess whether an item is addressed in the p-SIA or still needs to be done. The list has questions such as to whether the p-SIA process was participatory and transparent or not (Aquaculture Stewardship Council, 2014). Apart from that, the auditor needs to verify the p-SIA report by selecting an interviewee from the community stakeholders list and a local organisation. In addition, the auditor has to select a local organisation for verification. This would then prove that the p-SIA has been conducted. Apart from verifying that the p-SIA has been actually conducted, the auditor assesses whether the experts who conducted the p-SIA were qualified. The CV or resume of such experts needs to be assessed by the auditor. This is only the case for large-scale and medium-scale farms. Professional expertise is defined as a small team of a senior coordinator and junior researcher (s) with relevant academic expertise (Aquaculture Stewardship Council, 2014: 128). The environmental expertise was defined as an ecologist, environmental scientist or biologist, but in the case of the social professional expertise, expertise is not defined. Also, the audit manual does not require a senior coordinator to be hired by a university or to have published at least five articles, or to hold a MSc diploma, which was the case for the B-EIA assessor.

Considering the other criterions and how the auditor should assess the Standard, the audit manual in some instances goes further than the standard. One such case is when the auditor needs to verify complaints, and when she needs to check if the farm is having complaint procedures twice a year: this is not specified in the standard. The auditor mainly relies on techniques that are related to documentation. The auditor needs to review the documentation and verify it's content with local community representatives and local authorities.

5.3.3. SOCIAL EXPERTS: WHO IS ABLE TO CONDUCT AN AUDIT?

After the audit manual and the standards were released in March 2014, the first certification bodies were accredited to certify for the ASC. Initially three certification bodies were accredited. How the certification body should certify the farms is listed down in the Certification and Accreditation Requirement which was already released in March 2012. These requirements were made for all ASC standards, including those with less strict social criteria as in shrimp. According to the CAR, the audit teams are required to have knowledge of the relevant national and local laws, and they need to have environmental expertise (Aquaculture Stewardship Council, 2012). Such environmental expertise includes knowledge on the social aspects of aquaculture. The CAR also specifies that *social requirements in the standard shall be audited by an individual who is a lead auditor in conformity with SAAS Procedure 200 section 3.1* (Aquaculture Stewardship Council, 2012: 14). SA8000 is an international standard foreseen to improve working conditions, based on the International Labour Organisation's Declaration of Fundamental Principles of Rights at Work and on management system requirements. The SAAS procedure defines lead auditors as:

> *Qualified by SAAS accreditation body; Qualified ISO 9001;2000 or equivalent lead auditor by a SAAs accredited certification body or by a recognized auditor certification body; Trained at SAAS approved courses as specified in 3.7 below for both basic and continuation curriculum,*
>
> *Experienced, demonstrated by having: Satisfactory served as a lead auditor on at least three accredited ISO 9001 or 14001 certification audits or equivalent; Participated in at least three SA8000 certification or surveillance audits (or equivalent) as a team member*
>
> (Social Accountability Accreditation Services, 2007: 10)

The social auditor needs to have qualifications of another standard that assesses labour rights and working conditions. This indicates that the ASC was not sufficiently confident to express the capacities of a social auditor, referring to another organisation to define competence. For the environmental auditor the CAR laid down what qualifications and knowledge are required; for the social auditor it referred to another standard, that is primarily a working conditions standard. The social auditor thus needs to be qualified for assessing working conditions, even though the aspects he needs to assess are also related to community relations.

5.3.4. THE VARIABLES

In general, the audit manual specifies how an auditor should check the criterions of the standard. Sometimes the audit manual exceeds the Standard in detail, for example by having the auditor to verify complaints, and to check if the farm organizes complaint procedures twice a year, neither of which is mentioned in the Standard. Mostly, the auditor relies on documentation and on verifying this documentation with local community representatives and local authorities. During the negotiations it was assumed that a social auditor needs a different skill set than the environmental auditor. An auditor needs to understand social procedures and understand how a participatory process would work. The requirements of a social auditor are listed in the Certification and Accreditation Requirements, which was

written two years before the Shrimp Standard was published. The CAR requires an auditor to be certified with SA8000, a working conditions standard, although the auditor also needs to assess community relationships. The conversion of the standard into an audit manual did not change the content of most of the variables, but it did specify the required expertise of the auditor and the social impact assessor. This can be seen in Table 19.

Table 19: Social variables in Translating the Standard

Space	Objects	Subjects	Experts	Expertise
Farm site, plus local community	• p-SIA • Local community members • Conflict resolution system • Complaint boxes • Contract Farming	Twenty percent top performers industry. There are some exceptions for smallholder farmers	The social auditor The p-SIA experts has context-specific knowledge	Social auditor is a lead auditor in conformity with SAAS Procedure 200 section 3.1 The p-SIA expert a small team of a senior coordinator and junior researcher (s) with relevant academic expertise

6.4 THE IMPLEMENTATION OF THE STANDARD

After the Standard and the audit manual were published, the first Conformity and Assessment Bodies (CABs) were accredited to certify farms for the Aquaculture Stewardship Council (ASC). The first farm was certified for ASC shrimp in September 2014, and soon other farms followed. In this paragraph the time period of the implementation of the Standard is looked into. It is assessed how the social space, objects, subjects, experts and expertise changed.

6.4.1 SOCIAL SUBJECTS

Chapter 4 mentions which type of farmers became certified. The general characteristics of those in Vietnam are a) of a large-scale; b) that is vertically integrated with other value-chain sites or with a close relationship with a processing plant; c) exporting to Europe d) having acquired other certificates; e) with a relationship with the WWF; f) connected to a network of ASC experts, such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; and g) under a government that is in favour of certification and somehow stimulates certification.

There are not many smallholder farmers acquiring certification. Some interviewees mentioned that this is a social impact in itself, because they might be pushed out of the market. Small-scale farmers are never considered to have a negative impact on their social environment, although some interviewees did say that they can have a considerable negative environmental impact.

6.4.2 SOCIAL OBJECTS OF CONCERN

This section explores what the social objects of concern are in the implementation of Principle 3 of the ASC Shrimp Standard. It discusses how the criterions are assessed by the auditor and what audits in Vietnam show on how the farmers comply with these principles.

The first criterion considers the participatory-Social Impact Assessment (p-SIA); the intent of this assessment is to stimulate a discussion between farm and surrounding communities on how risks and impacts are managed. The p-SIA is conducted by a team of experts, depending on the size of the farm. In the Vietnamese context this is often a consultancy company. A group of consultants then talks with the local authority and organises a multi-stakeholder meeting including the surrounding community, the local authority and the farm. The issues are then discussed, where after the consultant trains the technical staff and farm workers on how to monitor and implement the p-SIA in combination with the B-EIA. The report that is written by the consultant also describes a few meetings with the surrounding community. The way a consultant identifies stakeholders is, for example, by using a map and talking to the people near to the farm, and thus defining where the farm attains his water from, where they discharge that water etc. The local government, local community, such as a representative from a union, a woman union or a farmer organisation and sometimes fisherman are stakeholders.

The auditor only needs to check if the p-SIA complies with a few questions, and she verifies the report by choosing an interviewee from the community stakeholder list and a local organisation, that is provided by the farm. The auditor also has to choose a local organisation for verification. In Vietnam there are two auditors that thus far have conducted the audits for this part. The reporting of the first audit company does not give the impression that there is verification with local community members, it only lists the dates of the meetings, the p-SIA and provides a list of participants. In other words: the documentation is checked. There is, however, no comment about local communities or local authorities contacted or not. The other audit company is more elaborate and provides feedback on the content of the p-SIA, seeking clarifications on certain issues; mentioning that the local community has been interviewed and that the report is distributed to the local authorities and communities. However, the sentences in the reports of both are the same, including a typo. This gives an impression that the auditor copies and pastes certain sentences.

The p-SIAs themselves are not available online to review and they are written in the local language. So the process seems to be very transparent, but the idea that stakeholders are able to cross-check the information, is not working. In the new Certification and Accreditation Requirements (CAR) that were published in January 2016, the CAB needs to make the reports assessable, however it does not state that the p-SIAs have to be written in English.

Interviewees are both positive and negative about the p-SIA. They are positive because this exercise has improved the communication between the farmer and the local community. The local communities feel that they can raise their voice. Several interviewees indicate that the p-SIA is being applied with positive results. A farm that was ASC certified, for example, engaged in some social activities, which they did not do before and thus improved local relationships.

