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CHAPTER 7 BETWEEN TOP-DOWN AND BOTTOM-UP GOVERNANCE: DUTCH BEAM TRAWL FISHERMEN'S ENGAGEMENT WITH FISHERIES MANAGEMENT

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Abstract

Since 1993, the prime goal of Dutch fisheries policy has been to enhance a responsible way of fishing and a sustainable exploitation of fish stocks. That is, economic and ecological interests should be balanced in a viable way so as to achieve both economic and ecological sustainability. This policy, which encouraged new forms of cooperation, was superimposed on a system of individual transferable quotas that was officially introduced in 1985. To arrive at devolution of specific management responsibilities to fishermen, they had to organise themselves in co-management groups, the so-called 'Biesheuvel groups'. Individual fishermen bring their catching rights or quotas into these groups, and these groups are responsible for establishing fishing plans to achieve a better distribution of sea days and quota transfers within a group. The state's aim is to enhance fishermen's responsibility and social control through self-management. This chapter will address the experiences over the past ten years with this governance system, focussing especially on the conflicting views of fishermen, biologists and state representatives regarding its efficacy. Special attention will also be devoted to the perceptions of the beam trawl fishermen concerning the benefits and pitfalls of the present governance system.

7.1 Introduction

Fisheries management in the western world is usually characterised by top-down modes of policy design and implementation that involve centralised, hierarchical, command-and-control decision-making and monitoring to make up for market imperfections (Symes 1997:107; Dubbink and van Vliet 1996, 1997). The fisheries policy of the European Union (EU) is a prime example, where measures affecting the fishing industry are determined in Brussels with little or no involvement of fishers and their organisations. Such top-down policymaking often leads to a lack of transparency, high information, monitoring and enforcement costs, as well as discontent and a lack of legitimacy and compliance on the part of the fishing industry (McCay 1995:16). On the other hand, national governments have some leeway in arranging the specifics of governance structures for sea fisheries within the framework set by the EU Common Fisheries Policy (CFP).

In the Netherlands, a devolved or co-management regime was introduced in the early 1990s, delegating considerable responsibility to the fishing industry for quota management, self-regulation and self-enforcement. Co-management usually refers to "a shift in the power for decision-making away from the government agency and a

scientific élite, and toward a group of resource users or a local community" (McCay 1995:14) or to forms of shared management responsibilities of state institutions and user groups (Nielsen and Vedsmund 1999:20). The idea in the Dutch situation was that the less legalistic approach of governing at this level would leave more discretion to the fishers and firms "to adapt their conduct to 'the spirit of...public policy'" (Dubbink and van Vliet 1997:183). This in turn would give a boost to the legitimacy of government and augment compliance to its rules and regulations (ibid:184). The present chapter will address the experience over the past decade with this governance system, focusing especially on the views of fishermen, biologists and state representatives regarding its efficacy. Special attention will be devoted to the perceptions of the beam trawl fishermen concerning the benefits and pitfalls of the current governance system.

The Dutch fishing industry is relatively small in terms of number of vessels and employees. In 2002, the fishing fleet comprised 393 cutters, 17 large pelagic freezer trawlers and 101 shellfish fishing boats (Taal *et al* 2003). Total employment in the fishing and shellfish-farming industry is approximately 2,650 jobs, excluding related sectors such as the processing industry, auctions, supply sector and retail trade that provide another 15,500 jobs. This only constitutes a tiny fraction of total employment in the Netherlands. However, although these numbers are relatively modest, the Dutch fish trade occupies an important position in Europe and the fleet is up to date in every respect. The value of total fish landings in the Netherlands amounted to 463 million euro in 2002; that of exports of fish and fish products was almost two billion euro. After a prolonged period of exceptionally good results in the 1990s, 2002 brought a seventeen per cent decrease of revenue compared with the previous year and a negative net result of four million euro.

The most important sector of the fishing industry is the capital intensive beam trawl fleet, which operates mostly in the North Sea to catch sole (*Solea solea*) and plaice (*Pleuronectes platessus*) on four to five-day trips usually starting on Monday. These species contribute approximately eighty per cent to the total revenues of beam trawling, a fishing technique that is applied by about half of the cutter fleet. The Netherlands holds a significant share of the EU Total Allowable Catch (TAC) for sole (roughly 75 per cent) and plaice (38 per cent). The larger vessels (exceeding 1500 horsepower engine power, with a length of 40-45 metres and crewed by six or more) land more than ninety per cent of the total market supply of flatfish. Vessels up to 300 horsepower are allowed to fish within the 12 nautical mile zone and the plaice box. In 1998, 43 of these multi-purpose Euro-cutters with a length of 20 to 25 metres and a crew of three or more were fishing for sole and plaice as the main target species. The majority of beam trawlers are family-owned and operated. Most flatfish fishing firms own one vessel, about a third own two or three, including several of the bigger beamers. Important concentrations of beam trawl fishers can be found in Urk, Goedereede, Stellendam, Arnemuiden, Vlissingen, Den Helder and on the island of Texel. Dutch beam trawl fishers operate under a share system of remuneration with crewmembers signing a partnership contract with the owner (*maatschap*), implying that all crewmembers earn a certain percentage of the net revenues.

