

Co-management: an alternative to enforcement?

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The decline in fish stocks worldwide has often been attributed to problems inherent with resources being treated as common property. Government is usually called upon to define and implement solutions, but the issues society face today cannot be dealt with by the classical, state-centred system of the industrial society. In this article, the Dutch case of fisheries management is used to demonstrate how a government-orientated solution, such as the recently inaugurated EU Community Fisheries Control Agency, and a governance-type solution, such as co-management, relate to each other and whether a partnership between government and the market, such as co-management, can serve as an alternative to direct government enforcement. Although the Dutch case is not a true-bred form of co-management, but rather a case of co-enforcement, it can be used to service a theoretical assessment of the possibilities of co-enforcement at a European scale.

Keywords: capture fishery, co-management, enforcement, fisheries management, governance.

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Introduction

According to the current EU Maritime Commissioner Joe Borg, developing a culture of compliance throughout the chain of activities related to fisheries from the fisher to the consumer is the surest way of delivering sustainable and equitable fisheries in Europe (Borg, 2008). Apparently, this change is direly needed, because “Today, those in the industry who uphold the law frequently witness offenders escaping sanction and making huge financial profits in the process. This is untenable in any context, and particularly in the current situation, with fish resources getting increasingly scarce” (Borg, 2008). In fact, according to Commissioner Borg, the mainstay of the problem of non-compliance lies not so much in the fact that the management system is insufficient in delivering the desired goals but “The current control system is so inefficient that it jeopardizes our efforts to achieve sustainable exploitation and long-term management of stocks” (Borg, 2008). Despite an overall annual expenditure of €400 million on control “Any control policy falls apart like a house of cards if it is not properly implemented, and if infringements are not followed up” (Borg, 2008).

Hence, as a result of the 2002 revision of the EU Common Fisheries Policy (CFP), emphasis is being put on enforcement of measures (monitoring and control) and not so much on the basic fabric of fisheries management. The search is on how to get the policies enforced better. The answer apparently lies in a government-orientated solution: a Community Fisheries Control Agency (CFCA) to organize operational coordination of fisheries control and inspection activities by Member States and to assist them to cooperate so as to comply with the rules of the Common EU Fisheries Policy to ensure its effective and uniform application.

In 1990, a similar enforcement crisis evolved in Dutch fisheries management. Fishers lost their faith in government as the agent of

effective fisheries management and government failed to implement fisheries management rules effectively. Contrary to today’s proposal by Borg, to reinforce government enforcement of fisheries management, the solution in the Netherlands was to establish a more participatory system of management involving fishers and the state alike: co-management.

Here, I use this example of Dutch co-management and the participatory governance discourse to analyse whether a more participatory solution, as substitute for government rule-making, can serve as an alternative to enforcement. I start by looking at the practice of fisheries management, compliance, and the role of co-management. To analyse co-management further, it is necessary to look at the current discourse on political modernization and participatory governance. The history of Dutch fisheries co-management can be used to analyse whether this new institutional setting has led to an increase in compliance with formal government management. I also discuss these findings and theoretically assess the possibilities of co-enforcement at a European scale.

Fisheries management and compliance

The call for fisheries management can be found in the open access natural renewable resource character of fish stocks. In the absence of property rights over a resource, individual fishers have little incentive to conserve a fish stock or to harvest the fish efficiently because the benefits of doing so may be appropriated by other fishers. The obvious answer in fisheries has for long been to make the case for a strong presence of government in fisheries resource management (Jentoft *et al.*, 1998; Noble, 2000; Kearney *et al.*, 2007; May, 2008). Hence, the development in the second half of the 20th century of management of marine fisheries by central governments and international organizations with the characteristics of today: biology-based measures, such as mesh

size regulations, total allowable catch (TAC), area closures, and nursery ground protection, measures directly affecting the economic operation of the vessel, such as restrictions on days at sea, fishing time, engine size, and holding capacity of the vessels, and marked-based (e.g. tradable quota) and non-market-based instruments (e.g. subsidies for the construction of new vessels), which influence the economic operation of the vessel more indirectly (Arnason, 2000; Sissenwine and Symes, 2007).

