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TRADE AND AGRICULTURE DIRECTORATE
FISHERIES COMMITTEE

FISHERIES AND AQUACULTURE CERTIFICATION

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This document is submitted to the 107th Session for DISCUSSION and APPROVAL.

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NOTE BY THE SECRETARIAT

The attached paper on Fisheries and Aquaculture Certification has been revised following discussions at the 106th Session of the COFI and information received inter-session. The document is submitted to the 107th Session for DISCUSSION and APPROVAL.

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EXECUTIVE SUMMARY

Concerns about sustainability and the effectiveness of fisheries management on the part of the public have resulted in demand from NGOs, retailers and consumers for assurances that the food they purchase has been sustainably produced. This has led to a number of private entities responding to this demand by establishing eco-labels and certification schemes that claim to provide credible information to the consumer. These labels intend to serve the interest of fishers and processors who need to transmit positive information to the consumer to maintain their markets, and serve consumers by providing information not elsewhere available.

Governments have been slow to become involved in eco-labelling. Recently, it has become clear that labels are becoming more important to the sector and have an established role in the market such that the question has turned from whether governments should become involved to what role they should take. This question has become more urgent as NGOs and other groups see labels as an opportunity to promote their own agendas and seek to expand and influence the content of food labels.

This report is a key component of the OECD Fisheries Committee's work under the current Work Programme. It considers the growing trend in information requirements for seafood products in general, and in particular to the distinct sustainability features of wild capture fisheries and aquaculture. This work refers primarily to privately-driven certification schemes which have become an established feature of the market for eco-labels in fisheries and aquaculture. The report focuses on private eco-labelling and analyzes the economics of certification schemes, discusses key issues at the interface between public authorities, private labelling schemes, business operators and consumers. Finally, main findings and messages to policy makers are addressed.

The proliferation of different eco-labels in the marketplace has led to concerns regarding consumer confusion, which weakens the effectiveness of the labelling effort. It also risks segmenting markets according to where different labels are in use. This raises concerns that retailers may "choice edit" what is available for consumers in a manner that is most profitable for them but may not serve the public interest and policy objectives of member countries. Moreover, multiple incompatible certification systems and labels may prevent a level playing field for fishers and aquaculture producers and act as a barrier to trade.

These issues demonstrate that that improved co-ordination both domestically and internationally can increase the benefits that may arise from eco-labels to both consumers and fishers, and governments may the only actors who can successfully play this role. Although international standardisation work related to eco-labelling in wild capture and inland fisheries as well as in aquaculture has been elaborated, for example in the context of the FAO, this work has only been completed a decade after the first private eco-labelling initiatives were established. In light of the proliferation of different eco-labels, a main challenge is to ensure to the public that the information given is built on fact, is reliable, does not make unsubstantiated claims and provides a basis for consumers to make informed choices.

The drivers for certification schemes involve a mixture of sustainability, social and ethical considerations and are evolving at a rapid pace. An agreed definition of sustainability would be a first step to improving harmonisation, but such agreement is unlikely without the participation of governments.

The benefits that an agreed definition of sustainability may provide are substantial and can contribute to making labelling an effective tool to improve fisheries and aquaculture sustainability. This is in particular the case where management is inadequate. Concurrently such an effort may contribute to reducing consumer confusion in the marketplace. Moreover, progress here would support the development of a broader governance framework for sustainable fisheries.

Labels are most likely to succeed when their promoters can argue that their label is the most credible, provides accurate information and is based on best practices for certification. Broad international agreement on the content of an effective standard can support the credibility of an eco-label. To be successful in the marketplace, coming to agreement on a shared definition of sustainability is a process that should involve both governments and stakeholders. This is because any new standard based on the agreed definitions must be accepted by the market; to do so it must offer benefits to all stakeholders (consumers, the fishery sector, certifiers and public) in what remains in essence a voluntary and private system.

PART 1 – INTRODUCTION

1.1 Origin and scope

1. *Fisheries and Aquaculture Certification* is one project of the current OECD Committee for Fisheries' Program of Work. The overall purpose of the project is:

- to demystify fisheries and aquaculture certification through increased transparency;
- an improved understanding of the economics of certification in fisheries and aquaculture and
- to support policy-makers in their decisions regarding fisheries and aquaculture certification.

2. The perceived proliferation of certification schemes referring to a multitude of process and product attributes confirms the timeliness of the project. Increased awareness is needed to ensure that all players along the value chain, in particular policy makers, fully realise the costs and benefits of certification and are in a position to prevent potential harm.

3. The above refers primarily to privately driven certification schemes which clearly established the market for eco-labels in fisheries and aquaculture. Governments have been slow in recognising the importance of this phenomenon: sustainability-related certification is by now an irreversible element of the fisheries and aquaculture industry. As such certification is not an unusual phenomenon in other markets, but private eco-labelling raises potential questions in capture fisheries: the market assumes the authority to 'judge' the appropriateness of public fisheries management systems and outcomes.

4. In June 2009 the OECD Council adopted the 'Declaration on Green Growth' which includes the commitment to *'…work towards establishing appropriate regulations and policies to ensure clear and long-term price signals encouraging efficient environmental outcomes'* and to '*encourage green investment and sustainable management of natural resources.'* The Declaration explicitly invites non-OECD economies, private sector, civil society and other International Organisations to closely cooperate with the OECD on working towards Green Growth. The present report has been developed in the spirit of this Declaration.

1.2 Approach

5. This paper targets primarily policy makers as it informs about the potential role(s) of governments in fisheries and aquaculture certification with a focus on private eco-labelling. However, it also presents a case for a defined role which so far has often be overlooked or not clearly understood by all parties involved in the dynamic market of sustainability certification.

6. The final report is based on an extensive literature review as well as on an inventory of standards that was developed with support from the OECD member countries and non-member economies. Results of another major component of the *Fisheries and Aquaculture Certification* project, i.e. the *OECD/FAO Round Table on Eco-labelling and Certification in Fisheries held in The Hague in April 2009*, have been incorporated in this report.

7. The final report will consist of four parts and two annexes:

- Part 1 - Introduction

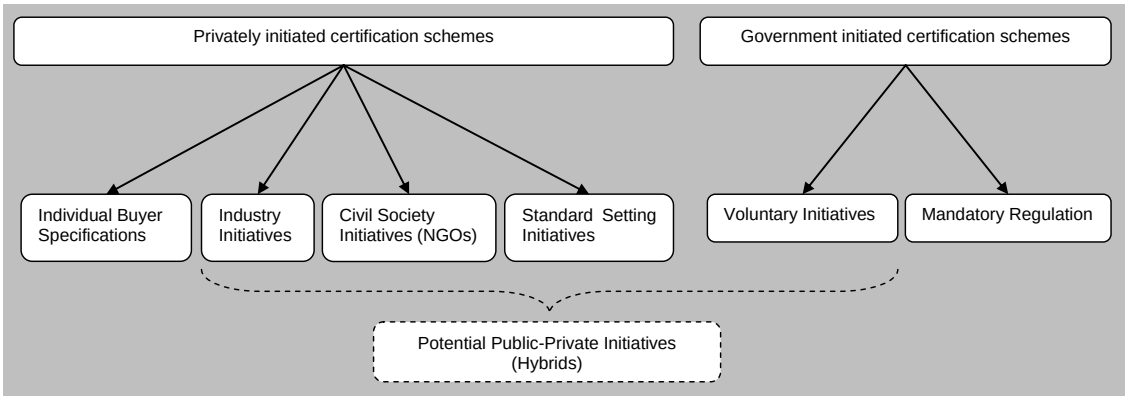
- Part 2 – Economics of Certification Schemes
- Part 3 – Main Issues
- Part 4 – Messages to Policy Makers.

8. Annex I provides key definitions related to certification. Annex II is a consultant report on the cost-benefit distribution in eco-labelling based on case studies prepared by Nimmo and Macfadyen (2010) for the OECD.

9. Part 1 (i) provide the origin and scope of the overall report, (ii) describe the approach and (iii) clarify some key concepts.

10. Part 2 introduces the organising framework for certification schemes and identifies relevant economic and policy dimensions for the two identified key categories, privately initiated and government initiated certification schemes. Figure 1 illustrates this differentiation.

Figure 1. Certification Initiatives



Source: OECD

11. For the organising framework the information is presented in a way that allows for the identification of certification categories and related processes and patterns. This organising framework maps the different attributes and objectives and serves as a tool for policy makers and other interested stakeholders to better understand the features of the schemes.

12. For the section on privately initiated certification schemes, a key objective is to articulate and understand the role of the public authorities in private eco-labelling schemes which are at the core of the study. This is complemented by an overview of the recent development of government initiated standards and certification schemes for fisheries and certification, in particular in relation to food quality (in the sense of food safety and hygiene) and to legality.

13. Part 3 focus on unifying issues which apply to the two certification scheme categories, namely (i) the credibility of certification schemes, (ii) policy coherence and (iii) integrated traceability. Part 4 distils the key messages from the analysis which require additional policy consideration.

1.3 Some key concepts

14. Terms like 'standard', 'certification' and 'label' are used in a rather indiscriminate manner. A lack of commonly accepted definitions makes it challenging to develop a comprehensive and shared taxonomy. One aim of the present paper is to contribute to the clarification of the terminology.

15. *Capture fisheries* and *aquaculture* are part of a production method continuum with some common and some very distinct features. While capture fisheries can be compared to hunting, production in aquaculture systems more resembles farming. Moving along the value chain, the policy challenges associated with the post-harvest stages are similar for both production systems. It is the primary production phase that raises completely different policy issues in terms of sustainability, food quality and legality. The following will thus distinguish the specific implications for capture fisheries and aquaculture as appropriate.

16. According to the Codex Alimentarius, *certification* is a procedure by which official certification bodies, or officially recognised certification bodies, provide written or equivalent assurance that food or food control systems conform to requirements. Certification can be considered as a form of quality signalling that can be used to signal specific attributes to the user or consumer of the product along the value chain. A *requirement* is a provision that conveys criteria to be fulfilled (ISO/IEC, 2004). According to the WTO Technical Barriers to Trade (TBT) Agreement, a *standard*[1] is a document approved by a recognised body that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method. It can hence be stated that standards provide requirements. It should be noted that in the TBT terminology a standard as such is not mandatory.

17. A standard, the application of which is made compulsory by virtue of a general law or exclusive reference in a regulation is termed a *mandatory* standard (ISO/IEC, 2004). When a standard is declared mandatory it becomes a *technical regulation* (UNCTAD/WTO, 2002). Generally, a technical regulation is a document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory (WTO, 1979).

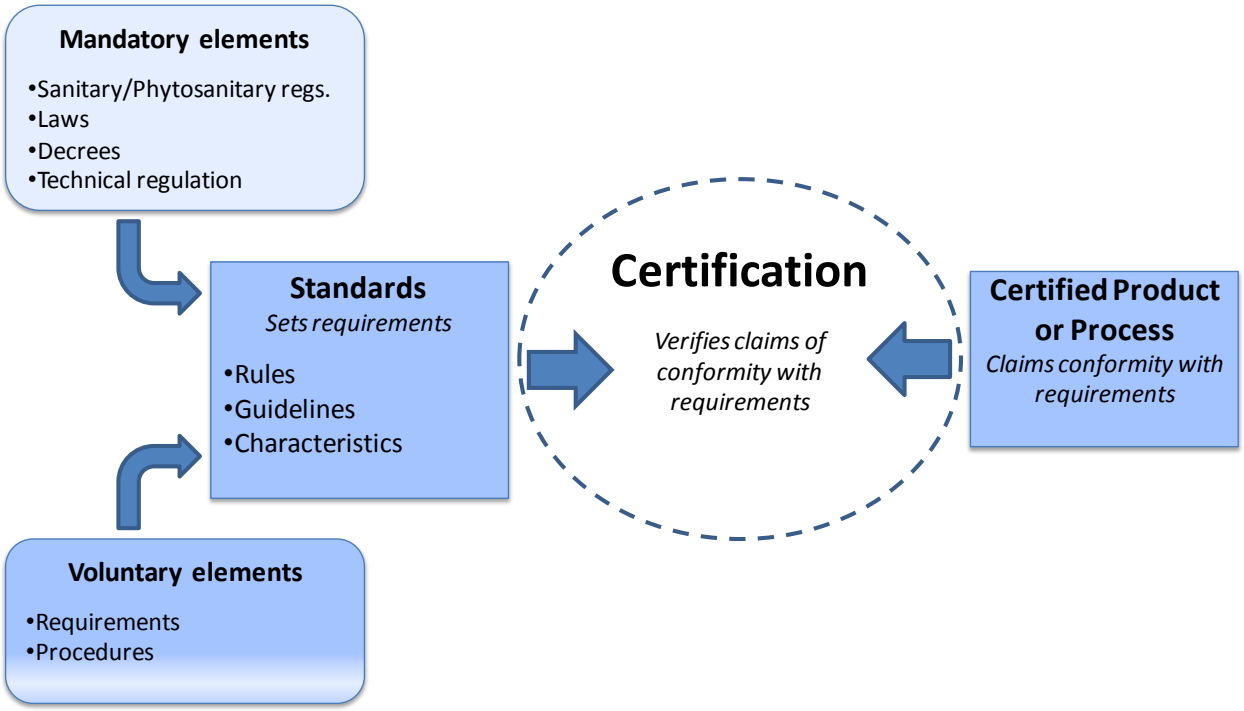
18. *Sanitary or phytosanitary measures* include all relevant laws, decrees, regulations, requirements and procedures including, *inter alia*, end product criteria; processes and production methods; testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety (WTO, 1995).

19. The term 'certification scheme' is used here in a broad sense to refer to the set of possible combinations of requirements, standards, regulations, sanitary/phytosanitary measures and related verification processes and labels in the seafood sector which are the object of this paper.

20. Figure 2 provides a summary of the relationships between the above mentioned key components related to certification.

1. European Commission: In the EU there are three recognized bodies for the drawing up of standards and the EU definition of a standard is given in article 1.6 of Directive 98/34/EC. The present paper however uses the term 'standard' in a less legally binding manner, as explained in the respective paragraphs.

Figure 2. Relationships between the key components related to certification



Source: OECD

PART 2 – ECONOMICS OF CERTIFICATION SCHEMES

2.1 Introduction

2.1.1 The theoretical framework

21. The economic literature about standards and certification stems from the neo-classical concept of a "market failure" that arises due to asymmetric information and has its origin in particular the work of Akerlof, Stigler and Stiglitz on the economics of information. The economic concept of asymmetric information refers to a situation where one party to a transaction has more or better information than others. This creates an imbalance of power in transactions and adds transaction costs, both of which can negatively affect the efficient allocation of resources. Standards, certification and labelling are potential instruments to increase efficiency in complex imperfect markets and hence correct the market failure.

22. According to economic theory, in a situation of perfect information (on price and quality attributes such as eco-friendliness, food safety or nutritional value) buyers select exactly the desired price-attribute combination in the market or do not buy if none of the offerings is desirable. A precise match between buyer and seller does not occur if information is imperfect.

23. In the presence of information asymmetries, product properties which influence allocation decisions are not communicated properly and impede first best solutions. Attributes of a product can be of three types:

- search (ascertainable prior to purchase),
- experience (ascertainable only after purchase), or
- credence (not ascertainable even after purchase and use).

24. Asymmetric information affects in particular the credence attributes of a good. A credence attribute is a product characteristic which is impossible to ascertain by the buyer/consumer. In fisheries, a typical credence attribute is, for example, sustainable production methods, which cannot be easily verified by the buyer (Cho and Hooker, 2002; Roe and Sheldon, 2007). By disclosing relevant information, standards contribute to the achievement of more efficient market transactions: they enable buyers to make informed choices based on their preferences. Standards are often complemented by certification programs with a view to enhance the credibility and visibility of standard compliance.

25. Buyers have different levels of information and motivations to learn about attributes. Price is usually much easier to determine than quality; price is easy to understand and measure while quality attributes (*e.g.* taste) may be difficult for the buyer to value. In addition, obtaining information about attributes takes time and effort and hence involves search costs (Nelson, 1970, 1974). The opportunity cost of searching is in part a function of the buyers' socio-economic and demographic profile. As a result, willingness to pay for information and the marginal cost of obtaining it will differ between buyers. Standards, certification and labelling can correct market failures caused by imperfect information. Standards, certification and labelling in fisheries and aquaculture are a vehicle for conveying information about desirable credence attributes of the product and/or the process. If buyers value these attributes they will direct their purchasing behaviour towards these products (Bui, 2005). This expected change in purchasing behaviour provides the economic incentive behind engaging in eco-labelling.

26. Certifiers (and to a certain extent NGOs and producers) supply information while the food industry and the final consumer demand it. Certification schemes replace the information problem with respect to specific attributes (*e.g.* sustainability, food quality, legality) with the problem of evaluating the potentially multiple certification schemes available in the marketplace and the diversity of claims they provide. The credibility of the information provider is important and a key issue in purchasing decisions. Evaluating this credibility is a new information problem for the consumer.

2.1.2 Political economy analysis

27. Political economy analysis as used here is concerned with "the interaction of political and economic processes in a society: the distribution of power and wealth between different groups and individuals, and the processes that create, sustain and transform these relationships over time" (ODI, 2003). This approach helps to uncover the incentive structures of stakeholders involved in fisheries and aquaculture production, markets and consumers and help understand how policies are developed and implemented.

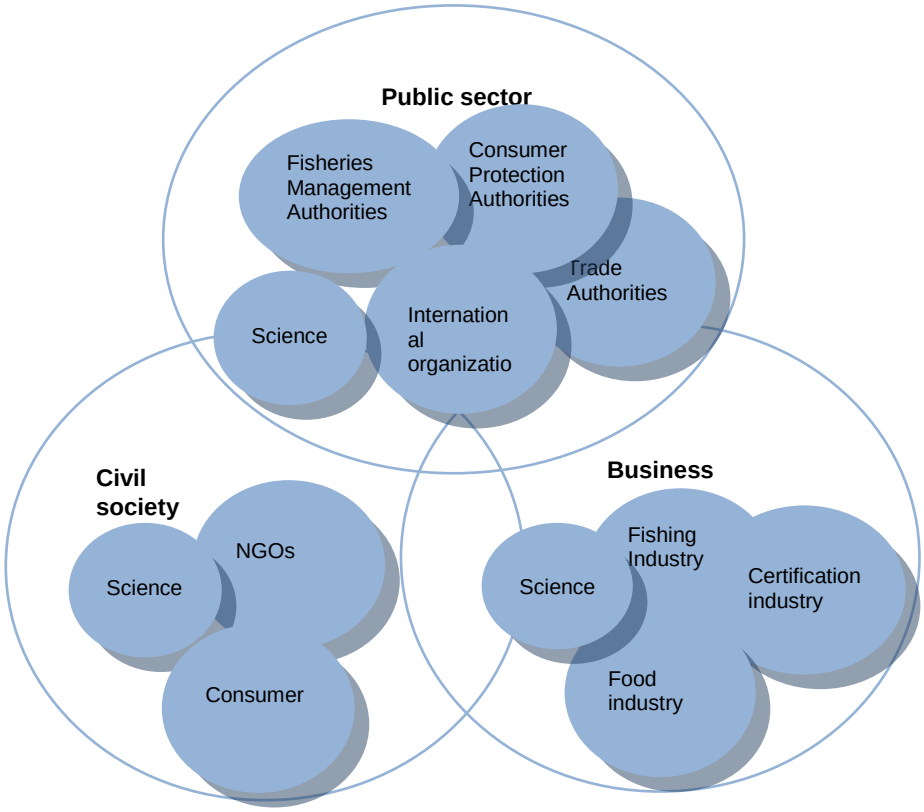
28. Stakeholder analysis, which has its origin in business management, is widely used to identify key interested parties and map their relationships and their influence over economic and policy processes. As stated in Reed *et al.* (2009) "…stakeholder analysis may serve instrumental ends if it leads to the transformation of relationships and the development of trust and understanding between participants". That

is, identifying and understanding the incentives of everyone involved can help establish trust between them.

29. Institutions are the formal and informal rules of conduct that govern relationships between the different stakeholders. Institutions "form the incentive structure of a society and the political and economic institutions, in consequence, are the underlying determinant of economic performance" (North, 1993). This highlights the importance of understanding these institutions and how they change over time.