The Netherlands was among the first countries to introduce individually transferable quotas (ITQs). This happened *de jure* in 1985, although *de facto* the practice of trading individual quotas developed in the late 1970s. Generally advocated by neoclassical fisheries economists as an effective and efficient mode of managing fisheries, the Dutch experience

of ITQs shows that there was a multitude of problems of enforcement and compliance, leading to huge transaction costs. Therefore, the state took additional measures in an attempt to improve the situation. In particular, it tried to involve fishermen in fisheries governance by devolving several management, regulation and enforcement tasks to groups of fishermen in 1993. This led to a management regime that combines theories put forward by neoclassical economists on the one hand, and by institutional economists and anthropologists on the other hand, concerning a proper, participatory and effective fisheries management system. Before turning to the co-management regime, I will first outline the post-war developments in the flatfish fisheries that eventually led to the implementation of a participatory management policy.

7.2 Fishy business, flawed policy and faltering enforcement

The Dutch fishing fleet expanded considerably after World War II, both in number of vessels and in capacity. More or less starting from scratch - most vessels were either confiscated or demolished as a consequence of the hostilities - the fleet grew at a fast rate and the fisheries flourished. Between 1951 and 1971, engine capacity increased tenfold to 250,000 horsepower. It was especially the invention, in the late 1950s, of the beam trawl aimed at catching flatfish (principally sole and plaice) that enabled the expansion and innovation of the Dutch fishing fleet. This fishing technique has been hugely successful. It is based on the use of a steel tube or beam (*boom*) to which a trawl (*kor*) and chains are attached. The vessels use two such beam trawls, one on either side. The beam trawls are dragged across the sea bottom and the chains scare the flatfish, which then end up in the nets. It was soon discovered that the heavier the chains, the larger the catch. However, heavier chains required greater engine capacity and the fishers were quick to make the necessary investments.¹

By 1966, catches diminished slightly. This tendency was believed to be a first indication of overcapacity and overexploitation of fish stocks. Several beam trawl fishers showed concern that the development of the fleet would lead to a 'horsepower race' that would ultimately result in unmitigated competition and possible bankruptcy, while the effect on flatfish stocks would be devastating. In 1971, the Dutch Fishermen's Union (*Nederlandse Vissersbond*) discussed plans to limit engine capacity to 800 horsepower per vessel. But the plans did not become effective, mainly because by this time many vessels were already equipped with more powerful engines. Proposals to allow a maximum of 1,000 horsepower were also rejected by the administration. The Fishermen's Union emphasised that the fishers were caught in a devastating competition and that the government should intervene. However, the government refrained from intervention. The fishery was mainly controlled by minimum mesh and fish size regulations. As a consequence of certain tax measures, it was wise to reinvest in vessels and equipment. This also stimulated the expansion of the fleet and aggregate engine capacity. The government favoured a stop on fishing in certain areas during certain periods, but it deemed such a policy only feasible when measures were taken at a higher level of political integration.

In 1975, the North East Atlantic Fisheries Commission established TACs for several species of fish, including sole and plaice. Each state received a share based on 'historic

¹ Though I use fishermen and fishers interchangeably, nearly all fishers are male. It is highly exceptional to find women among the crewmembers of Dutch fishing vessels.

rights'. Dutch fishers got over seventy per cent of the TAC for sole, and nearly forty per cent of the TAC for plaice. These species represented about two thirds of the fish landed by Dutch fishermen. The national quota for sole amounted to 9,445 tonnes, the one for plaice was set at 47,020 tonnes. This implied a drastic reduction in legal landings of forty-seven per cent and nine per cent respectively compared to the previous years (Davids 1998:58). Based on the track records of their highest catches in the three previous years, the sole and plaice fishers were assigned an individual, non-transferable quota (IQ) in 1976.² The idea underlying the measure was that allocation of exclusive rights would offer fishers the prospect of earning resource rent and maximising their profit, increase operational certainty and lead to a responsible mode of fishing. Initially, many fishers feared that they would lose their jobs and end up on the dole. The oil crisis and economic recession contributed to their pessimistic views. Nonetheless, their attitude was to stay in business as long as possible: "If I have to hang, then on the last tree be it" (Davids 1998:60). To them, fishing was much more than a way of earning a living; it was an existential matter, an important marker of identity and a way of life to be cherished and to be continued by successors. Therefore, fishers continued to invest in their vessels and other equipment with the help of investment premiums, tax-free fuel and the ample availability of bank loans: "Those who did not invest began to lag behind and lost the race" (Dubbink *et al* 1994:32).