Compliance with regulations refers to the extent to which citizens adhere to rules and regulations, in this case the various fisheries management regulations. The extent of compliance provides insight into the effectiveness of a management system at translating policy into concrete operational measures. On the other hand, the level of compliance provides insight into the way the measures are supported and perceived as legitimate by the people who have to operate by the rules. The decision of individual actors to comply or not is based primarily on a calculation of the (economic) gain to be obtained from bypassing the regulation compared with the likelihood of detection and the severity of the sanction. Increased enforcement activities can reduce or even prevent non-compliance among fishers, but there are limits to the resources (human and capital) that can be used on enforcement activities, in particular if the aim is to strike a reasonable balance between the costs of enforcement activities and the profit to be obtained from fishing activities (Nielsen and Mathiesen, 2003).

Especially in a fishery with overcapacity, as in the Dutch case, there is a strong economic incentive for non-compliance. Fishers often argue that they are forced into non-compliance behaviour to stay in business (Hatcher *et al.*, 2000). Hence, in terms of legitimacy, fishers feel threatened by a situation where the regulations are incompatible with their daily practice of fishing.

Fisheries co-management

The choice of type of instrument in fisheries resources management is largely government-driven, although experiences worldwide show that various forms of partnership between government, industry, and fishers strengthen management and produce good results (Nielsen *et al.*, 2004). In fact, fisheries management has been more concerned with the means, such as individual transferable quotas (ITQs), than with institutional and organizational aspects (Noble, 2000). From the 1987 report "Our Common Future", commonly known as the *Brundtland Report*, we learn that to arrive at sustainable development, and hence also sustainable management of natural resources, communities should have greater access to and control over the decisions affecting their resources, in cooperation with government, economic, and administrative functions (World Commission on Environment and Development, 1987). The idea of partnerships became even more internationally acceptable and promoted following the 1992 United Nations Conference on Environment and Development, the "Rio Conference", and even more strongly, after the Johannesburg World Summit on Sustainable Development in 2002 (Mol, 2007). Co-management is the application of this principle to fisheries management (Noble, 2000).

The fisheries management literature provides many examples of resource users' participation in fisheries management. For example, Jentoft and McCay (1995), Nielsen and Vedsmund (1995), and Sen and Nielsen (1996) provide a plethora of cases in which user participation is in operation, including African, Asian, and European cases, the latter including some in the Netherlands, Denmark, and Norway. Smith *et al.* (2008) provide

the example of the Resource Assessment Groups that operate in Australia. Co-management of the sandeel fisheries in Ise Bay is a famous case in Japan, where natural resource management is carried out through the interplay of fisher communities, science, and government (Ashida, 2009).

Participatory arrangements in fisheries management can range from historical fishers' organizations, such as the *Confradias de Pescadores* in Spain and the *Prudhomies* in France (Galle and Weber, 1992; Jentoft and McCay, 1995; van Hoof *et al.*, 2005) to safeguarding use rights of native groups of fishers such as in use in the system of Community Development Quota of the US North Pacific Regional Fishery Council to help bring economic and social development opportunities to Native Alaskan villages along the coast of Western Alaska (May, 2008). They can be rather ancient local systems, such as found in Japan (Ashida, 2009) and the Customary Fishing Rights Areas in Fiji (Sen and Nielsen, 1996), but they can also be of more recent signature, such as the management of the mechanized beach-seine fishery in Mozambique and the management of Lake Malombe in Malawi (Sen and Nielsen, 1996). Today, the US government is moving towards a co-management model for fishery governance based on stakeholder engagement (May, 2008). There is compelling evidence that such participatory governance is crucial for contending with the complex problems of managing for multiple values and outcomes to achieve ecological sustainability and economic development (Kearney *et al.*, 2007).

Although the cases above feature a form of resource users' (fisher) participation in the management system, not all would be considered to be co-management. Co-management is here defined as a dynamic, collaborative, and participatory process of regulatory decision-making in a setting of institutional and organizational arrangements, using the capacities and interests of user groups, complemented by the ability of the fisheries administration to provide enabling legislation and administrative assistance to reduce information and regulation costs to the government and to improve decision-making and regulatory effectiveness (Nielsen and Vedsmund, 1995; Sen and Nielsen, 1996; Jentoft *et al.*, 1998; Nielsen *et al.*, 2004; van Hoof *et al.*, 2005; May, 2008). If top-down government control and fishers' self-management would be at the extremes of a management dichotomy, co-management would be found in between the two extremes.