30. Stakeholders belong to three major groups: the public sector, business and civil society. Within these broad groupings are a number of distinct actors involved in fisheries and aquaculture certification (Figure 3). Relevant stakeholder groups can be broken down as appropriate and their inter-linkages, including power balances, are captured in actor-linkage maps. This descriptive approach supports the analysis of the interaction of these stakeholder groups. Using this approach, the public-private interface section in each chapter will highlight the roles of the different actors.

Figure 3. Key stakeholder groups in fisheries and aquaculture certification



Source: OECD

2.1.3 Organisational framework of certification schemes

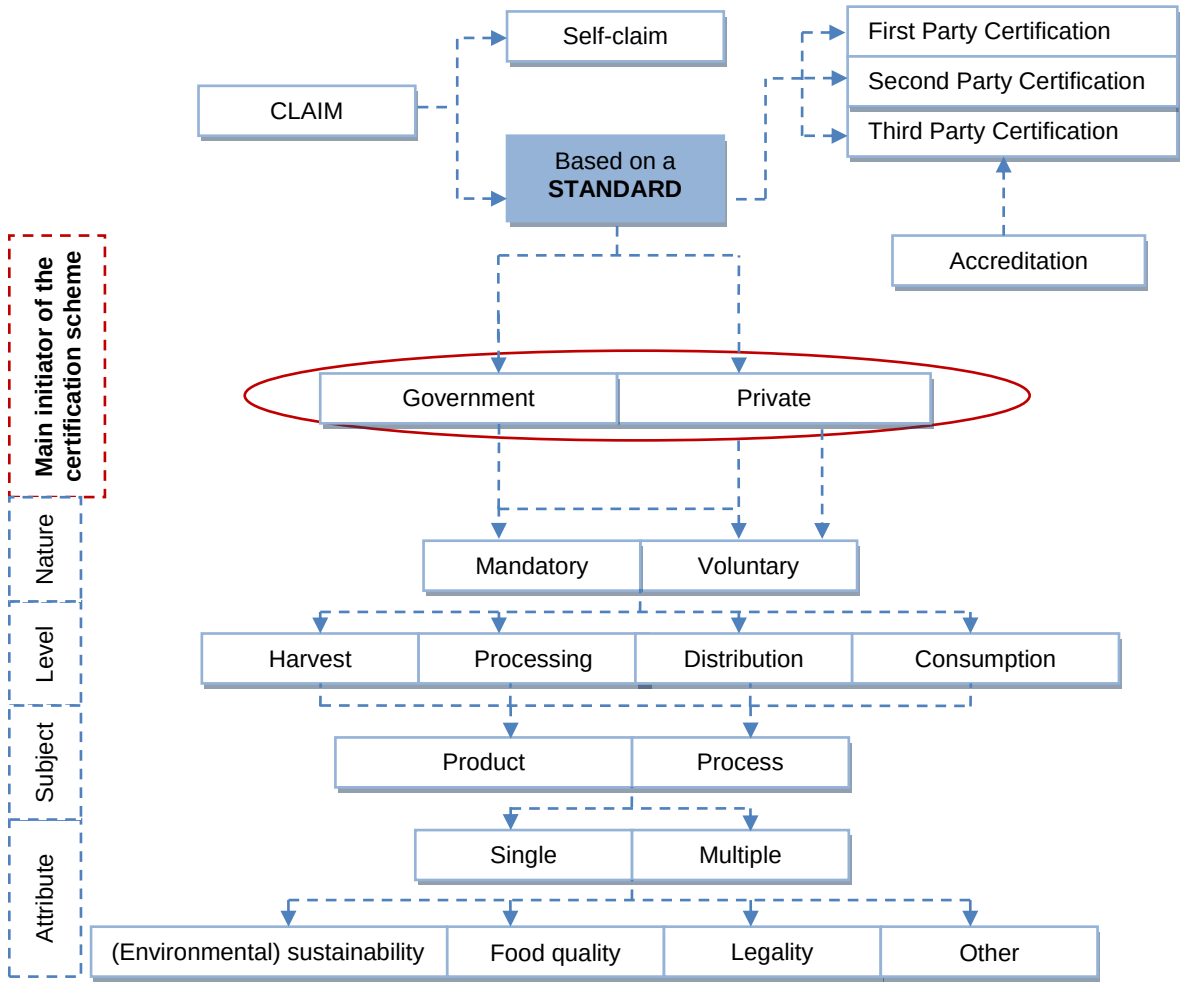
31. Certification scheme categories have a set of common dimensions. These are organised into a framework clarifying the situation regarding existing certification schemes in fisheries and aquaculture (Figure 4). The entry point of this framework is a *claim* made by a producer, processor or distributer (wholesale or retail). A claim asserts the presence of an attribute. Statements, labels or logos on products, packaging or promotion materials not backed by a standard and a process of verification are termed self-claims.

32. The owner or initiator of a certification scheme can be a government, a public body or a private entity with a specific interest in the fisheries and aquaculture market. The main initiator of a certification scheme is the central distinction for this organisational framework and the analysis in section 2. The qualifier 'main initiator of the certification scheme' in the following analysis however refers to 'initiator' in the broad sense: the distinction does not refer to the specific single scheme but to the *dominating* initiator of the entire 'movement' covering a certain attribute type within the certification landscape. More specifically, environmental sustainability certification/eco-labelling is understood as privately initiated while food quality and legality certification falls under government-initiated schemes. This choice is motivated by the fact that the public-private interface with respect to certification schemes is increasingly

dynamic, in the sense that what started off as market-driven (*e.g.* eco-labelling) can be taken up in different forms by the public sector and vice-versa (*e.g.* food quality certification).

33. As mentioned above, the distinction between privately-initiated and government-initiated certification schemes is often determined by the main attribute that the scheme refers to. However, these schemes form a continuum where the proposed categories overlap. In fact, it is often the case that public and private schemes are closely interrelated, complementary or even reinforcing.

Figure 4. Overview of common certification scheme dimensions



Source: OECD

34. The growing interest in certification provides a platform for shaping new relationships between the different stakeholders interested in fisheries and aquaculture. For example, the development of the Marine Stewardship Council was the result of an initiative of a private company, Unilever, and an international NGO, the WWF. More generally, both private and public institutions can be involved in the

certification scheme development and implementation process, in the phases of testing, certification (if applicable) and enforcement.

35. Meanwhile, it is likely that public certification schemes are less responsive to changing conditions than private ones. This is partly because the cost of public scheme development and enforcement is usually borne by the public while private schemes are generally financed directly by the industry or through NGOs or foundations, which have more incentive to react to changing market conditions.

36. The distinction between mandatory and voluntary schemes has become blurred in recent years due to the nature of some certification schemes in fisheries and aquaculture, as well as developments in the marketplace. Private schemes are by definition voluntary, but in fisheries certification, some schemes have become *de facto* a requirement to stay in the market. Public schemes can be voluntary or mandatory. The issue will be addressed in more detail in Part 2.

37. A scheme may be directed toward a specific stage of the value chain, or be applicable through the entire chain. For example, requirements relating to legality focus on the harvesting stage, while schemes relating to food quality concern processing and distribution (import/export, wholesale, retail). Other schemes targeting issues such as sustainability will involve the entire value chain.

38. The subject of the certification scheme can be a product or a process. Product certification schemes focus on one or more key aspects of the final product (*e.g.* country of origin). Process certification schemes refer to a particular segment within the value chain but may be extended to cover the entire production process from harvest to consumption i.e. through a life-cycle approach (*e.g.* ISO 14000 International Standard series regulating environmental management – Life cycle assessment). There seems to be an overall trend towards process certification or 'meta-systems', often condensed in Codes of Conducts, Best Practices and system management- or life cycle assessment-approach standards (OECD, 2007). As stated in Ponte (2008) this trend bears the risk that "conformity to systems performance and specific rules becomes more important than achieving the stated objectives of 'sustainability', safe food or fair trade".

39. Independently from targeting a product or a process, a certification scheme can refer to a single or multiple attributes. An attribute is a particular characteristic of a product or a process i.e. the subject of the certification scheme which the seller wishes to promote, and, presumably of interest to the buyer. Most common attributes in fisheries and aquaculture are related to (environmental) sustainability, legality and food quality (Box 1).

Box 1. Attribute space for fisheries products

Environmental/sustainability
- Organic/Environmental Impact
- Animal Welfare[1]
- Authenticity of Process/Place of Origin
- Biotechnology/Biochemistry

Legal process attributes
- Legality of Production Practices
- Traceability

Food safety attributes
- Food-borne Pathogens
- Heavy Metals and Toxins
- Pesticide or Drug Residues
- Soil and Water Contaminants
- Food Additives, Preservatives
- Physical Hazards
- Spoilage and Botulism
- Irradiation and Fumigation
- Other

Nutrition attributes
- Calories
- Fat and Cholesterol Content
- Sodium and Minerals
- Carbohydrates and Fibre Content
- Protein
- Vitamins
- Other

Value/function attributes
- Compositional Integrity
- Size
- Style
- Preparation/Convenience
- Package Materials
- Keepability
- Other

Sensory/organoleptic attributes
- Taste and Tenderness
- Colour
- Appearance/Blemishes
- Freshness
- Softness
- Smell/Aroma
- Other

1. There are different opinions whether animal welfare should be included among environmental/sustainability attributes or not

Source : elaborated from Anders and Caswell 2009

40. The information revealed through a certification scheme can have one or more addressees: business partners (business to business standard - B2B), investors (shareholders, financial institutions) and/or the final consumer (business to consumer standards – B2C). B2B schemes are not necessarily communicated to the final consumer and may only be communicated between business partners, thus outside public scrutiny.

41. Table 1 summarises key features of the proposed certification scheme categories which are analysed in detail in the next sections.

Table 1. Categorisation of certification schemes

	Privately-initiated schemes			Government-initiated schemes	
	Eco-labels	**Individual buyer specifications (IBS)**	**Guides**	**Relating to food quality**	**Relating to legality**
Main purpose	(Environmental) sustainability	Sustainability and quality	Consumer behaviour	Food safety and hygiene	Combat IUU fishing
Single/multiple attribute	Both	Both	Single	Both	Single
Subject	Product, process	Product, process	Product	Product, process	Product, process
Nature	Voluntary	Voluntary[1]	Voluntary	Mandatory, voluntary	Mandatory
Certification[2]	1,2,3	Usually 1 or 2	-	1,2,3	1
Labelling	yes	possible	-	possible	less common
Main addressee	Consumers, B2B, Investors (CSR)	Consumers, Investors (CSR)	Consumer	B2B, Consumers	Importers, B2B

1. Individual buying specifications as such are voluntary. However, for suppliers of the buyer they actually are mandatory as non compliance will result in the interruption/impossibility to start business relations.

[2] 1,2,3 = First, second or third party certification: *First party certification:* self-declaration of conformity with self-set standards by the company making the claim; *Second party certification:* verification through an affiliated body, e.g. an industry/trade/consumer association, usually against standards established by these bodies or by peers; *Third party certification:* conformity assessment and audit by an independent inspection body/individual, preferably an accredited auditing body, but potentially also by other external entities against a standard.

2.2 Privately-initiated certification schemes: eco-labelling

42. Privately-initiated certification schemes in fisheries and aquaculture potentially cover a broad range of product and process quality attributes (*e.g*. sustainability, organic production, origin). Given the primary importance of sustainability-related certification in fisheries and aquaculture, this chapter focuses on eco-labelling. In addition to a general description and background, it discusses the potential role of the public sector in this phenomenon, including the establishment of public eco-labels.

2.2.1 What is behind the increased use of eco-labels?

43. The view that in many cases the normal functioning of the marketplace for goods and services neglects important issues such as the cost of the depletion of natural resources and externalities to society is a longstanding one that has been growing in importance. The OECD's advancement of green growth principles that attempt to bring together thinking on economic growth and environmental sustainability is in part a response to this view.

44. In its original sense, sustainability refers to the capacity to endure. It is a concept that refers to long-term dynamics, *i.e.* development that meets the needs of the present generations without compromising the ability of future generations to meet their own needs (Brundtland, 1987). This definition, embraced by the OECD, includes three dimensions of sustainability: economic, environmental and social. Applied to fisheries and aquaculture, the focus of sustainability is primarily environmental: conserving the resource (fish, mollusks, aquatic animals and plants, etc.) and managing negative impacts on the surrounding eco-system (reduction in biodiversity, destruction of marine habitats, contamination of water sources through aquaculture).

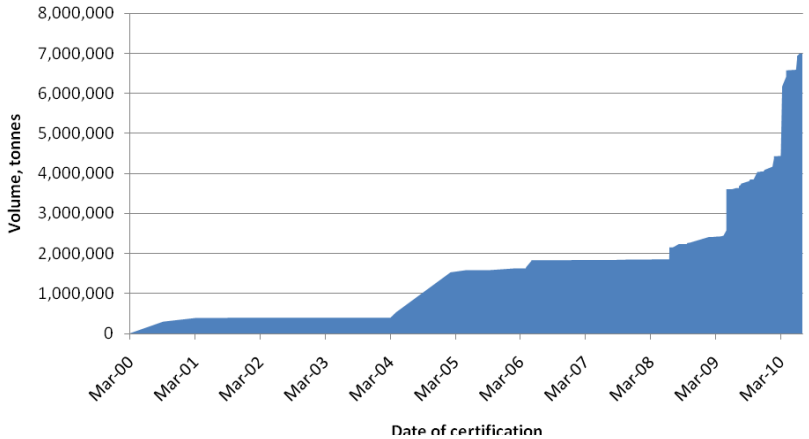
45. Markets based on natural resources are particularly implicated by sustainability concerns, as public awareness of unsustainable production and consumption practices and their environmental implications is growing. Private certification in fisheries and aquaculture through eco-labelling is a result of this trend, responding to consumer demands to have access to responsible choices in the marketplace. At the same time, it promotes sustainable production and consumption patterns in times of growing concern about over-fishing and the loss of biodiversity. Use of private certification and eco-labelling is particularly strong in fisheries and aquaculture. A recent survey showed that in 2008, 13% of newly launched fish products sampled were marketed with an environmental or ethical claim – compared to an average of only 5% of all new food and drink products covered by the survey.[2]

46. In 1991 the OECD defined environmental labelling as "the voluntary granting of labels by a private or public body in order to inform consumers and thereby promote consumer products which are determined to be environmentally more friendly than other functionally and competitively similar products". In 1992, the UN Conference on Environment and Development (UNCED) incorporated the concept of eco-labelling in the Agenda 21, an instrument developed during that conference. Agenda 21 includes one chapter dedicated specifically to 'Changing consumption patterns' which invites governments to "encourage [the] expansion of environmental labelling and other environmentally related product information programmes designed to assist consumers to make informed choices" (UN 1993).

47. The two main private fisheries eco-labels, Marine Stewardship Council (MSC) and Friend of the Sea (FoS) have both seen strong growth in the volume of fisheries certified by these schemes (Figures 5 and 6).

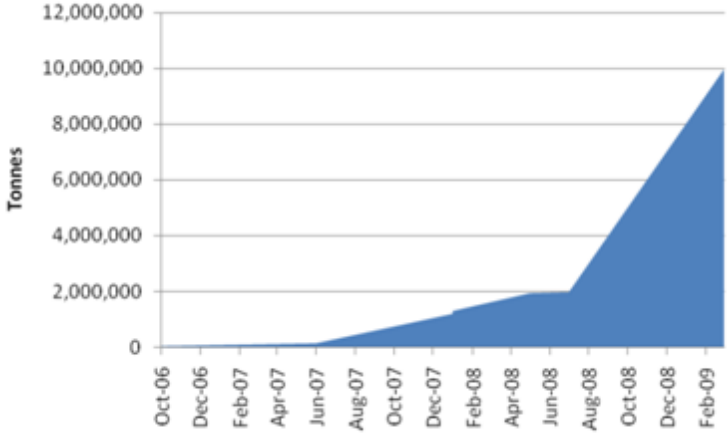
2 . Seafood International, February 2009, page 18

Figure 5. Volume of MSC certified fisheries



Source: Nimmo, F. and Macfadyen, G. (2010)

Figure 6. Volume of FoS certified fisheries



Source: Nimmo, F. and Macfadyen, G. (2010)

48. In the late 1990s, NGOs started to develop sustainable seafood consumer guides, eco-labels and certification schemes - primarily as a response to the perception that public mechanisms were failing to adequately address the resource management challenge[3]. The overall objective of these efforts is to direct consumers to more sustainable fish product choices.

3 . These guides often come as pocket booklets with the intention to guide consumers in their daily seafood purchases. They are regional or local in scope but global guides are also available. These guides are not included in the following analysis as they are usually not backed by specific standards. They usually build on a 'punishment approach' by providing black lists rather than generating incentives for improvements in fisheries management and/or production (Roheim and Sutinen 2006). However, it has to be recognized that they play a role in consumer education and the shaping of purchasing decisions. The developers of buyer guides use innovative communication methods to reach out to consumers: just to name two, the Monterey Bay Aquarium and the Environmental Defense Fund guides are available as free iPhone applications while the Blue Oceans Institute has an on-demand text message service which provides timely information on the sustainability of fish species.

49. Sustainability has become a key sourcing requirement for many companies in the fishing and aquaculture industry, which has led to many different definitions of what this means in practice. In the absence of an internationally agreed definition of sustainability this facilitates an agenda-driven use of the term by NGOs, certification schemes, industry players and other stakeholders. Consequently, there is quite some confusion among consumers of what "sustainability" actually means and the different schemes and labels are competing to establish their view.

50. This competition between schemes has led retailers, processors and distributors to complain about "eco-label noise" and its potential cost implications[4]. This has encouraged retailers to engage more with NGOs and industry associations to develop seafood certification schemes. In point of fact there are currently very few internationally operating schemes applied to fisheries and fish products and this perception is likely caused by the overall wealth of labels and claims–often based on single issues—applying to fisheries and aquaculture products.

51. In order to promote a level playing field across the variety of label schemes, the FAO has developed voluntary *Guidelines on Eco-labelling of Marine Fishery Products* as a key reference for standard developers. Paragraphs 26-32 of these guidelines set out minimum substantive requirements and criteria for eco-labels. Despite this, there is no agreed definition of sustainability with regard to fisheries and aquaculture, making it difficult to compare the various eco-labels currently in use for fish and fish products.

52. Eco-labelling in the seafood sector started in the capture fisheries sector as a response by the private sector to the perceived failure of fisheries management. Driven by the increasing importance of the concept of sustainability in the seafood sector, eco-labelling was eventually extended to the aquaculture sector. These two sectors are fundamentally different, and have provoked different sustainability concerns. In capture fisheries, the focus is mainly on stock conservation while in aquaculture eco-labelling focuses on the potential negative externalities generated by aquaculture production. In some cases, social and animal welfare aspects are also included in aquaculture sustainability schemes. These differences can provoke consumer confusion in the marketplace.

53. Some NGOs have developed standards and labelling schemes for organic aquaculture of certain species. However, these have remained limited in terms of application (Franz, 2005). At the global level, two major certification efforts predominate: the *Best Aquaculture Practices* of the Global Aquaculture Alliance and the WWF *Aquaculture Dialogues*. In addition, inspired by the model of the Marine Stewardship Council for capture fisheries, the Aquaculture Stewardship Council will be operative in 2011 and manage a range of standards (based on species) developed through the Aquaculture Dialogues. Concurrently, the FAO in 2011 adopted *Guidelines for Aquaculture Certification*, which should provide a level-playing field for existing and future certification schemes. These guidelines address four areas: food safety, animal welfare, environmental issues and social issues.

