

Global regulation of food and consumer involvement: labelling of sustainable fisheries using the Marine Stewardship Council (MSC).

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Abstract

Food production and consumption is increasingly organised in global networks. Therefore, existing nation-state based environmental and social regulation is no longer sufficient and new regulatory arrangements are needed. This paper will study the possibilities of involving consumers as new actors in regulating the social and environmental consequences of global food production and consumption.

Starting with elaborating Castells' view of globalisation as the creation of a network society, this paper will look at 'the space of flows' dominating over 'the space of places'. Modern regulation of globalised food production and consumption is based on a WTO-dominated discourse allowing only regulation on the basis of general product standards and product related production methods. However, consumers in Western countries are more and more demanding regulation on the basis of the environmental effects of the production process, which is not accepted within the WTO discourse. An alternative arrangement is combining regulation at the level of global flows of food with regulation of environmental and social consequences at the concrete places of food production and food consumption, through the private labelling of food. One interesting arrangement to do this is the use of the Marine Stewardship Council (MSC) label.

This paper will provide a theoretical overview of possibilities for consumer involvement and apply the example of MSC as an illustration for this innovative practice.

1. Introduction.

Fish consumption is growing rapidly and to cater for this increasing demand global fish trade is growing as well and currently 40% of the world's fish production – worth over US \$ 52 billion – is traded internationally (Dommen, 1999). This growing demand for seafood creates a pressure on the limited production capacity and despite a substantial growth in the global marine fish production from 20 million tonnes in 1950 to over 120 million tonnes 1997, there is general consensus that fish stocks are declining and that improved fisheries' management to conserve marine biodiversity becomes essential.¹ Conventional nation-state based environmental regulation of marine resources are however incapable of dealing with this challenge, because fish trade is globalised while fish stocks and fishing boats move easily across national borders. The Marine

¹ 'In an hour, one factory ship could haul in as much cod (around a hundred tonnes) as a typical boat of the sixteenth century could land in a season' (MSC: Fish Facts).

Stewardship Council (MSC) labelling initiative forms a response to the challenge for innovative forms of global governance. Analysing the MSC-label as a form of environmental governance in the era of globalisation, demands the use of new theoretical models opening up to the involvement of non-state actors. Castells' network theory offers promising perspectives in this regard and will be further elaborated in this paper to provide the tools for analysing environmental regulation of food in global modernity.

2. Castells global network theory.

Castells (1996/1997/1998/2000) conceptualises the process of globalisation as the coming about of the network society, where physical space is becoming less and global flows are becoming more important. 'The material foundations of society, space and time are being transformed (and) dominant functions are organised in networks pertaining to a space of flows that links them up around the world' (Castells, 1996, p. 476). The 'space of flows' is more and more replacing the 'space of places' because social practices in the 21st century are less organised on the basis of face-to-face interactions and more via exchanges and interactions without geographical contiguity.

Modern information and communication technologies are creating the conditions under which different spatial locations can be linked, reintegrating the functional unity of different elements at distant locations at another level. Exchanges and interactions without face-to-face contacts can be called "flows" (of capital, information or images, etc.) and when these flows between physically disjointed positions gain some permanence, a 'space of flows' is being established (Castells, 1996).² The formation of a space of flows also results in shifting the location and institutional structuring of power, exemplified by transformations of the state. A nation-state can no longer traditionally defined, as '(a sovereign state), whose hierarchically imposed commands are binding on all parties subject to its jurisdiction, while at the international level decisions are taken by sovereign states acting unilaterally or through formal or informal modes of inter-sovereign co-operation' (Karkkainen, 2004; p. 76). Nation-states struggle to deal with the 'space of flows', with the deterritorialised and decentred mobilities of the global network society, because global (environmental) problems are no longer soluble at the level of individual states enforcing national regulations alone.

Despite this transition, most people still live in the space of places with its time discipline, face-to-face interaction and socially determined sequencing. This 'contrasting logic between timelessness, structured by the space of flows, and multiple, subordinated temporalities, associated with the space of places' (Castells, 1996; p. 468), is creating a segmentation of contemporary society between the global and the local levels, resulting in a fundamental problem in contemporary society. Although, most people perceive their life as place-based on which they build their identity, they live in a world dominated by the space of flows and timeless time on which they have to orient their life. Even if the

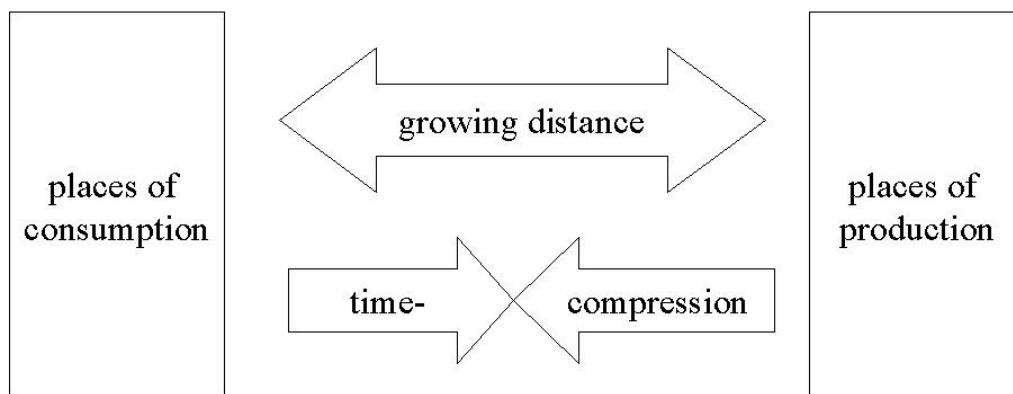
² The space of flows still included a territorial dimension, because it requires a technological infrastructure that operates from certain locations connecting functions and people located in specific places (Castells, 2000; p. 14). But the orientation of these network nodes is much less on the specific geographical characteristics of the location and its surroundings but on the interaction with the other nodes in the network.

relationships between the space of flows and the space of places, between simultaneous globalization and localization are not predetermined in their outcome, the local level cannot escape its influence. Human action at a certain place may, intentionally or unintentionally, have pervasive influences on the daily lives of many people at a large distance.