The critique that remains valid is that the p-SIA addresses issues of people that live in the direct surroundings of the farm, but that the people who have already left because of the farm are not considered. Also, that the p-SIA has been conceived for a Latin-American context, and not an Asian one. Both in Belize and in Madagascar, where the shrimp farms are larger and wider, the distances of the

surrounding community to the farm are larger. Sometimes there are not even surrounding communities. In Vietnam however, quite often the surrounding community of a shrimp farm site consists of other shrimp farmers. The checklist of the p-SIA seems to have the image of a farmer, a bad guy, and his impact on a poor local community without resources. Nevertheless, there are instances of neighbours throwing in a bottle of pesticide in a pond as a counter measure for issues. Stealing shrimp is not uncommon. The farm, according to some interviewees, can be a victim itself. Thus the image that the farmer is always wrong and the local community is always honest and right, is false. One interviewee mentions that in Thailand the shrimp farmer is viewed as the bad guy by the local community, and the questions that the p-SIA poses are too difficult or reflect negative images reinforcing that view. When you ask someone if a local community member can compare the current situation with a situation without the farm, he will always find disadvantages with the farm-situation. In another example in the context of a social impact assessment in Thailand, some community members were quoted to say that they did not care about a near-by shrimp farm. Group discussions are also being criticised, because the people attending the multi-stakeholder meetings would be those who are negative and who want to speak out. In Vietnam and Thailand the interviewees mention that the capacity of local community members is quite low, so that they do not understand the questions that are posed by the consultants. Also, shrimp farmers can be influential people with powerful ties and connections. It is therefore difficult for local community members to speak out. Thus a complex social situation may potentially be over-simplified when being distilled into a report.

The second criterion assesses the conflict resolution policy, which can be seen as the follow up of the p-SIA. According to the audit manual, the auditor should check if the complaints addressed in the p-SIA are being resolved; check if the people have received copies of the policy and check the documentation of meetings to see if the conflicts are being discussed and resolved. According to the audits in Vietnam, no complaint has ever been filed at the farms certified. These audits indicate that auditors verify whether the local community has received an explanation of the conflict resolution procedure. This is not always the case; sometimes the farm advertises its complaint system on the noticeboard at the farm. Again, there are differences between the two audit companies in Vietnam. One audit company reports to check whether the complaints that are addressed in the p-B-EIA or p-SIA are addressed in the conflict resolution procedure. Thus not all of the guidelines in the audit manual are actually implemented in Vietnam.

Farms may have a positive influence on their surroundings and complaints may be absent in Vietnam. Some interviewees are positive on the cooperation between shrimp farmers and their surroundings. One interviewee mentions, for example, that most of the local people love shrimp farms because they provide employment and distribute food during festivals. Smallholder farmers also benefit from the big farms because they support smallholder farmers with technical issues. Smallholder farmers and large scale farmers also tend to sell to a different market, therefore they do not compete with each other.

On the other hand, conflicts may occur which are neither mentioned in a conflict resolution report nor in the p-SIA. The audit is mainly based on documentation and the auditors do not always verify these with the local community members, or at least do not report on it in the audit reports. An auditor indicated that

there are farmers who solve the complaint but no record is made or received of such a solution. As mentioned above, community members may feel frightened to speak up during meetings because of the position of the farmer or the ties the farmer has with community members. Also, not everyone has formal education or is able to read or write, so writing a complaint might not be an option. If there are instances of threatening and violence, it is a bit naïve to assume that someone will write down his complaint with his name because it might get him into trouble. An auditor indicates that when people will have an issue with the farmer, they will go to the local authorities in Vietnam, and thus the auditor will check with the authorities too.

The third criterion addresses hiring of workers from the local community. When looking through the audits in Vietnam, it seems that most farms hire from the local community. There is one farm which hires personnel from outside the local community, with as justification the requirement of a higher level of education than available locally. The audits are quite different in detail provided; in some there is only a single sentence stating that there is no discrimination at the farm, not mentioning if or how this is verified with the local authority or the workers or others. There is for example one audit which only states: *no discrimination found*, or *Interview and found that local people are preferable* (Aquaculture Stewardship Council, n.d.-b).

When discussing this point with interviewees, some interviewees state that the standard again implies that local communities are always innocent, and that there are reasons for farmers to hire outside of the local community. There are instances when local employees steal shrimp or fish feed from the farm. One interviewee told that a shrimp farm generally likes to employ people from outside the community, because as soon as there is a festivity in the village, all the employees are gone for a few days. What a farm sometimes does, when it has more farm units, according to an interviewee, is that it hires from the local community but sends them to another farm or to a processing plant to reduce the risk of stealing. There are very few farms that are sub-contracting, therefore this criterion is not assessed in this thesis.

Looking through the audits and talking with interviewees about the criterions leads to the following conclusions about the implementation of the standard. First, the p-SIA opens up the negotiations of the standard again by discussing issues that the local community members address. Second, the audit companies do not assess everything according to the audit manual, or at least they do not document these, so it seems that the implementation is more flexible than the audit manual assumes. And third, the local community is seen as an object of concern, to be taken care of, while the farmer is the one who should take care. This also implies that the farmer is the bad guy with a negative impact on his surroundings. Interviewees state that shrimp farming is more complex than stating the farmer always is the bad guy and the local community member are always the good guy.

6.4.4 SOCIAL EXPERTISE

In the implementation of the Standard, there are two people considered to have the legitimacy to decide if the farmer is in or out. These are the social auditor and the p-SIA assessor. Who are these people and what is the expertise they need? This section explores these questions.

When focussing on what the auditors do to address Principle 3, the method they mainly use is read the p-SIA report, verify it with the local community, community organisation or with the professional experts. They also need to maintain records and minutes of meetings; interview workers, and check contracts. An auditor explained that it takes about four weeks to complete (including to prepare and report on) an audit. Environmental and the social auditors visit the farm together. They often need three man days; the first of these they work together, and the second day the environmental auditor goes on his own. The actual audit on the farm thus takes one man-day for a social auditor. First the auditors organise meetings during which they explain their work plan. During the audit the auditors also leave the farm site to meet nearby households and the local authority. They review the p-SIA and they then interview stakeholders from the list it contains, plus local authorities, to ask about complaints. They also talk with the farmer union, the chairman of the local community, or the local authority, as these will know of the complaints.

There is some scepticism about social audits, especially in relation to the p-SIA. One interviewee mentions that an auditor only needs to check the p-SIA, yet is not an expert in this field, and does not necessarily have time to visit the community and interview relevant people. Another interviewee mentions that there is one CAB that is doing better than the other, and that even the CAB that is doing well, does not really understand the p-SIA or whether there is a conflict or not.

When asked about differences between social and environmental auditors, some interviewees insist that social auditors need to have a background in legal matters. You also need to have the skill of listening, and an environmental auditor needs this skill as well. Observational skills are also mentioned as a quality that both auditors need. You namely need to understand the client, because he has a reason for why he does the things he does. It is easier for an environmental auditor to become a social auditor, because you can do a course, rather than the other way around, in which case you need to have a relation to seafood or to some other fish pond standards. One other interviewee thinks that it is possible to be both a social auditor and an environmental auditor, but that the social auditor needs social skills and that an environmental auditor has to be able to work with calculations. One auditor describes the difference between the social and the environmental auditor as a difference in attitude that becomes apparent when they talk to a worker or a representative of local authority:

> *I think when you audit the social, you have to look at people, so maybe they are afraid, if you tell something, they have some problem but they are afraid to tell you. So maybe you [?] them, and you have a private interview with them. But I think that the auditor for social and the auditor for environment we also need the same skill.*[38]

To summarise, the social auditor mainly checks documents and verifies their content with workers, local community members and community organisations. The social audit takes on average one day and the

[38] Interview 21

social auditor closely works together with the environmental auditor. The difference between a social auditor and an environmental auditor is that a social auditor needs to be able to really listen to people. However, the environmental auditor also needs this skill. But what are the official requirements to become a social auditor?

In December 2015 a new CAR came out that went into force in June 2016. In this new CAR the requirements for the social auditors changed. In the previous CAR all social auditors were required to be lead auditors according to the SAAS procedure 200 section 3.1, but this requirement has been removed (Aquaculture Stewardship Council, 2015). Considering audits that have been conducted, not all auditors were able to meet this criterion (Aquaculture Stewardship Council, n.d.-b). An interviewee mentioned that the requirements for SA8000 are quite tough. The standards have been lowered for social requirements in order to make it cheaper and better accessible. Also, the social auditors now do not necessarily need to be SA8000 qualified but may have attended other relevant training courses such as the EICC Labor and Ethics Lead Auditor Course, which geared for Fairtrade International audits for Trade and Hired Labour Standards by FLOCERT, or the Worldwide Responsible Apparel Producers (WRAP) five day "Auditor/Lead Auditor Social System Training Course" (Aquaculture Stewardship Council, 2015: 51). These qualifications are, just as the SA8000, related to labour rights instead of participatory processes.