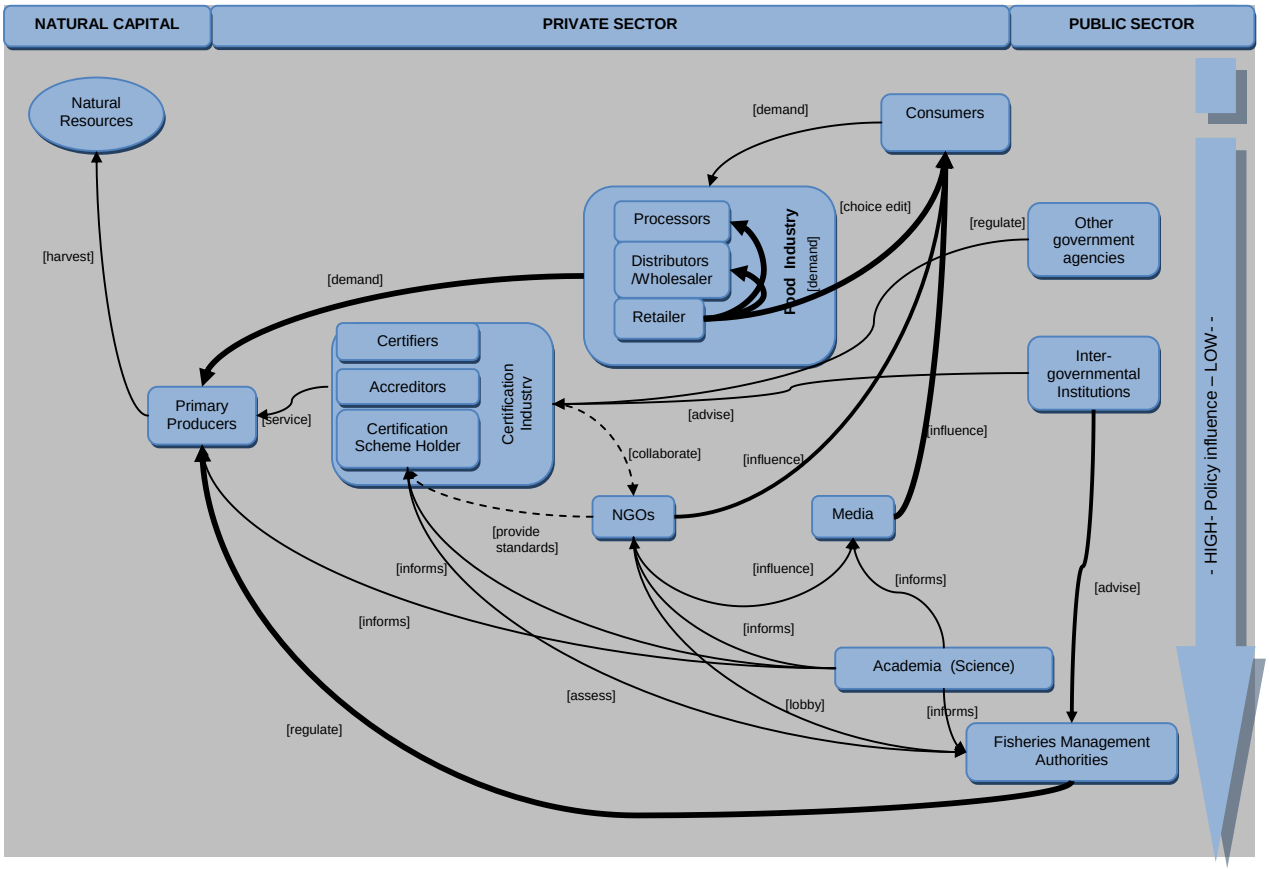
2.2.2 Economic aspects of eco-labelling

2.2.2.1 Key stakeholders in the market for eco-labelling

54. The following stakeholder analysis is intended to illustrate the incentives for different private actors involved in eco-labelling in fisheries and aquaculture. Relationships between the different players are complex and overlapping (Figure 7).

4 . OECD 2009[a]

Figure 7. Actor-linkage map: Eco-labellling in fisheries



Note: The thickness of the error relates to the strength of the relationship, based on observations, literature and stakeholder opinions.

Source: OECD

Consumers

55. With regard to the demand side, a number of studies on hypothetical and contingent seafood markets show that, on average, final consumers express a preference for eco-labelled seafood (Roheim, 2008; Roheim and Sutinen, 2006) [5]. However, it seems to be the case that the understanding and knowledge of seafood sustainability issues among consumers is usually rather limited. The importance of these issues to the consumer is a function of socio-economic variables such as the level of education and income.

56. While consumers may express a preference for sustainable seafood, other studies reveal that actual consumer purchasing behaviour in the marketplace does not always reflect this preference (Vermeir and Verbeke, 2008). When the consumer is not willing to pay a price premium for an eco-labelled product, the industry must build affordability into the equation of sustainable sourcing policies. Price remains a major criterion for consumers and multiple product claims can generate confusion. Consumer education with respect to sustainability issues and the content of different certification schemes is key to supporting price premia. The public sector can play a role by providing public information on stock status and other sustainability issues in fisheries and aquaculture. NGOs and the fishing industry can also provide detailed information about different certification schemes and the issues addressed by them.

57. As said at the outset, certification tries to resolve the market failure arising from information asymmetry. Certification should help consumers to make informed choices and producers to respond to consumer demands. This is only effective when the confusion resulting from a large number of competing labels is avoided.

The food industry: retailer, distributors, wholesalers, processors

58. The food industry, in particular retailers, tries to reduce consumer confusion with respect to product quality attributes through "choice editing"—deliberately reducing the number of labels and issues presented to the consumer. Choice editing gives processors, distributors and retailers a high level of power in the supply chain. *Individual Buyer Specification* (IBS) as a sub-category of privately-initiated certification schemes, is closely tied to the choice editing function of the modern food processing and retail sectors.

59. Major agro-industry actors have introduced *de facto* requirements for key commodities. To cope with increasingly stronger competition, the seafood sector is catching up with this phenomenon and patterns and requirements in national and international fisheries trade systems are changing accordingly.

60. While some companies simply include certified products from existing eco-labelling schemes in their purchasing policies, others develop their own individual buyer specifications. One justification for the development of IBS is the lack of sufficient supplies of certified seafood. The procurement requirements of an individual company can consist of in-house developed product or process requirements or build on existing certification schemes – or a combination of both.

61. In any case, whether through IBS or the sourcing of eco-labelled products, the food industry transmits the demand for certification up the chain; from the retailer to distributers and processors and to the primary producers who have to ultimately prove the sustainability of their harvest.

5 . Contingent valuation or stated preference modelling is an economic technique using surveys to evaluate non-market resources like environmental conservation. This method often uses willingness to pay as an assessment tool.

62. Eco-labelled fisheries products and IBS represent a form of "competitive disclosure" (Golan *et al*., 2000) to signal additional commitment to sustainability to consumers, business partners, investors and the public. They often belong to a broader set of corporate social sustainability commitments, which are displayed to the public in Corporate Social Responsibility (CSR) reports. In addition, one way for retailers to minimise their exposure to risks is through demanding certification from their suppliers. Details of sourcing requirements are, however, in most cases kept confidential. At a broader scale, it can be observed that retailers are reacting to the proliferation of eco-labels for all types of products by developing their own ecological brands. This can reduce compliance costs and buyer confusion if buyers trust the brand to embody the desired product qualities. However, self-claims like 'sustainably harvested' leave ample room for interpretation if not tied to a specific verifiable set of rules backing that claim.

63. IBS can be very basic (*e.g.* exclusion of certain species in the product range, minimum sizes per species) or extremely complex which might, for example, also include specifications for labour conditions. The companies also decide on the type of compliance verification (first, second or third party certification). Some companies – and industry organisations (*e.g.* the US Food Marketing Institute) - have appointed dedicated 'seafood sustainability' managers or divisions, reflecting the importance of the issue. In many cases there are specific sections on sustainable seafood sourcing on company websites.

Primary producers: fishers and fish famers

64. The primary producers in capture fisheries and aquaculture are heavily influenced by the processing and retail sectors. Primary producers are increasingly subject to compliance with private certification to establish or maintain business relations, to an extent that in many cases they have become *de facto* mandatory for them. They are "standard takers", while the food industry together with NGOs and the certification industry are "standard makers". The expected positive impacts of eco-labelling for primary producers come from access to new markets, price premiums or improved market position, but there is little evidence of this in practice. Rather, primary producers have to provide certified products to the food industry simply to stay in the market. The incentive for primary producers to adopt a specific eco-label is mainly a strategic response to supply chain arrangements. Competing schemes with different assessment criteria and definitions allow primary producers to choose among them according to their interests.

NGOs

65. The development of eco-label standards in fisheries and aquaculture started in the private domain, in particular by environmental NGOs who wished to influence consumer behaviour, put pressure on primary producers and on processor and distributor sourcing policies and thereby induce changes in fisheries management policies. NGO campaigns on sustainable seafood combined with growing public awareness have succeeded in transforming the seafood purchasing policies of major retail chains. The media also plays an important role in amplifying the NGO messages.

66. NGOs apply pressure to broaden the scope of standards to include issues which go beyond fish stock sustainability. Topics like energy efficiency (*e.g.* carbon footprint, food miles), waste handling and product loss minimisation, sustainable packaging (*e.g.* biodegradable or recyclable materials; space efficiency), animal welfare and social issues (*e.g.* fair trade) could be included in future multi-attribute standards for a sustainable fishing and aquaculture industry (Box 2). Of these, carbon footprint labelling is likely to be the fastest growing. In the meantime, the current debate centres on balancing broadening the scope of certification schemes with avoiding information overload for consumers and the complexity of dealing with multi-attribute certification in the supply chain. NGOs do not always reflect the public interest, having their own particular value sets and need for public visibility to raise funds.

Box 2. Carbon footprint, food miles, water foot print, life cycle assessment - the next certification frontier?

Existing eco-labelling schemes in fisheries and aquaculture focus primarily on the status of the stocks (in capture fisheries) and on direct environmental implications. But the concepts of *carbon footprint* and *food miles*, which originate in the climate change debate, receive increasing attention in an increasingly integrated vision of evaluating fisheries and aquaculture sustainability.

The concept of carbon footprint relates to how much greenhouse gases are emitted for the production of a good or service through the combustion of fossil fuels. It builds on a life cycle assessment approach and is usually expressed in CO2/unit of product/service. In capture fisheries, fuel consumption for vessel propulsion and on-board processing and storage facilities, in particular (leakages of) cooling equipment, of the global fleet generates considerable greenhouse gas emissions. Declining stocks force vessels to go on longer trips for harvesting, increasing fuel consumption. Certain widely used fishing techniques like bottom and beam trawling and dredging are very fuel-intensive. Tyedmers *et al.* (2005) estimated that the global fleet accounted for 1.2% of total global oil consumption in 2000. In aquaculture, the use of fishmeal contributes heavily to the carbon footprint of the final product.

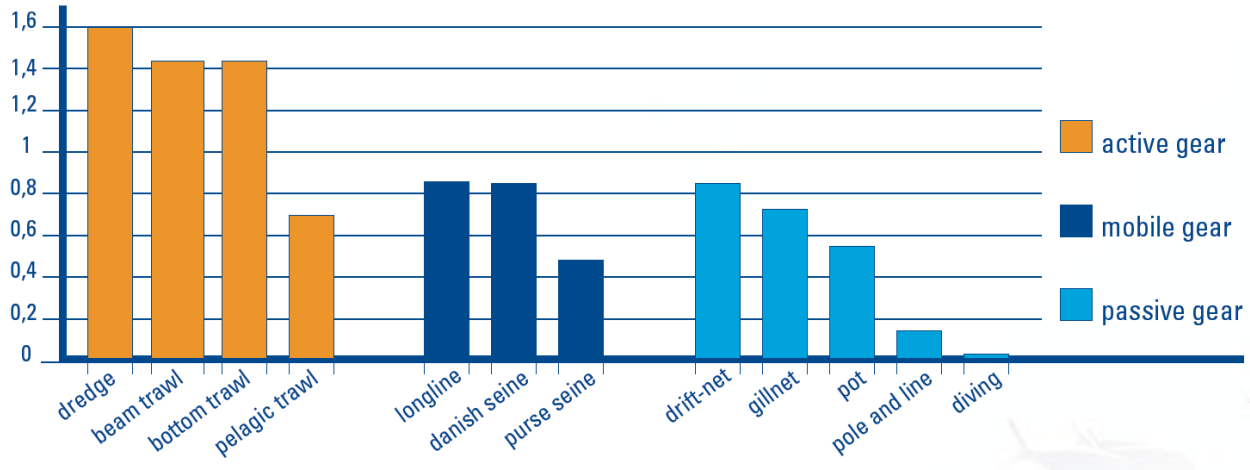
Transportation, in particular air freight, is another major contributor to the carbon footprint of highly traded fishery products. The environmental impact associated with the transport of food items from the producer to the final consumer is usually captured under the concept of *food miles*.

In 2007 Friends of the Sea has developed a *Seafood Carbon Footprint Calculator;* in 2008, DEFRA, BSI British Standards and the Carbon Trust launched *Specification for the assessment of the life cycle greenhouse gas emissions of goods and services (*PAS 2050) in the UK and first studies on the carbon footprint of seafood are available (*e.g*. a SINTEF study covering 22 Norwegian seafood products published in 2009).

A concern in addressing the emissions associated with fisheries and aquaculture is that other considerations (environmental or otherwise) are not overtaken by the single objective of reducing emissions. There is much potential for such a focus, especially when using simplistic indicators such as food-miles, to result in net negative environmental impacts. Life Cycle Assessments can take into consideration a wider set of impacts (environmental, social, economic) but may complex to implement and monitor.

Sustainability is an evolving, dynamic concept: for certain aquaculture production systems, the *water footprint* assessing water consumption could become another area under scrutiny. The *energy footprint* is another environmental impact concept that may enter the fisheries and aquaculture sustainability debate in the future.

Overall impact of gear: size and species selectivity, habitat impact, non-commercial by-catch and carbon emissions per kg of fish



Source : ICES (2006), Report of the ICES-FAO Working Group on Fishing Technology and Fish Behaviour

The certification industry

67. The certification industry has three main elements: certification scheme holders, certifiers and accreditors. Private fisheries eco-labelling scheme holders often claim broad stakeholder involvement in the development process of their scheme. However, often the involved parties already hold views that align with the NGO/certifier in question.

68. Third-party certification refers to a procedure through which an independent third party provides written confirmation of compliance of a product with certain requirements. The capacity of a body that carries out the certification should be evaluated by an accreditation body – which can be a public body, a national or an international accreditation body or even the standard-setting body itself. International standards for auditing and accreditation exist (*e.g.* ISO/IEC Guide 65:1996 – General requirements for bodies operating product certification systems). The accreditation of certifiers is usually the responsibility of independent accreditation bodies and standard owners have limited, if any, control over who actually carries out the audits.

69. The certification industry has an obvious interest in the broad presence of certified products. The absence of an internationally agreed benchmarking system for fisheries and aquaculture eco-labelling and unclear terminology (including a lack of an agreed definition of sustainability) enables standard setting organisations to differentiate themselves and stay in the market. As the definition of sustainability varies from scheme to scheme there is a wide difference in the duration, extent and cost of the certification process (Macfadyen and Huntington, 2007, 2008 and 2009). This has allowed the development of several business models.

Intergovernmental organisations

70. Intergovernmental organisations are well placed to provide improved consistency and a level playing field for fisheries certification. The FAO *Guidelines for the Eco-labelling of Fish and Fisheries Products from Marine Capture Fisheries* have been developed in response to the emergence of private certification schemes and provide a set of voluntary minimum requirements and criteria, including procedural and institutional aspects. A benchmarking system for eco-labelling schemes in the fisheries and aquaculture eco-labelling landscape does not yet exist. The last sub-COFI meeting on Trade in 2010 FAO was asked to develop a benchmarking framework to assess the conformity of eco-labelling schemes with the Guidelines and first results are expected in 2011.

71. The FAO continues its effort to provide internationally agreed guidelines for eco-labelling as a reference point for standard development and for standard evaluation and comparison. Technical guidelines for aquaculture certification were adopted by the FAO in February 2011.. Amendments to the *Guidelines for the Eco-labelling of Fish and Fishery Products from Marine and Capture Fisheries* were adopted in 2009.

72. Table 2 provides a short summary of some features of the main stakeholders with respect to eco-labelling.

Table 2. Stakeholder groups: Eco-labelling

	Public sector	Fisheries and aquaculture industry	Consumers	Certification industry	NGOs
Incentive for eco-labelling and sustainability (Stake)	Resource conservation, consumer protection, food security, sector maintenance for employment	Sustainable supply, marketing advantage, brand protection	Environmental and health considerations	Main business activity	Environmental, animal welfare and health considerations
Potential alliances with other groups	Yes	Yes	Yes	Yes	Yes
Dominant time horizon	Long (but potentially subject to election cycles)	Short	Short	Short	Long
Ability to affect the policy process through power or relationship (political economy)	High	Relatively high	Medium	Modest	Relatively high

2.2.2.2 Equity of certification: cost-benefit distribution and market access

73. Current private eco-labelling schemes for capture fisheries are more affordable for already well-managed and large-scale fisheries, which can benefit from economies of scale and have data collection and management systems in place. Small-scale and data-poor capture fisheries on the other hand may have difficulties in complying with certification requirements. The specific implications of certification for developing countries will be addressed in Chapter 3, but the overall question is how governments should prioritise resource allocation if they decide to engage in certification. Should they help smaller operators to allow them to compete and thus create a level playing field? Should transitional fisheries be eligible for certification? Should support go primarily to poorly performing fisheries where the need for improvement is greatest?

74. During the OECD/FAO Round Table on Eco-labelling and Certification in the Fisheries Sector (The Hague, April 2009) it was also questioned whether public sector financial support for eco-labelling certification could be considered a "subsidy" and thus subject to notification in the context of WTO. In the same vein, delegates raised a number of key policy questions:

- When governments pay outright for certification is that a subsidy?
- If it leads to a trade advantage or improved market access, should it be notified to the WTO?
- Can such an allocation of public funds and a subsequent certification be defended in the presence of fuel subsidies and fleet overcapacity?

75. Should private certification become *de facto* mandatory for suppliers it represents an additional cost of doing business in international seafood markets. Major cost items related to eco-labelling are initial assessment costs, potential adjustment costs and regular licence/logo fees and inspection costs. The cost of certification depends on the certification requirements of the scheme and differs but is usually proportionate to the robustness of the scheme. The unit of certification in capture fisheries is typically

based on a gear type, a fleet segment or a specific stock. In the case of aquaculture it is usually a farm or a cluster of farms.

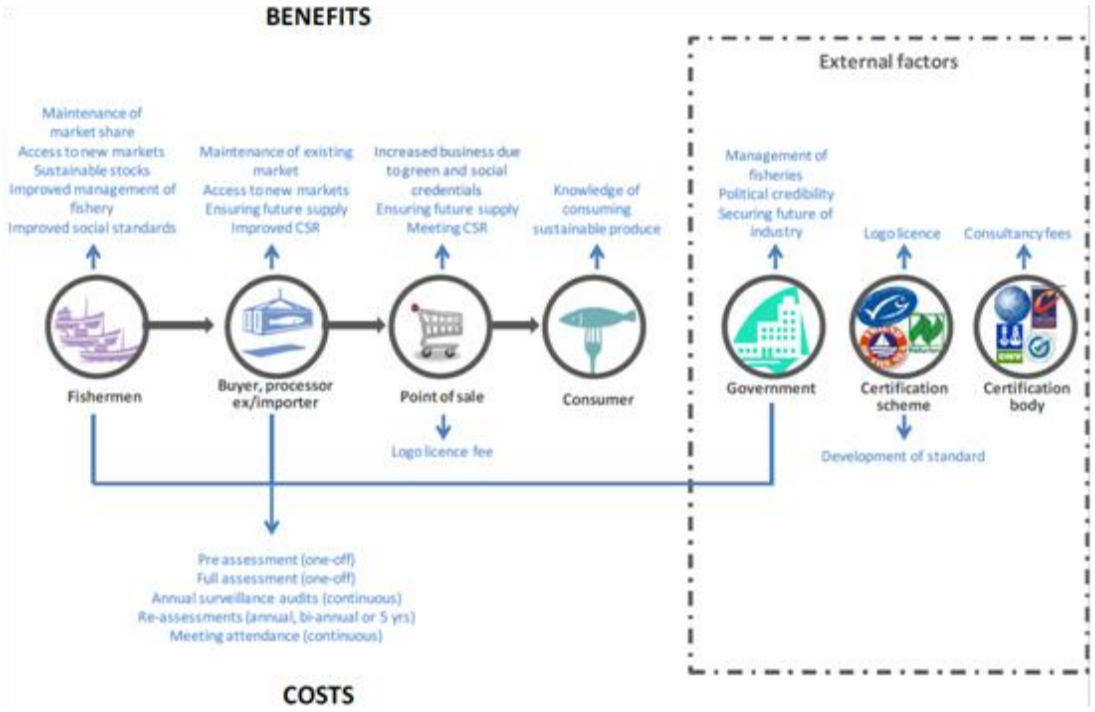
76. Eco-labelling shifts most of the cost of providing and transmitting information to the initial stages of the supply chain due to the market position along the value chain. The distribution of monetary and non-monetary costs and benefits within the private sector is critical; primary producers often feel disproportionally burdened by additional or more stringent regulations that may be a consequence of certification. Benefits, at least in the short term, are more likely to accrue to players at the other end of the value chain, in particular to the retail industry. Resulting healthier stocks benefit all players along the value chain: the primary producers in terms of reduced production costs due to stable stocks, the industry in terms of stable supply and the public sector in terms of resource conservation goals. It is likely that benefits are diffuse and spread while those bear the costs are more easily identified and concentrated on fewer producers.