3. Food in the network society.

Although the intimate link between food production and food consumption through self-provisioning has for most people in Western countries, since long disappeared, most food remained until recently consumed within the same time-space-frame as it was produced. Food production and consumption kept on being closely connected to specific geographical locations and particular times or seasons. However, because of the globalisation process the specific place and time of the production of food are becoming increasingly irrelevant for the specific place and time of its consumption. Figure 1 provides a schematic representation of the principal dynamics concerned.

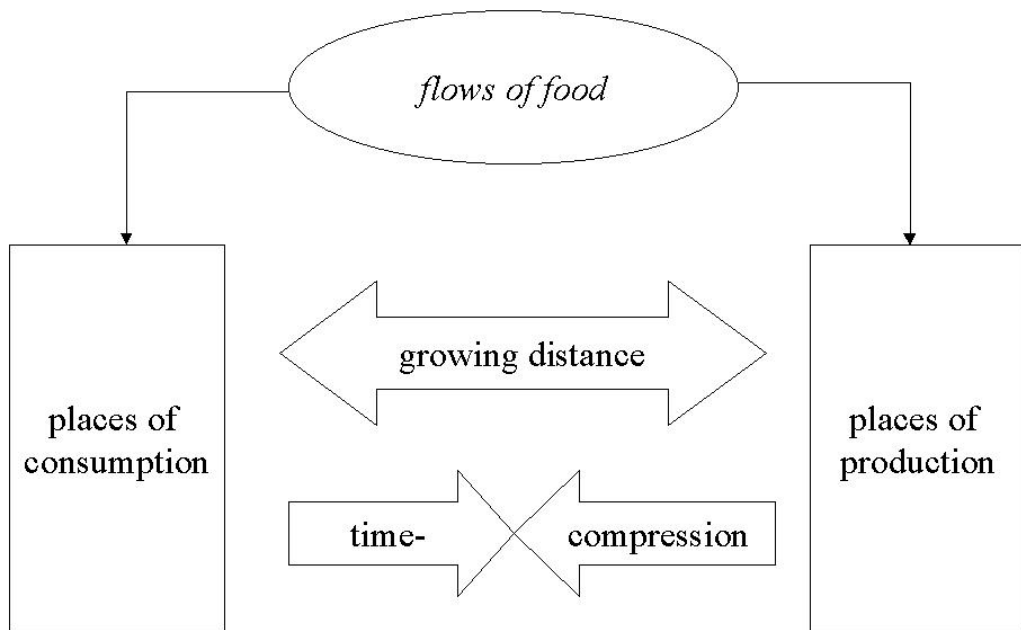
Figure 1: globalised food



Agricultural seasons are less and less guiding consumer choices in developed countries and consumers expect to find most food products all year round on the supermarket shelves, encouraging food producers and processors to prolong the seasons. For example, one day avocados in supermarkets in Western Europe and the US may come from Thailand and another day from Ivory Coast while the average consumer does not notice any difference. Food processors and retailers, especially in Western countries, are sourcing their food globally facilitated by decreased costs and times of transport and

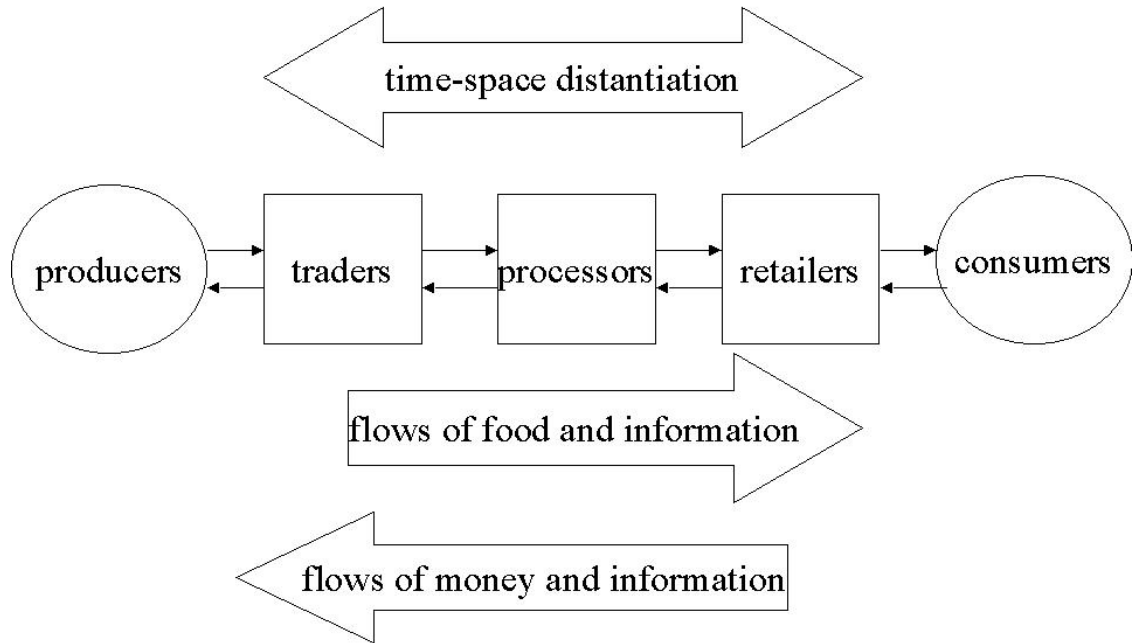
by improved communication, storage and preservation technologies. The lengthening of agri-food networks is intimately linked to a progressive industrialisation of food (replacing and substituting natural processes with industrial processes), allowing food products to be transported over longer and longer distances. Food thus becomes a global flow, influencing the organisation of agri-food networks and changing the lives of both producers and consumers (Beardsworth and Keil, 1997). See figure 2.

Figure 2: global flows of food



Networks are linking places at sometimes large distances and synchronisation of time between the different actors involved in food-production and consumption creating timeless-time is becoming a prerequisite. A modern agri-food network can be considered a complex social system, displaying a whole variety of social, technical, economic and natural components (Murdoch, 2000), characterised by time-space distantiation and reproduced within contextualised social practices (Giddens, 1979; Van der Meulen, 2000; Dicken et al, 2001). The active, relational and political role of consumers in the genesis and reproduction of modern agri-food networks should be acknowledged (Goodman, 2004). See figure 3.