In the new CAR, the social auditing experience, auditor training and competencies are more specifically defined. The competences of the social auditor should include knowledge of local labour and human rights legislation, familiarity with local customs, speaking and reading the primary local language, and the ability to manage relationships with workers and managers (Aquaculture Stewardship Council, 2015). These changes in the CAR seem to indicate that the social expertise is being defined and specified. More qualifications are possible than SA 8000 alone, so the requirement for being an auditor is relaxed. At the same time, the criterions to become an auditor are simplified, because lead auditors are not necessary anymore. The criterions that the social auditor needs to comply with are still based on labour instead of participatory processes. One interviewee indicates that if a social auditor is familiar with labour rights, it does not mean that she understands how a participative process has been. Also, the ASC still asks the qualification of other certification schemes for their own social programme, whereas in the environmental domain they do not. This seems to indicate that they are not confident with defining their own social rules.

In addition to the social auditor, a p-SIA assessor has context-specific knowledge about social issues in the area. Who are these p-SIA assessors? One p-SIA consultant explains that the p-SIA team requires to have a strong background and experience in livelihoods in rural communities, culture, welfare, and rural development. An auditor indicates that many consultants can do a p-SIA but that only a few can do a B-EIA. The B-EIA is more technical and involves electrical equipment, while for the p-SIA one needs to talk with people. The shrimp farms normally hire B-EIA and p-SIA consultancy services from same the service supplier. Normally, the B-EIA team and p-SIA team share members but have different leaders. A B-EIA consultant explains that this is good because, in reality, the environmental and social and welfare issues correlate. Not only issues seem to correlate, but the expertise of the people that conduct the p-SIA correlate as well. The audit reports show there are ten people who have conducted a p-SIA in Vietnam,

affiliated to only a few companies. Their educational background includes a Environmental Master degree, Master of Economics, BA in Environment and a Master in Biology. Some of the assessors have done a seminar on topics in p-SIA. There seem to be experts in food safety, on community development and on environment and social mobilisation involved. Expertise of the B-EIA impact assessor is not much different. The B-EIA assessors and the p-SIA assessors thus share the same background and indeed may be the same people.

6.4.5 VARIABLES

This paragraph assessed how the variables of Principle 3 of the ASC standard, about the impact of the farm on the local community, are implemented. The space of certification still relates to the farm site, plus surrounding communities. A local community is considered an object of concern, to be taken care of, and the farmer is the one who should take care. This implies that the farmer is the bad guy with a negative impact on his surroundings. In the Standard a smallholder farmer is not considered an object of concern, as someone who should be taken care of, but there are initiatives to, and discussions on how, a smallholder should become an object of concern, someone who should be taken care of. The expertise in this phase is divided between the social auditor and the p-SIA impact assessor. The social auditor mainly checks documents and checks them with workers, local community members and community organisations. The difference between a social auditor and an environmental auditor is that a social auditor needs to be able to really listen to people. Social expertise is specified in the new CAR, which defines optional qualifications, that are however still related on labour instead of participatory processes. The educational background of the social experts are an Environmental Master degree, Master of Economics, BA in Environment or a Master in Biology. Some of the assessors have attended a seminar on topics in p-SIA. The variables in this time period are summarised in Table 20.

Table 20: social variables in phase 4

Space	Objects	Subjects	Experts	Expertise
Farm site, plus local community	• p-SIA • Local community members • Conflict resolution system • Complaint boxes • Contract Farming	Twenty percent top performers industry. There are some exceptions for smallholder farmers, but they do not become certified. They are not an object of concern in the Standard, but most interviewees talk about them as if they should be included.	The social auditor The p-SIA expert	Social auditor is a lead auditor in conformity with SAAS Procedure 200 section 3.1; or other standards. The social auditor is specifically good at listening to people, and the methods she uses are mainly checking documents and verifying them with workers, local community members and community organisations. The p-SIA expert Environmental Master degree, Master of Economics, BA in Environment and a Master in Biology. Some of them have done a seminar on topics in p-SIA. There seem to be experts in food safety, on community development and on environment and social involved

6.5 CONCLUSION

This chapter summarizes how the boundaries of the objects of concern, the subjects, expertise and the space changed over time within the third principle of the ASC Standard on Responsible Shrimp Farming; a principle that addresses the impact of the location of the farm on the surrounding community. This is done by re-arranging per variable, information presented in tables at the end of earlier paragraphs, .

Table 21: Development of social space over time

ENTERING THE CERTIFICATION MARKET	NEGOTIATING THE STANDARD	TRANSLATING THE STANDARD	IMPLEMENTING THE STANDARD
Farm site	Farm site, plus local community	Farm site, plus local community	Farm site, plus local community

Table 21 shows the development of social space over time. The space of the certification was first defined as the farm site, because this is the origin of main environmental and social impacts. However, the studies on which this is based are likely only looking at environmental components. Over the years, the social space of the farm site goes beyond the space of the farm, where the farmer also has to take into account the local community, which is defined in time: being able to travel within one day from and to the farm. Migrant workers from outside the farm are beyond the responsibility of the farmer.

Table 22: Development of social objects of concern over time

ENTERING THE CERTIFICATION MARKET	NEGOTIATING THE STANDARD	TRANSLATING THE STANDARD	IMPLEMENTING THE STANDARD
As defined by the Consortium: • Local communities • Farm • Country • Rural development • Poverty alleviation in coastal areas • Worker welfare, fair working conditions • Smallholders • Farmers	• p-SIA • Local community members • Conflict resolution system • Complaint boxes • Contract Farming	• p-SIA • Local community members. • Conflict resolution system • Complaint boxes • Contract Farming	• p-SIA • Local community members. • Conflict resolution system • Complaint boxes • Contract Farming

The development of the social objects of concern is addressed in table 22. objects of concern were initially based on the objects identified during in the International Principles of Responsible Shrimp farming. According to these principles, the farmer himself, the country, poverty alleviation and smallholder farmers were also recognised as objects of concern. In the ASC Standard, the object of concern was the local community. The farmer is the one having an impact on the local community, not the other way around. The farmer is thus not an object of concern anymore. There is critique on this notion. Also on the assumption that the farmer is considered as the bad guy. Ironically, there is a scenario where certification in itself can have a negative social impact, because it will drive smaller shrimp farmers out of the market. The p-SIA, just as the B-EIA also became an object of concern in itself, because the farmer has to make sure that a p-SIA is conducted.

Table 23: Development of social subjects over time

ENTERING THE CERTIFICATION MARKET	NEGOTIATING THE STANDARD	TRANSLATING THE STANDARD	IMPLEMENTING THE STANDARD
Twenty percent top performers industry	Twenty percent top performers industry. There are some	Twenty percent top performers industry. There are some	Twenty percent top performers industry. There are some exceptions for smallholder farmers, but these do not appear to have an

	exceptions for smallholder farmers	exceptions for smallholder farmers	effect. They are not an object of concern in the Standard, but most interviewees talk about them as if they should be included.

Concerning the social subjects, of which the development over time can be seen in Table 23, the Standard initially aimed to address the top twenty percent of production. In the process this boundary was being criticised, in stating that smallholder farmers should be able to comply to the ASC Standards as well, and that they are part of the twenty percent, but were excluded because of costs and technical issues. In the social domain, smallholder farmers are considered to have a smaller social impact than large scale farmers. This differs from the environmental domain, which will be further discussed later. That smallholder farmers have a different social impact than large scale farmers is reflected in the Standard, where they do not need to comply to some rules to the same extent as large scale farmers do. They do not have to hire the same experts as large scale farmers do and they do not have to employ local community members. They do however need the same complaint systems as large scale farmers.

Table 24: Development of social experts over time

ENTERING THE CERTIFICATION MARKET	NEGOTIATING THE STANDARD	TRANSLATING THE STANDARD	IMPLEMENTING THE STANDARD
Consortium and social NGOs	A few people in the GSC were attributed social expertise NGO outside GSC also engaged but they were not considered to be experts The social auditor The p-SIA experts has context-specific knowledge	The social auditor The p-SIA experts has context-specific knowledge	The social auditor The p-SIA expert

Table 24 shows the development of social experts over time, while Table 25 shows the development of social expertise over time. When the WWF started negotiations they knew they wanted to have the social domain involved, because this would mean that they would have a buy-in from NGOs that would otherwise be excluded from the negotiation table. At the same time, they excluded some of these NGOs by stating that NGOs had to be in favour of certification in the first place, to become a member of the steering committee. Another reason for the WWF to include social issues in their standards is because it would give their standard a competitive advantage in comparison to other standards. They did however not have sufficient expertise. During the Shrimp Aquaculture Dialogue, members of the Steering Committee were actively involved to include social expertise in the process, and there were some GSC members who were attributed social expertise. They also made an effort to reach out to include social issues in the Standards. Furthermore the social expertise of the ShAD was transferred to the people conducting a participatory Social Impact Assessment and to the social auditor. The competences and characteristics of the social auditor and consultant are less clearly defined as those of the environmental auditor and a B-EIA expert. The competences of a social auditor are very much shaped to labour right auditors and expertise, although the auditor and consultant need to assess participatory processes. Over the years the requirements for a social auditor have been adapted and made easier. However, the ASC still uses different standards to define social competence for its own social programme. The skills of a social auditor are defined as listening, social skills, and understanding. The p-SIA consultant in practice often is the same person as the

one conducting the B-EIA and his expertise is also the same: they have a background in Environmental science or biology as well.