77. Initial assessment costs and potential adjustment costs in the case of capture fisheries are likely to be borne in part by the public. This will be the case in particular if the certification requires changes to the management system or collection of additional data. If fisheries seeking certification fail because the assessment process reveals deficiencies in the overall public management of fisheries–a government responsibility—should governments refund the cost? It may be possible to develop a formula whereby industry pays the component of certification that relates to private benefits (*e.g.* price premiums, market access and consolidation) while government pays for the component relating to its responsibilities to manage marine resources. With respect to chain of custody certification costs, these are typically borne by businesses in the value-chain between the point of landing and the consumer.

78. The OECD/FAO Round Table identified the need for further research into the cost and benefits of fisheries certification with a particular focus on *who pays for what and which benefits accrue to whom?* Costs and benefits of capture fisheries certification are not well understood, primarily due to the difficulty in obtaining commercially sensitive economic data at each stage of the product life cycle. This can in turn generate policy limitations and create uncertainty over the net benefits of certification to different stakeholders, and which approaches to certification might be appropriate for different fisheries. In a paper on the cost-benefit distribution and transmission in environmental certification of capture fisheries Nimmo and Macfadyen (2010)[6] further investigated these issues (Figure 8).

6 . Paper presented to the 106th Session of the Committee for Fisheries – TAD/FI(2010)15

Figure 8. Schematic representation of costs and benefits of certification to different stakeholders



Source: Nimmo, F. and Macfadyen, G. (2010)

79. The case studies by Nimmo and Mafadyen (2010) in Annex 2 show that there are not set rules as to who should pay for which element of the cost of certification. The distribution depends on the scale and costs of certification, the relative interest of different stakeholders groups supporting certification and ability to pay, all of which may differ significantly depending on the particular fishery situation including the scale of the fishery and whether it is in a developing or a developed country.

80. As the case studies illustrate, Naturland and FOS assessments are predominately paid for by the food industry (*e.g.* processers and/or importers/exporters), while MSC certification in OECD countries is generally paid for by the producers themselves (or by processors). Of the MSC case studies examined only one fishery completely paid for the certification without seeking external funding sources. Others sought part or full funding from sources such as the European Fisheries Fund (EEF). In the case of Hastings Dover sole funding was first secured for a Policy Officer within the Local Authority who then worked to secure both European fisheries funding (both FIFG and EFF across their respective time periods) and local government funding. The Danish approach has seen a Project Officer employed by the Danish Fishermen's Producer Organisation (DFPO) to apply for EFF funding and co-ordinate the contractual agreements with certification bodies to undertake MSC assessments. The exception, in the case of the DFPO, has been 50% funding from a processor in the case of Danish Eastern Baltic cod.

81. The approach of seeking certification for national fleets may require a higher degree of data to inform the assessment and a potential increase in the risk that the fishery may not pass the assessment process (particularly with respect to wider environmental criteria); it does, nevertheless, present an economy of scale. This is of most relevance for stock assessment and management regimes, while wider environmental impacts will obviously be assessed on a gear type by gear type basis. This provides some incentive to seek wider assessments covering as many units of certification as possible. Units of certification are normally defined in terms of gear type, fleet segment or management regime. Through

reviewing certified fisheries and those under assessment it is clearly becoming common practice to enter more than one gear type into one assessment process.

82. It is clear that a large proportion of funding is sought from EFF (in the case of European fisheries) and so it is the EU and its member states that are effectively paying for the certification. In that case the question must therefore be how best to deliver this funding to the fishers, *i.e*. via a project officer coordinating at a local or national scale (as with DFPO and Hastings) or via a government-coordinated system (as with Netherlands).

83. The increasing demand for certified product in OECD countries also raises the issue of sourcing sustainable seafood from capture fisheries in developing countries. It is clear that costs of certification in developing countries are often beyond the reach of producers, especially where fisheries are small-scale in nature. In such cases, costs are normally borne by the processors, importers or exporters, potentially supported through donors and NGOs. This is the case for the majority of FOS and Naturland certified fisheries.

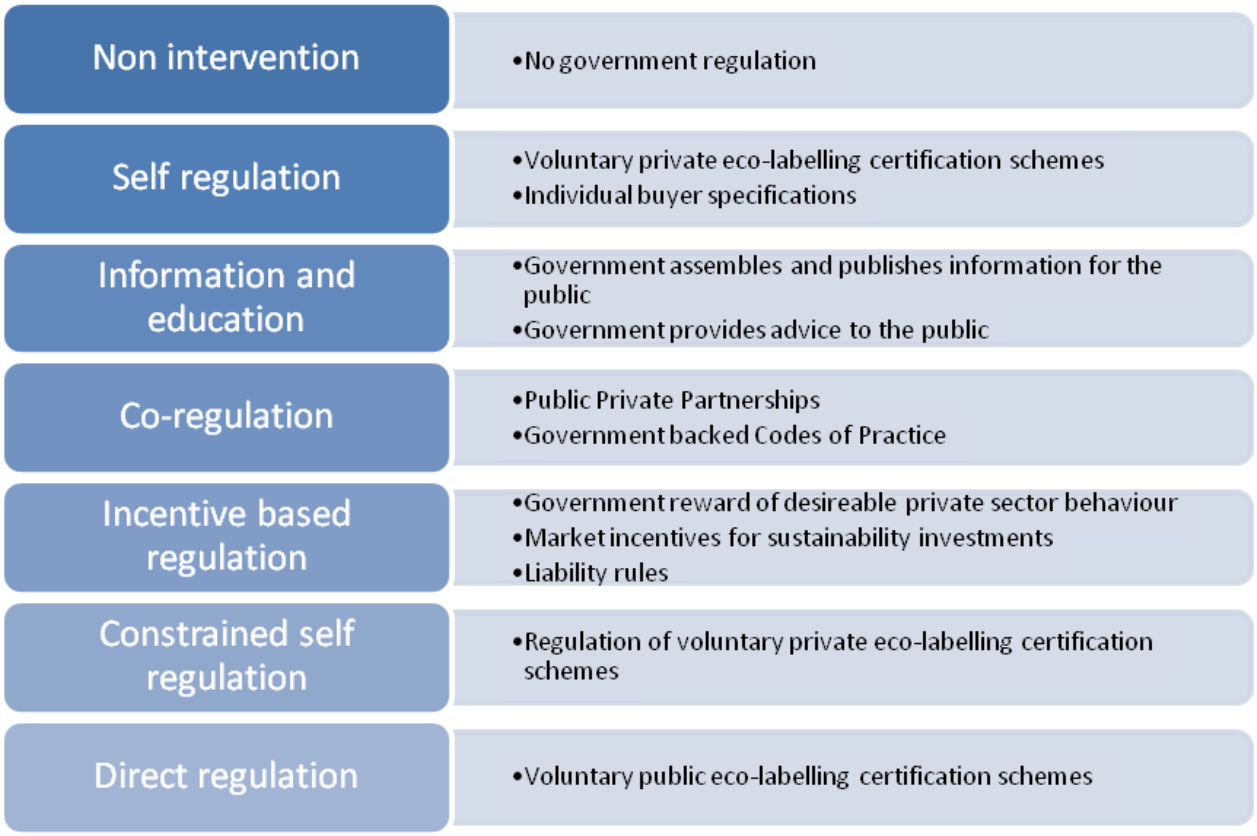
2.2.3 What is the role for governments in eco-labelling?

84. The issue of private certification schemes raises questions about sovereignty, accountability and governance. Fisheries are a common pool resource and fisheries management falls in the public domain. Government regulators face considerable challenges in overseeing and guiding the development of sustainable fisheries. A major step for public authorities is to delineate which–if any–policy goals (*e.g.* improved fisheries management, ecological conservation, supply chain functioning or consumer protection and information) could more efficiently be pursued through private and/or public systems of eco-labelling. The ultimate effectiveness of eco-labelling in achieving the objective of sustainable fisheries and aquaculture will then depend on the appropriate design and use of this tool.

85. FAO (2003) stresses that governments are responsible for the legal environment within which private certification operates. This may include regulations about the use of certain terms and concepts. The FAO guidelines for the eco-labelling of fish and fishery productions from marine capture fisheries state under general considerations that "Bearing in mind that eco-labelling schemes relate to fisheries management, and rights and duties of States, it is recognised that the involvement of States in eco-labelling schemes is desirable and should be encouraged." (FAO 2005, p. 2). FAO Guidelines have now been elaborated for wild-capture and inland fisheries. Guidelines for aquaculture were recently adopted at the FAO-COFI meeting in February 2011. It is not currently possible to assess what has been the effect of the elaboration of these guidelines. However, the FAO guidelines focus on the procedural aspects of certification. Neither guidelines—capture fisheries or aquaculture—attempt to define in a detailed and operational manner the concept of "sustainability". Furthermore, it appears that private initiatives relating to aquaculture certification (*e.g.* the ASC), have followed the FAO process closely.

86. The public sector increasingly views eco-labelling in fisheries and aquaculture as a market-based mechanism providing additional incentives for resource conservation. However, the costs and benefits of certification—including distributional issues—are more complex for governments than for private companies. Fisheries seeking certification put pressure on governments to allocate resources to areas or activities that may not be entirely consistent with existing policy frameworks and trajectories. In line with article 37 of the FAO Guidelines, the question for public authorities is finding the right level of engagement with eco-labelling within the regulatory framework for fisheries. This could range from direct intervention to a situation of total laissez-faire with the only public function of overseeing truth in advertising and claims (Figure 9). Government involvement can take a range of forms spanning from providing financial or administrative support (*e.g.* providing data, creating new data streams, and conducting scientific research) to direct policy setting.

Figure 9. Continuum of policy options for eco-labelling



Source: adapted from Anders and Caswell (2009)

87. Given the potential benefits of certification, there is an opportunity for governments to provide support for a market-based tool with considerable potential to generate benefits for fisheries management and environmental improvements (public goods), or for market benefits arising from certification to those in the supply chain (private goods). Self-regulation through the private sector is currently the *status quo* in many countries.

88. The FAO guidelines for capture fisheries and more recently also for aquaculture represents a multi-lateral government response to private certification in fisheries. These guidelines can provide a level playing field for eco-labelling schemes in fisheries and aquaculture.

89. Information and education initiatives by the public sector can help consumers make informed choices while leaving the private sector to take decisions about establishing schemes and whether to proceed with assessments. Co-regulation and incentive-based structures are more complex options. Co-regulation involves aligning private and public interests and negotiating responsibilities. Ideally, co-regulation has the capacity and flexibility to combine broader societal objectives with private market interests.

90. In fisheries and aquaculture new forms of private-public interaction to align incentives towards the common goal of sustainability are already emerging. Pooling of knowledge and resources can lead to long-term improvements such as lower costs and improved value chain integration. Co-operation between private schemes and international organisations contributes to harmonisation and fair treatment.

91. In the case of food quality, some countries apply a 'due diligence' clause to shape the interface of public-private responsibility. This requires the industry to demonstrate conformity with food quality regulation. In the case of eco-labelling, the 'due diligence' aspect refers to the demonstration of sustainable production methods. While not a legal requirement there seems enough pressure from the private sector to induce the industry to adopt certification. This demonstration can consist in measures taken by individual players along the value chain. But as can be observed, the trend is to rely on third party certifiers or on self-imposed industry codes.

92. Green growth principles encourage fisheries and aquaculture supply chain participants to review current business models with a view to ensuring that economic and environmental objectives do not conflict. A shared vision regarding sustainability on the part of business and public interests is needed. This may require new ways of collaborating and forming alliances among stakeholders—such as a more direct involvement of the industry (through associations) with the primary producers—to ensure equitable sharing of costs and benefits and to develop a sense of sector-wide product stewardship. This also includes common efforts in terms of consumer education and information to build knowledge at all levels of the chain.

93. If certification results in private sector benefits, then the private sector should embrace certification without any need for direct government (financial, human, technical, administrative) support. However, given the wider public benefits of certification, it may make sense for the government to provide incentives for the private sector to participate. The approach taken by the EU with respect to EFF funding, whereby member states make a contribution to partially cover the costs of assessment funding is one example.

94. Direct regulation has some merits, but also some drawbacks. The cost of establishing schemes with credible standards and building consumer awareness are significant, and assessment costs of government schemes may be no lower than for private certification schemes. The exception may be if consumers find it easier to identify with national certification schemes than with global private sector ones. Government-initiated certification schemes may also be able to tailor their assessment criteria to the specific needs of a country's fisheries. However, on balance, government funding for public certification schemes may be questionable in terms of value for money.

95. In any case, the regulatory fisheries management context is important because it sets the parameters against which certification and quality signalling programs operate. It also affects the benefits and costs of those systems and their distribution within the supply chain, which is an area of tension within the supply chain and in some cases also on the public-private interface.

96. If a government decides to directly fund private certification of its fisheries, what are the implications and what are the challenges it might face? If it decides to set up its own label what are the likely challenges and how might they be met? Are there other ways of responding to buyers' demands for 'guarantees 'that fish and seafood products come from sustainable sources? Which strategies are the most valuable in terms of incentivising improved fisheries management and overall sustainability (rather than simply operating certification as a marketing strategy)?

97. Governments can play a role in reducing costs for fisheries willing to engage in private eco-labelling. Based on the continuum of policy options for eco-labelling in Figure 9, the following is a brief overview of how some countries respond to the certification challenge.

The role of governments vis-à-vis private eco-labelling: evidence from OECD member countries

98. The Dutch Ministry of Agriculture, Nature and Food Quality believes that certification of fish and fish products can provide an important contribution to sustainable fisheries. While recognising that certification is a market responsibility the government has decided to facilitate MSC certification of the Dutch fishing industry with EUR 1 million funding in order to further stimulate sustainable fisheries. More specifically, the government has negotiated specific conditions with MSC (*e.g.* with regard to the cost of the use of the label) to allow a broad participation of the Dutch fishing industry in the certification effort. The motivation behind this decision is that government regulatory measures had not achieved the required results and that private sector mechanisms may be better placed to incite better fisheries management. This is one of the most explicit examples of incentive based structures included in Box x with a government utilising a private eco-label to pursue its public policy goals.

99. France in contrast, rather than endorsing any particular private scheme, has chosen to create its own national eco-label and related certification scheme. This decision, officialised through the law Grenelle 2, was based on a feasibility study[7] undertaken in 2008 by the responsible French authority, FranceAgriMer. As part of that process, FranceAgriMer examined existing private eco-labels, including for consistency with the FAO Guidelines for the Eco-labelling of Fish and Fishery Products from Marine Capture Fisheries. FranceAgriMer concluded that of the existing eco-labels, only MSC was fully compliant with those guidelines. However, it also concluded that the MSC model would not fit all fisheries. FranceAgriMer therefore decided to adopt a public framework to meet the needs of its the fishing industry as defined by the feasibility study; a scheme that was less costly than MSC, easily recognised by consumers (along the lines of the French public quality label, Label Rouge), and one that was consistent with the FAO guidelines but went beyond by including social and economic criteria. The public label will not preclude the certification of French fisheries to other private eco-labels, on the contrary certification to other labels will be encouraged. Bureau Veritas is developing the technical aspects of the scheme and a commission of interested parties is under identification to ensure stakeholder participation, confirming the co-regulation character of this approach. A Council order followed by a Ministerial decree will determine the juridical and technical conditions for the granting of the eco-label.

100. Another example for co-regulation is Iceland. The Icelandic fishing industry, with public support, has developed an Icelandic 'logo' based on Iceland's 'Statement on Responsible Fisheries in Iceland' (signed in partnership by both government and the fishing industry). While the Icelandic industry and government are convinced that its fisheries management is sound and that the Icelandic industry is engaged in responsible fishing, they realised the need for some mechanism of proof' or documentation that this was the case. The Icelandic logo will be a label of origin but with reference to sustainability. Certification will be conducted by an independent internationally recognised and accredited certification body, which will in essence involve third party certification of the government's fisheries management performance. The certification body will assess fishery conformance to a specification based on the FAO guidelines.

101. The US has adopted the information and education approach. The US National Marine Fisheries Service has developed its own information portal to address potential information asymmetry about fisheries sustainability. *FishWatch* is designed to help consumers make informed decisions about seafood purchase and consumption. It also provides information about the management and science requirements involved with building and maintaining sustainable fisheries.

102. In the state of Alaska, the Alaska Seafood Marketing Institute (ASMI) - a cooperative partnership between the Alaska seafood industry and state government to advance the mutually beneficial goal of a stable and sustainable seafood industry in Alaska – will introduce in 2011 a 'Global Trust' label based on

[7] The results of this feasibility study are available (in French) online at: www.ofimer.fr/Pages/Ofimer/Publications.html

third-party certification. The label will certify sustainable fishing and no fee for the use of the label will be charged.

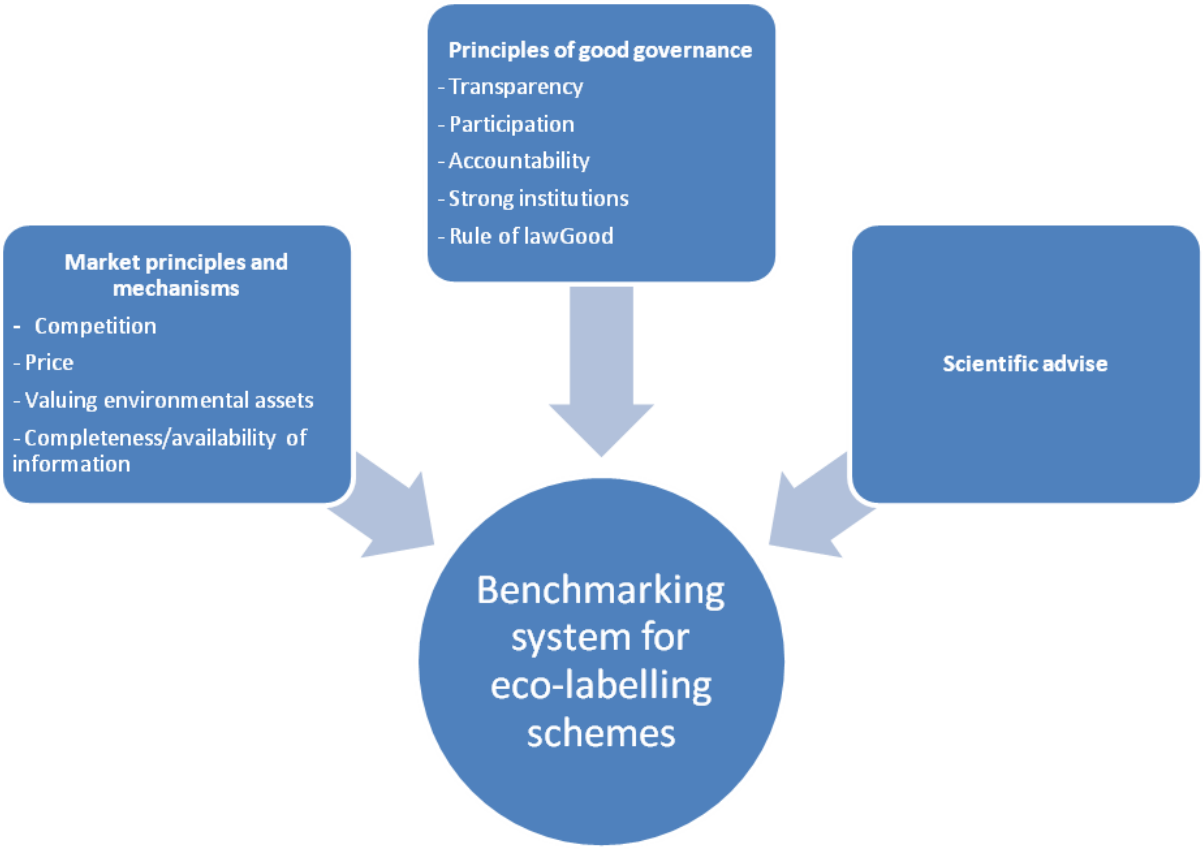
2.2.3.1 Governance and accountability in eco-labelling: private, public, both?