Figure 3: agri-food networks



Agri-food networks can however never become fully disembodied from place and time, or as “footloose” as for example financial networks can. ‘Space and time still constitute the essential context (for the plant’s life-cycle)’ (Adam, 2000; p. 134). Despite attempts to *de*-contextualise food production, this remains a paradoxical and contentious issue more than with other products (Fine, 1998; Goodman, 1999).³ Food consumption, although less directly linked to specific local material practices also remains for the foreseeable future embedded in specific and localised social practices.⁴ Despite the strong global economic, political and cultural forces at work in a comparable way all over the world, these forces have different local effects (McMichael, 1994/1996; Mol, 2001).

This tension between global flows of global food trade and the local space of places of food production and consumption creates continuous problems between both levels. Regulation of the environmental and safety consequences of food production and consumption needs to accommodate at the same time the dynamics of the global space of flows and those of the local space of places while this relationship also changes over time.

³ Goodman (1999, p. 18) speaks about the ‘corporeality: to signify organic, eco-social processes that are intrinsic to agriculture and to food’ and Fine (1998, p. 8): ‘what does set food apart is the necessary presence of the ‘natural’ at both the beginning and the end of the food systems – both in agriculture and in palatability’.

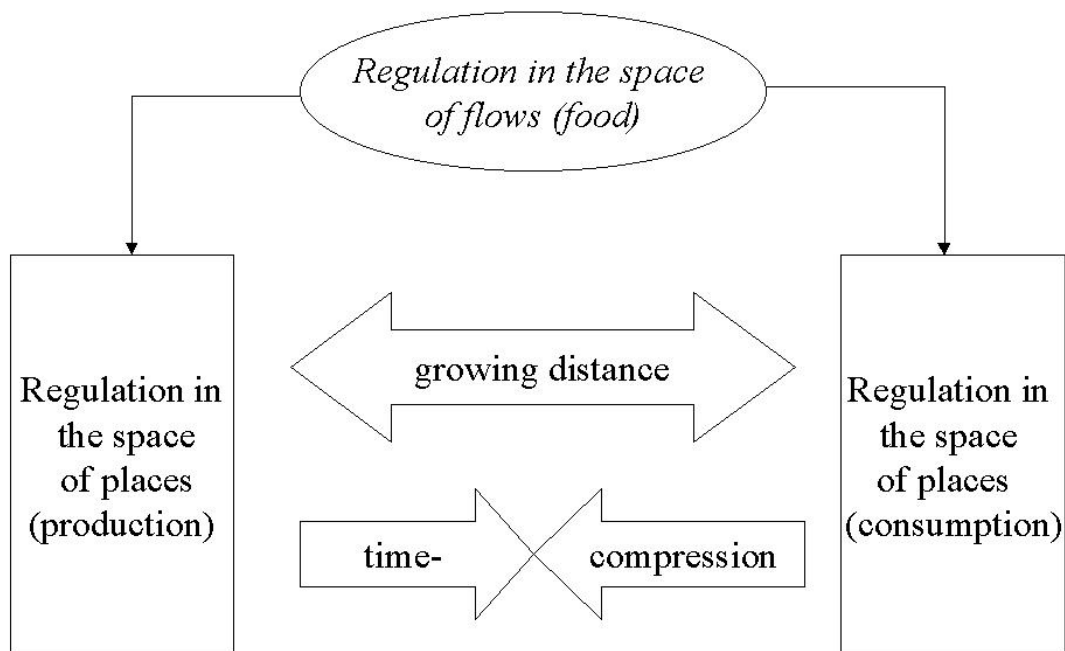
⁴ ‘We need to delineate the ways in which diverse and long-distant localities, almost on a daily basis, socially reconstruct the exchange context of certain types of food, using a post-traditional range of ideas and social practices associated with current volatilities between local and international markets’ (Arce and Marsden, 1993, p. 301).

4. Regulating environmental and safety risks of food in the global network society

Reducing the negative environmental and food safety impacts of food requires regulation fitting in today's global network society. Therefore, regulatory instruments which are applicable at global level but simultaneously reduce the social and environmental consequences at the local level, combining regulation in the space of flows with regulation in the space of places, are preferable. This challenge fits into the broader ecological modernisation approach, aiming at re-arranging the relationships between civil society, the state and the market to incorporate ecological worth (Marsden, 2004).

Regulating the environmental and safety risks in global network society means covering both material and informational flows in global food networks and linking the different practices of producing, processing, retailing and consuming food. This also involves the domain of formal politics as well as different forms of sub-politics and interactions between both spheres. The space of flows of food includes global flows of information, money and food products, but has specific localised and time-bounded material and social characteristics in the spaces of places of food production and consumption. Therefore, regulation should cover the dynamics in both domains as well as the tension between them. See figure 4.

Figure 4: regulation in the global flows of food



In practice it proves complicated to combine environmental regulation of food in the space of flows with regulation in the space of places. The process of globalisation seems to push towards regulation of food in the space of flows alone, because regulation based on product characteristics only would facilitate global flows of food. Regulation in

the space of flows is general and abstract, devoid of specific characteristics of place and time. Regulating food in the space of flows alone however seems currently implausible because the organic character of food makes it impossible for the foreseeable future to denounce space and time altogether. Regulation in the space of places is necessary and would include specific place- and time-bounded characteristics and be multidimensional bringing in food safety as well as environmental and social concerns.⁵ Food regulation within the space of places alone will, just as little as regulation within the space of flows alone, solve the environmental and safety problems related of global flows of food. Regulatory practices are required that combine regulation in the space of flows and regulation in the space of places through different dimensions, different levels of scale and different actors i.e. ‘hybrid arrangements’.

The tension between global regulation and localised impacts could possibly be solved by strengthening global governance and combining global trade politics with global environmental and social politics (Shaw, 2000). Such a form of global regulation combines regulation in the space of places with regulations in the space of flows under the responsibility of a global ‘national state-like’ structure. Although this solution builds on the familiar example of the nation-state, it is unlikely that such a global government will be able to deal satisfactorily with the variety in specific local environmental problems. Another strategy to solve this tension is through the active engagement of private firms and non-state actors, such as NGOs, in the regulation of food production and consumption. These non-state actors are generally better integrated in networks and able to cover different environmental, safety and social concerns in the space of places. Concretely these initiatives by non-state actors create more flexible forms of regulation and signify the “fluidisation” of regulatory practices (Lipschutz and Fogel, 2002). Certification programmes and eco-labelling schemes are becoming increasingly popular tools to allow consumers to include environmental considerations in their purchasing decisions.⁶ Certification and labelling of fish is a specific example of these efforts.