Table 25: Development of social expertise over time

ENTERING THE CERTIFICATION MARKET	NEGOTIATING THE STANDARD	TRANSLATING THE STANDARD	IMPLEMENTING THE STANDARD
Metric-based	Expertise because of competence, the organisation they represented and experience. Social auditor has different expertise than the environmental auditor. The p-SIA expert has context-specific knowledge and is a professional, a consultant or a local, depending on the size of the farm.	Social auditor is a lead auditor in conformity with SAAS Procedure 200 section 3.1 The p-SIA expert a small team of a senior coordinator and junior researcher (s) with relevant academic expertise	Social auditor is a lead auditor in conformity with SAAS Procedure 200 section 3.1; or other standards. The social auditor is specifically good at listening to people, and the methods she uses are mainly checking documents and verifying them with workers, local community members and community organisations. The p-SIA expert. Environmental Master degree, Master of Economics, BA in Environment and a Master in Biology. Some of them have done a seminar on topics in p-SIA. There seem to be experts in food safety, on community development and on environment and social involved

7. DISCUSSION

This chapter analyses the main findings and relates them to the concepts and theories that are used in this thesis. In this thesis three approaches to boundary-work are combined: 1) boundary-work as a categorisation (in this case between environmental and social); 2) boundary-work as a process (that assesses the stability of the boundaries); and 3) boundary-work as including and excluding force. In this discussion the main findings are analysed by using these three forms of boundary-work. Appendix 2 and Appendix 3 show two tables with the overview of the variables in the different time periods. Finally the theoretical relevance of this thesis and the usefulness of the used concepts are discussed.

7.1 ENVIRONMENTAL-SOCIAL BOUNDARY

This first section relates to the approach of boundary-work as a categorisation as it explores how the environmental and social assemblages are different. The analysis of the case of the ASC Standard on Responsible Shrimp Farming shows that the difference between environmental and social is mainly related, but not limited to, differences in expertise. The environmental-social boundary is thus mainly a boundary of expertise.

The empirical chapters explain that the WWF initiated the Aquaculture Standards. When the Fund did this, they wanted to develop a standard that would address social issues. The WWF, however, did not claim to have social expertise, so they wanted social experts to join the negotiations of the Standard. Here, social expertise was attributed to only a few people that were negotiating the Standard, and other people said that they did not have any social expertise. In the negotiations the 'social experts' prepared and wrote the principles related to social, but they were nonetheless discussed in the group as a whole. A similar process happened for the environmental principles. This shows that social expertise was regarded as something distinct from environmental expertise.

That the boundary between social and environmental is related to expertise, becomes also apparent when looking at the environmental and social objects of concern. It seems that the environmental objects of concern constitute plants, ecosystems and animals, and that the social objects of concern are people. Some of the environmental objects of concern have an effect on people, such as changing salinisation levels (salty soils affect the adjacent agricultural lands, where people might farm). However, salinisation levels are categorised as an environmental issue instead of a social issue in the Standard. Another example is a corridor on a farm, which is used by both people and wildlife to cross the farm. Corridors are also considered as an environmental issue instead of a social issue in the Standard. The reason why corridors and salinisation levels are categorised as environmental issues relates, again, to expertise. Salinisation levels and corridors can be measured with a tool through an audit. Social objects are considered to be more difficult to measure, and rely on another skill set of auditors. Hence the environmental auditor and the social auditor have a different skill set. Environmental and social auditors embody this different expertise.

This distinction between social and environmental expertise is also made in the impact assessments. The Biodiversity-Environmental Impact Assessment assesses environmental issues on the one hand, and the participatory-Social Impact Assessment evaluates social issues on the other. The expertise that the environmental assessor needs to have according to the negotiated rules of the Standard, is an NGO consultant (for a small scale farm), or an academic ecologist or accredited professional expert (for a medium and large scale farm). The expertise of the social auditor is defined as human expertise that is available within the local community (small scale farm), as an academic or NGO consultant (medium scale farm), or as professional expertise (large scale farm). The environmental expertise is more specifically defined than the social expertise: a particular study is mentioned for environmental assessors, whereas this is not the case for social expertise.

Apart from the differences between environmental and social that are related to expertise, there are some differences between the environmental and social space. Environmental space is measured in metres. There are buffer zones, riparian buffers and corridors, all measured in metres. Social space is measured in time. If a person is able to come to the farm in one day, she is considered to be a local community member, if not, she is a migrant worker. Both spaces can, in principle, be measured.

Furthermore, there are differences relating to the environmental and social subjects. There are more exceptions in the social domain for smallholder farmers than in the environmental domain. Smallholders do not have to comply to all the criterions in Principle 3, whereas in Principle 2 there is only one exception for smallholder farmers. Also, in the environmental assemblage the smallholder farmer is sometimes seen as the subject that could cause environmental harm. Yet, the smallholder farmer is not considered to cause social harm. This might also be the reason why there are less exceptions for smallholder farmers in Principle 2. This implicates that there is a boundary between social and environmental subjects. It might be interesting to compare this result with Béné's (2005) study that discusses two polarised discourses where in one discourse smallholder farmers are considered to be the bad guys, and in the other the large scale farmers are considered to be the bad guys. This thesis indicates that the first discourse is present in the environmental assemblage whereas it is not present in the social assemblage.

To summarise: the social-environmental boundary-work is related to the position of smallholder farmers, and space is thought of differently in relation to the environmental and the social. However, the main difference between the environmental and social is related to expertise.

As described in the conceptual framework, other authors also focus on the effect that the nature-culture boundary has on expertise. Bruno Latour regards the nature-culture distinction as a political order which divides the world into an objective, certain and true 'nature' domain where scientists can speak for nature, and a subjective, uncertain, subjective and mere-opinion domain of 'culture' (Inglis & Bone, 2006). Since 'nature' is an unquestionable, pure and material externality, scientists, environmentalists and ecologists claim to speak for it (Inglis & Bone, 2006). In effect, the interests of lay people and non-humans are performed by the 'nature professionals' and therefore they are silenced. Or, as Vandergeest (2007) describes, local communities are excluded from discussing environmental issues, but included in the social domain where they are enabled to speak out.

This thesis both accepts and rejects this stance. Only academic trained ecologists and environmental scientists are able to 'speak for nature' and are designated to make impact assessments. Yet, community members are not completely left out of the environmental assemblage. Community members are not only allowed to speak out in relation to the social impact assessment, but this participatory aspect is also implemented in the B-EIA where local community members are also somehow included. Still, the level to which they are included in the B-EIA is less than in the p-SIA where a local community leader can also be an expert to assess a small-scale farm. This is not possible in the B-EIA. Nevertheless, community members are not only included in the social assemblage, they do have a say in the environmental impact assessment.

Participatory aspects are thus included in the environmental domain, which might be a result from the interaction between social and environmental 'experts' at the negotiation table that cooperated when they developed these Principles. Also, there are discussions on how smallholder farmers should be involved in the certification market. This might be an effect of people talking about socio-economic issues that were not part of the environmental expertise that existed before. In the Global Steering Committee everything was discussed in the plenary. Although this process did cost a considerable amount of time, it also resulted in cross-pollination that made the standard more inclusive towards both local community members and smallholder farmers. This research indicates that, in standard setting processes, including both social and environmental experts in deciding on social and environmental aspects could result in a more inclusive standard.

Besides, how does the social expertise exclude? Bruno Latour describes that having a social domain can lead to exclusion of domains such as law, economics and psychology, and that only social scientists can say something about the social context (Latour, 2005). Social scientists can therefore imitate the natural scientist in the sense that they are the ones to be enabled to speak about the 'social', because they use quantitative and objective methods (Latour, 2005). At the negotiations, there are certain people that are considered to be social experts and other that are not. However, some of the 'social experts' at the negotiation table had a background in Biology or were also considered to be an expert in biodiversity. They were considered to be experts because of their experience, not because of their background. Also, the people conducting the impact assessments are not all social scientists. The majority of the p-SIAs in Vietnam are conducted by environmental scientists. Yet again, local community members are also included in the impact assessments. At the level of a small-scale farm, a local community member is even allowed to make the p-SIA. These findings show that the boundaries of social experts are not as strict as Latour is afraid of.

This leads to another point related to Latour: are the social experts copying the environmental experts in the sense that they use quantitative and objective methods? In the auditing practice the methods are not so much quantitative, and cross-checking is also used as a method to check the social aspects. At the same time, there is a trend that this social 'domain' will gain its own experts and methods to be able to speak for the social. There are now more quantitative social tools being developed. It will be interesting to see if

social auditing, since it is a rather new process, will develop towards using more quantitative methods, aiming to give the social domain more legitimacy.