The 'catching rights on paper', the introduction of which had deeply worried the fishermen, proved to represent substantial economic value. The fishers, who had received these rights free of charge, could capitalise on them. It did not, however, lead to a more responsible and efficient fishery that enabled fishers to respond flexibly to changes in the market, while the burden of management still rested with the government (van Vliet 1998a:219). Property rights were insecure, since the flatfish fishery would be closed once the national quotas for sole and plaice were exhausted. In spite of the IQ system, the race for fish was not eliminated. The expansion of the fleet and engine capacity continued after the mid-1970s, despite the express intent of the government to decrease these through the introduction of quotas. In 1977, there were 495 vessels totalling 325,000 horsepower; a decade later, the number had risen to 611 vessels totalling 580,000 horsepower and manned by 3,036 crewmembers. By then, vessels with more than 2,000 horsepower engines were no exception. The expectation was that more engine power would result in more pulling power and thus more fish³, while at the same time reducing steaming time and enabling vessels to continue fishing in rough weather. Many vessel owners felt a need to follow suit, while newcomers (usually crewmembers who aspired to become independent and sons of owners who wanted to set up an independent firm) bought second-hand vessels from those who had ordered new vessels.

One of the driving forces behind this growth was, therefore, the fishers' desire to become independent and to set up each owner's son who showed an interest in fishing with his own vessel to skipper. Fishing was an important source of identity and an occupation that was highly valued by those in the industry, something they – skipper-owners in particular – wanted to pass on to the next generation. The social dynamic of the family firm contributed importantly to the expansion. Depending on the stage of the

² In 1977, due to widespread dissatisfaction, the allocation rule was altered to give equal weights to the basis of the historical catch record and the engine power of the vessel.

³ However, there is no linear relation. Beyond a certain point (1500 horsepower) productivity increases only marginally, and per unit effort, catches and revenues decrease. However, it is still attractive to have powerful vessels since costs per unit of effort are lower (Davids and de Wilde 2001:51).

family cycle, a father and son(s) or brothers usually formed the core of the crew. When the father retired and became a 'shore skipper', brothers usually continued the firm and cooperated until their sons joined them aboard ship. There would be insufficient positions to accommodate all. In addition, cousins often did not get along when it came to fishing matters and wanted to work with their father on their own vessel. As a consequence, schisms of family firms led to an enlargement of the fishing fleet. Bank loans were amply available, since catching rights could be used as collateral. In addition, from 1978, a general investment subsidy in the form of a fiscal allowance of twelve per cent or more on newly built vessels created an important incentive to invest in new vessels (this allowance was abolished ten years later).⁴ When individual quotas became officially transferable in 1985, the same tax benefits applied to the purchase price of ITQs.⁵

This period of rapid expansion of the Dutch fishing industry was characterised by reports of illegal fishing, under-reporting of catches, grey and black trade circuits and inadequate policing and enforcement by the Dutch state. Auctions helped fishers logistically and administratively to get rid of illegal fish, while local authorities turned a blind eye to what was going on. Even if fishers were caught fishing or landing fish illegally, judges usually sentenced them to low monetary fines that still made it attractive to continue the practice. 'The last haul for the judge' became an oft-used expression. The flatfish fishermen consequently overshot their quotas by far, leading to early exhaustion of national quotas and subsequent premature closure of the fisheries. The fishers who had not yet fished up their individual quotas suffered. With this experience of being caught in a prisoner's dilemma, the race for fish continued, stimulated by lenient enforcement, ample opportunities to circumvent rules, and a strong demand for flatfish abroad resulting in high prices and rising revenues.

Abroad, Dutch fishers who evaded or violated the regulations faced tighter surveillance. In the early 1980s, the British and German authorities caught many Dutch beam trawl cutters fishing in their territorial waters or using illegal nets. Consequently, they were fined heavily. These events had an impact on the fishermen's public image. For a long time, they had been regarded as 'noble commoners', toiling to eke out a livelihood. But increasingly they were viewed as irresponsible and reckless egotists plundering the sea's resources. Soon there was a call for stricter policing and punishment of those who evaded the rules and regulations, especially after the introduction of the CFP in 1983. But this proved difficult in practice. The Ministry of Agriculture and Fisheries was criticised for failing to enforce the law and even turning a blind eye to illegal fishing. In 1987, this led to an enquiry of a Parliamentary sub-committee into the role of the Ministry as regards over-quota landings. Under mounting public pressure, politicians established a tighter legal and enforcement regime, including a days-at-sea regulation based on the relation between vessel capacity and catching rights, a licensing system

⁴ Quota restrictions on the one hand and investment subsidies on the other hand gave contradictory incentives and ambivalent messages to the fishing industry. They "placed the sector in a somewhat schizophrenic position and increased the uncertainty in the sector" (van Vliet 1999:168; on these issues, see also van der Schans 2001:425ff).