Covering a variety of partnership arrangements, co-management can be discerned as a set of institutional and organizational arrangements (rights and rules) that define the cooperation between the particular fisheries administration and its related user groups. Nielsen and Vedsmund (1995, 1999) use the balance in the roles that government and user groups play to classify co-management into five broad types: instructive, consultative, cooperative, advisory, and informative. In those cases in which government only informs users on the decisions they plan to make (instructive) or in which mechanisms exist for governments to consult with users but all decisions are taken by government (consultative), although they are participatory to some degree, they do not qualify as co-management because government and resource users do not develop, implement, or monitor policy measures collectively. Hence, those cases in which fisheries management boils down to being *de facto* resource users' self-management, such as community-based management, also do not qualify as co-management. Although in cases such as Ise Bay in Japan and the Customary Fishing Rights Areas in

Fiji, where local users' (community) institutions manage the resource and are sanctioned by government to do so, the management itself does not constitute a cooperative process of policy-making with the state. Consequently, traditional marine tenure systems, traditional fisheries management systems, and community-based resource management are not considered to be co-management because government is not involved in the decision-making process (Sen and Nielsen, 1996).

To analyse a system of co-management, the arrangement should be viewed in its proper local historical and institutional setting. For EU fisheries, this implies that for co-management to be analysed, it should be put in the context of the EU fisheries governance extending from the supranational, national, and regional to the local level. EU fisheries management, captured under the CFP, is one of only five areas of exclusive competence of the European Commission. This extraordinary elevation of marine conservation reflects the complexity of fisheries management within the EU (Hawkins, 2005). Although the EU enjoys the ability to adopt binding legislation that requires no review or ratification at a national level, the responsibility for implementation falls upon Member States (Jordan, 2001). Hence, EU Member States have within the context of the CFP regulations a degree of freedom to develop national regulations and organize the way responsibilities in fisheries management are shared between national authorities and stakeholder groups.

Partnerships and marine governance

Founded on great optimism about the possibility of progress by the application of rationality and the state's capacity to solve societal problems through rational policy-making and comprehensive planning, early environmental politics can be characterized as being state-initiated, based on scientifically deduced standards, and presuming loyalty from both market and civil society in its implementation. Starting in the late 1960s and the 1970s, there was a gradual shift in environmental politics. Fuelled by scepticism about scientific optimism, a critique on its one-sided one-dimensional character, the limits of rationality, and the (unforeseen and neglected) external effects of environmental policies developed. The criticism focused on the lack of equality, emancipation, democracy, and participation of prevailing environmental policies (van Tatenhove and Leroy, 2003). The call for increased participation and innovation of environmental policies was labelled political modernization (van Tatenhove and Leroy, 2003). In the process of modernization, the centrality of the state as a political actor decreased, providing leeway for an increasing role for politicization within other spheres of society. Hence, an increasing interweaving of state, market, and civil society took place, a process in which the common formulation of the problem and the design of its most adequate solution strategies are part of the policy-making process. These basic features were reflected in a variety of participatory, interactive, and deliberative patterns and practices of policy-making witnessed throughout contemporary Europe (van Tatenhove and Leroy, 2003).

In such environmental partnerships between government and industry, through which solutions to environmental problems could be negotiated, there was a shift towards addressing the source of environmental problems, not merely dealing with the impacts. Analysing these partnerships, Glasbergen (2007) portrays a strong state no longer as a state able to run from a central position, but rather as one that is able to stimulate the self-governing capacities of stakeholders on sustainability issues. To improve the

regulatory capacities of governments, a shift is made towards new institutional arrangements involving representatives of the state, market, and civil society, with the emergence of partnerships and other forms of "co-" and "self-" governance.

Looking at the examples of fisheries co-management described earlier, fisheries co-management presents such a partnership arrangement of a coalition between state and fishers. The coming about of a fisheries co-management arrangement presents a shift in the relationships between the institutions of state, market, and civil society involved in fisheries management, and it implies new conceptions and structures of governance (Arts and van Tatenhove, 2004). However, identifying the fishers as representing the private domain driven by a market rationale, so depicting fisheries co-management as a simple state-industry arrangement, does not honour the breadth of such a partnership. Most fishers have a dual-actor position both as professionals and members of a local community, so they combine a rational economic efficiency paradigm with social and emotional drivers such as long-term continuity of the family firm and a sense of belonging to the local community. This is congruent with Glasbergen's (2007) description of a shift from a state centred towards a more pluralistic approach in which the goal is to refine the definition of quality of life, encompassing material welfare and social equity, recognizing the self-governing capacities of business and organizations in civil society.