7.2 CHANGE OVER TIME

Another perspective of boundary-work relates to the stability of the boundaries over time. How fixed are the boundaries and how stable are the assemblages? These questions are key in this section. As identified in Chapter 4 about the history of the ASC Standard, there are four boundaries that are related to the variables. They are that the Standard: 1) applies to the farm level (space); 2) assesses social and environmental issues (objects of concern); 3) targets the top of the industry (subjects); and 4) are measurable (expertise). This paragraph assesses the stability of these boundaries.

When the WWF decided that they wanted to create standards, they wanted the farm site to be the site for certification. During the negotiations of the Standard, the space was further defined. In other principles there are some exceptions to the farm level, however, in Principle 2 and 3 the farm level was chosen as a site for certification. However, the standard itself implicates that the farmer is also responsible for space outside of the gates of the farm. In Principle 2 the farmer needs to take waters that are beyond the farm site into account because of the salinisation the farm might cause. In Principle 3 the farmer is responsible for the local community members, the people that are able to travel to and from a farm within the same day. The space for which the farmer is responsible for is thus a bit extended to space outside of the gates of the farm. Also, it is likely that the ASC will address other sites of the value chain in the future. There is a feed standard being developed for the feed mill, for example. So to conclude, both environmental and social space are related to the farm site, but the boundary of the farm site is a bit extended to space outside of the farm. And it is likely that the space will be extended to other value chain sites in the future.

The second boundary relates to the objects of concern. It was decided that the standard should take both environmental and social issues into account. In other words, this relates to the environmental-social boundary. Did this boundary change over time, and if so, how? In entering the certification market and in negotiating the Standard, the social and the environmental were separated, or, in the terms of Latour, purification work was done. When the draft Standard was translated into an audit manual this expertise was even more strictly fixed, as the expertise of the B-EIA assessor was defined as an academic (university-employed) ecologist, or an ecologist with peer reviewed publications within the last 5 years. However, as previously described, when addressing the implementation of the B-EIA and the p-SIA, however, the people that are conducting the research and that are writing the reports are sometimes the same people, or people with the same background: environmental sciences, or people with a degree in biology. This division between social and environmental is thus stricter on paper than in reality. This also applies to the auditors. During the negotiations the idea was that the environmental auditor and the social auditor need a different skill set. The environmental auditor measures and the social auditor talks to people. But in reality, both auditors are highly engaged with assessing documents. There is a difference in the sense that the social auditor does not have to make measurements, but the amount of measuring is limited in Principle 2 of the Standard. One way of auditing is to double-check things by talking to workers,

local community members and local authorities. Just as the social auditor, the environmental auditor has to talk with community members, workers, and local authorities. She thus also has to be able to engage with people. So in sum, in the implementation of the standard, the environmental and social are far more integrated than how they were thought of when negotiating the Standard.

The third boundary relates to the subjects, to the ones who are managing the object of concern. When the WWF developed the Aquaculture Dialogues, they thought that the Standard should aim for the top 20 percent of the industry. This top 20 percent of the industry was perceived by the people that negotiated the standard as a fixed boundary. But how fixed was this boundary? During the discussions at the negotiation table and in the public comment rounds, several people mentioned that the standard should be applicable for all farmers to eventually become certified. Now, the idea of having this boundary in the first place is challenged since it is questioned if by certifying the top of the industry the rest of the industry will become better. At the same time, the ASC still aims for the top of the industry. So this boundary is still in place with the ASC, although it is being questioned by others.

The fourth boundary relates to the measurability of the Standard. When the WWF established the negotiations, they stated that the Standard needed to be a metric-based standard. It was considered to be a competitive advantage in relation to Best Management Practice Standards that existed at that time. During the ShAD process, the aim was to develop a metric-based standard. Although in the negotiations of the Standard, the focus was on the measurability of the standards, the focus later shifted towards the idea that the Standard should be audited and not necessarily measured. In the case of the impact assessments, for example, the negotiators of the Standard did not develop fixed measurements that an auditor should check. An impact assessor is trusted to do an assessment, and an auditor checks this assessment. In the end, the auditor checks the document instead of doing measurements. The boundary of things being measurable did thus shift from things being measurable to things being auditable. What is in- and excluded in the standard is bound by what auditors can and cannot do. To conclude: the boundary of the measurability of the Standard shifted into the idea that the Standard needed to be auditable.

The conclusion of this section on how boundaries are changing over time relates to the moment when boundaries are fixed. As the results show, besides negotiating boundaries when setting of the Standard, there are also negotiations happening at the level of implementation. As described in the result chapter, the Global Steering Committee members agreed that for certain issues they could not come up with criteria that are applicable in every context. For example, it was difficult to find metric standards for conflict resolution policies and corridors on farms. Therefore, they decided that an assessor should assess biodiversity issues and local community issues via the Biodiversity-Environmental Impact Assessment and the participatory-Social Impact Assessment. Hence, the boundary-work of what is in- and excluded also happens during the implementation via this B-EIA and p-SIA. This also has to do with the practice of auditing and the role of the auditor. There is some flexibility in auditing as not every audit company assesses the issues the same. Hence, there is some room for manoeuvre at the audit level. In other words, some boundaries are not only being negotiated in the negotiation phase of the standards, but they are negotiated during implementation in different contexts at the same time. The article of Havice & Iles

(2015) already concludes that rules are subject to ongoing negotiation, but this research shows that even in the implementation of the Standard, the boundaries are being renegotiated.

7.3 IN- AND EXCLUSION

These boundaries, although they are more flexible in their implementation and might change over time, do have consequences. Certain objects, subjects, experts, expertise and space are in-and excluded. This section explores what is excluded from the ASC Shrimp assemblage. The boundaries are, again, 1) that the standard was applicable on the farm site, 2) the environmental-social boundary; 3) that 20% of the farmers were to comply to the standard; 4) that it supposed to be measurable or at least auditable. And finally, the social relations that in- or exclude experts and farmers are discussed.

The first boundary that is of importance relates to space: to the farm site. When you address the farm site as a site for certification, this excludes objects that are outside of the farm level. All other sites of the value-chain that are part of shrimp farming are not addressed in the standard, and are therefore excluded. The social abuses that were reported in the last years that happen on the processing plants and in producing the feed are however not accounted for because they happen outside of the farm site. These issues have gained media attention in the last years. Also, having the farm site as a site for certification means that the farmer is the one that bears the responsibility and the costs of certification. Although they bear the costs for certification, there is no guarantee that farmers receive a higher price for their products. The economic issues that farmers might have, which are also related to insurance etcetera, are not addressed in the standard.

Secondly, the consequences of the boundary between social and environmental is elaborated on. Who benefits from this boundary? Firstly, the boundary gives the ASC Standard more legitimacy because it can sell its products to consumers that are aware of social issues. Retailers, the ASC and the WWF benefit of a better reputation of the standard, and consumers somehow benefit because their concerns are taken into account. Secondly, consultants that are able to do a social impact assessment and social auditors also gain from having social as a topic in the certification business. They earn their living by doing assessments. Also, NGOs that have 'social' as their expertise are now more needed in the seafood industry. An NGO as Oxfam will gain more legitimacy and will be able to cooperate more often with the industry. The industry is now asking Oxfam to assess certain studies, for example. In addition, the local communities and workers are now considered as an object of concern although they were not in previous standards. They have a say in what goes on in shrimp farms and their opinion is being asked. They are being involved in the operation of the shrimp farms.

But including the social also leads to exclusion in the following ways. Firstly, farmers are made responsible for things that might go beyond their reach and the costs for certification change considerably because social issues are included. They need another impact assessment for example and they have to hire two auditors to assess their farm site. In thinking of only having two domains: social and environmental, another domain: the economical, might be forgotten. The economic issues of farmers are

not accounted for in the ASC Standards and this might lead to exclusion of farmers from the market because they cannot comply. However, the inclusion of social issues might also lead to a better relation of a farmer with its neighbours and that conflicts are resolved.

The third boundary is that the top 20 percent of the farmers were supposed to become easily certified. Since the standard aims to address the top 20 percent of the industry, it seems obvious that 80 percent of the industry is excluded from certification. The idea of the theory of change was that there would be a trickle-down effect, and that the bottom 80 percent of the industry would see the benefits of the top 20 percent of the industry and would then also become certified, or at least become better. However, the very nature of the Standard makes that certain farmers can never be certified. Some geographic characteristics exclude farmers from ever becoming certified. Apart from this geographic exclusion, the standard also assumes that a farmer is able to pay for the costs of certification, export to Europe and is able to document everything in order for an auditor to assess it.

The fourth boundary relates to the measurability of the Standard: the standard was supposed to be metric-based. As explained, this boundary shifted from being measurable to being auditable. This boundary of auditability also results in exclusion. There are certain things that cannot be audited in three men-days. Some issues are maybe too complex to be measured or audited. These things are for example human rights, land rights, deserted ponds and food security. Nevertheless, biodiversity and local community relationships also do not seem to be that auditable or measurable, and these things were included nevertheless. This suggests that issues such as human rights, land rights, deserted ponds, and food security were not part of the interests of the ones sitting at the table and negotiating the standards. This would be an interesting topic for further research.