⁵ *De facto*, transfers of individual quotas occurred much earlier. Fishermen simply bought a vessel with associated quotas and then sold the vessel without quota rights. Fission and fusion of enterprises also enabled transfers of quota rights. Thus, the government merely put the practice on a statutory footing. However, it stipulated that only a vessel's entire quota could be sold, though POs could purchase an entire ITQ and then resell it in parts to their members (Valatin 2000b). As McCay writes, "ITQs amount to a giveaway of public resources" (1995:14). See also Symes and Crean (1995).

and compulsory registration and control of all landings (van Vliet 1998b:70). The state also created a quota reserve of five per cent to cover individual over-fishing of ITQs and to allow others to fully use their rights.

Despite these additional measures, however, reports about fishers who not only evaded and breached the law but who even harassed inspection officers - setting fire to their vans - figured prominently in news bulletins in 1988. As a consequence of a reduction of the sole TAC in the second half of the 1980s, illicit landings increased.⁶ For the government, the small fisheries sector proved the worst headache. Catches continued to exceed the national quotas and as a consequence of his failure to contain this problem and misinforming Parliament, the Minister of Agriculture and Fisheries, Gerrit Braks, had to resign on 19 September 1990. This political crisis made it abundantly clear that the "command and control" regulation and the adversarial relations between government and the fishing industry was untenable" (van Vliet 1998b:71).

Meanwhile, the fishing industry's representatives realised that something must be done to improve the situation. Moreover, since 1985, EU pressure resulted in a reduction of overcapacity through an engine-power licence-scheme, while a maximum engine capacity of 2,000 horsepower was subsequently introduced for newly built vessels.⁷ A voluntary decommissioning scheme was also adopted. This led to a decline of the number of vessels and crew in the Netherlands. While in the mid-1980s there were still over 600 beam trawl cutters with almost 3,000 crewmembers, in 2004 they number less than 400 and some 1,800, respectively. Aggregate engine capacity declined from 500,000 horsepower to around 400,000 horsepower.⁸ But decommissioning grants did not lead to diminishing quotas, since vessel owners only returned their engine capacity licence; they could sell their individual quotas to other vessel owners. In addition, the days-at-sea regulation sought to adjust fishing effort to the available quotas and to prevent the need to close the fishing season before the end of the year because the national quotas were exhausted prematurely (Davidse 1998:59).

Moreover, the Dutch government strengthened enforcement in a serious effort to stop illegal practices. Since January 1988, a team of 120 inspectors closely monitored fish

⁶ The national sole quota was 10,160 tonnes in 1988 (slightly more than the 1975 quota), whereas the national plaice quota was 80,570 tonnes (as compared with 47,020 in 1975) (Davidse 1998:58). Grey landings are flatfish landed in excess of ITQs; they are held outside of landing statistics but do appear in the vessel owner's accounts.

⁷ By then, there were already scores of vessels with more powerful engines, while quite a few new-buildings had been ordered just before the deadline. In 1998, 63 vessels had over 2000 horsepower engines. They have to be replaced or must reduce their engine capacity to 2000 horsepower before they get older than twenty years (Davidse and de Wilde 2001:10).

⁸ However, since 1990, some 75 Dutch flatfish fishermen have bought vessels and purchased fishing rights or re-registered in the UK, Germany and Belgium predominantly. This was enabled by the EU freedom of establishment rule. The re-flagged Dutch firms are fishing against these countries' TAC shares (Davidse 1998:62-63; Hoefnagel 1998; Valatin 2000a:299; Hatcher *et al* 2002). Many of these 'quota hoppers' are flying flags of convenience for one of three reasons: "to provide adequate quotas for their own enterprises [given extremely high prices for flatfish quotas in the Netherlands]; to establish sons in fishing where most fishing enterprises are family owned and crewed; or, in a minority of instances, to profit by selling their Dutch quotas and buying cheaper foreign quotas" (Hoefnagel 1998:82). Thus, re-flagging has enlarged the room to manoeuvre in a situation of national limitations (Davidse and de Wilde 2001:8). "The re-flagged fleet counts for about 20% of the demersal North Sea fishery under the Dutch flag (in 1998), in terms of vessel number, engine-power and fishing effort" (Davidse 2000).

landings for which specific places, times and conditions were set, legal mesh sizes of the cod-ends were increased and the maximum beam length for the flatfish fishery was fixed at 12 metres. Only vessels under 300 horsepower (Euro-cutters) were allowed to fish within the 12 nautical mile zone and in the plaice box with beams not exceeding 4.5 metres overall.⁹ In addition, fines for violations of the rules became much stiffer, and some fishers and auction directors have even been imprisoned. As a consequence of stricter enforcement, demand and prices for catch quotas increased sharply, making them an additional production factor.¹⁰ Investment in quotas generally led to a greater balance between catching capacity and catching rights. The fishing industry's growing regulation by national and supranational governments had a strong impact on the daily lives of fisher folk and fishing communities. Those who had first hand experience with the period of 'much liberty and few rules' looked back in nostalgia and considered the tighter measures and policing a stifling of their autonomy. Small wonder, then, that relations between politicians and state officials on the one hand, and fishers on the other, became strained in the second part of the 1980s, with non-compliance being a serious offence for the former, and a perceived survival strategy for the latter.