5. General trends in global fisheries.

Fish forms the main source of animal protein for many people and provides employment for some 35 million workers.⁷ Production of fish, in particular of farmed fish (aquaculture), is growing and the real market prices for fresh and frozen fish have increased since World War II, contrary to most other food products, it are not price

⁵ Many consumer concerns regarding food (its safety and the environmental and social consequences involved) are directly linked to the production practices applied, but these practices can not simply be detected in the final product itself and require additional information via the supply chain or through a label. Whether eggs, poultry or beef are produced taking animal welfare into account is detectable only by a label indicating the production circumstances, and the same with regard to identify fair-traded products, GM food or fish produced by sustainable fisheries.

⁶ ‘An eco-label is a claim placed on a product, having to do with its production or performance, that is intended to enhance the item’s social or market value by conveying its environmentally advantageous elements’ (Lipschutz and Fogel, 2002; p. 133). A critical question is whether positive purchasing decisions individuals with discretionary income (creating limited niche markets) will lead to real transformations in production practices (Raynolds, 2000).

⁷ Nearly 95% of the people depending on fisheries for their livelihood live in developing countries (Aerni, 2001; p. 5).

considerations but taste and growing health concerns among consumers in Western countries that result in a shift from beef and pork consumption to poultry and fish (Brown et al, 2003). Whereas in 1950, the global fish harvest was around 21 million tons this has risen, via 100 million tons in 1990, to 129 million tons in 2001 (table 1). By that time primary fisheries accounted for 59% and aquaculture for 41% of the total harvest (FAO, 2002; p. 3).

Table 1. World fisheries production and utilisation (million tons)

	1996	1997	1998	1999	2000	2001
Production						
Total capture	93.5	93.9	87.3	93.2	94.8	91.3
Total aquaculture	26.7	28.6	30.5	33.4	35.6	37.5
Total world fisheries	120.2	122.5	117.8	126.6	130.4	128.8
Utilisation						
Human consumption	88.0	90.8	92.4	94.4	96.7	99.4
Non-food uses	32.2	31.7	25.1	32.2	33.7	29.4

Source: FAO (2002) Table 1.

Global fish trade amounted to US\$ 55.2 billion in 2000, equal to about 33% of the total fish production (an increase of 52% from 1990 – 2000, see: Anderson, 2003a).⁸ Currently China is the leading fish exporting country in value terms, taking over from Thailand (FAO, 2004), while Japan is the main single importing country (US\$ 15.8 billion) and the EU the largest market for fish imports.⁹ In terms of volume, the international fisheries trade is dominated by a few fish products only notably shrimp (both cultured and wild), tuna, as well as fish meal and fish oil.

Fish consumption is particularly growing in richer countries and per-capita seafood consumption in Japan, USA and Europe is considerably higher than in most developing countries.¹⁰ Nevertheless, fish remains an essential source of animal protein for poor people living in developing countries. The average per capita fish consumption at the global level has increased from about 9 kilograms per annum in 1970 to 16 kilograms in 1997 (7.8 kg/capita in least developed countries and 27.8 kg/capita in developed countries).¹¹ The growing world population, the increased presence of fresh and frozen fish against affordable prices and changes in consumer attitudes ('consuming fish is healthy and prevents overweight'), as well as more traditional cultural traits and

⁸ Different new preservation techniques have allowed this. Besides the traditional techniques of drying, salting and smoking, early 19th century canning was added and cooling in the second half of the 19th century, followed in the early 20th century by freezing (Anderson, 2003a).

⁹ 'Net export revenues from fish exports earned by developing countries reached US\$ 17.7 billion in 2001, an amount larger than for any other traded food commodity such as rice, cocoa, tea or coffee' FAO, 2004; p. 1). For low-income food deficit countries alone, net export revenues were \$ 7.5 billion (idem).

¹⁰ Global demand for fish 'could be as high as 121 million tons by the year 2010. This is some 22 million tons more than the volumes that were available for consumption in 1999/2000' (Wijkstrom, 2003; p. 464).

¹¹ The differences between individual countries are even larger: whereas people in Mongolia consume virtually no fish at all, people in Japan (66 kg) and in Iceland (91 kg) consume much more than the average 14 kg (York and Gossard, 2004; p. 296).

geographical characteristics are important driving factors behind the growing consumption of fish (Trondsen et al, 2004).¹²

Globalisation of fish trade, coupled with technological developments in fish handling, preservation and distribution is resulting in new, often spatially extended, networks linking fish production to consumption. For example, 'some roe herring harvested in Alaska is exported to China where the roe is extracted, processed and exported to Japan. The carcass is retained and utilised in China' (Anderson and Martínez-Garmendia, 2003; p. 45).¹³ The growing global demand for fish forces further industrialisation (rationalisation and vertical integration) of the catchment fishery industry.¹⁴ The continuously growing catches are putting certain fish stocks at risk through overfishing (Hutchings and Reynolds, 2004). Currently around 70% of the worlds' commercial fisheries are by now considered fully or over-exploited and only 4% under-exploited. Myers and Worm (2003; p. 280) estimate 'that large predatory fish biomass today is only about 10% of pre-industrial levels'.¹⁵ Such over-fishing is reducing existing fish stocks, which will inevitably result in lower catches in the future. The levels of by-catch (non-target fish catch) have also reached threatening levels (some 29 million tonnes world-wide representing about 20% of the total catch), contributing to the loss of biodiversity as well (Garcia and Willmann, 1999). Besides because of over-fishing, the environmental situation in many seas and oceans is also worsened by bottom trawling and the use of dynamite and cyanide for fishing. In addition, chemicals and oil spills discharged by households, industries, the shipping trade and agriculture are contaminating certain parts of the sea as well (Constanza et al., 1999). The destruction of coastal zones, wetlands and mangrove areas by the growing aquacultural activities is impairing the role of these areas as natural spawning grounds and nurseries for the replenishment of marine stocks (Garcia et al, 1999).¹⁶

6. Environmental regulation in global fisheries.

The combined trends of a growing global demand for fish and environmental degradation result in an increasing demand for regulation to safeguard the fishing

¹² See Pillay (1992). But consumer research has shown that 'although seafood is very widely acknowledged as the healthy option compared to other proteins, there are varying levels of understanding and knowledge about detailed health properties' (Gross, 2003; p. 411). Western consumers prefer carnivore fish more than herbivore (York and Gossard, 2004) and the rising incomes in developed countries encourage 'away-from-home food expenditures and provides the discretionary income needed for purchases of higher valued prepared food products' (Harvey, 2003; p. 2).