As for example in the United States, where fisheries governance extends from federal to regional levels (May, 2008), EU fisheries governance extends from the supranational, national, and regional down to the local level. Today, the vast majority of policy areas have some supranational characteristics, such as qualified majority voting and co-decision making with the European Parliament (Jordan, 2001). No longer is the nation state in control of the policy-making process, but it shares responsibility at regional and international levels (such as the EU), and it operates in an arena with non-governmental organizations and other private or quasi-private bodies. As Loeber *et al.* (2005) conclude, the nation-state in the latter half of the 20th century has become a collection of social and economic actors who are, as inhabitants, nominally based in a country but who participate in diverse dynamic social and economic networks that stretch across national boundaries. Hence, fisheries co-management within the sphere of the EU CFP is a public-private partnership at a (sub)national level, within the context of a multilevel participatory governance arrangement involving national and supranational levels.

Co-management in Dutch fisheries

After the Second World War, and particularly since the 1960s, the Dutch North Sea fishing fleet for flatfish developed rapidly. The growth of the sector was based on a technical innovation, the double-beam trawl, which was introduced at the end of the 1950s, and the development of an export market for flatfish. As a result, the Dutch beam trawl fleet increasingly concentrated on flatfish, especially sole (*Solea solea*) and plaice (*Pleuronectes platessa*; Dubbink, 1992).

Towards the end of the 20th century, Dutch fisheries management could be characterized as an ongoing process of restricting fisheries. Before 1975, Dutch fishers had some freedom to decide on their operations; the level of regulation was modest. This fitted into the national political philosophy based on "subsidiarity" and "sovereignty in own circle" (van Hoof *et al.*, 2005). In an organizational sense, this is exemplified by neo-corporatist

institutions in fisheries (but also in agriculture and many other sectors), in which government and organized interests, mainly trade unions and employer associations, jointly develop and implement social–economic policies. The government does not operate at a distance, and organized interests do not have to lobby; they are welcome partners at the table. There is consultation at all stages of legislation and policy-making. Often this is institutionalized in advisory bodies, but a large part of coordination takes place in an informal way outside the official advisory bodies.

In 1975, the Northeast Atlantic Fisheries Commission established TACs for several species of fish, including sole and plaice. Based on historical rights, Dutch fishers were allocated >70% of the TACs for sole, and nearly 40% of the TACs for plaice. These TACs did not provide secure property rights, however, because the flatfish fishery would be closed once the national quotas for sole and plaice were exhausted. As everyone knew that fishing could be closed any day, uncertainty spread. The outcome, i.e. the fishers' race for fish, became even more stimulated than before (Dubink, 1992).

Hence with the system of a national TAC, the race for fish was not eliminated, and up to the late 1980s the Dutch fleet expanded, in terms of total capacity (measured in horse power), in supply of fish (in weight and real value), and in employment. In reaction, Dutch government organized an individual quota (IQ) system for the two major flatfish species: sole and plaice (Smit, 1997), initially as IQ which could not be sold, leased, or used as collateral, developing into an official system of IQ trade including a central clearing institution (Smit, 2001).

As many fishers had been investing heavily in fishing capacity throughout these years, many faced a discrepancy between their fishing rights and their fishing capacity. They simply did not obtain/have quota rights for their new and bigger ships, ships financed based on easily accessible loans. As a result, "fishers felt on one shoulder the weight of their financial burden and the banks that told them to keep on fishing and on the other shoulder the hand of the government that told them to quit fishing" (Dubink, 1992).

According to Smit (1997), fishers tried to dodge the system, putting up a smokescreen around landing declarations. This period of rapid expansion of the Dutch fishing industry was characterized by reports of illegal fishing, underreporting of catches, grey and black trade circuits, and inadequate policing and enforcement by the state (van Ginkel, 2005). The national administration was not prepared for a large system to keep track of landings (of each individual vessel in Dutch and foreign ports), and enforcement was weak (Smit, 1997). Catches continued to exceed national quotas and, as a consequence of the failure to contain the problem, a political crisis evolved in 1990 in which it was clear that the command-and-control regulation failed to police fishers' behaviour.