After the resignation of the Minister of Agriculture and Fisheries and with the growing risk of heavy fines for non-compliance, many fishers feared that their situation would deteriorate further as a consequence of draconian measures that would almost certainly befall their sector. Braks' successor, Piet Bukman, would not want to run the risk of being censured by Parliament for incompetence in harnessing the fishers. In addition, the fishers realised that they had lost control over their individual businesses and the fishing industry as a whole. Moreover, prices were far from optimal due to grey and black landings and the exhaustion of the quotas before the end of the year. While conducting anthropological fieldwork on the Dutch island of Texel from late 1989 until the spring of 1991, I observed the changing mood over the regulatory regime in the occupational community of fishermen. Initially, a majority defended illegal practices by saying that management measures restrained them too much, while sole and plaice were believed to be so abundant that they practically jumped on deck. Later on, the dominant opinion was that restrictions were necessary and should be complied with (which is, of course, not to say that all fishers actually complied): relationships among fishermen became increasingly tense as a consequence of differences of opinion over compliance with the law and suspicions that some fishermen still evaded or violated certain rules.¹¹

⁹ The plaice box, an area of some 40,000 square kilometres north of the Dutch and German Frisian Islands, was designated in 1989. Today, the plaice box is closed for vessels exceeding 300 horsepower (initially this was the case only part of the year). The growing importance of the Euro-cutter section of the fishing fleet is an unintended consequence of fisheries policy. First, many vessels have been upgraded to 300 horsepower. Second, several fishermen whose vessels were more powerful, but whose quotas were small, decided to scale down their business and use their quotas for a Euro-cutter. In 1983, Euro-cutters made up thirteen per cent of the fishing fleet, in 1998 thirty-five per cent. Over the same period, mid-size vessels (301-1500 horsepower) almost disappeared; while big beamers of over 1500 horsepower constituted almost fourteen per cent of the fleet in 1983, and more than thirty-seven per cent in 1998 (Davidse 2000).

¹⁰ Prices of quota rights continued to be extremely high from 1988 to 1992. Quotas were traded even above the net present value of future returns from fishing, suggesting "that the fishermen wanted to stay in business despite the high costs" (van Vliet 1998b:70). The option to sell ITQs at high prices facilitated exit decisions. Although from 1993 onward, harvesting rights became less expensive, investments in them partly absorbed the depreciation for new vessels. As a consequence, the fishing fleet is aging compared with the situation in the 1970s-1980s (Davidse 1999, 2000). The mean value of harvesting rights increased from DFL 150,000 per vessel in 1983 to DFL 5,000,000 in 1998 (Davidse 2000). See also Davidse (1997) for a detailed account of trade in flatfish ITQs.

¹¹ Such violations included, for example, illegal fishing within the 12 nautical mile zone with vessels equipped with engines of over 300 horsepower; using nets with too small mesh sizes; or keeping part of the landings out of the books by selling on the grey or black market.

At the same time, the Dutch government was looking to rid itself of the increasingly heavy burden of implementing the rules and regulations pertaining to the fishing industry (Davidse 1998:61-62). "We have reached the end of our possibilities", the new Fisheries Minister admitted. Mutual confidence had to be restored and the legitimacy of fisheries policy regained. Hence, a period of reconciliation followed in the early 1990s, when negotiations on the establishment of co-management groups that would be closely associated with Producers' Organisations (POs) were begun between the government and the fishing industry. In addition, a large increase for the sole TAC in 1990 (from 9,656 tonnes in 1989 to 18,000 in 1990) helped to calm down the flatfish fishermen's discontent with the European and national fishery measures and led to greater compliance with quota regulations.

There was also growing pressure for the integration of fisheries concerns and marine environmental management. Since 1993, the prime goal of Dutch fisheries policy has been to achieve a responsible way of fishing and a sustainable exploitation of fish stocks. That is, economic and ecological interests should be balanced in a viable way so as to achieve both economic and ecological sustainability. The state aims at furthering fisheries through regulation, consultation with the industry and quality care. Fishermen have to take into account other functions of the seascape, especially its value as a nature area. This harmonisation policy is laid down in the white paper *Vissen naar evenwicht: Structuurnota Zee- en Kustvisserij* (Balanced Fisheries: Policy Document on Sea and Coastal Fisheries), a document embodying fisheries policy until 2003 (Vissen 2003). It reflects the fact that the environment had taken pride of place on the political agenda during the 1980s. In addition to seeking a balance between economic and ecological interests, *Balanced Fisheries* aims at giving responsibility to the Dutch fishery sector through self-management and new forms of cooperation. To arrive at devolution of specific management responsibilities to fishermen, they had to organise themselves into groups – the so-called 'Biesheuvel groups', named after the chairman of the committee that advised on the new policy, former Prime Minister Barend Biesheuvel. Parliament threatened to introduce regulations to limit engine power of each vessel should the fishing industry decide not to accept organisation in groups.