¹³ The processing of fish into surimi (an intermediate product of fish protein concentrate developed in Japan) provides another example of the industrialisation of fish.

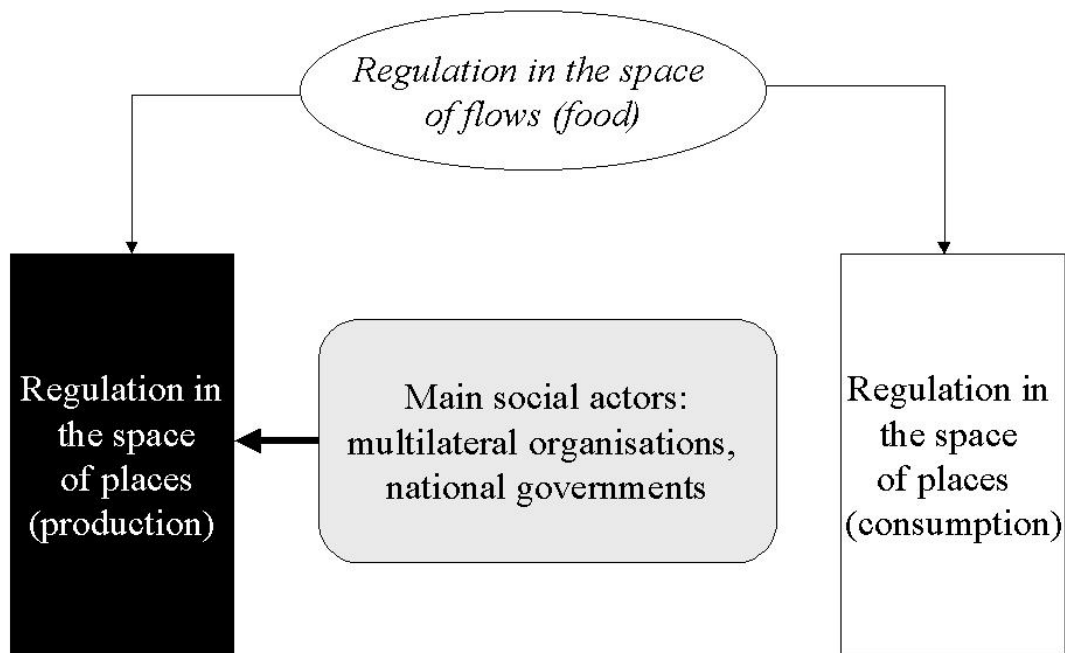
¹⁴ 'The gross tonnage in the world's fishing fleet grew 91% between 1970 and 1992' as a result of subsidies for vessel construction and operation, (Hanna, 1999; p. 277).

¹⁵ A 'fishery' is defined by a specific stock of a fish species in a specific area in combination with the fishermen trying to catch (part of) this stock.

¹⁶ The declining marine capture fisheries result in a shift from marine fisheries to aquaculture (freshwater and marine farming) and this activity is now responsible for one-quarter of all fish destined for human consumption. Aquaculture is creating its own environmental problems, like the destruction of important habitats, such as mangroves for shrimp farms and pollution of waters surrounding aquaculture pens from the overuse of feeds, antibacterial washes and chemicals (Gardiner, 2002).

resources for the future. The localised (or at least species-specific) environmental problems together with the globalised fish supply networks makes environmental regulation a particular challenge. Over the years different forms of regulation have been introduced and initially different forms of nation-state based regulations were introduced, whereby national governments distributed quotas for catching specific fish species at risk among the fishermen. This form of environmental regulation in the space of (production) places alone left out processing and trade as well as consumption. See figure 5.

Figure 5: regulation of fish in the space of places



Regulating fisheries in the space of (production) places alone, however, is complicated because fish is an open access resource. Until the establishment of the 200-mile exclusive economic zones in 1977, oceans formed a common resource where everyone had equal fishing rights.¹⁷ “Fishing grounds are unrestricted ‘commons’ areas, and the ownership of a fish is not allocated until the moment of capture” (Stone, 2002, p. 290). However, even after the creation of the exclusive economic zones, the problems of over-fishing and of conflicts over access to certain fish stocks remained. Multilateral regulation seems indispensable and initially, FAO-sponsored, international commissions were created, charged with managing a specific species (for example the International Whaling Commission) or a specific area (Peterson, 1993). Global regulation started with the UN Convention on the Law of the Sea (1982), but until today this convention is implemented to a very limited extent only. The 1992 UN Conference on Environment and Development underlined the need to create effective fisheries’ and coastal areas’

¹⁷ Countries had jurisdiction over just a narrow band of water outside their coast, usually three nautical miles wide.

management regimes and the FAO (voluntary) Code of Conduct for Responsible Fisheries (1995) and the UN Fish Stocks Agreement (1995) formulated new guidelines to protect existing fish stocks.¹⁸ However, despite these initiatives, their effects remain very modest as government commitment and capacity to put these guidelines into practice are often lacking, while the participation by NGO's and other stakeholders remains insufficient (Peterson, 1993).¹⁹ A possibility to strengthen regulation in the space of places, as suggested by several authors, is further privatisation because private ownership rights would provide security, allow planning and investment and improve production and marketing management (Anderson, 2003b).

Nevertheless, the main problem with regard to this form of regulation in the space of places is its inability to really deal with the global flow of fish. As fish trade is globalised and as fish stocks and fishing boats move easily across national borders, regulating sustainable fisheries should deal with the space of flows.²⁰ Such a form of regulation would reduce the involvement of national governments and strengthen market based regulation. Although, until now such a form of regulation is not yet fully elaborated, pleas for reducing fishery subsidies fall within this approach.²¹ During the Johannesburg 2002 Conference on Environment and Development, fishery subsidies and non-tariff barriers were identified as the main factors leading to depleting fish stocks. 'Subsidies to fishing encourage inefficient producers to remain in the market and this results in depletion of fisheries' (Gowdy and Walton, 2003; p. 7). Reducing government involvement in fisheries management would shift responsibilities to market partners and thereby facilitate regulation in the space of flows.. See figure 6.