The final point is that social relations matter. Since they do, everyone who is not that well connected is excluded. This means that certain people were not aware of the Shrimp Aquaculture Dialogue process, so they could not join the negotiation table. Also, farmers that are not well connected with people being able to conduct a BEIA or a p-SIA are likely to be excluded. In Thailand, for example, where an EIA is not a legal requirement, the experts conducting impact assessments are difficult to find. Also, the involvement of a government matters, just as the relation of farmers to audit companies and auditors. That there was a network of auditors and NGOs knowing of the ASC Standard in Vietnam, probably made that Vietnamese farmers were certified soon after the standard was published.

7.4 THEORETICAL RELEVANCE

In this section I discuss the theoretical concepts that I used. Were they helpful or not and is this framework useful in other research? Firstly I assess if the notion of assemblage was useful to study Third-Party-Certification.

There are several reasons why the notion of assemblage is helpful to grasp this case. The main reason why I used the notion is because it takes a processual approach. This makes clear that things do not come out of the blue and that they have a certain history that shapes the processes. This helps to understand that

the ASC assemblage was shaped by the Standards that already existed at the time. Also, that certain people and NGOs were already involved in combatting shrimp farming in other assemblages and that this shaped the objects that needed to be involved in the assemblage. By using another approach, for example political ecology or ANT, this part of the process would not have been included as it focusses more on relations in one moment.

Another advantage of using the concept of assemblage is that it does not aim to reduce complex reality into something simple. Disturbance and flux are predominant in ecosystems, as non-equilibrium ecology has verified (Forsyth, 2003). Therefore assemblage theory might reflect reality better. At the same time, embracing complexity means that everything is included in the assemblage and this makes it difficult make sense of the data. It took a lot of time and it was difficult to decide on what to include and exclude. Allen et al (2011) already stress that one difficulty with the notion of assemblage is that it leads to an endless description and that there is no blueprint to follow. I experiences the same complications, and I even made it more simple by using variables. This makes that the process of writing is time-consuming and that it is difficult to make sense of the data.

The notion is also useful because it can take different geographical sites into account. It sees the relation between global and local not as a hierarchical one, which is useful in studying a standard that was negotiated at a 'global' scale that is being implemented at different sites at the same time. Using assemblage theory makes clear that existing relations cannot be surpassed and that it fits better in one context than in the other. That Thailand does not have a standardised environmental impact assessment, for example, already makes that it is more difficult to implement the standard in Thailand than in for example Belize, where this is mandatory.

Another advantage of using assemblage theory is that both humans and non-humans are included. This is also the case in other relational theories. Looking at non-humans as active participates that took part in the assembling was an approach that fits a research that is critical on the nature-culture division, well. Although I did not do much with this aspect of the theory, there are also non-humans of the ASC Assemblage that are active participants: A government policy and a tidal area are also assembling and including and excluding certain contexts. Therefore it is useful in studies that contest a sharp boundary between humans and non-humans, and between objects and subjects.

Finally, the notion of assemblage recognises that relations are contingent and it therefore opposes the idea of linearity. It has a decentralised view: it assumes that the assembling does not always come from the centre or that it is intentional (Bear, 2012). This study shows that the outcome of creating a standard and who is able to comply to it and who is not, is not always intentional. Not only the people that are negotiating the standard are doing the assembling, but an auditor, a consultant doing the translation of the standard, or even a policy are including and excluding components. This also means that components are not tied down to a particular power position, but that other entities can at the same time have power. It does not pin down certain actors, such as the industry member negotiating a standard imposing his interests on others, and a smallholder farmer that is the victim of the rules made by the industry member. Using the notion of assemblage recognises that this same industry member that made the rules can later

on exclude himself from these same rules and that a local community member can steal shrimp. In other words, assemblage theory recognises that power relations can shift and this makes that the theory is less deterministic than some structural theories. This is particularly useful in studies that involve highly politicised discussions or oppositions of groups such as industry and NGOs.

I tried to somehow combine the notion of assemblage, a notion that is a post-structural one, with a critical political ecology lens of boundary-work. But this essentially comes from a more structural perspective. Can these two concepts thus be combined? One difficulty that I encountered in using this theoretical framework is the idea that comes forth from using boundary-work, that the boundaries are a reflection of the interests of the boundary-creators. In order to combine the two, it is necessary to stress that boundaries also appear because they are not intentional, they also sometimes just happen. I could not precisely get my finger around this, so further research is useful in studying if these two ideas are really complementary. Also, as the data of this study shows, non-humans are also involved in the creation of boundaries. Is it in their interest as well? Is it in the interest of the tidal zones of Thailand to not have farms ASC certified? Or in other words: how do the boundaries of the non-humans fit in the framework? This is another angle for further research.

As mentioned in the conceptual framework there is a tendency to look at certification standards from the notion of assemblage in relation to boundary-work. I think this has emerged because there is a realisation that standards are not fixed and that they are shaped by the context in which they are assessed as well. But this also means that they can lead to inclusion and I believe this is overlooked by using a structural approach. It can thus contribute to this understanding.

The previous sections stress the difficulties I faced with combining the variables and the concept of boundary-work with the notion of assemblage. I think that the notion of assemblage is not a panacea and it is difficult to understand[39] and it is difficult to use. However, I also think that these difficulties can be faced and that there is a value in seeing boundary-work as something that is active and that the boundaries can shift over time. I believe that my results demonstrate that rules are somehow opened up in different levels and that this can also lead to inclusion. Taking this approach can lead to a better understanding of how standards are steered that would not have come out by using a structural approach.

And finally I want to stress that the form of boundary-work that I refer to as categorisation is a particularly relevant boundary-work to study. The social-environmental boundary is in Third-Party Certification still taken for granted and that social issues are gaining more attention in different sectors. It would be interesting how the social in itself is defined differently in different sectors, such as how it is defined in the garment sector as opposed to the shrimp sector. At the other hand there are also tendencies to now make more measurable social standards for example, which makes Latour's point about social expertise more valuable. Since the boundary does have consequences, I believe it is an important line of research.

[39] Since the notion of assemblage is not the easiest to follow, there are some Youtube films by DeLanda as well, which have me a better understanding of the concept. It is mentioned in the biography.

8. CONCLUSION

Over the last years sustainability certification has become popular because it is seen as something objective and democratic. In this thesis, sustainability certification is viewed as a negotiation process in which symbolic boundaries are drawn. These boundaries result in- and exclusion of space, objects, subjects, experts and expertise. Apart from boundary-work being an inclusive or an exclusive component, boundary-work can also be thought of as a categorising process. This thesis centres on the categorisation of environment on the one hand and social on the other. In addition, boundary-work is an ongoing process: boundaries can change over time and do not necessarily remain fixed. The problem is that these boundaries: as in-or excluding factor, as a boundary between a dichotomy, or as a process, are taken for granted and that they have consequences. The aim of this thesis is to make these boundaries explicit. In order to understand the boundary-work in Third-Party Certification, the main research question is: How do boundaries work in sustainability certification? I combine three forms of boundary-work which are all assessed through a sub question. The first discusses the in- and exclusion of five variables: What space, objects, subjects, experts and expertise are included in sustainability certification? The second question relates to the stability of boundaries: How do the boundaries in sustainability certification change over time? And the third assesses categorisation: How is the environmental and social categorised? A case-study on the Aquaculture Stewardship Council's (ASC) Standard for Responsible Shrimp Farming is analyses to answer these questions. Of this Standard, two principles are analysed, followed through time, and compared. These are Principle 2, that centres on the environmental impacts of the site of the farm, and Principle 3, that has the social impacts of the site of the farm as a topic. In order to do so the process of this sustainability certification is divided into four time phases: 1) Entering the Certification Market; 2) Negotiating the Standard; 3) Translating the Standard; and 4) Implementing the Standard.

The first question is: What space, objects, subjects, experts and expertise are included in sustainability certification? In the case of the ASC Shrimp Standard the space that was included was related to the farm site of certification. The space extended the gates of the farm site because famers are also responsible for aquatic reserves outside of the gates of the farm that might be influenced by salinisation levels. The space of the farm also extends the farm gate to local community members for whom a farmer is responsible for because he has to hire them and take their complaints into account. The objects that are included are related to objects that can be measured or that can be audited. Things as salinisation levels and complaint boxes or complaint marketing plans are examples of these objects. However, things that might not be that easily to be measured or audited such as biodiversity and local community relations are assessed via impact assessments. The subjects that manage the standards are shrimp farmers. Originally it was thought of that the Standard would be applicable for the top twenty percent of the industry. At the moment mainly large-scale farms that are vertically integrated or have a close relationship with a processing plant, that have a close relationship to WWF or another NGO, and relations to auditors and impact assessors, and that have a government that is somehow in favour of certification are becoming certified. The experts that are included do also have often have a relationship with WWF or another NGO, are auditors at audit

companies that are accredited, or are environmental scientists hired by universities or NGOs, or are local community leaders.