The developments and measures described above have thoroughly changed the occupational praxis of beam trawl fishers – and to a considerable extent their occupational culture as well. Once they were used to deciding where to cast their nets, but since 1975 they have been increasingly restricted in their operations. State involvement limited their freedom at sea and brought about more paper work, leading to less job satisfaction; tensions mounted due to policing and enforcement; the public image of fishers deteriorated since their activities were seen as environmentally damaging and they were perceived as notorious law-breakers and reckless egotists, leading to a declining status; mutual mistrust increased, since bumper catches were believed to be caught illegally; catch kings turned into quota kings, placing entrepreneurial skills higher than fishing skills; crew loyalty declined, since investments in quotas meant lower shares in the share system of remuneration; this in turn led to declining interest in becoming a fisherman, while at the same time it became more difficult to maintain family firms (van Ginkel 1999). In general, fishers felt they had lost control over how to run their individual enterprises. The new policy adopted in 1993 sought to give back some of the decision-making authority to the fishers. In what follows, I will describe and analyse the devolved management system;

the ways in which, and the extent to which, fishermen can participate in fisheries governance; and their perceptions of the benefits and demerits of the management regime.

7.3 Grassroots involvement: Experiences with co-management groups

The 1993 white paper, *Balanced Fisheries*, took as its point of departure that the long-term continuity of the fishery sector was the industry's own responsibility and that further intensification of state enforcement and policing would be financially and politically unfeasible (Vissen 1993:5-6). It sought to implement a policy that would fit within the EU's CFP and at the same time enhance the social and political feasibility of the regulatory regime with less, rather than more, government. The state aimed to increase fishermen's responsibility and social control through self-management. The underlying idea was that fishers' involvement in policy and management would lead to greater legitimacy, and in its wake to increased compliance with the rules and regulations and cooperation with the administration. It was hoped that in turn this would lead to a more sustainable exploitation of marine living resources in an economically responsible way. Essentially, the Biesheuvel system of public-private management was a compromise between the long-term interests of nature and the short-term interests of the fishing enterprises: "It is dominated by a desire to 'keep the social peace' within the limits set by scientific research and the public debate" (Salz 1997). It reflects the predominant Dutch practice of solving economic, social and political problems through consultation and compromise.

As mentioned, fishers had to organise themselves into co-management groups. Eight such groups, each comprising between twenty and ninety vessels, have been established. They are relatively homogeneous, since membership is mostly arranged according to the type of vessel and gear used, the species sought, the region fishers hail from and membership of one of the two national fishermen's organisations (Hoefnagel and Smit 1997:163). In addition, there is considerable overlap between specific co-management groups, POs and local fishermen's organisations. The Dutch Fish Board (*Productschap Vis*) supervises and coordinates the groups and if necessary harmonises their regulations, assists in secretarial work and is a direct link between fishers and government. It organises regular meetings with group delegates to discuss problems and performance, and advises the government. Ninety-seven per cent of all beam trawl fishermen have joined a group, even though the fishers were initially reluctant to cooperate. This high percentage came about as a result of Parliament's threat to take coercive structural measures (a general horsepower reduction) should the percentage remain below seventy-five per cent, leaving the fishers little choice but to join.¹² But there were also positive incentives. Group members were, until its recent abandonment, entitled to more days-at-sea than non-members and the period in which the latter can trade ITQs is restricted. This 'sticks and carrots' approach proved successful. The aim of the management groups was twofold: first, to arrive at an effective and efficient system of quota compliance that is supported by the fishers; second, to improve economic performance within the quota restrictions.

¹² The leaders of the national fishermen's organisations wanted to start with 'a clean slate', and they visited the fishing communities in order to convince fishers that they had few alternatives than to join a group. In addition, a new head of the ministry's Fisheries Directorate made it abundantly clear that the fishing industry would suffer if it refrained from accepting the Biesheuvel system.

A board of directors that supervises group management and has certain rights and obligations, heads each group, considerably reducing state involvement and enforcement costs. An independent chairperson who is not involved in the fishing industry heads the board; the other board members are producers who are elected by group members. Group members must sign an agreement committing them to abide by the group's rules, remain in the group for the entire year, and provide logbook and auction data to the group and the General Inspection Service. The board controls and manages the quotas of individual members at the group level, controls quota transfers within a group and warns individual fishers when their quota take-up has reached eighty per cent. It also sees to it that fishermen do not speculate with ITQ shares and that redistribution takes place according to need rather than to the highest bidder (van der Schans 2001:364-367). Hence, to some extent, the board is governing a socially embedded moral economy type of exchange. Individual fishermen bring their quotas and days-at-sea entitlements into these groups but remain owners, and they are responsible for establishing annual fishing plans to achieve a better distribution of days-at-sea and quota take-up over the year. The Fish Board must approve of the fishing plans and determine how the group quota will be allocated and how and when it will be fished. Members may buy, sell, lease, rent or exchange individual quotas throughout the year and several extant restrictions on catching rights transfers were lifted. For example, quota rights are now fully divisible. Group members can also buy, sell or lease days-at-sea entitlements. These measures provide for greater flexibility to smooth out surpluses or shortages and to respond to unexpected events and also contribute to higher price levels. It is mandatory for group members to sell landings through the auction markets so as to ensure that the quantity and price of fish can be effectively controlled and that adequate information is available (van Vliet 1998b:71; van der Burg 2000:48).