During the mid-1980s, growing political concern about non-compliance with the quota regulations developed. Until the late 1980s, three factors allowed fishers to land considerable quantities of "black" and "grey" flatfish in addition to their legal quotas: (i) a weak monitoring and enforcement policy, (ii) low fines for violations; and (iii) logistical and administrative help from the auctions (Dubink, 1992). There was a growing awareness that the involvement of the public authorities in the continuation of illegal behaviour could no longer be tolerated (Dubink, 1992), so to regain legitimacy of the fisheries policy, negotiations between fishers and fishery managers on the establishment of co-management

groups started. A simultaneous increase in the sole TAC helped to calm down the flatfish fishers' discontent with European and national fishery measures and led to greater compliance with quota regulations.

The aim was to provide responsibility to the Dutch fishery sector through self-management. To arrive at devolution of specific management responsibilities to fishers, the fishers had to organize themselves into groups, the so-called Biesheuvel groups, named after the chair of the committee that advised on the new policy, former Prime Minister Barend Biesheuvel. Parliament threatened to introduce regulations to generically limit engine power should the fishing industry decide not to accept organization into groups. This became known as "de stok van Mok" (Mok's stick, named after the 1992 advice of the commission chaired by Mr M. R. Mok looking into forced capacity reorganization). Because of this threat of limiting engine power and also because group members were entitled to more days at sea than non-members and the period in which the latter could trade quota was restricted, 97% of all beam trawl fishers joined the co-management system.

The aim of the management groups was twofold: first, to arrive at an effective and efficient system of quota compliance that would be supported by the fishers; and second, to improve economic performance within quota restrictions. The Biesheuvel co-management regime to a large extent hinged on the idea of social control and peer pressure. The management groups were administered by a board, consisting mainly of fishers but chaired by an independent chairman. The primary task of the management groups was and still is to manage and control the quota of their members. Fishers were free to choose their group. Within these groups, individual fishers pooled their individual quota and their days at sea. Fishers remained the owners of their catching rights and days at sea, but within the group, they could easily and in the short term buy, sell, or lease quotas and days at sea, if they had a shortage or a surplus. In this way, individual fishers gained more short-term flexibility and had more options to react to unexpected events. Fishers must deliver a "fish plan" to the board, detailing how they want to spread their days at sea and catches over the year (Dubink, 1992).

Beam-trawl fishers appreciate the co-governance system because it gives them a say in the management of the group and their own firm. It also increases their flexibility because they can transfer quotas and days at sea, provides them with the certainty of taking their share of the quota at the time they deem economically most rewarding, and also demonstrates a likelihood that others will not dodge the rules and the regulations (van Ginkel, 2005). However, although the Biesheuvel regime has delegated considerable responsibility to fishers for quota management, national government still is in control of fisheries management. In addition, fishers do not perceive the co-management system as providing a platform to participate in the general cycle of policy design and implementation.

The Dutch system in perspective

The introduction of the Dutch co-management system clearly played a role in bringing back legitimacy to the system and in increasing compliance with quota management. Since the start of the co-management system, official landings of both plaice and sole have been less than the TAC, so in that respect at least the system has shown an improved performance. Also, especially compared with the period of great turmoil of the 1990s, the

costs of the management system have been reduced greatly. In the early days of the system, from 1989 to 1992, there was a reduction in the costs of the inspection service of 20%, and a reduction in registered infringements of 32%. Five years later the annual costs of inspections had been reduced by 45% and the number of registered infringements had dropped by 90% (statistics based on AID, 1991, 1992, 1993, 2000). In addition, social costs (unrest and an unstable system) have been reduced. This led internationally to the image of fisheries control in the Netherlands ITQ system, which is largely based on self-responsibility among the local producer organizations (management groups), being regarded as a best-practice model by the EU (Hentrich and Salomon, 2006).

By inclusion of fishers in the management system and founding the system in social control and peer pressure, the legitimacy of the system increased. Also there was a shift in the driver for compliance, from an economic rationale towards a more social normative rationale. At the onset fishers approached compliance as a calculation of the economic gain to be obtained from bypassing the regulation compared with the likelihood of detection and the severity of the sanction. As the severity of the penalty was considered minor *vis-à-vis* the profit to be gained, non-compliance became the rule. In fact, the last haul of a week's fishing trip was considered to be the haul to pay for the fines. With the transition towards management in (local) groups with joint responsibility for managing the quota, the utility maximization focus gave way to a more normative approach emphasizing the social normative values of the fishers.