103. As mentioned, the key challenge for governments with regard to private eco-labelling schemes is to address the public-private interface. Shifting power to judge the appropriateness of public management schemes to the private sector may impact on the sovereignty of the public sector and generate challenging situations for the allocation of limited public resources (financial, human and political). If substantial government resources are required to support certification of already sustainably managed fisheries, transitional fisheries in need of government attention and resources may be penalised, with a resulting net loss of overall sustainability.

104. At the OECD/FAO Round Table on Eco-labelling and Certification in the Fisheries Sector these issues led to the broader consideration of the components of a global governance system for sustainable fisheries and aquaculture and who would be entitled/willing to decide on them. In this regard, what would be the role of market mechanisms in a global governance framework for sustainable fisheries? Can the FAO *Guidelines for the Eco-labelling of Fish and Fisheries Products from Marine Capture Fisheries* be strengthened for this purpose? And how can success be measured?

105. An 'ideal' governance regime for sustainable fisheries and aquaculture should combine the principles of good governance with market principles and mechanisms and scientific advice. These elements would also feed into a benchmark system for eco-labelling (Figure 10). The development of such a framework is likely to be a more important task for governments and international organisations than their involvement in eco-labelling as it would establish minimum criteria for sustainable fisheries management, including market-based mechanisms like eco-labelling.

Figure 10. Elements of an "aspirational" governance regime for sustainable fisheries and aquaculture



Source: OECD

106. Accountability can be defined as "a system, or set of mechanisms, designed to make sure promises are kept, duties are performed, and compliance is forthcoming" (Iles, 2006). Accountability is particularly important for private eco-labelling schemes which build primarily on credence value. Market acceptance of a scheme depends crucially on its robustness, stability and legitimacy.

107. One important aspect of the public-private interface is whether governments should involve themselves in ensuring ongoing good governance of a private scheme. For example, can a private scheme with current acceptance in the market be held accountable in the case of failure to achieve promised objectives (*e.g.* in terms of environmental/stock improvements)?

108. During the OECD/FAO Round Table on Eco-labelling and Certification the representatives of all stakeholder groups voiced their interest in a framework against which to assess the quality and credibility of the existing and emerging private fisheries certification schemes. In the absence of a reference framework the current system may have difficulties in delivering its maximum benefits. Some NGOs and associations have initiated benchmarking or review exercises for seafood eco-labels (*e.g.* WWF, 2008, Fish Sustainability Information Group through Parkes *et al*. 2010). However, the approaches developed so far seem to be insufficiently impartial and comprehensive to serve as a solid reference.

109. The FAO Guidelines are often cited as a benchmarking entry point. The translation of the Guidelines into measurable indicators for a practical benchmarking system has been hampered by the sheer number of provisions and the lack of explicitly verifiable criteria. Although benchmarking is called for it

remains unclear who, how and what exactly to benchmark. A number of questions for policy makers remain:

- Is a commonly accepted definition of 'sustainability' for fisheries and aquaculture feasible? If so, who develops it?
- Should public authorities or the industry develop a benchmarking system?
- Is it better to have one dominating standard for sustainable seafood or many competing standards?
- Who ensures compliance and how?

110. Key industry representatives have presented 'wish lists' for certification scheme features. Those features includes for example that schemes should: [8]

- build on sound international protocols for standard development;
- be continually evolving to meet new challenges,
- deal with traceability/supply chain integrity,
- seek continuous improvement through active engagement with fishers and fishery managers
- not be a barrier to trade
- carry clear and simple messages.

111. The recent review of fish sustainability information schemes conducted by Parkes *et al*. (2010) identifies a similar list of key attributes that need to be addressed by seafood certification schemes: scope, accuracy, independence, precision, transparency, standardisation and cost-effectiveness.

112. Regulatory oversight can provide some quality assurance with regard to accountability and truth in labelling and advertising. Transparency of the certification assessment and review process, including public access to reports, for example is an important quality criterion. Complaints management is another one, as it allows stakeholders to actively manifest their disagreement or doubts and forces the certifier or scheme manager to provide a response.

113. Meanwhile, the private sector is aware of the importance of accountability to protect the economic value of sustainability reporting. The Global Reporting Initiative (GRI) for example is a multi-stakeholder effort which has developed a shared framework for sustainability reporting. This framework builds on globally shared concepts, consistent language and metrics and can be applied to companies of any scale and any sector. Other coalitions led by industry associations, NGOs or international organisations promote consistency in certification methodologies and convergence between standards (OECD, 2006). Prominent examples are the Global Food Safety Initiative (GFSI) that promotes convergence between standards through a benchmarking process for food safety management schemes, the Global Eco-labelling Network and the Association of Sustainable Fisheries of MSC-certified fisheries.

114. Likewise, the ISEAL Alliance is an international NGO that codifies best practice for the design and implementation of social and environmental standards systems (Box 4). So far, codes of good practice are available for standard-setting procedures, measuring impacts of standards systems and verification practices. These codes are part of the 'evolving suite of credibility tools that support the effective implementation of voluntary standards systems' (ISEAL, 2010).

8 . Findus, Iglo

Box 3. ISEAL Alliance Code of Good Practice for Setting Social and Environmental Standards

The Standard-Setting Code can serve as a minimum bar against which to measure processes to develop voluntary standards. The intention is not to promote the development of an ever increasing number of standards initiatives, but to improve consistency between standards, enhancing their effectiveness.

Standard-setting practices should be based on relevant international normative documents, where appropriate. The normative documents from which the Standard-Setting Code draws are ISE/IEC Guide 59 (Code of Good Practice for Standardisation) and the WTO TBT Agreement Annex 3 (Code of Good Practice for the preparation, adoption and application of standards).

Source : extracted from ISEAL Alliance, 2010

115. Chapter 3 discusses how the certification industry builds credibility and their architecture and assurance mechanisms.

2.2.4 Key points for discussion

116. Private eco-labels are at the nexus between marketing fish and fisheries products and fisheries management and are well established in the fisheries sustainability discussion. While coming from different motivating factors, private eco-labelling can align public and private incentives towards the shared goals of sustainable fisheries and aquaculture production, management and consumption. The stakeholder analysis reveals different incentive structures with regard to eco-labelling: public authorities anticipate potential improvement in compliance with management measures and hence stock status, the industry aims to differentiate products and consolidate market positions through branding and NGOs hope to direct consumer demand towards sustainable consumption. Both private operators and NGOs seek to promote specific process and product attributes in the market.

117. The consequences of eco-labelling on fisheries and aquaculture management, sustainability and on consumers have not been assessed empirically to an extent that allows drawing general conclusions on the success of eco-labelling in fisheries/aquaculture. It is assumed that in the medium to long run the market mechanism of eco-labelling in fisheries and aquaculture can contribute to changing unsustainable behaviour in production (Haland and Esmark, 2002) and consumption. To do so requires agreed definitions of sustainability that can be translated into action. High industry participation, proper design (including accessible language), credibility, affordability and acceptance are minimum requirements for the positive contribution of private eco-labelling to sustainable fisheries and aquaculture. Constant policy attention over a long time is key to supporting a political economy change towards sustainability.

118. Price signals are an important determinant for market behaviour. Market mechanisms needs to be shaped in a way that allows for economically efficient business decisions while catering to broader societal goals. This is captured in the OECD Green Growth Strategy which explicitly states that member states must "work towards establishing appropriate regulations and policies to ensure clear and long-term price signals encouraging efficient environmental outcomes."

119. Eco-labelling is part of a trend which may eventually result in a paradigm shift towards a sustainable societal development, including a healthy fisheries and aquaculture sector (Söderbaum, 2008). A new paradigm implies institutional change. Traditional power relations shift and stakeholders engage in strategic alliances, for example NGOs and the food industry. This is a relatively new phenomenon and it is

too early to predict the outcome compared to the use of traditional public management systems. In the meantime, forming alliances has the advantage of fostering dialogue and understanding of different positions among stakeholders. For the food industry such alliances may support credibility. NGOs may be more successful through co-operating with industry than through conflict.

120. While not a panacea, private eco-labelling certification and the momentum it generated for the sustainability debate has contributed to develop new dimensions of collaboration in support of improved fisheries management. This is a welcome development and is one means of ensuring stakeholder involvement and a continued pressure for sustainable fisheries.

121. Overall, the anticipated impact of certification on key variables (*e.g.* price, volume, profit and cost distribution, product variability, 'sustainability') is not well documented. Price premiums predicted by economic theory seem not to materialise, or only to a small extent. Sustainability impacts remain a crucial question but little evidence has been presented so far. Furthermore, causal relationships between certification and fisheries sustainability are difficult to measure and to separate from other impacts including changes in management tools and changing natural conditions. In their study of the environmental benefits resulting from certification of ten fisheries (MSC) Agnew *et al.* (2006) are unable to ascertain if certification has resulted in environmental benefits. Whether private standards, certifications and labels positively impact on fish resources ultimately depends on reliable science, objectivity, independent verification of claims and proper systems management (Ponte, 2008). In the meantime certification has raised the level of awareness and focus on the role of fisheries management.

122. A focus on certification may be to miss the point about the impacts of sustainability requirements more generally. The primary intended benefit of certification is to bring about change in fishing practices through a market-based mechanism, so the extent to which different schemes do this as opposed to just certifying fisheries that may already comply with standards needs to be evaluated. That is, is certification economically efficient relative to using fisheries management policies? The extent to which certification can motivate change is likely to be revealed in the coming years, with much of the 'low hanging fruit' (in terms of well-managed fisheries complying with certification standards) already having been assessed and certified, leaving more problematic fisheries to engage in certification where more significant management changes might be required.

123. There remains a need to develop an "aspirational" global governance regime for sustainable fisheries and aquaculture containing principles, terminology and measureable indicators. This would help states analyse their own progress in fisheries management and support efforts to prove responsible fisheries management to international partners, including for trade and marketing purposes. The recent call by member states to pursue a green growth strategy may help advance this debate.

2.3 Government-initiated certification schemes

124. In addition to sustainability related certification schemes, there are two other important product/process dimensions generating seafood certification:

(i) food quality (in the sense of food safety and hygiene properties of a food product) and

(ii) legality.

125. These two dimensions fall traditionally under public responsibility and governments have taken the initial lead in developing technical regulations that may be used for certification. The private sector - in particular again the seafood processing, distribution and retail industry - has picked up on some food quality and legality aspects by developing private certification schemes. Such private schemes are "over and above" government minimum criteria. The reasons for the private sector to do so are to improve individual market positions, to lift the reputation of the sector as such and to defer perceived risks (for example, food contaminations are expensive to deal with both in terms of product recall and in terms of reputation).

126. Food quality and legality certification poses fewer questions for the role of governments than private eco-labelling. The main features of these schemes are summarised to complement the previous discussion of privately initiated certification schemes and underscore some fundamental differences as well as similarities. The following will first look at food quality certification and then on legality related certification in fisheries and aquaculture.

2.3.1 Food quality related certification schemes

2.3.1.1 What it is about

127. Food quality encompasses a large range of notions: food hygienic/safety quality, nutritional quality, organoleptic quality, technological quality, convenience quality. Within this paper, the notion of food quality is however limited to food safety and hygiene aspects, which refer to chronic and acute hazards that make food harmful for human consumption.

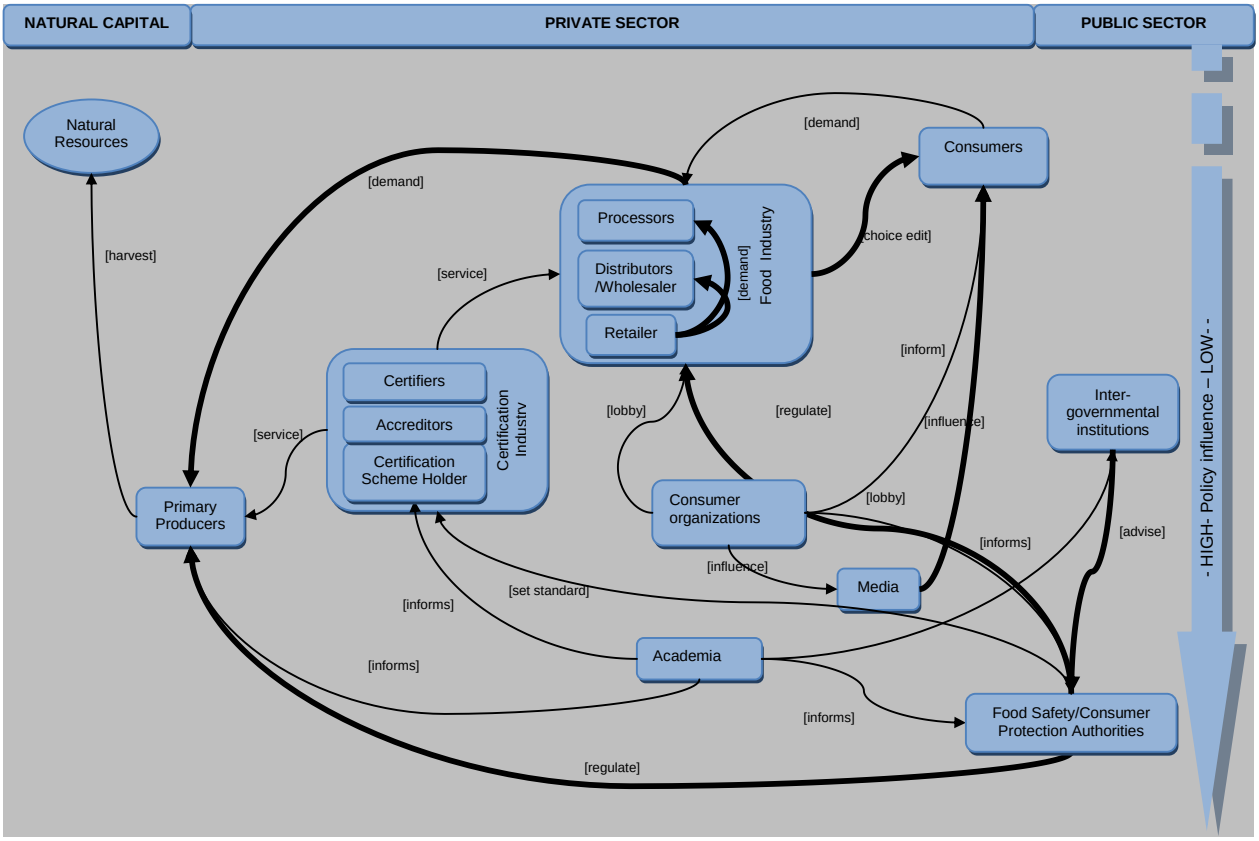
128. The development of food quality systems is occurring in the context of a broader shift in regulatory approaches to assuring food quality, particularly food safety (Henson, 2008; Garcia *et al*., 2007). The shift is a response to larger food trade volumes and the globalisation of supply chains. And seafood is one of the most traded food commodities.

129. The subject of a food quality regulation can be a single attribute or a multitude of attributes of either the product (expected product characteristic) or the production process (partly or entirely). Food quality regulations are primarily single-attribute product standards (*e.g.* maximum histamine levels in fish products). They are often compiled in one comprehensive public technical regulation (*e.g.* as national food standards). The compliance with technical food quality regulations is usually not visible to the consumer and not necessarily subject to certification in strict sense but can require documentation with implications for the various players along the seafood value chain.

2.3.1.2 Economics of government initiated certification scheme: food quality

130. Figure 11 provides a snapshot of the main features of the food quality market in fisheries and aquaculture.

Figure 11. Actor-Linkage map: Food quality



Source: OECD

131. Fisheries products are usually covered by food quality certification schemes and a well developed body on the economics of food quality and food safety exists. An OECD Working Paper on the interaction of public and private standards in the food chain provides key findings that also apply to the fishery sector (Smith, 2009). The following will therefore only provide a brief overview of the argument.

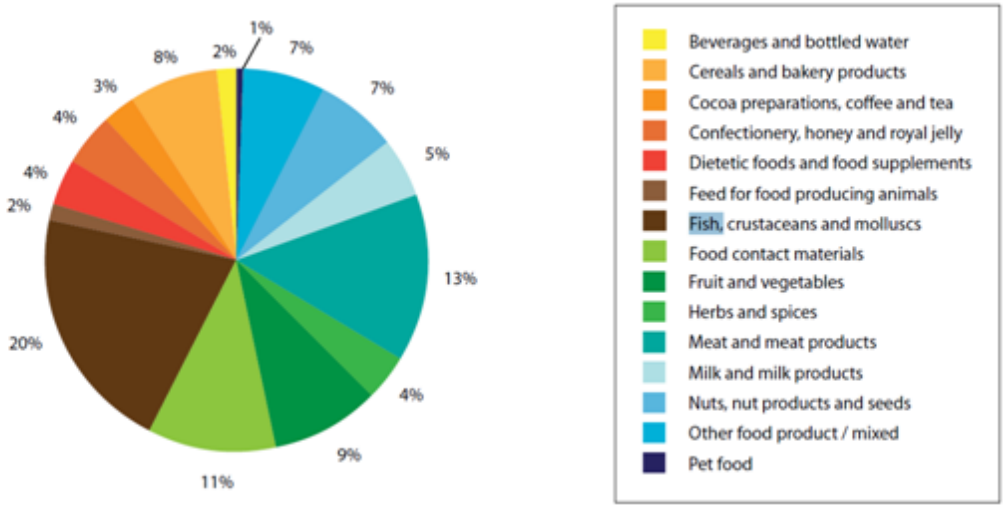
132. The economic literature identifies various imperfections in the market for food safety, (i) asymmetry in the knowledge of risk (causing divergence between perceived and real risk), (ii) (global) public good character of food safety and (iii) social costs and benefits (Ritson and Mai, 1998).

133. Imperfect information often occurs in a situation where the demand for that information is societal rather than commercial. For instance, epidemiological information may link food borne illness to a particular type of fishery products. Consumers may not make this connection because it is difficult to link particular incidents of food borne illness to specific foods. The market may fail to provide incentives to companies to disclose that type of information if liability systems don't identify and punish companies that sell unsafe products.

134. So what are the drivers behind governments' interest in food quality regulation and certification? Among the functions of the state is to address market failures and to provide 'public' goods and services (Josling *et al*., 2004). By ensuring food safety through regulation the state reacts to the societal demand for safety and corrects the market failure. By setting minimum standards for food quality the state ensures

consumer protection and hence limits the societal costs of food borne diseases. According to a recent study, the annual costs of acute food borne illnesses in the US alone is estimated at USD152 billion including healthcare, workplace and other economic losses (Scharff, 2010). In the EU, in 2008 the product category 'fish' accounted for 20% of the alert notifications (Figure 12). In the same year, fishery products accounted for 11% of the total of food products rejected at the border (EC, 2009).

Figure 12. Food Safety; alert notification by product category



Source: The Rapid Alert System for Food and Feed (RASFF), Annual Report 2008 (EC, 2009)

135. A succession of food scares from BSE and bird flu to the recent swine flu has repositioned food safety high on international agenda. Highly traded seafood carries the risk of mercury contamination, shellfish poisoning, etc. Given the fast spread of many food borne diseases at a global scale, intergovernmental organisations have over time developed widely accepted standard and regulations for food safety and hygiene. The most important institutions and arrangements in this context are the so-called 'three sisters':

- FAO/WTO Codex Alimentarius Commission (1962),
- World Organisation for Animal Health (OIE) and
- International Plant Protection Convention (IPPC).

136. These three have the main responsibility - for international standards for food safety, animal health and plant protection respectively - under the Sanitary and Phyto-Sanitary (SPS, 1995) agreement. The WTO/FAO Codex Committee on Fish and Fishery Products (CCFFP) is the sector–specific international reference body for food safety regulation.