The Biesheuvel co-management regime to a large extent hinges on the idea and practice of social control and peer pressure. The group board can prosecute members who exceed their quotas under private law, while also ensuring that group members who are unable to fully take their quotas as a consequence are compensated.¹³ Fines are heavy, outweighing any gains an offender might have from non-compliance. Members who fail to comply with group rules can be expelled, or their fishing opportunity may be limited, or their days-at-sea reduced. The entire group could suffer if its quotas were exhausted prematurely due to greedy behaviour, because the state could close the fishing opportunity for the group. Moreover, groups have to apply for government recognition each year, and this may be withheld if the group quota has been exceeded. That is why fishermen keep a keen eye on the doings of their fellow members; the underlying idea is that fishers would indeed report on offenders from their own group. However, this is not always done because it is regarded as 'tale-telling' and even 'treason' (Hoefnagel and Smit 1997:164; van der Schans 2001:345,371), so there is a social code *not* to report on infractions, and fishers 'merely' resort to gossip and ostracism. For example, they complain about fishers using illegal net provisions when they think they will fail to exhaust their individual quota before the end of the year, exceeding horsepower limitations or fishing within the 12 nautical mile zone, but they do not consider it their duty to report specific cases to the group board or the General Inspection Service.¹⁴ In addition, directors of the group boards can be exposed to social pressure not to mete out fines

¹³ In addition, fishers are held accountable under public law. This may create the problem of 'double jeopardy' (the accumulation of penalties) (Berg 1999b:166).

¹⁴ In a statement of intent issued in April 2004, the Fisheries Minister and the fishing industry agree that co-management responsibilities will be broadened to include group enforcement concerning these offences.

because they are acquainted with, or are even relatives of, offenders (Dubbink and van Vliet 1997:198; van der Schans 2001:351-352). Some have criticised the system as being inadequate in its self-enforcement aspect, requiring a statutory system of penalties and procedures (Berg 1999a; Berg 1999b).¹⁵ But peer monitoring and self-regulation are not always a problem. In 1999, a co-management group expelled three of its members and held one vessel under arrest for ITQ over-fishing. Given the fact that the entire group would suffer from transgressions by individual firms, the incentive to report on offenders is high:

Empowering groups of vessel operators to decide for themselves on what rules to operate and penalties to apply, the *raison d'être* for regulation and the impact of non-compliance on other group members became more transparent, and fishermen's perceptions of the legitimacy of the management system increased. (Valatin 2000a:300)

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 increases their flexibility because they can transfer quotas and days-at-sea; it provides them with the certainty to take their quota share at the time they deem economically most rewarding; and the likelihood that others will dodge the rules and regulations has decreased. They value the current stability in the sector and the regained control over their day-to-day operations. Transparency has increased by mandatory auctioning and by making the effects of over-fishing of a single vessel operator visibly felt on all the other group members (Davidse 1997:270; Valatin 2000b). One of the bonuses that attracted fishermen into the Biesheuvel management system was that, on average, prices and, therefore, economic results would be better. Mandatory auctioning has indeed led to higher prices, since price-undermining illegal landings belong to the past (van der Schans 2001:344). In general, the economic performance of the beam trawl fleet has been rather good between 1991 and 1998 due to high fish prices and low fuel prices, although higher fuel prices in 1999 caused some problems for profitability (Davidse and de Wilde 2001), but 2000 and 2001 were good years again. Of course, it is much easier to accept a new governance regime when the outcomes are beneficial. In the Dutch case, it has led to a willingness to accept and work within the quota rules. Having experienced several benefits of the co-management system, the fishers are generally satisfied with the way it functions and feel relieved that they have left behind the 1970s and 1980s 'wild west' period of quota busting. As Dick Langstraat, then chairman of the Fish Board, states: "Transparency, greater flexibility and improved profitability of the fishing enterprises have convinced the fishermen that the system is an attractive one" (1999:77). Other factors that contributed to the success of the Biesheuvel system are undoubtedly that the flatfish sector is relatively homogeneous and that it is entitled to a large share of the European TACs for sole and plaice. The fish processing industry and fish traders are also happy with the devolved management system, since they can be sure of a steady supply of fish throughout the year. The Dutch beam trawl fishers even take pride in 'their' self-governance mode of operation. They boast about their 'good behaviour' (forgetting why the system was

¹⁵ Symes also points to these problems in writing that "the devolving of specific management functions to the industry begs questions over both the commitment of voluntary user group organisations to undertaking additional responsibilities and their robustness in disciplining their own members in the event of non-compliance" (1997:111). Yet, he regards the Biesheuvel system as coming "close to providing a template for group management" (ibid.:113).

introduced in the first place) and point to the fishing industries of other EU member states where, in their opinion, illicit practices and lack of enforcement are still the order of the day.