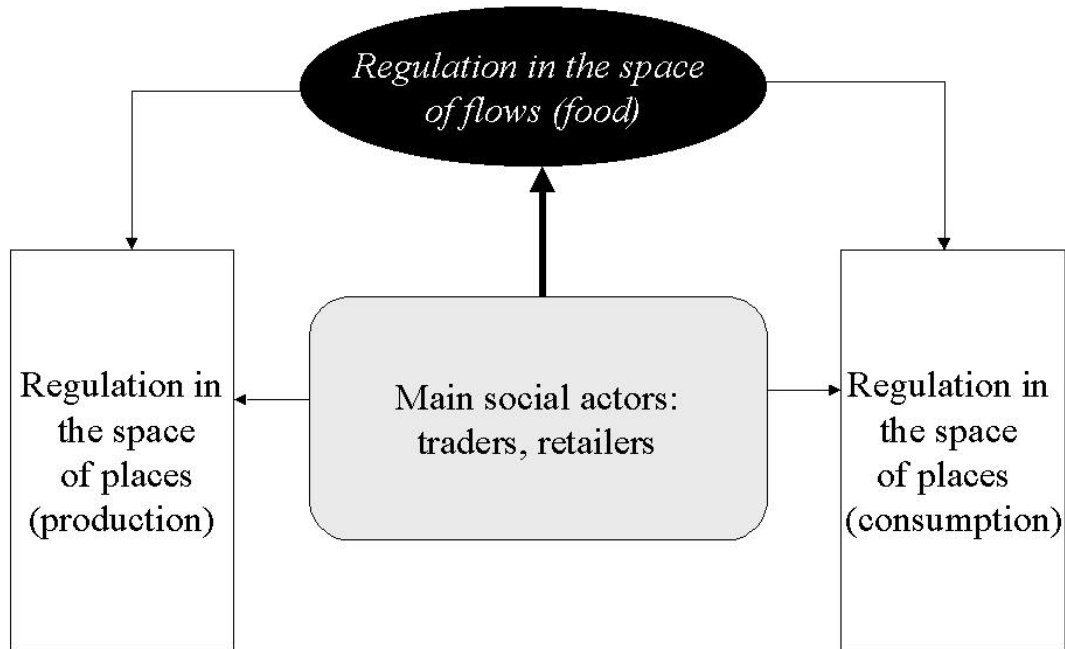
¹⁸ The centrepiece in the (voluntary) FAO code of conduct for responsible fisheries (1995) is the creation of exclusive use rights combined with political institutions and economic instruments to protect the resource base (Garcia et al., 1999).

¹⁹ Scientific advice is playing a central role in policy initiatives; see the shift from measures based on 'maximum sustainable yield', via 'optimal yield' to 'multispecies management' (Peterson, 1993).

²⁰ Registration of fishing vessels under the jurisdiction of certain countries (certain flags) who do not or can not comply with international regulations is an example of this globalisation process. In the past this practice already existed to evade taxes and labour requirements, but now evasion of environmental regulations is becoming a new reason for this practice (Garcia and Willmann, 1999).

²¹ Estimates by FAO calculate an economic waste due to these subsidies of US\$ 54 billion (Stone, 2002, p. 293).

Figure 6: regulation of fish in the global space of flows



Leaving environmental regulation to the market alone, however, involves risks as long term concerns and the interests of (specific groups of) producers and consumers may disappear from sight. It is unlikely that regulation in the space of flows alone will sufficiently solve the environmental problems caused by catchment fisheries. The global character of the fish supply network will more easily facilitate displacement of fishing capacity than dealing with local environmental problems. Effectively dealing with these local problems and including the interests of producers and consumers in environmental regulation requires some form of a combined regulation in the space of places and the space of flows. Currently, consumers, particularly in Western countries, are a driving force in the realisation of such innovative forms of regulation. These consumers are more and more concerned about the environmental effects of fisheries and about the health risks involved in fish consumption (the presence of heavy metals (mercury, copper, cadmium, molybdenum, chromium) and other chemical substances (dioxins, PCBs).

Involving consumers and combining regulation in the space of places with regulation in the space of flows may take different forms, for example consumer guides or certification and labelling. Consumer guides, developed by several NGOs, represent a new instrument to reduce the environmental impact of fisheries, as the Audubon Society explains on its wallet: 'consumer demand has driven some fish populations to their lowest levels ever. But you can be part of the solution. You can choose seafoods from healthy, thriving fisheries'.²² These guides are simple tools to help consumers and

²² Audubon, 2002; website www.audubon.org/campaign/lo (accessed 21 October 2003). See also the Monterey Bay Aquarium: 'You have the power. Your consumer choices make a difference' Monterey Bay Aquarium, Seafood Watch, West Coast Seafood Guide, Fall/Winter 2003.

restaurant chefs to choose between different fish species which are common on the local market on the basis of their relative environmental impact. Examples are the seafood wallet card by the Audubon Society, the 'West Coast seafood guide' by the Monterey Bay Aquarium, the pocket seafood selector from Environmental Defense and other by Conscious Choice, Seafood Choices Alliance, the (Dutch) North Sea Foundation, the (UK) Marine Conservation Society (MCS) and the Blue Ocean Institute. The categorisation of fish according to species only and not further detailed according to the production practices applied, however makes the tool rather rough. Such consumer guides may raise consumer awareness, but without regulation in the production areas, in the space of places, the growing consumption of not endangered species may result in endangering them.