137. The international framework for food safety consists of the WTO SPS/Technical Barriers to Trade (TBT, 1995) agreements and the Codex Alimentarius which has a Committee on Fish and Fisheries Products. This international framework aims to support trade liberalisation; to protect human, animal and plant health and to minimise technical obstacles to trade. There is hence an inherent conflict risk that protective measures turn into protectionism. Ongoing trade tariff reductions put in fact a lot of pressure on non-tariff measures to shield domestic markets from international competition.

138. The international framework is integrated by other voluntary references like ISO, the FAO Code of Conduct for Responsible Fisheries and Good Manufacturing Practices. ISO standards (*e.g.* ISO 9000:2000 – Quality management; 22000:2005 – Food safety management system) and include a certification element. The ISO 22000:2005 standard requires a food safety management system to have four key elements: interactive communication, system management, prerequisite programs and HACCP principles.

139. Box 5 illustrates some examples of food safety regulation in OECD countries.

Box 4. Food safety regulation for fishery products in selected OECD countries

EU

In 2004 the EU introduced the 'Hygiene Package' to make food quality regulation more transparent and accessible. Fishery product imports to the EU are subject to official certification based on recognition of the Competent Authority (CA) of the non-EU country by the European Commission. Public authorities with the necessary legal powers and resources must ensure credible inspection and control throughout the production chain, which covers all relevant aspects of hygiene, public health and, in the case of aquaculture products, also animal health. For all fishery products, countries of origin must be on a published list of eligible countries for the relevant product.

USA

The US Food and Drug Administration (FDA) operates a mandatory safety program for seafood products. FDA publishes a *Fish and Fisheries Products Hazards and Controls Guidance* to support compliance with the program.

140. Domestic and international food quality (safety and hygiene) regulations now widely adopt the Hazard Analysis and Critical Control Points (HACCP) method. HACCP is a systematic preventive approach to food safety and pharmaceutical safety that addresses physical, chemical and biological hazards in production processes as a means of prevention rather than finished product inspection. It consists of the following main components:

- hazard analysis to identify potential food safety risks (hazards)
- the identification of critical control points to prevent such hazards;
- the establishment of critical limits;
- monitoring of the critical control points;
- corrective actions if something goes wrong;
- verification to assess whether monitoring occurs correctly, corrective actions are taken in time and effectively, etc.
- documentation

141. The costs of food quality certification are carried primarily by the industry while the benefits in terms of reduced food hazard risk are reaped mainly by the individual consumer and by society through reduced costs on welfare. The incentive to implement voluntarily costly food quality assurance schemes for the private industry is hence limited as they are not able to fully capture the returns.

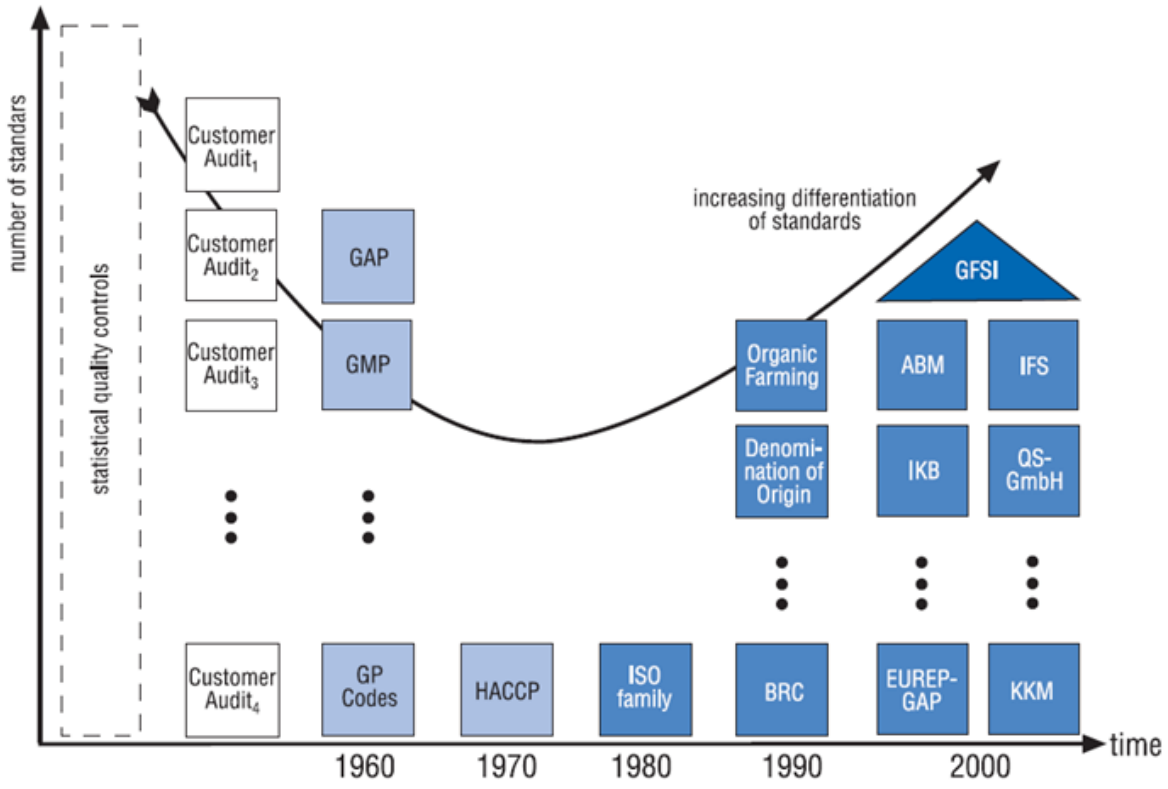
142. Mandatory public domestic and international technical requirements for food safety set minimum standards and provide an incentive for the private sector to develop appropriate production processes

(Holleran *et al*., 1999) to reduce compliance costs. However, the private sector also has self-interest in up-scaling mandatory food quality standards as it comes to realise that hazards can be very damaging and costly for a company or even an entire sector. Buyers along the value chain therefore often require proof of the ability to identify and control food quality risks. This is where private food quality certification comes into play.

143. Private food quality requirements and certification schemes developed by industry associations are an expression of self-imposed regulation of the sector. The development of these private schemes is explained by a consolidation and vertical integration processes in the food sector, the emergence of 'food coalitions', and the increasing market power of supermarkets. High transaction costs caused by uncertainty about quality are an important incentive for private companies to adopt private food quality systems.

144. There has been a transition from individual customer audit schemes to industry wide schemes (Figure 13). There is also a trend towards increasing differentiation in terms of attributes covered but also an increasing mutual recognition.

Figure 13. Development of food quality certification schemes



Source: EC, 2006

145. These schemes are often operated at a B2B-level, but they have marketing potential if information about product quality is communicated to final consumers. As in the case of eco-labelling, the driver is market differentiation, buyer acquisition, risk reduction and/or relationship consolidation.

146. There is a trend away from product sample testing to continuous monitoring and quality assurance processes. Vertical supply chain alliances as opposed to traditional open-market transaction

facilitate the implementation of food quality assurance systems along the value chain and potentially improve risk management (Gray and Boehlje, 2005). In fact, while eco-labelling in fisheries and aquaculture focuses on the initial stage of the value chain - the production stage - food quality certification requires a shared responsibility throughout the entire value chain up to the point of consumption.

147. Along the value chain there is an understanding that food quality – in the sense of food safety – should not be a competitive issue within the food industry. Food quality certification schemes hence operate as 'tools of chain coordination, as meta-management systems to implement process standards' (Reardon and Farina, 2002) to increase supply chain efficiency and to enhance brand recognition, safeguarding and reputation'. Mislabelling is one threat to those latter ones. Species substitution cases of Pangasius sold as sole or flounder in the US and as cod in the UK are two examples of recently detected scams. Short-weighting is another common mislabelling problem in the industry.

148. The adoption of common quality assurance systems is therefore in the interest of all players, with retailers, distributors and processors driving the process and imposing it as a business condition on primary producers.

149. ISO 22000 for food safety management systems is an important mechanism as it provides a reference for the entire value chain and a framework for third party certification (Seagrave, 2007). While ISO addresses both the public and the private sphere, intra-industry certification initiatives are specific tools to pursue common objectives, like the overall quality reputation of products, to the benefit of the industry as a whole.

150. Although not a standard setting or certification organisation, the Global Food Safety Initiative (GFSI) is an example of a strictly private initiative to promote a trustworthy, cost-efficient and harmonised food safety standard landscape. A crucial tool to achieve this is the publication of a *Guidance Document* with key requirements against which food safety management standards are benchmarked. GFSI was set up by retailers with support from the independent global food business network CIES in 2000. According to its website, GFSI's mission is the continuous improvement in food safety management systems to ensure confidence in the delivery of safe food to consumers. The GFSI objectives are to:

- Foster convergence between food safety standards through maintaining a benchmarking process for food safety management schemes;
- Improve cost efficiency throughout the food supply chain through the common acceptance of GFSI recognised standards by retailers around the world; and
- Provide a unique international stakeholder platform for networking, knowledge exchange and sharing of best food safety practices and information.

151. The Global Aquaculture Alliance (GAA) and the Aquaculture Certification Council (ACC) have recently submitted a Best Aquaculture Practices (BAP) standard for seafood processing plants to the Global Food Safety Initiative (GFSI) in order to benchmark it to GFSI food safety guidelines, which are increasingly required by industry buyers.

152. Other examples of private food quality schemes are the British Retail Consortium (BRC), a union of British supermarket chains, which requires documented approval to ensure food quality and safety, the International Food Standard (IFS) established by German supermarket chains and the Safety Quality Food (SQF) program endorsed by the US Food Marketing Institute (FMI). BRC, IFS and SQF are primarily B2B-schemes and benchmarked against the GFSI guidelines. The FMI has developed a specific sustainable seafood policy in 2009.

153. GLOBALGAP is another B2B-standard setting organisation which has developed modules for aquaculture. It is a pre-farm-gate standard (certificate covers the process of the certified product from farm inputs like feed or seedlings and all the farming activities until the product leaves the farm). Its integrated farm assurance standard includes specific requirements for salmonids, shrimp, pangasius, tilapia and others.

154. As in the case of private eco-labels, increasing acceptance and use of private food quality certification schemes transform them from voluntary into *de facto* requirements for market participants. Non-compliance with these schemes automatically reduces business opportunities in highly concentrated oligopolistic food markets. There is thus a considerable impact of these schemes on the distribution of power among participants in international trade in fish and fishery products.

155. In terms of equity, an OECD study concluded that health and safety standards [for shrimp] imposed by importing countries lead to improvements of production methods in the exporting countries that increase foreign producers' welfare. In particular, if OECD countries were to ban shrimp imports for health reasons, substantial profit incentives exist in exporting countries to adopt improved production methods in order to regain access to OECD countries' markets" (OECD, 2009b). It could be questioned, however, if the benefit of international harmonisation of private food quality standards that reduces overall costs of control and increases consumer welfare justifies potential market access issues caused for exporting countries and small-scale producers by this form of non-tariff measures.

2.3.2.2 Key points for discussion

156. The existence of an international reference framework supports the harmonisation of national food standards. The SPS and TBT agreements specifically encourage the harmonisation of food standards. In addition, despite its government-to-government nature, the transparency of the standard development process in Codex allows the private sector to provide input. Some countries have in fact established 'Codex Contact Points' where the private sector can review and comment proposals. ISO on the other hand is a dialogue platform for national standards institutes with private *and* public members.

157. The international governance framework and the existing public, private and hybrid institutions in the food quality landscape have contributed to achieving a certain level of harmonisation which is expected to develop further. Private food quality certification can also contribute to raising the mandatory bar if appropriate. However, harmonisation of private (and public) certification schemes should be further pursued to reduce compliance/transaction costs and market access barriers. This is particularly important for individual buyer specifications for food quality aspects of fishery products.

158. Main critical issues for governments with regard to private food quality certification schemes remain twofold: avoiding potential market access restrictions due to the non-tariff barrier nature and ensuring truth in marketing. Both issues will be dealt with in the next chapter.

2.3.2 Legality related certification schemes

2.3.2.1 What it is about

159. Compared to the complex issue of sustainability addressed by eco-labels, legality is a narrower concept. It refers to the compliance of fishing activities with national and international laws and regulations on:

- access to fishing areas in terms of space and time,
- target species,

- fishing methods;
- agreed quotas and
- reporting rules.

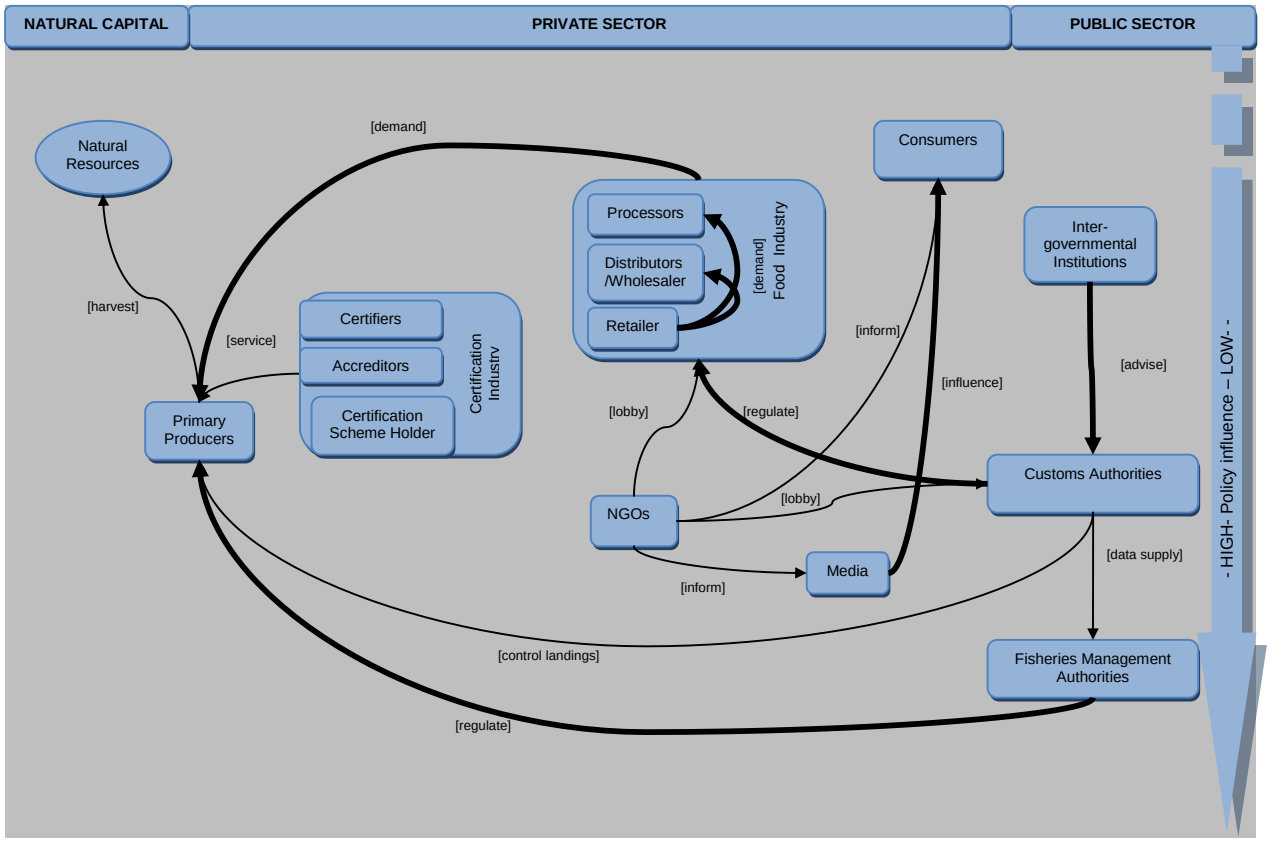
160. The non-compliance with the above mentioned criteria results in illegal, unreported and unregulated (IUU) fishing. With the globalisation of fish trade, legality certification has developed in response to illegal, unreported and unregulated (IUU) fishing which poses a major threat to the global sustainability of fisheries, in terms of stocks and in terms of wider environmental, economic and social implications. By definition, legality certification is developed by national or international public institutions as it deals with sovereignty issues.

161. Estimates of an annual produced value of EUR 10 billion make IUU fishing the second largest global 'producer' of fishery products (EC, 2009).

2.3.2.2 Economics of government initiated certification schemes: legality

162. Figure 14 and the following paragraphs provide a snapshot of the main features of the market for legality certification in fisheries.

Figure 14. Actor-linkage map: Legality



Source: OECD

163. In its analysis of the economics of IUU fishing activities the OECD provides a model for the incentive for IUU fishing based on the economics of crime and punishment (OECD, 2005). The economic driver behind IUU fishing is that the expected benefit exceeds the expected punishment.

164. To combat IUU fishing, governments have developed different tools, including catch certification. The reasoning behind legality certification builds on the assumption that it reduces the incentive for IUU fishing by reducing market access opportunities. Legality certification can be seen as an extension of or a complement to national and international monitoring, surveillance and enforcement measures embedded in fisheries management systems. Legality certification is somewhat complementary to sustainability certification which implicitly requires the absence of IUU fishing.

165. The global governance framework for fisheries has the following key components in relation to legality:

- United Nations Convention on the Law of the Sea (UNCLOS, 1982);
- FAO International Plan of Action to Prevent, Deter and Eliminate IUU Fishing (2001);
- United Nations Fish Stocks Agreement (UNFSA, 1995) and
- Agreement on Port State Measures to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing (2009).

166. The Agreement on Port State Measures is the first ever global agreement focusing specifically on the problem of IUU fishing. The objective of the agreement is to help block IUU-caught fish from entering international markets, thereby removing an important incentive for some fishers to engage in illicit fishing. Under the Agreement, countries agree to take a number of steps against IUU fishers. Foreign fishing vessels are required to request permission to land in designated ports prior to docking , transmitting information on their activities and the fish they have on board, thus providing authorities an opportunity to check information prior to landing and possible inspection upon the offloading of fish.

167. Furthermore, the agreement commits countries to regular inspections and outlines a set of standards that will be used during those inspections. Signatories must ensure that ports and inspectors are adequately equipped and trained. When a vessel is denied access, port states must communicate that information publicly and national authorities from the country whose flag the vessel is flying must take follow-up action.

168. The agreement calls for the creation of information-sharing networks to let countries share details on IUU-associated vessels, and also contains provisions intended to provide for technical assistance to developing countries with limited resources to be able to properly implement the Agreement. These measures apply to foreign fishing vessels not flying the flag of port states; however countries can apply them to their own fishing fleets as well.

169. Given the EU's importance as an importer of fish and fish products, a new EU regulation that entered into force on 1 January 2010 can be included in the framework on legality in fisheries. The *EC Regulation 1005/2008 to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated (IUU) Fishing* has two main objectives:

- To make EU markets inaccessible for IUU products and
- To eliminate the involvement of EU nationals and vessels in any IUU fishing activity.

170. The main tool to implement the regulation is a catch certification scheme that traces the product along the entire value chain, from its origin to the consumer.

171. In the US, another major import market, the NOAA has published proposed rules that would establish procedures and criteria for the identification and certification of countries whose fishing vessels are engaged in IUU fishing or bycatch of protected living marine resources.

172. The global governance framework is complemented by Regional Fisheries Management Organisations (RFMOs). By regulating fishing in the High Seas they play a role in setting legality requirements: the reduction of IUU fishing and the implementation of sustainable fisheries through coordinated conservation and management efforts are the main purpose of RFMOs. According to the UN Fish Stocks Agreement, '*in fulfilling their obligations to cooperate through sub regional or regional fisheries management organizations or arrangements, States shall …agree on standards for collection, reporting, verification and exchange of data on fisheries for the stock.*'(UN, 1995). Some of these organisations have developed specific traceability regulations, like for instance the Southern Bluefin Tuna Statistical Document Program of the Commission for the Conservation of Southern Bluefin Tuna (CCSBT) which requires imports into any member country to be accompanied by specific statistical documents (Schmidt, 2000).

173. The private sector however is also taking action: NGOs address fisheries legality in information campaigns (*e.g.* Greenpeace publishes a blacklist of fishing vessels and companies engaged in IUU fishing) which are picked up and amplified by the media.