There is also space, objects, subjects, experts and expertise excluded from the ASC Shrimp Assemblage. Issues at other sites of the value-chain are not addressed. Economic issues of farmers are also not addressed, which might be a reason for smallholder farmers not to be certified. Things that are more difficult to measure through an audit, such as land rights are also excluded. And everyone that is not that well connected to NGOs, auditors or impact assessors are excluded from the assemblage.

This analysis shows that there are spaces, objects, subjects, experts and expertise in- and excluded in the assemblage. It does not necessarily mean that this is a bad thing, but it shows that third-party certification are not inclusive in itself. One of the reasons for sustainability certificates to be so popular is because they are thought to be inclusive, however this research shows that there are also things being excluded. On the other hand, they are also not by definition exclusive and only benefitting northern retailers and large-scale industry. They might have inclusive consequences as well. What the results show is that third-party-certification is a result of choices that are made. Choices of a competing market strategy for a standard, choices of where to host a negotiating meeting, choices of whom to have to translate a standard into an audit guide, and choices of a government deciding to support a standard or not. Sometimes these choices are made deliberately, but sometimes these choices are not deliberately made but they are based on habits or history. All these choices result in boundaries, that can both be build up, as well as broken down.

The second sub question relates to boundary-work as a categorisation. In sustainability certification the boundary between environmental and social is often drawn and I therefore focus on this categorisation. The question is: How is the environmental, and social categorised? In the ASC Shrimp Standard there is a division made between environmental and social that is mainly related to expertise. At the negotiation table there were people that were said to be social experts, auditors are categorised into environmental and social experts, and the impact assessments for biodiversity (environment) and local communities (social) are correspondingly divided. Although this categorisation of environmental and social expertise was explicitly made in the negotiations of the Standard, the differences between these two experts in the implementation of the Standard are less explicit: auditors use the same methods for most of their work and the impact assessors are sometimes the same people, or they have the same backgrounds. In other words: the environmental-social boundary is not that fixed in practice.

This research has shown that there is no strict and fixed boundary between environmental and social in practice. Since environmental and social are connected, it is important that environmental and social 'experts' work together in creating and implementing principles. The results of the ASC Shrimp Standard indicated that environmental and social experts working together could lead to cross-pollination and to more inclusive environmental principles. Fixing the artificially boundary might have negative consequences in setting and negotiating sustainability standards. If expertise is defined only in academic terms, in backgrounds in ecology on the one hand and sociology on the other, the inclusion of these experts might result in an exclusion of specific knowledge of people with experience that are not academically trained. This might not only result in people knowing best what the context is about, feeling

left out, it might also result in non-applicable standards. Therefore it is essential to recognise that there is context-specific knowledge, both in the social and the environmental domain, that needs to be considered.

The third sub question relates to the stability of boundaries. How do the boundaries in sustainability certification change over time? How fixed are the boundaries and the rules of the Standard? In the beginning it was thought that the Standard would be a measurable standard. In the negotiations of the Standard, the negotiators could not always come up with measurable criterions. At the end of the day the rules were not so much measurable, but they were auditable. In order to audit non-measurable things, they institutionalised two impact-assessments: one on biodiversity and one on local community relations. These impact assessments provide context-specific knowledge. This shows that there are again negotiations happening during these impact assessments. The rules are thus not only negotiated during the negotiation, but they are also negotiated in the implementation of the Standard. Also, some rules were thought to be fixed during the negotiations or the translation of the standard into an audit manual, such as for example the level of expertise of an impact assessor, but they are interpreted more flexible in the audits.

These results show that the practice of auditing is not always able to capture the rules and measurements that are designed at a negotiation table. The auditor is also involved in negotiating boundaries. The results also show that people can be included at the context-specific level and can thereby also negotiate standards that have consequences for their livelihoods. Further research is needed on how inclusive these impact assessments at the local level are, as well as the role of the auditor and the practice of auditing.

But what does this conclusion of the renegotiating of boundaries mean for standards in general? If standards are also negotiated at the local level, they do not necessarily have to be seen as universal rules on sustainability that are implemented the same in every context. This, in turn, means that one can steer standards also during their implementation, and that another research framework is needed than thinking of standards as immutable objects.

Therefore it is relevant to view boundary-work form a post structural perspective. However, more research is needed to see how this boundary-work reflects interests of the humans and non-humans involved and whether this is always intentional or not. There remain difficulties to combine post structuralism with political ecology that has structural roots. Should the structural components be rejected altogether when addressing third-party certification? And what does that mean for the practice of researching? These questions are relevant in addressing further research around third-party certification.

So: How do boundaries work in sustainability certification? Boundaries are based on deliberate and undeliberate choices and on social relations. They are negotiated and renegotiated over time, and there are categorisations made that have consequences. Nevertheless, since these boundaries can shift, they can not only be build up, but they can also be broken down.

9. RECOMMENDATIONS

These recommendations are organised according to different time periods in sustainability certification

WHEN ENTERING THE CERTIFICATION MARKET

Although there are already numerous certification schemes, these recommendations might be useful for creating yet another certification scheme.

- The idea of third-party certification comes froth from the idea that it leads to inclusive practices. Stressing a Theory of Change that aims to target the top 20 percent is in essence already excluding. It is not yet sure if the rest of the market will improve because of they want to follow the stringent standards. Make sure that, although it is aimed to target the top 20 percent, the rest of the industry might ever be able to become certified. Otherwise the Theory of Change might not work.
- Wanting a measurable standard is one thing, wanting an auditable standard is another. Keep the certification process in mind when thinking about Theory of Changes of standards.
- A Theory of Change defines a Standard. If a multi-stakeholder process is desired, fixing what the Standard should become upfront, influences the negotiations and who is willing to be involved in the multi-stakeholder process.
- Sectors are different. Keep the characteristics of a sector in mind when creating a Theory of Change. Developing a Theory of Change in one sector (salmon) and copying it to another sector (shrimp) that has different producers might not work. Make a sector-specific Theory of Change.

WHEN NEGOTIATING A STANDARD

These recommendations apply to a multi-stakeholder initiative, and to negotiating standards in general.

- There are more stakeholders than NGOs on the one hand and industry on the other. Map out stakeholders per sector and think through what their stakes is and how the different stakeholders should be represented.
- Since environmental and social are connected, it is important that environmental and social 'experts' work together in creating and implementing principles. Fixing the artificially boundary might have negative consequences in setting and negotiating sustainability standards.
- Do not only define expertise (and stakeholders) in academic terms. The inclusion of these experts might result in an exclusion of specific knowledge of people with experience that are not academically trained. Have experts involved in negotiation processes that know how shrimp farming works in practice, for example.
- Make sure that the largest players are represented in order to make a representative standard. This can be done through looking what the largest exporting countries are for example, and

asking fisheries and aquaculture departments of the government if they can assign a representative of the industry.

- Saying that your negotiation round is open for everyone and it being open for everyone is a different thing. There are considerable costs and time involved. Compensate stakeholders that cannot be missed at the negotiation table.
- Be aware that these roundtables are known through connections. Explicitly look beyond your own networks to search for people. This can be done through governments or local NGOs.
- If you want local community members and smallholder members to sit at the negotiation table, have a meeting that is close to where they are. In a shrimp producing country for example. People might talk another language than English, so invest in translation and take their inputs seriously. Local NGOs might act as brokers.
- Respond to people when they give comments to standards. They do not feel heard when this is not done.

WHEN MANAGING CABS

- The differences between and within auditing companies reduces the credibility of standards. Either tell a different story: that audits are also context dependent, or make sure that the differences between and within auditing companies are limited.

WHEN IMPLEMENTING A STANDARD

- Social issues are broader than labour. Think about how to incorporate social expertise that is related to human rights and participatory processes. If you take social issues seriously, make sure auditors are trained in participatory aspects.
- If social auditors and environmental audits are doing the same thing anyway, why not let every auditor have the same skill sets, and just make sure that there are two auditors to assess so they can discuss.
- Integrate the p-SIA with the B-EIA into one impact assessment. This reduces the costs. And have a local community member as an expert in the team. People that are conducting the impact assessments have good ideas how this can be done. Include them in improving the impact assessments.
- Farmers think the ASC Shrimp Standard is too complicated. Find ways to make it less complicated. People that are working with farmers have good ideas in how this can be done. Take them seriously.
- Social relations seem to matter for farms to become certified. Have a list posed on your website where farmers might find impact assessors.