ISO 14001, organic and the Marine Stewardship Council (MSC) are labelling and certification practices, used to improve environmental performance of the production practices, of fisheries. ISO 14001 may provide regulatory compliance, because firms are required to establish an environmental policy and to set targets and objectives for environmental management performance. (Frankic and Hershner, 2003). ISO 14001, however, does not prescribe specific levels of environmental performance. Organic labelling of fish products would be an alternative, but remains a contested issue because catching fish is not fully comparable with growing potatoes. During the public process of defining general criteria for organics in the US the participants concluded that catchment fisheries may be natural but can not be considered organic because the production process is not controlled by humans. (Mansfield, 2003, 2004; Vos, 2000). A more complex innovative approach of regulation in the space of flows combined with specific production practices, is the Marine Stewardship Council (MSC) label. Unilever and WWF took the initiative to establish the MSC in 1997, based on the assumption that all actors involved in catching fish in a specific area have a common interest in guaranteeing the future of this fishery and in developing a common and coherent sustainable management plan. WWF considered improving the sustainability of fisheries with the help of a specific label an interesting option for sustainable development and a reinforcement for other already existing certification schemes.²³ Unilever realised that the future of its commercial fishing activities will be jeopardised if the threat from over-fishing is not reversed. Initiated by these two, global, non-state actors the MSC has since 1999 evolved into an independent, global non-profit organisation responsible for the labelling of sustainable fisheries using their own MSC-label. The objective of the MSC is to bring environmental, commercial and social interests together in sustainable fisheries, to provide powerful economic incentives for well-managed sustainable fisheries and to

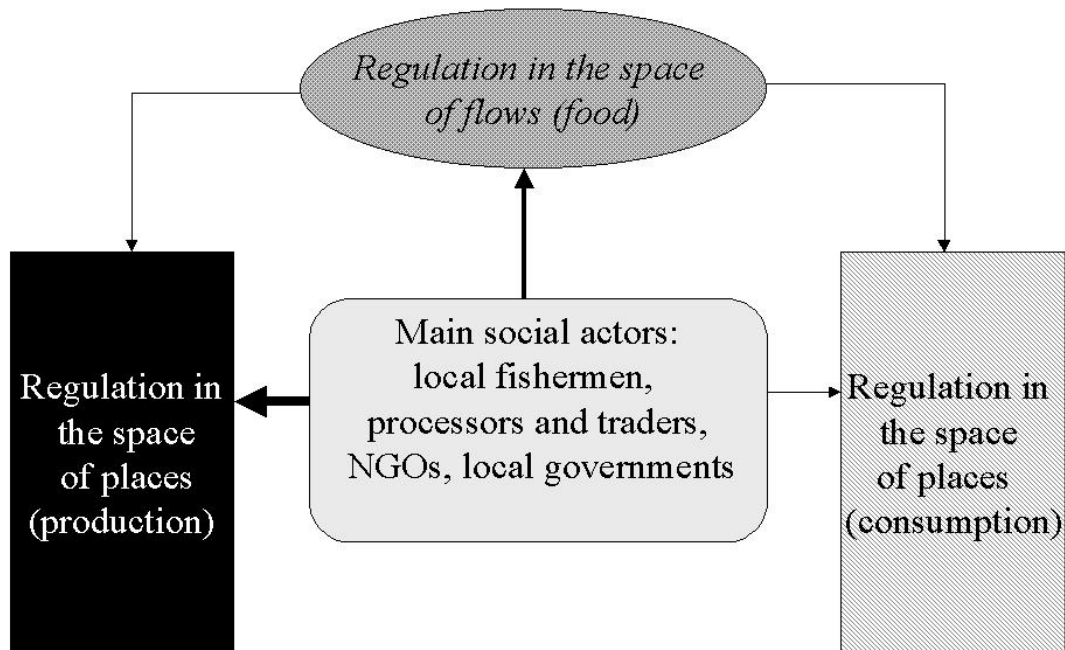
²³ The following operational principles have been identified by a panel of experts to integrate trade, development and environmental policies, (WWF, 1999):

- Efficiency,
- Equity,
- Ecosystem Integrity,
- Good Governance,
- Stakeholder Participation and Responsibility,
- International Co-operation.

A well known case of WWF labelling initiatives is the Forest Stewardship Council (FSC), developed for sustainably produced timber.

stop a catastrophic decline in the world's fish stocks by harnessing consumer power (Constance and Bonanno, 2000).²⁴

Figure 7: regulation of fish using the MSC-label



Although the organisation acknowledges that, a transition to a more responsible and sustainable fisheries' exploitation will initially lead to a period of reduced catches, ultimately a sustainable management plan will result in a growth of the fish stocks and therefore in better yields. In order to reward environmentally responsible fishery management and fishing practices, a product label is developed on the basis of general standards for sustainable fisheries. Until August 2004, ten fisheries have received the MSC-label of which four in the UK and the other six in the US, New Zealand, Australia, Mexico, South Africa and Scotland. Fifteen others are currently undergoing the certifying process: US (6), Australia (2), UK (2), Chile, Canada (2), EU/Norway and Sweden.

Guided by a certifying agent, accredited by MSC, the following three general MSC principles are translated into a concrete and detailed management plan for a specific fishery:

²⁴ The definition developed for **sustainable fishing** is: fisheries conducted in such a way, that:

- it can be continued indefinitely at a reasonable level,
- it maintains and seeks to maximise, ecological health and abundance,
- it maintains the diversity, structure and function of the ecosystem on which it depends as well as the quality of its habitat, minimising the adverse effects that it causes;
- it is managed and operated in a responsible manner, in conformity with local, national and international laws and regulations;
- it maintains present and future economic and social options and benefits;
- it is conducted in a socially and economically fair and responsible manner.

- 1) a fishery must conduct itself in a manner that does not lead to over-fishing or depletion of the exploited fish population.
- 2) a fishing operation should allow for the maintenance of the structure, productivity, function, and diversity of the ecosystem on which the fisheries is dependent.
- 3) a fishery is subject to an effective management system that respects local, national, and international laws and standards and incorporates institutional and operational frameworks that require use of the resource to be responsible and sustainable.

In this management plan all actors concerned agree on the amount, the way and timing of catching fish, as well as on the implementation of certain accompanying measures to protect the fish stock. All stakeholders have to participate in the process to acquire public trust in the label. So, for example, certifying agents have agreed to actively contact the relevant environmental NGO's and request their participation in the process. The MSC considers support from these NGO's vital 'if our programme is to offer industry the credibility they expect' (MSC, 2002, p. 1). Governments do not have a special position in the certification process and are considered a participant at the same level as the fishermen and the retailers. In practice, certifying a specific fish stock may be a complicated process because of the different interpretations of sustainable fisheries that need combining for the example in the case of the New Zealand Hoki (see Box 1).