174. In reaction to public and NGO pressure, the industry itself has in some cases developed measures to ensure legality (*e.g.* AIPCE-CEP, the EU Fish Processors and Traders Association, had a common control procedure for delivery, fishing and transport vessels, port registration, control documentation, import control procedures and purchase of finished products).

175. Improvements in information technology and integration in transportation systems open up new opportunities to comply with this type of traceability documentation requirements for producers and the food industry.

176. Box 5 provides a short overview of country of origin labelling which can be considered to be related to legality certification.

Box 5. Country of origin labelling

The European regulations in this area focus on Protected Designations of Origin (PDO) and Protected Geographical Indications (PGI), while the North American counterpart of certified geographical origins is part of the trademark protection system. Common to the three systems is an assumed positive consumer willingness to pay for a proven and trustable link between geographical origin and the inherent quality characteristics of a particular food product

Source : Loureiro and Umberger, 2005

2.3.2.2 Points for discussion

177. Legality certification is closely linked to sustainability certification as it is assumed that legality is a pre-requisite for sustainability. Legality verification remains primarily a public responsibility and should be protected from commercial interests.

178. The fact that several countries are running different systems means that harmonisation among countries, through international rules, equivalent definitions and mutual recognitions, could pave the way towards one global system to reduce IUU fishing. International organisations could play a role in this.

179. The use of modern information technology to trace origin is already in place in many countries and will play a major role in future legality certification. In the UK, trial runs with tagged sea bass and lobster have already been conducted.

PART 3 – PRIVATE CERTIFICATION: MAIN ISSUES

180. Chapter 2 provided an overview of the economics of certification. This chapter uses political economy analysis of certification in fisheries and aquaculture to focus on private eco-labelling and the implications for the private-public interface. It outlines the incentive structure of the different stakeholders in the market for certification and describes key processes that influence these relationships.

181. Member countries have a range of different approaches towards labelling and certification issues, in particular with respect to private labelling. Private fisheries eco-labels are prominent in this regard, as they intend to have a wider significance than just informing consumers about product characteristics. The management of fisheries is clearly a matter for public policy, while at the same time private certification schemes seek to certify the effectiveness of that public policy. They may do so on the basis of different interpretations of sustainability and using methods different from generally recognised assessment methods such as ISO.

182. Some member countries take the view that private eco-labels neither influence nor have policy implications and so should remain within the sphere of consumer choice in the marketplace. Others are of the opinion that the credibility of private eco-labels has a direct impact on the credibility of the management performance of public authorities. These countries would like to assist domestic fishing industries that face marketing problems, suggesting that there is a positive interaction between the private and the public in furthering the sustainability agenda.

183. For this reason, there is a general acceptance that, at a minimum, governments have a role to play by virtue of the fact that governments already regulate and require certain labelling standards to be fulfilled. From this point of view, as long as such basic requirements are met, it is up to the market to decide the utility of such labelling. In the meantime a number of issues at the private-public interface arise.

- The credibility of the label; a private concern for the operators that use labelling as part of their marketing strategy for their products.

- Protection of consumer interests in terms of accuracy, human health considerations and other public concerns, including procedures for accreditation and certification; a public policy issue.

- Ensuring that public considerations are protected with respect to the accuracy, reliability and credibility of claims made by way of certification schemes and labels.

184. Market requirements like private eco-labelling are becoming increasingly an issue for producers in developing countries. The chapter therefore provides a summary of the ongoing discussions on private certification and policy coherence for development, in particular with regard to market access.

3.1 The credibility of private certification schemes

185. The objectivity and interests of the labelling actors' is central to being seen by consumers as reliable and credible. Poorly viewed labels may be ignored by both consumers and public authorities. Labels seen as reliable will improve the labelled products' profitability, and potentially influence management policies, an objective of many of the private eco-labelling schemes under discussion.

3.1.1 Certification scheme development and administration

186. Certification schemes can be developed by public institutions, including inter-governmental organisations, by the industry (producers as well as retailers/processors/wholesalers), by NGOs or even by consumer organisations. The schemes can also be developed by any combination of the aforementioned players. In fisheries and aquaculture for example, co-operation alliances between NGOs and the industry are dominating the certification criteria development.

187. The consultation and involvement of different parties has two main objectives: firstly, to guarantee inclusiveness of the final scheme. Secondly, by spreading responsibility among different stakeholder groups, pressure by single groups during the scheme development contributes to a more balanced outcome. In this context, the degree to which the scheme is science-based is key to the credibility. In some cases, the certification requirements are developed by a different body than the one that administers it. This 'firewall' is supposed to add more independence to the criteria.

188. NGOs have taken an active role in developing or facilitating the development of fisheries and aquaculture certification schemes. While help driving the 'supply' of certified products, they also actively build demand through their campaigns.

189. To be credible, certification schemes also have to have a transparent internal governance structure and need to be embedded in an appropriate public accountability framework. Accountability is in fact considered an important driver for change and lack of accountability can induce a 'race to the bottom' (Worldwatch Institute, 2008). In the OECD countries legislative provisions are well developed regarding labelling and fraud prevention.

190. As for the criteria development, private certification scheme administration in fisheries and aquaculture is widely characterised by multi-stakeholder participation. This has a bearing on the issue of legitimacy and not least the credibility of the labelling schemes.

191. With respect to the public accountability framework, certification credibility can be enhanced through *ex-post* legal liability regulation which punishes misleading claims (OECD, 2007). Organisations like ISO, WTO and the International Code Council (ICC) have developed guidelines for the preparation of standards to enhance confidence and impede unsubstantial or inappropriate product and process claims. Under the WTO TBT agreement, member countries are required to ensure that non-governmental bodies accept and comply with the *Code of Good Practice for the Preparation, Adoption and Application of Standards*. It is still unclear to which extent the Code applies to private certification schemes. It is also an indicator for the blurring distribution of responsibilities with respect to certification.

192. More specifically related to fisheries and aquaculture, ISO has a Technical Committee on fisheries and aquaculture (ISO/TC 234) which is currently developing a number of standards (see Table 3).

Table 3. International reference framework for fisheries and aquaculture certification scheme development

Organisation	Reference	Main subject
International Standards Organisation (ISO)	ISO 14040 (2006)	Environmental management – Life cycle assessment – principles and framework
ISO/TC 234	ISO/DIS 12875	Traceability of finfish products -- Specification on the information to be recorded in captured finfish distribution chains
ISO/TC 234	ISO/DIS 12877	Traceability of finfish products -- Specification on the information to be recorded in farmed finfish distribution chains
ISO/TC 234	ISO/CD 12878	Environmental monitoring of the seabed impacts from marine finfish farms
Codex Alimentarius Commission (CAC)	CAC/GL-1-1979 (revised 1991, amended 2009)	General Guidelines on Claims
Codex Alimentarius Commission (CAC)		Principles for Food Import and Export Inspection and Certification
Codex Alimentarius Commission (CAC)		Guidelines For The Design, Operation, Assessment and Accreditation of Food Import and Export Inspection and Certification Systems
Codex Alimentarius Commission (CAC)		Guidelines For The Development of Equivalence Agreements Regarding Food Import and Export Inspection and Certification Systems
Codex Alimentarius Commission (CAC)		Guidelines for the Judgment of Equivalence of Sanitary Measures Associated with Food Inspection and Certifications Systems
Codex Alimentarius Commission (CAC)		Principles for Electronic Certification as an Appendix to the Codex *Guidelines for Generic Official Certificate Formats and the Production and Issuance of Certificates* (CAC/GL 38-2001)
Codex Alimentarius Commission (CAC)		Principles for Traceability/Product Tracing as a Tool within a Food Inspection and Certification System.

Source: Codex Alimentarius Commission

193. The business model of certification scheme owners contributes to credibility. Dependency on donations and public funding may raise the issue of vested interests. The MSC for example is run as registered charity. However, the use of the MSC label is administered by MSCI, a separate trading company of which the MSC owns all shares. The association Naturland in Germany is based on a similar model, with a commercial company administering the logo use.

194. In more general terms, there is a need to define performance measurements, demand performance data reports, evaluate certification practices and measure compliance with stated principles and goals. Specific business model and funding mechanisms adopted by certification schemes need to be clarified to exclude conflicts of interest and ensure independence.

3.1.2 Certification processes

195. There are different types of compliance *verification*:

- *First party certification:* self-declaration of conformity with self-set requirements by the entity making the claim;

- *Second party certification:* verification through an affiliated body, *e.g.* an industry/trade/consumer association or a hired consultant, usually against requirements established by these bodies or by peers;

- *Third party certification:* conformity assessment and audit by an independent inspection body/individual, preferably an accredited auditing body, but potentially also by other external entities against the requirements of a certification scheme.

196. First and second party certification is relatively vulnerable in terms of conveying credibility. Second party certification is not regulated and hence its conclusions difficult to evaluate for a buyer/consumer. A Supplier's Declaration of Conformity (SDoC) is one form of first party certification. The ISO-standard for SDoC (ISO 17050 – Conformity Assessment – Supplier's declaration of conformity) aims to harmonise SDoC and to increase their credibility. SDoC as cost-efficient and non-discriminatory conformity assessment tools could become increasingly recognised if ex-post regulation rather than more expensive pre-market measure guarantee their reliability (OECD, 2008).

197. The value of rigorous and robust third party certification for the food industry is summarised in Tanner (p. 1, 2000):

- Reduced risk and liability;
- Strengthened due diligence defense;
- Greater confidence in regulatory compliance;
- Competitive advantage;
- Improved access to markets;
- National/international acceptance (WTO);
- Reduced costs and improved profitability;
- Reduction in insurance costs;
- More effective management.

198. Often, certification is carried out by individual evaluators. However, some major players (*e.g.* the Aquaculture Certification Council) are moving to a more systematic use of ISO-certified inspectorates in engaging evaluators.

199. A number of companies (*e.g.* Bureau Veritas) provide conformity assessment and certification services (inspection, analysis, audit, and certification) and has a dedicated service for responsible fishing.

200. During the OECD/FAO *Round Table on Certification and Eco-labelling in the Fisheries Sector* the quality, consistency and capacity of certifiers was brought up and it was asked "who certifies the certifiers?" If private certification involves the assessment of a state's fisheries management an important question is what recourse there is to challenge those judgements. What levers do governments have to ensure good governance in private certification schemes?

201. Producers complain that the different certification schemes in fisheries and aquaculture vary in their degree of robustness and rigor. As more and more industry players commit to sustainable sourcing, eco-label managers may feel pressured to increase the supply of certified fisheries. The pressure from the demand side and the already existing shortage of human capacity for seafood certification could have impacts on the robustness of audit processes.

202. Pauly *et al*. (2010) state that 'the certification system creates a potential financial conflict of interest, because certifiers that leniently interpret existing criteria might expect to receive more work and profit from ongoing annual audits.'

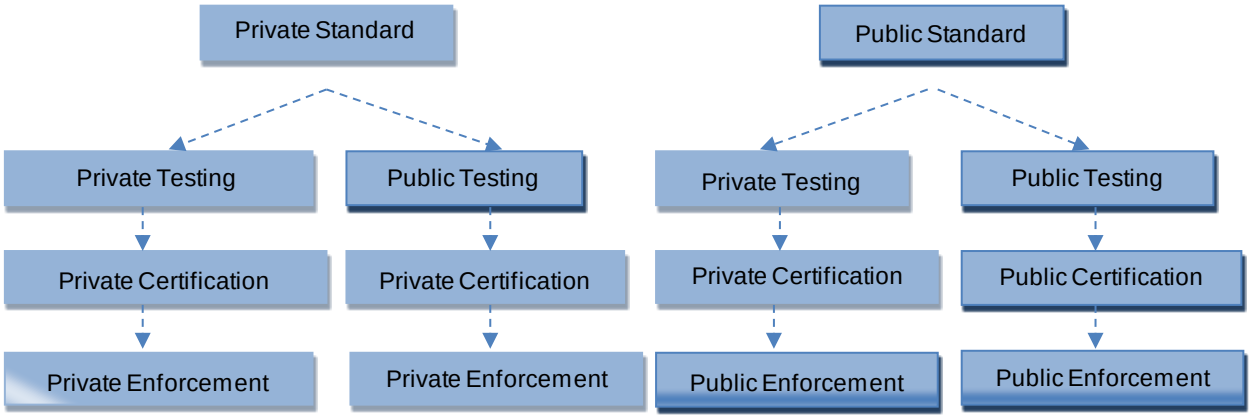
203. Accreditors play a role in assuring the credibility of the certification system. Accreditation bodies verify that certifiers are competent to carry out certification processes, usually in line with relevant ISO standards (*e.g.* ISO 9000). Accreditation bodies can be commercial or non-profit private entities (*e.g.* the International Accreditation Service – IAS, Accreditation Services International - ASI) or public bodies (*e.g.* Irish National Accreditation Board (INAB)).

204. In fact, one lever that governments have to ensure good governance in private certification schemes is through the important task of controlling accreditation. As an example, EU legislation provides that only bodies appointed by public authorities may carry out accreditation.

205. The International Social and Environmental Accreditation and Labelling Alliance (ISEAL Alliance) is one example of an international player that contributes to the self-regulation of the environmental and social standard sector through the development of codes of conducts.

206. There can be interplay between private and public institutions along the certification implementation chain. Different stages can be carried out by both types of institutions or by combinations of them (for example, a private histamine standard being tested in a public laboratory), thus stressing the need to better understand their respective roles and responsibilities at each working level (Figure 15).

Figure 15. Private and public roles in certification implementation



Source: Golan *et al.* 2000

207. A step towards disentangling the complexity of current private seafood certification processes would be harmonisation. Convergence, equivalence agreements and mutual recognition between standards facilitate the comparability of audit outcomes, reduce costs, facilitate trade and contribute to buyer/consumer confidence by simplifying messages (WTO, 2008). The Global Partnership for Good Agriculture Practices (GlobalGAP) is an attempt towards this for agriculture products. Whether similar attempts will be undertaken to harmonise across the different certification schemes in fisheries and aquaculture remains to be seen. In this context, we need to distinguish between private initiatives, business specification requirements and public certification procedures.

3.1.3 Communication

External communication with the public/the market

208. There are many channels to communicate certification to different target audiences. With respect to external communication, product labels, information campaigns, the internet, etc. convey certification related information to the public.

209. The fish processing, distribution and retail industry often adopt labels associated with certification schemes to communicate with buyers, be it within the chain or with the final consumer. Information about sustainable sourcing policies is increasingly featured on companies' websites.

210. In addition, Corporate Social Responsibility (CSR) has been incorporated in many companies' business models as a form of voluntary self-regulation beyond mandatory rules that caters to increased public awareness of environmental and social issues. CSR reporting can contribute to deliver the green agenda to a broad audience. However, given its voluntary nature, CSR reporting is often accused as a 'green-washing' attempt to improve a company's reputation and ultimately its market position and investment attractiveness. The lack of a consistent and comparable metric for sustainability measurements reduces the information value of these performance reports. There is an overall agreement on 'what' is measured – but not necessarily about the 'how'.

211. An OECD study on CSR and trade (Fliess *et al.*, 2007) concludes that "labelling is the most widely employed CSR information scheme in fisheries' and that 'compared to labelling, reporting has yet to take root in this market.' The study further reveals that 'as far as corporate advertising and marketing is concerned, many fish harvesting and processing companies, including SMEs, as well as seafood retailers provide information and communicate with consumers and other stakeholders via their homepages on the Internet. On their websites, many fisheries companies state their commitments to sustainable fishing and provide related information, *e.g.* about adherence to ISO 14001 or SA8000, observance of a quality standard, sourcing policies and production practices."

212. NGOs also play an important role in external communication of certification. Through information campaigns, including consumer guides, NGOs build demand for certified fisheries and aquaculture products as a means to promote their own agenda. Their activities may contribute to consumer education and public awareness building about fisheries and aquaculture sustainability. However, such activities may also cause confusion among the general public.. Fisheries and aquaculture sustainability campaigns, *e.g.* buyer guides, are often species-based (thus not necessarily broken down by stock-component or management unit, and may lack robust scientific criteria as well as necessary product differentiation in terms of stock/country of origin/producer, etc.

213. The media also play a role in informing and influencing the public opinion on fisheries and aquaculture related issues through opinion pieces, documentaries and other communication tools.

214. With respect to communication on fisheries and aquaculture certification, a major role of the public is to monitor the proper use of claims and advertising tools through national advertising authorities to avoid unsubstantiated, misleading or irrelevant claims and unfair commercial practices. Advertising codes typically include clauses on substantiation, evidence and the scope of environmental claims.

215. This is particularly important with respect to "sustainability" claims. According to the ICC (2010, p. 2), "At present there is no consistent global framework by which to evaluate 'sustainability' claims in connection with either overall environmental effect or the three pillars commonly viewed to comprise the concept of sustainability. Consequently, the ICC view has been and remains that broad claims that products or services are 'sustainable' or 'sustainably produced', and advertising and marketing claims of

sustainability need to be carefully couched and appropriately qualified and substantiated to avoid misleading consumers. As with other types of environmental marketing claims, avoiding vague and non-specific claims is key. Sustainability claims pursuant to compliance with well defined programs, backed by verification procedures or audits, may meet this exacting standard." (Box 6)

Box 6. The International Chamber of Commerce and its International Code of Environmental Advertising

The International Chamber of Commerce was founded in 1919 with an overriding aim that remains unchanged: to serve world business by promoting trade and investment, open markets for goods and services, and the free flow of capital.

A year after the creation of the United Nations in San Francisco in 1945, ICC was granted the highest level consultative status with the UN and its specialised agencies. Ever since, it has ensured that the international business view receives due weight within the UN system and before intergovernmental bodies and meetings such as the G8 where decisions affecting the conduct of business are made

The International Chamber of Commerce (ICC) has direct access to national governments all over the world through its national committees. The organisation's Paris-based international secretariat feeds business views into intergovernmental organisations on issues that directly affect business operations. ICC codes on advertising and marketing are frequently reflected in national legislation and the codes of professional associations.

The ICC Working Group on Sustainability was established in 2007. The group's work resulted in the launch of the ICC *Framework for Responsible Environmental Marketing Communications* in January 2010.

The framework is a companion to the Consolidated ICC *Code of Advertising and Marketing Communications*, which sets forth general principles governing all marketing communications. The framework offers more detailed interpretation of the environmental claims chapter of the general code. As many of the national and regional codes are built on ICC's Codes, this interpretation can also be applied to national and regional marketing codes used by self-regulatory organisations to set best practices for business.

ICC has been a major rule-setter for international advertising since the 1930s, when the first ICC code on advertising practice was issued. Since then, it has extended the ICC self-regulatory framework on many occasions to assist companies in marketing their products responsibly.

Source :extracted from the ICC homepage - http://www.iccinternationalchamberofcommerce.com/id93/index.html

Internal communication within the value chain

216. The previous sections have highlighted that public regulation and increasingly private certification schemes require extensive data trails to ensure fisheries and aquaculture product sustainability, quality and legality.

217. Traceability systems provide the ability to trace and identify a specific product at any stage of the production chain. Traceability systems track quantitative details like catch location and time, product temperature monitoring, processing details and transportation logistics. This greatly facilitates the recall of products in case of food safety hazards, can limit the market access for IUU products and provides information about product origin and production method. A closely related concept is that of chain of custody which combines traceability with the assurance of product integrity throughout the value chain.

218. Within the value chain, traceability systems can therefore be understood to be a form of communication tool associated with certification. Traceability refers to a record keeping system for tracking the flow of product or product attributes along the value chain.

219. Some countries require mandatory traceability for seafood, including the EU and the US which represent the two biggest seafood import market. The question arises if traceability systems can be up-

scaled to turn from 'passive' mechanisms into active, fully integrated supply chain management tools which provide economic, environmental and social benefits to both the private and the public sector. An integrated system may reduce compliance cost and allow for multi-attribute certification (*e.g.* in terms of product and process food safety, sustainability and legality). Traceability can also be considered an asset that serves multiple purposes: regulatory verification needs of the public sector and logistic efficiency and marketing opportunities for the private sector. Some insurance underwriters have even started to offer 'discounts' on product recall insurance premiums if companies adopt traceability systems.