The Dutch fisheries co-management system is a public-private partnership, using the capacities and interests of user groups complemented by the ability of the fisheries administration to provide enabling legislation and administrative assistance. Looking at the experiences of the Dutch and other examples from around the globe, resource user participation such as in fisheries co-management proves to be a functioning alternative for top-down centralistic government management of natural resources (Jentoft and McCay, 1995; Nielsen and Vedsmann, 1995; Sen and Nielsen, 1996; Kearney *et al.*, 2007; May, 2008; Smith *et al.*, 2008; Ashida, 2009).

The introduction of a co-management system in the Netherlands brought about a change in the basic governance fabric of fisheries management by devolving part of management responsibilities from government to user groups (information based on a series of interviews with key players in the Dutch fisheries sector ranging from fishers and their organizations and fisheries managers through other related organizations and E-NGOs). However, following Smit (1997) in his analysis of the Dutch ITQ system, the co-management system has to share the credit for its success with other developments. Starting around 1987, top-down control was intensified, accompanied by licensing, input management (maximum days at sea), and maximum gear width for double-beam trawls. The days-at-sea restrictions had a strong impact, especially in their early years. A maximum engine capacity of 2000 hp for new ships was set, and a development towards fleet reduction emerged. Decommissioning schemes and Dutch vessels being reflagged to fish under adjoining EU countries' flags have led to a real reduction in capacity in the Netherlands.

In fact, in real terms, what is labelled a co-management system is in practice a mere ITQ management system. Hence, the core of the system is not joint management of fish stocks but rather a decentralized effort to monitor quota uptake and to keep landings

in line with the TAC. One can easily argue, as is also shown by the history of the coming about of the Biesheuvel groups, that the interest of the individual fishers was much more in gaining access to the ITQ trade system and additional days at sea under the threat of parliament to be subject to a generic cut in engine capacity than a development towards joint management of marine resources.

Using Nielsen and Vedsmann's (1999) classification of co-management, the actual management of quota at a group level is an example of cooperative management, where responsibilities of government are devolved to user groups. However, the user groups have no direct input in the wider policy development process other than as a mere instructive role. In fact, in looking at the policy and political aspects of Dutch fisheries management, it is still the Directorate for Fisheries leading the development and implementation of fisheries policy. Co-management takes place "in the shadow of hierarchy" (Sørensen and Torfing, 2005), because government has a pivotal role in providing the legal basis for the functioning of co-management arrangements (Nielsen *et al.*, 2004) and to fulfil a role in monitoring and controlling the system. As shown for the Dutch case and as documented by Nielsen (2003) for Danish fishers, groups of users will be reluctant to police their operations among themselves. In the Dutch system, the fishers clearly look at government to fulfil a role in enforcing the management rules of the system. In the Dutch case, the "stok van Mok", the threat of mass capacity reduction, portrays public authorities as organizing self-regulating governance networks backed by the threat of replacing the horizontal network governance with hierarchical rule.

One could argue that the current Dutch co-management arrangement is a system of limited participation and devolution. Fishers do not actively participate in an interactive process of policy development. Although fisher participation in the management system has increased modestly, in the arenas of quota administration and trade, in other areas of fisheries management their role has not altered. This fact becomes very obvious when government, enthusiastic about the success of the co-management system and willing to embark on increasing cooperation in more policy dossiers, sought the devolution of more (monitoring and control) tasks to the co-management system, but was turned down by the fishing sector. As stated by Ed Nijpels, Chair of the Commission looking into a recalibration, extension, and broadening of the co-management system, taking more responsibility in fisheries management was perceived as possible by the fishing sector but only if implemented under equal circumstances for all (North Sea) fishers (Nijpels, 2003). It was only after prolonged discussions between industry and government that in 2005 the co-management system was extended to include also the management of engine capacity (Anon., 2004; Hoefnagel, 2007).

In fact the Dutch system centres much more on decentralized monitoring and surveillance for a single objective: quota management (and since 2005 engine capacity management). In that sense, the Dutch system does not represent an environmental policy instrument in which the constellation of state, market, and civil society is fundamentally altered to accommodate common formulation of the problem and the design of its most adequate solution strategies as part of the policy-making process. Rather, there was a shift from an arrangement of monitoring and control in which the state at first was directly involved in quota management to one that subsequently operated more at a distance from the groups of fishers managing quota uptake.