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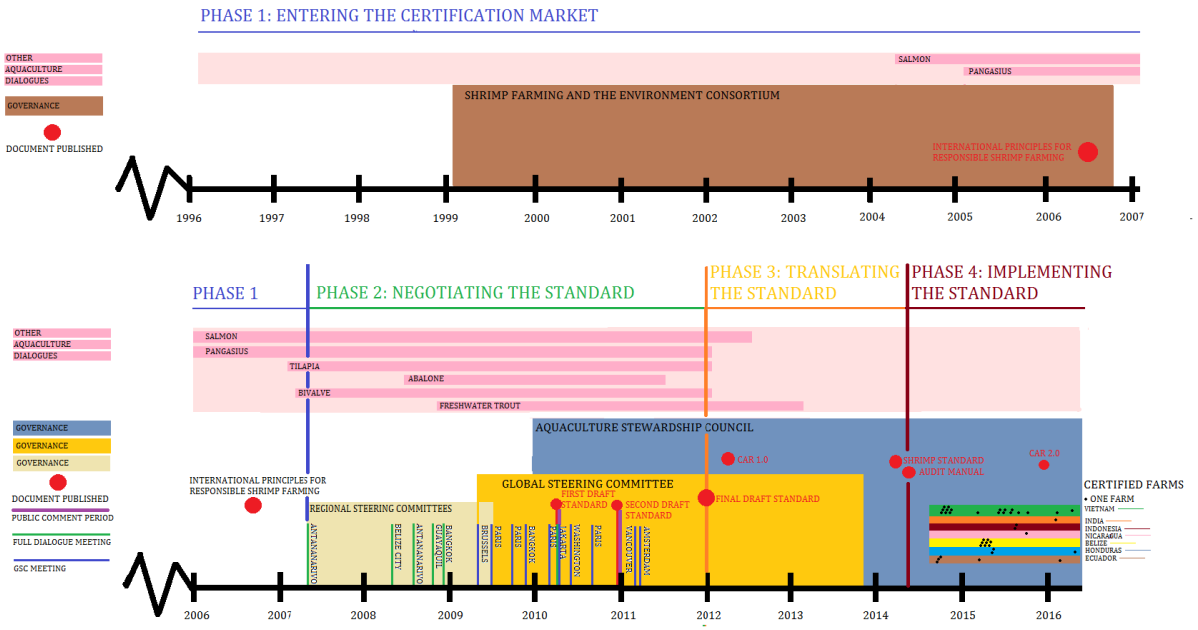
APPENDIX 1 TIMELINE OF PROCESS ASC SHRIMP STANDARD

Appendix 1 is attached as a separate sheet. The miniature of the appendix looks like this:



APPENDIX 2 ENVIRONMENTAL VARIABLES

	1: ENTERING THE CERTIFICATION MARKET	2: NEGOTIATING THE STANDARD	3: TRANSLATING THE STANDARD	4: IMPLEMENTING THE STANDARD
Space	Farm site	Farm site, plus buffer zones, barriers and riparian buffers	Farm site, plus buffer zones, barriers and riparian buffers	Farm site, plus buffer zones and riparian buffers
Objects	• Biodiversity; • Ecologically sensitive habitats; • Ecosystem functions; • Surrounding ecosystems; • Fresh groundwater.	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.	• B-EIA; • Ecological buffers, barriers and corridors; • Critical habitats; • Habitats critical for endangered species; • Adjacent freshwater and soil resources.
Subjects	Twenty percent top performers industry	Twenty percent top performers industry. Mainly based on non-Asian context and only a few exceptions for smallholder farmers	Twenty percent top performers industry. Mainly based on non-Asian context and only a few exceptions for smallholder farmers	The farms that are certified mainly have the following characteristics: a) large-scale farms; b) that is vertically integrated with other value-chain sites or has a close relationship with a processing plant; c) exports to Europe d) has other certificates e) has a relationship with the WWF f) is connected to a network of ASC experts, such as consultants carrying out impact assessments or auditors that know how to do an ASC audit; g) has a government that is in favour of certification and somehow stimulates certification. Smallholder farmers are also seen as environmental bad guys.
Experts	Consortium	Mainly NGO members that had time, money, that spoke a certain language and were in favour of certification. Also some industry members and others. The B-EIA experts has context-specific knowledge	B-EIA impact assessors and auditors	B-EIA impact assessors have context specific knowledge and environmental auditors
Expertise	Metric-based	Metric based and context dependent via B-EIA. Not much shrimp farming expertise at the ShAD	B-EIA: academic (university-employed) ecologist, or an ecologist with peer reviewed publications within the last 5 years. Auditors need to comply to a long list of competencies	Mainly Master's degree in Environmental Science Environmental auditors mainly check documents, and check with local community members, workers, local authorities and do some measurements.

	1: ENTERING THE CERTIFICATION MARKET	2: NEGOTIATING THE STANDARD	3: TRANSLATING THE STANDARD	4: IMPLEMENTING THE STANDARD
Space	Farm site	Farm site, plus local community	Farm site, plus local community	Farm site, plus local community
Objects	As defined by the Consortium: • Local communities • Farm • Country • Rural development • Poverty alleviation in coastal areas • Worker welfare, fair working conditions • Smallholders • Farmers	• p-SIA • Local community members • Conflict resolution system • Complaint boxes • Contract Farming	• p-SIA • Local community members. • Conflict resolution system • Complaint boxes • Contract Farming	• p-SIA • Local community members. • Conflict resolution system • Complaint boxes • Contract Farming
Subject	Twenty percent top performers industry	Twenty percent top performers industry. There are some exceptions for smallholder farmers	Twenty percent top performers industry. There are some exceptions for smallholder farmers	Twenty percent top performers industry. There are some exceptions for smallholder farmers, but these do not appear to have an effect. They are not an object of concern in the Standard, but most interviewees talk about them as if they should be included.
Experts	Consortium and social NGOs	A few people in the GSC were attributed social expertise NGO outside GSC also engaged but they were not considered to be experts The social auditor The p-SIA experts has context-specific knowledge	The social auditor The p-SIA experts has context-specific knowledge	The social auditor The p-SIA expert
Expertise	Metric-based	Expertise because of competence, the organisation they represented and experience. Social auditor has different expertise than the environmental auditor. The p-SIA expert has context-specific knowledge and is a professional, a consultant or a local, depending on the size of the farm.	Social auditor is a lead auditor in conformity with SAAS Procedure 200 section 3.1 The p-SIA expert a small team of a senior coordinator and junior researcher (s) with relevant academic expertise	Social auditor is a lead auditor in conformity with SAAS Procedure 200 section 3.1; or other standards. The social auditor is specifically good at listening to people, and the methods she uses are mainly checking documents and verifying them with workers, local community members and community organisations. The p-SIA expert. Environmental Master degree, Master of Economics, BA in Environment and a Master in Biology. Some of them have done a seminar on topics in p-SIA. There seem to be experts in food safety, on community development and on environment and social involved

APPENDIX 4 LIST OF INTERVIEWEES

Number	Description	Sector	Time period	Date
1	GSC ShAD member	NGO	2	18th of May 2015
2	ASC	ASC	3-4	22nd of May 2015
3	GSC ShAD member	NGO	1-2	28th of May 2015
4	GSC ShAD member	NGO/Industry	2/4	5th of June 2015
5	GSC ShAD member	NGO	2	17th of June 2015
6	NGO representative	NGO	4	26th of June 2015
7	GSC ShAD member	NGO/Industry	1-2	28th of June 2015
8	NGO representative	NGO	4	6th of July 2015
9	Large-scale shrimp farmer	Industry	4	7th of July 2015
10	Small-scale shrimp farmer	Industry	4	7th of July 2015
11	Academic	Academia	4	8th of July 2015
12	Consultant	Private/Academia	4	9th of July 2015
13	Academic/Consultant	Private/Academia	4	9th of July2015
14	NGO representative	NGO	2/4	13th of July 2015
15	FAO	International organisation	1/4	22nd of July 2015
16	NACA	International organisation	1-2/4	24th of July 2015
17	NACA	International organisation	4	23rd of July, 2015
18	Large-scale shrimp farmer	Industry	1-2/4	27th of July 2015
19	NGO representative	NGO	4	28th of July 2015
20	NGO representative	NGO	2/4	28th of July 2015
21	Auditor	Private	4	2nd of August 2015
22	GSC ShAD member	NGO	2	11th of August 2015
23	FAO	International Organisation	1/4	21st of August 2015
24	Consultant	Private	3-4	24th of August 2015
25	GSC ShAD member	NGO	2	26th of August 2015
26	NACA/NGO	International organisation/academia	1-2	24th of August 2015
27	GSC ShAD member	Industry	2/4	28th of August 2015
28	GSC ShAD member	Industry	2/4	28th of August 2015
29	Large-scale shrimp farmer	Industry	4	31st of August 2015
30	NGO representative	NGO	2/4	23rd of September 2015
31	NGO representative	NGO	2/4	24th of September 2015
32	Accreditation	Private	3	28th of September 2015
33	GSC ShAD member	Private	2	8th of October 2015
34	ASC	ASC	3-4	7th January 2016
35	NGO representative	NGO	1	8th April, 2016