220. An international framework for traceability exists: the Codex Committee on Food Import and Export Certification and Inspection Systems has developed Principles for the Application of Traceability/Product Tracing in the Context of Food Import and Export Inspections and Certification Systems. ISO has developed the ISO/DIS 12875 *Traceability of finfish products — Specification on the information to be recorded in captured finfish distribution chains.*

221. The market for certification has also adapted to traceability needs and provides in particular western markets with seafood sector-specific traceability software (*e.g.* Astra System, Wisefish, Trace 2000).

222. It is however to be expected that economies of scale of larger producers with vertically integrated chains would be more likely to be able to establish and successfully operate such integration than small scale independent producers, in particular in developing countries.

3.1.4 The role of governments

223. In conclusion, governments have a number of options to support the credibility of private certification schemes, if they so wish.

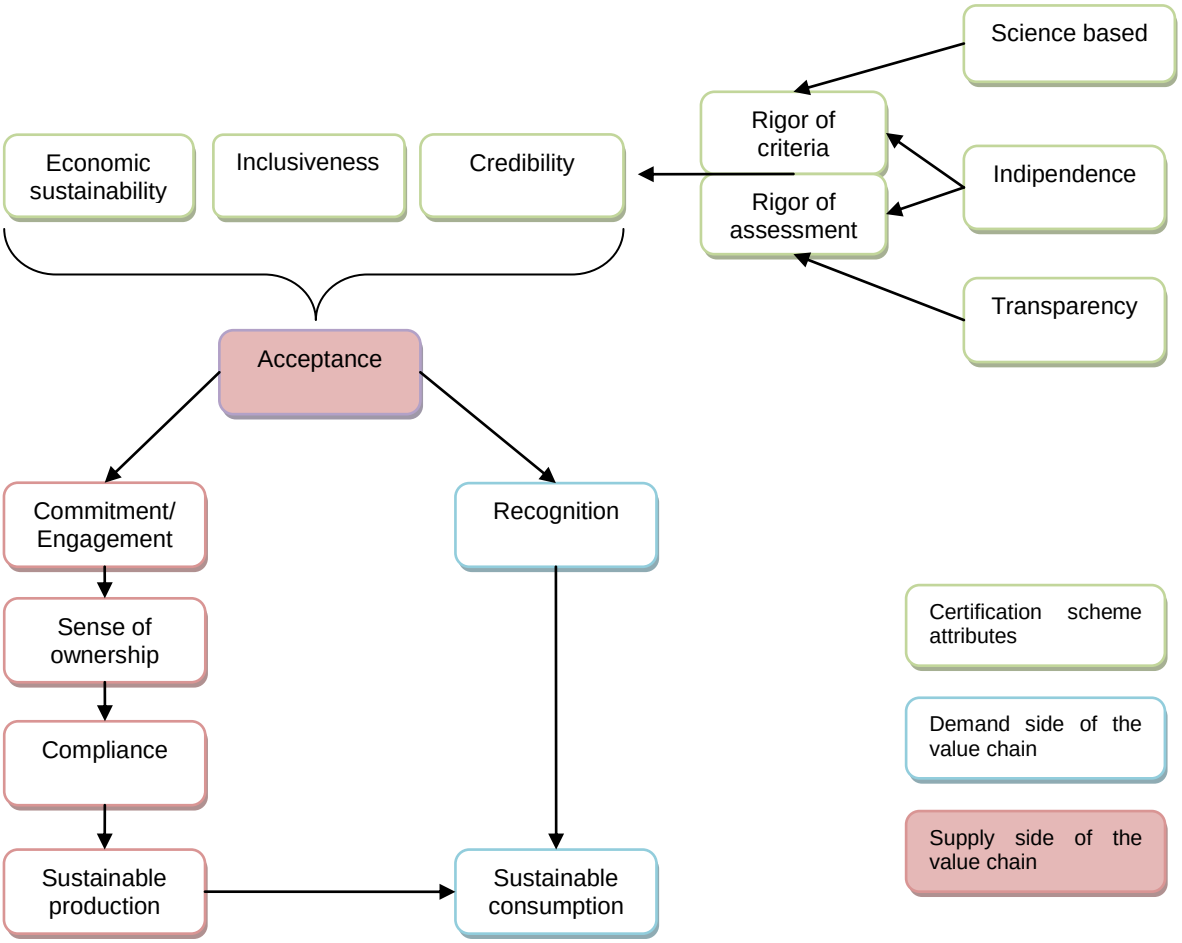
224. One option is the development of a strong framework for accreditation. Such a framework contributes to the reliability and impartiality of third party certification. If reliable, the private sector can carry out monitoring and control functions which would otherwise be on the expense of the public sector (*e.g.* in the case of food quality, but increasingly also for seafood sustainability).

225. Secondly, governments can provide incentives for the use of traceability systems. As mentioned before, traceability systems can serve multiple purposes and attributes, be it for an individual firm, the industry or the public sector. Related policies that create incentives for traceability systems consist for example in measures like fines or random checks that increase the cost of distributing illegal (IUU) or unsafe fisheries products.

226. Finally, governments play a key role in ensuring truth in advertising by providing an appropriate legal framework. Certification needs to be legitimate, credible and informative to the end user.

227. Figure 16 summarises key features of an ideal model of private certification schemes.

Figure 16. 'Ideal' model of private certification schemes



Source: OECD

3.2 Policy coherence for development: market access implications of private certification

228. Fish and fish products are the most traded food commodity (FAO, 2009a) with close to 40% of the global production entering trade. A large share of the world fish supply originates in developing countries. Different certification schemes have trade implications which need to be carefully assessed as to whether efficiency gains in terms of information availability through certification outweigh equity losses when they limit market access.

229. Critics of private labelling schemes point to their potentially trade-distorting effects, in particular for (small-scale) producers from developing countries. From their perspective, certification schemes are a technical barrier to trade, one driven by the value chain and therefore not subject to international trade disciplines. While some certification scheme developers claim to use a participative approach, financial and human capital constraints may limit participation from developing countries. In the case of eco-labelling, certification schemes may therefore result in a form of 'green protectionism'.

230. Others view of private certification as a catalyst for trade: investments in upgrading production systems in developing countries to meet standards would ultimately improve their opportunities in international markets (OECD 2007). The FAO has studied the impact of certification on capacity building and conclude that well-tailored certification requirements that respect different framework conditions can be a step towards policy coherence in development.

231. Overall, the trend is toward reduced tariffs while an increasing number of private certification schemes have become established that may impact trade. Some governments therefore argue that private voluntary certification should be taken up by the WTO. As noted earlier, the WTO has been looking into the implications of private standards and certification since 2005. In the specific case of fisheries, the increasing power of voluntary private standards in international trade relations is illustrated by the "Dolphin safe" label for tuna. This voluntary labelling scheme has been the subject of a dispute complaint between Mexico and the USA at the WTO.

232. The recent OECD Declaration on Green Growth underlines the need to co-ordinate international development activities to help developing countries achieve green growth. This includes ensuring that trade and environmental policies are compatible and that internationally agreed trade rules such as transparency and non-discrimination are respected.

233. Governments have an interest in reducing barriers to trade. The role of private certification in fisheries and aquaculture needs to be assessed in this context. Developers of certification scheme have responded to this by offering a variety of solutions. For example the MSC has established the Developing World Fisheries Program, specifically designed to enable data-poor fisheries to obtain certification. The Global Aquaculture Alliance works closely with small scale fish farmers to build capacity for certification.

PART 4 – MESSAGES TO POLICY MAKERS

234. Labels that address consumers' concerns regarding sustainability are an effective means to transfer market signals from the consumer backwards through the production chain. This can shift the incentives of fishers, processors and regulators, making them more responsive to consumer concerns and improving the sustainability of the fisheries and aquaculture sectors.

235. Private labels face several challenges that make it unlikely that they can accomplish this by themselves. Chief among these is the credibility of the claims set forth. For a label to be effective, it must be trusted by the consumer, and often the best way to accomplish this is for it to be part of a larger certification scheme that clearly defines the claims made and guarantees their accuracy. When such certification schemes are international, it also helps ensure fairness for fishers and aquaculture producers globally.

236. While it is possible for credible international certification systems to be developed without the involvement of governments, it is widely agreed that there is a role for governments in developing and supporting these systems. What remains to be determined is the exact nature and limits of this role. An agreed and effective sustainability reference framework could help resolve this question and help ensure that private certification schemes are complementary to international and national laws and regulations and contribute to policy objectives with respect to fisheries and aquaculture sustainability.

237. In order for an international reference framework on certification in fisheries and aquaculture to function properly, it should include agreed definitions, minimum requirements and a benchmarking mechanism. Much progress has already been made in establishing these elements. The FAO Guidelines for Fish and Fishery Products from Marine Capture Fisheries as well as the recently approved FAO Technical Guidelines on Aquaculture Certification and the guidelines for inland fisheries certification currently under development can form a basis for minimum requirements in the framework. However, the definitions in the FAO Guidelines for Fish and Fishery Products from Marine Capture Fisheries are not the same as those in the FAO Technical Guidelines on Aquaculture Certification. Harmonising these definitions would be a useful first step to help clarify the concept of sustainability as it applies here. Also helpful will be the current FAO work on approaches to assessing eco-labelling schemes, which can act as a benchmarking mechanism.

238. Labels work best when they provide consumers with a sound basis to make informed and considered choices in their purchases of fish products. Standards and labels are only useful to the extent that they are credible, and this requires that information is accurate, complete and trustworthy. Avoiding dubious or misleading claims is essential to success. The difficulty is determining which claims should be substantiated by objective facts and how those facts are established. A commonly agreed standard that provides specific parameters defining sustainability can enhance the credibility of a label by making it more trustworthy to the consumer. It would also benefit transparency by allowing different labelling schemes to be benchmarked with respect to basic consumer information and protection considerations.

239. The drivers for certification schemes involve a mixture of sustainability, social and ethical considerations and are evolving at a rapid pace. An agreed definition of sustainability is a first step to

improving harmonisation, but such agreement is unlikely without the participation of governments. The benefits that an agreed definition of sustainability may provide are substantial and can contribute to making labelling an effective tool to improve fisheries and aquaculture sustainability. This is in particular the case where management is inadequate. Concurrently such an effort will contribute to reducing consumer confusion in the marketplace. Moreover, progress here would support the development of a broader governance framework for sustainable fisheries.

Labels are most likely to succeed when their promoters can argue that their label is the most credible, provides accurate information and is based on best practices for certification. Broad international agreement on the content of an effective standard can support the credibility of an eco-label. To be successful in the marketplace, coming to agreement on a shared definition of sustainability is a process that should involve both governments and stakeholders. This is because any new standard based on the agreed definitions must be accepted by the market; to do so it must offer benefits to all stakeholders (consumers, the fishery sector, certifiers and public) in what remains in essence a voluntary and private system.

ANNEX I: KEY DEFINITIONS[9]

Accreditation

Procedure by which a competent authority gives formal recognition that a qualified body or person is competent to carry out specific tasks (FAO Guidelines for the Eco-labelling of Fish and Fishery Products from Marine Capture Fisheries)

Accreditation body

A Body that conducts and administers an accreditation system and grants accreditation (FAO Guidelines for the Eco-labelling of Fish and Fishery Products from Marine Capture Fisheries).

Accreditation system

A System that has its own rules of procedure and management for carrying out accreditation. Note: accreditation of certification bodies is normally awarded following successful assessment and is followed by appropriate surveillance (FAO Glossary[10] - based on ISO Guide 2, paragraph 17.1).

Audit

A systematic and functionally independent examination to determine whether activities and related results comply with planned objectives (Codex Alimentarius 1995).

Authority

A body that has legal powers and rights (ISO/IEC 2004).

Body responsible for standards and regulations

A legal or administrative entity that has specific tasks and composition. Examples of bodies are organisations, authorities, companies and foundations (ISO/IEC 2004).

Certification

Procedure by which official certification bodies, or officially recognised certification bodies, provide written or equivalent assurance that foods or food control systems conform to requirements. Certification

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10. www.fao.org/fi/glossary/

of food may be, as appropriate, based on a range of inspection activities which may include continuous on-line inspection, auditing of quality assurance systems and examination of finished products (Codex Alimentarius 1995).

The procedure can be carried out as first, second or third party certification. There is no official definition of the different types of certification, but commonly the following distinction applies:

- *First party certification:* self-declaration of conformity with self-set standards by the company making the claim;

- *Second party certification:* verification through an affiliated body, *e.g.* an industry/trade/consumer association, usually against standards established by these bodies or by peers;

- *Third party certification:* conformity assessment and audit by an independent inspection body/individual, preferably an accredited auditing body, but potentially also by other external entities against a standard. (Dankers 2003).

Certification body

Competent and recognised body that conducts certification. A certification body may oversee certification activities carried out on its behalf by other bodies (FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries).

Chain of custody

The set of measures which is designed to guarantee that the product put on the market and bearing an ecolabel logo is really a product coming from the certified fishery concerned. These measures should this cover both the tracking/traceability of the product all along the processing, distribution and marketing chain, as well as the proper tracking of the documentation (and control of the quantity concerned) (FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries).

Claim

Any representation which states, suggests or implies that a food has particular qualities relating to its origin, nutritional properties, nature, processing, composition or any other quality (Codex Alimentarius 2007).

Code of practice

A document that recommends practices or procedures for the design, manufacture, installation, maintenance or utilisation of equipment, structures or products. A code of practice may be a standard, a part of a standard or independent of a standard (ISO/IEC 2004).

Eco-labelling scheme

Eco-labelling schemes entitle a fishery product to bear a distinctive logo or statement which certifies that the fish has been harvested in compliance with conservation and sustainability standards. The logo or statement is intended to make provision for informed decisions of purchasers whose choice can be relied upon to promote and stimulate the sustainable use of fishery resources (FAO Glossary[13])

Fitness for purpose

The ability of a product, process or service to serve a defined purpose under specific conditions (ISO/IES 2004).

Food hygiene

Conditions and measures necessary for the production, processing, storage and distribution of food designed to ensure a safe, sound wholesome product fit for human consumption (Codex Alimentarius 2001)

Food safety

Assurance that food will not cause harm to the consumer when it is prepared and/or eaten according to its intended use (Codex Alimentarius 2003).

Implementation of normative documents

A normative document can be said to be "implemented" in two different ways. It may be applied in production, trade, etc., and it may be taken over, wholly or in part, in another normative document. Through the medium of this second document, it may then be applied, or it may again be taken over in yet another normative document (ISO/IEC 2004).

Inspection

Examination of food or systems for control of food, raw materials, processing, and distribution including in-process and finished product testing, in order to verify that they conform to requirements (Codex Alimentarius 1995).

Label

Any tag, brand, mark, pictorial or other descriptive matter, written, printed, stencilled, marked, embossed or impressed on, or attached to, a container of food (Codex Alimentarius 2007).

Mandatory

Required or commanded by authority; obligatory, compulsory.

Organisation

A body that is based on the membership of other bodies or individuals and has an established constitution and its own administration (ISO/IEC 2004).

Quality

The degree to which a set of inherent characteristics fulfil requirements (ISO 2005).

Recommendation

A provision that conveys advice or guidance (ISO/IEC 2004).

Reference to standards (in regulations)

Reference to one or more standards in place of detailed provisions within a regulation (ISO/IEC 2004).

Regulation

A document providing binding legislative rules, that is adopted by an authority (ISO/ICE 2004).

Requirement

A provision that conveys criteria to be fulfilled (ISO/IEC 2004).

Regulatory authority

An authority that is responsible for preparing or adopting regulations (ISO/IEC 2004).

Sanitary or phytosanitary measure

Any measure applied:

(a) to protect animal or plant life or health within the territory of the Member from risks arising from the entry, establishment or spread of pests, diseases, disease-carrying organisms or disease-causing organisms;

(b) to protect human or animal life or health within the territory of the Member from risks arising from additives, contaminants, toxins or disease-causing organisms in foods, beverages or feedstuffs;

(c) to protect human life or health within the territory of the Member from risks arising from diseases carried by animals, plants or products thereof, or from the entry, establishment or spread of pests; or

(d) to prevent or limit other damage within the territory of the Member from the entry, establishment or spread of pests.

Sanitary or phytosanitary measures include all relevant laws, decrees, regulations, requirements and procedures including, *inter alia*, end product criteria; processes and production methods; testing, inspection, certification and approval procedures; quarantine treatments including relevant requirements associated with the transport of animals or plants, or with the materials necessary for their survival during transport; provisions on relevant statistical methods, sampling procedures and methods of risk assessment; and packaging and labelling requirements directly related to food safety (WTO 1995).

Standard

A criterion (or indicator, or reference point) which has been formally established and is enforced by an authority and on the basis of which constraining action can be taken (FAO Glossary – see note 13). A public standard has mainly legal implications for the economic operator that the standard is directed towards, whereas private "standards" mainly has commercial consequences in situations of non-compliance

A standard the application of which is made compulsory by virtue of a general law or exclusive reference in a regulation is a mandatory standard (ISO/ICE 2004). When a standard is declared mandatory it becomes a technical regulation (UNCTAD/WTO 2002).

Standard for certification Document approved by a recognised organisation or arrangement, that provides, for common and repeated use, rules, guidelines or characteristics for products or related processes and production methods, with which compliance is not mandatory under international trade rules. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method (FAO Glossary[13]).

Product standard

A standard that specifies requirements to be fulfilled by a product or a group of products, to establish its fitness for purpose (ISO/ICE 2004).

Process standard

A standard that specifies requirements to be fulfilled by a process, to establish its fitness for purpose (ISO/ICE 2004).

Equivalent standards

Standards on the same subject approved by different standardising bodies, that establish inter-changeability of products, processes and services, or mutual understanding of test results or information provided according to these standards (ISO/ICE 2004).

Unified standards

Harmonised standards that are identical in substance but not in presentation (ISO/ICE 2004).

Unilaterally aligned standard

A standard that is aligned with another standard so that products, processes, services, tests and information provided according to the former standard meet the requirements of the latter standard but not vice versa. A unilaterally aligned standard is not harmonised (or equivalent) with the standard with which it is aligned (ISO/ICE 2004).

Comparable standards

Standards on the same products, processes or services, approved by different standardising bodies, in which different requirements are based on the same characteristics and assessed by the same methods, thus permitting unambiguous comparison of differences in the requirements. Comparable standards are not harmonised (or equivalent) standards. (ISO/ICE 2004).

Standardisation

The activity of establishing, with regard to actual or potential problems, provisions for common and repeated use, aimed at the achievement of the optimum degree of order in a given context. The general aims of standardisation follow from the definition of standard. Standardisation may have one or more specific aims, to make a product, process or service fit for its purpose. Such aims can be, but are not restricted to, variety control, usability, compatibility, inter-changeability, health, safety, protection of the environment, product protection, mutual understanding, economic performance, trade. They can be overlapping. (ISO/IEC 2004).

Standard-setting organisation or arrangement

Organisation or arrangement that has recognised activities in standard setting (FAO Glossary[13]).

Sustainability

In its original sense, sustainability refers to development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Brundtland, 1987). Applied to fisheries and aquaculture, the focus is on protecting the resource itself (fish stocks) and avoiding negative impacts on the surrounding eco-system.

However, for the purpose of this report, we have chosen not to elaborate further on a specific definition.

Technical regulation

Document which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labelling requirements as they apply to a product, process or production method (WTO 1979).

Technical specification

A document that prescribes technical requirements to be fulfilled by a product, process or service. A technical specification should indicate, whenever appropriate, the procedure(s) by means of which it may be determined whether the requirements given are fulfilled. A technical specification may be a standard, a part of a standard or independent of a standard (ISO/IEC 2004).

Third party

Person or body that is recognised as being independent of the parties involved, as concerns the issues in question (FAO Guidelines for the Ecolabelling of Fish and Fishery Products from Marine Capture Fisheries).

Traceability

Ability to follow the movement of a food through specified stage(s) of production, processing and distribution (Codex Alimentarius 2001).

Unit of certification

The "unit of certification" is the fishery for which eco-labelling certification is called for. The certification could encompass: the whole fishery, where a fishery refers to the activity of one particular gear-type or method leading to the harvest of one or more species; a sub-component of a fishery, for example a national fleet fishing a shared stock; or several fisheries operating on the same resources. The certification applies only to products derived from the "stock under consideration" In assessing compliance with certification standards, the impacts on the "stock under consideration" of all the fisheries utilising that stock or stocks over their entire area of distribution are to be considered (FAO Glossary – see note 13).

Voluntary

Without any legal obligation

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