In conclusion, therefore, the Dutch co-management system only involves a relatively small portion of fisheries policy: quota uptake management. Moreover, one should realize that although there have been some changes in policy and the politics of fisheries management, this has only accrued to a limited number of actors: the fishers. Other stakeholders and interested parties do not form part of this arena, yet of course do have their separate fora to influence the policy process. In fact, co-enforcement seems to be a more appropriate term; fishers in their Biesheuvel groups and central government through the AID, the General Inspection Service of the Ministry of Agriculture, together see to implementation of quota rules (set by the EU and the government). This arrangement apparently does provide benefits to the fishers, such as access to a quota trade system and joint management of group quota, enhancing their willingness to participate.

A role for a fisheries control agency

If one tries to translate the Dutch experience to the challenge raised by EU Maritime Commissioner Borg in bringing about a culture of compliance in fisheries management, the first conclusion is that the system of Biesheuvel groups to manage quota has led in the Netherlands to a system that brought about increased compliance with the management system. The introduction of the Dutch system is a clear example of how fisheries management can develop with the involvement of fishers. However, within the system, there is still a need to enforce the rules. If that takes place within a co-management system, such as in the Dutch Biesheuvel groups based on self-management and the principles of social control and peer pressure, there still is need for an outside agent (perhaps at a distance) with vested monitoring and enforcement powers to be called upon by the actors within the system if required.

By including private actors (fishers) in fisheries management in the Netherlands, compliance with TACs and quotas improved, resulting in a situation of increased compliance and lower costs, in terms of the costs of monitoring and surveillance and also in reducing the costs of illegal and unreported landings and trade. Co-management in the Dutch case is a mixture of government-set legal measures, economic advantage, and peer normative control. If the problem of the fisheries management system is its enforcement (as claimed by Commissioner Borg in introducing the CFCA), the Dutch example shows that instead of introducing more enforcement and control, one can also establish a system based on shared responsibilities and less government control to regain compliance.

Would such a system be an option for the EU at large? The essence of co-management is fisheries management implemented in conjunction with local groups of fishers. Such regionalization of fisheries management is in line with EU determination to bring fisheries management to a regional level, as illustrated by the establishment of Regional Advisory Committees. As EU fisheries governance extends from the supranational, national, and regional levels to the local level, the questions of scale and the level at which to organize the management arrangement need to be addressed. A co-management arrangement has to fit in with local and national institutional set-ups. Hence, it would be logical to organize management groups around similar regional practices, such as *métiers*.

This then brings up the question of where in an EU co-management system enforcement should be organized. From the perspective of the CFP and fisheries management as a

supranational responsibility, it would seem logical to organize enforcement at a central EU level, as for example proposed for the CFCA. If organized and unified at a central level, all arrangements would be controlled in a similar way, so establishing a level playing field. However, modern governance fuels the development of varying local institutional solutions. On the one hand, there is a shift in the focus of democratic politics and practices, from hierarchical and well-institutionalized forms of government towards less formalized practices of governance, in which state authority makes way for an appreciation in politics of mutual interdependence (van Tatenhove and Leroy, 2003). On the other hand, there is a shift in the locus of democratic politics: governance at subnational and supranational levels is gaining importance *vis-à-vis* the national level (van Tatenhove and Leroy, 2003). Continued calls for increased local and activity-specific participation will result in a plethora of locally specific and diverse forms of partnership. In such a case, one can query the relevance of unified and universal agencies for control and enforcement at a European level.

Yet it is right in this situation, with on the one hand a call for unification and a level playing field in control and enforcement, and on the other hand a call for local specific (hence diverse and differing) arrangements, that a CFCA could have a role. As the co-management arrangement will be locally specific, the national government will be responsible for enforcement at the Member State level. The role of the CFCA could be one of enabling these local arrangements by unifying the rules, maintaining standards, and ensuring compliance. This role can be operationalized by allowing an outside agent to create a level playing field by pulling together and standardizing the generic CFP rules and enforcement practices, but leaving ample room for (sub)national and regional co-management practices to be developed.

Conclusions

From the Dutch case, it is clear that co-management within the CFP is a viable option. Co-management is a specific local participatory arrangement fitting the local institutional setting. However, Dutch fisheries co-management is clearly not so much a participatory interactive policy arrangement, with fishers actively involved in the process of policy development, but an arrangement in which part of management and enforcement is devolved to the fishers, shared with the enforcement agent of the government: a situation of co-enforcement.

An EU CFCA can play a role in establishing co-management at a wider EU scale by providing an enabling environment in which such subnational and national arrangements can be developed. It can also play a role in co-enforcement by taking up the role of enforcement agent at a distance, sharing this role with national enforcement agencies.

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