Box 1

An example of the complications involved in MSC-labelling: the Hoki-case.

The New Zealand Hoki is a fishery labelled by MSC as a sustainable fishery and Unilever is selling them as fish fingers (Iglo). From 2005 onwards, Unilever intends to sell only MSC-labelled fish but this intention can only be implemented if enough certified fish is available (Deere, 1999). As the New Zealand Hoki represents a major fish stock its labelling is important. Granting the MSC-label to the Hoki fishery has been heavily criticised by the New Zealand Royal Forest and Bird Protection Society. Their main objection concerns the killing of seals and albatross by the Hoki fishery. Interestingly enough, although invited to do so, this NGO refused to participate in the certification process itself and now criticises the result. The MSC replied to this criticism that the labelling was conditional and that several corrective actions have to be taken by the fishery to retain its certification. In addition, the MSC claims that without the certification process many of the issues brought up by the New Zealand Royal Forest and Bird Protection Society would still be unresolved. MSC thus states that the label is not developed to confirm that a fishery is already sustainably managed, but that the fishery is engaged in taking a series of corrective actions towards sustainability that otherwise would not have been taken (Seaweb, 2001).

The MSC-label is an environmental label and does not include additional social or economic criteria because this would complicate the labelling process in developing countries and demand higher social and economic performances than required by the national legislation, bringing sustainable fisheries in an even further unfavourable economic position in their competition with unsustainable fisheries. Even without such social and economic criteria, MSC-labelling is already very complicated in developing countries because the available information about the fish stocks and fishing practices in

these countries is often insufficient to develop a sustainable management plan. In addition, the lack of local certification capacity obliges these countries to hire expensive foreign certifying agencies. So, although the MSC-label could be an incentive to implement environmental improvements also for developing countries, these countries can fulfil the conditions only with great difficulties.²⁵

The MSC label conveys to the consumer otherwise unobservable information concerning a product's environmental impact allowing them to buy seafood that is sustainably caught and thereby providing a market-based signal to resource managers creating an incentive to maintain sustainable fisheries resources. Research has shown that consumers are prepared to choose sustainably produced fish products provided the price difference with conventional products is not too large (Roheim and Donath, 2003). The MSC is preparing public information campaigns to inform consumers about the environmental impact of labelled fish-products and to encourage retailers to sell fish-products from sustainably managed and MSC-labelled fisheries. As, until now, the market for MSC-labelled fish remains to a large extent restricted to exclusive restaurants and a limited number of shops and has not yet entered the mass markets for fish, communication to the general public remains rather limited. Entering mass markets for fish consumption, using mass media, would require the availability of larger quantities of certified fish and therefore the certification of more fisheries, which is not the case yet.

The MSC-label can be considered a concrete response to the seemingly dominant discourse in global institutions like the WTO, where global regulation of fisheries seems to remain limited to a plea for ending fishing subsidies by national governments. When, in addition, the access to fishing resources would be arranged through private ownership instead of public ownership sustainability in fisheries would increase according to this view (Edwards, 2003). Such a approach would leave the regulation of fishing practices and global fish trade to the market, creating regulation in the space of flows only. The MSC-label offers an alternative by developing a form of regulation combining flows and place by actively engaging all market and non-market actors concerned in the production of fish. National states are considered as just one among many other stakeholders in the process of acquiring the MSC-label. This approach underlines the private character of the MSC-label, despite the legal obligations national states have to protect fish stocks within their exclusive economic zones and their task to co-operate with other governments in the management of shared fish stocks on the high seas (Deere, 1999).

Critics on the MSC-labelling initiative comment on the involvement of a large multinational who will most likely put its own private interests and those of consumers in developed countries before the interests of small-scale fishermen and people in developing countries. Such a powerful multinational will probably also impose its particular definition of sustainable fisheries on other actors and, by introducing market-based instruments bypass democratic institutions and privatise regulation that was public before. Constance and Bonanno (2000) consider MSC an initiative whereby a large multinational is disciplining less powerful social groups through centralised grading and standards mechanisms. And, (item, p. 133) 'the MSC can be viewed as an attempt by a

²⁵ Therefor, WWF is elaborating a methodology for community based fisheries certification (see WWF website) to counter these criticisms. Community based fisheries certification maximises the use of local knowledge and is based on partnership with the local fishing communities. (See for example the report from a workshop by WWF Endangered Seas Campaign 2000).

TNC to stabilise and legitimise its business practices by resolving (at least temporarily) the historical antagonism between capitalist accumulation and environmental protection through a "neutral" NGO-based joint venture'. They particularly criticise the absence of social considerations in the arrangement. The MSC appears to be a prime example of a more general trend where a green NGO occupying the regulatory spaces vacated by failures of the nation-state system in alliance with agro-industrial capital. Some commentators criticise the MSC-label for its limited effectiveness in improving the environmental conditions of fisheries in general because it currently covers only the exclusive, already more sustainable, fisheries and provides little stimulus for other unsustainable fisheries. Finally, the Pacific Coast Federation of Fishermen's Associations (Grader et al, 2003) suggests to build on the MSC-label and develop a more inclusive regulatory arrangement covering social and economic criteria next to the existing environmental ones: a fair trade fish label.

7. Conclusions.

The intention of this paper was to study to what extent and in what specific ways the MSC-label can be considered to represent new ways of regulating the negative social and environmental consequences of the globalising food production and consumption. Building on Castells' analysis of globalisation in general and on the tension he observes between the characteristics of global flows on the one hand and localised identities of places on the other, a conceptual model for the regulation of food was developed. With the help of this theoretical model the regulatory arrangements of MSC-labelled fish were analysed. The MSC-label deals with the place-bounded social and environmental effects of global flows of seafood without entering into a form of de-globalisation, thereby creating an innovative arrangement that fits into global modernity. The information provided by such a label allows citizens to influence production practices in fisheries through their daily consumption practices. The producers are actively involved in translating the general criteria of the MSC label into practices fitting in a particular local context, thereby reinforcing the identity of this particular place. This model for regulating global food trade pays comparatively much attention to regulating the place of production because of the diversity in fishing circumstances and practices and of the obligation to include all actors concerned. Whether the MSC-label will remain limited to a niche market or contribute to large scale reduction of the environmental effects of catchment fisheries, can only be answered in the future.

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