However, although the Biesheuvel regime has delegated considerable responsibility to fishers for quota management, government control with regard to the fishing industry as a whole is still large and, in effect, the Fisheries Directorate “determines the conditions under which the groups are allowed to manage their own affairs” (van Vliet 1998b:72), while national regulations still have to live up to the requirements of the CFP. In addition, the government is still strongly involved in enforcement through its General Inspection Service (Berg 1999b:152), though the Biesheuvel regime has led to a substantial reduction of control and enforcement costs (van der Schans 2001:358,371ff). The fishermen are of the opinion that rules and regulations should apply to each and all equally. Therefore, they deem state coercion necessary, although they are ambivalent about specific rules they deem ‘unworkable’, ‘bureaucratic’ or simply ‘silly’. After reviewing the co-management system in 1996, the government decided to make the cooperative governance structure permanent, mainly because the problems with exceeding the national quotas had been brought to an end and the number of violations of the rules had decreased spectacularly. A recent review reiterates the successes of the Biesheuvel regime (van Geffen *et al* 2002).

Both vessel owners and state institutions thus seem to be satisfied with the outcome of the co-management process (cf. Hoefnagel and Smit 1997:175). There has been “...a progressive development from non-compliance with the regulators towards a greater willingness to accept and work within the rules, especially where the rules are being set by, and for the benefit of, the fishermen rather than imposed by the administration” (Davidse 1998:66). Whereas, for a long time, fishermen wanted to escape from the restrictions by evading or infringing them, there has been a development “towards rights they want to be protected” (Davidse and de Wilde 2001:33). Managing the group’s share of the national quotas does indeed enhance a feeling of responsibility, peer pressure and social control, and enables a better spread of flatfish landings over the year with positive effects for market prices, while quota owners can be certain that they can catch what they are entitled to. It has reportedly led to complete compliance with quota regulations, a drastic reduction of offences and therefore to “administrative and political stability in and around the sector” (van Vliet 1998b:72). Consequently, enforcement officers meet with much less resistance than previously and can do their job under less inimical circumstances. From having a reputation within the EU as being completely unable to enforce quota regulations, the Netherlands is now “being widely regarded as a model of good landings enforcement, even if individual violations still occur” (Valatin 2000a:300). When visiting the Netherlands in 1995, EU Commissioner Emma Bonino even suggested that the Biesheuvel system should be adopted by other member states. Fishermen feel satisfied because the co-management system has reduced uncertainty and created stability, provided for flexibility and put an end to the race for fish that characterised the 1970s and 1980s fishing industry and that frequently led to illegal practices and early fishing closures because national quotas were exhausted. Today’s mantra is *beheerst vissen*, that is, fishing in a disciplined manner. Generally, then, the Biesheuvel system of group management has been heralded as a successful example of fisheries co-management (Hoefnagel and Smit 1997:175; Berg 1999b:159; Langstraat 1999; van der Burg 2000:48; Symes *et al* 2003:124-126; Hoefnagel *et al* 2004).

Yet, at a more general level, fishers feel that they are not taken serious enough by state institutions and that their involvement and participation in fisheries matters leaves much to be desired. Through their national organisations, the Fish Board, POs and local voluntary associations, fishers can attempt to exert some influence on the policy and management process, but the rank-and-file members of the national organisations are not very pleased with what their leaders have been able to achieve. The fact that there are two such organisations is generally perceived to be an obstacle in gaining political clout, especially now that the fishing industry is becoming smaller and smaller. The organisations’ leaders maintain that the distance between them and the Ministry is considerable, and fishers state that they do not have a say at all and are not listened to (Hoefnagel *et al* 2004:36-37,41,44,46). In general, fishers feel that groups and POs should be given more influence on the policy-making process (Hoefnagel and Smit 1997:172). They are in favour of less, more workable and uniform regulations within the CFP framework that should be enforced in equal measure in all member states. As it stands, they have the impression of being the ‘most virtuous pupil in the class’. The government agrees and has promised to make a strong effort in EU negotiations to arrive at harmonisation of rules and enforcement. Fishermen are less than satisfied with some aspects of the CFP and its demerits for the Dutch co-management regime. As an Urk fisherman summarised to a newspaper reporter: “Brussels decides about us without us, but especially against us” (*NRC Handelsblad*, 10 December, 1999:13).

7.4 Heading for troubled waters?

March 1, 2001. Early in the morning, angry Dutch flatfish fishermen in a concerted action block a number of important waterways leading to the ports of Amsterdam and Rotterdam with more than a hundred large beam trawlers. They are extremely dissatisfied with the sudden cod recovery measures of the European Union, that consist of the closure for the duration of ten weeks of fishing areas in the southern and north-eastern parts of the North Sea, important sole and plaice fishing grounds. Not only fishers but also Members of Parliament and biologists contest the measure. The fishers fear for their livelihoods, the politicians think that the measure will hit the Dutch fishing industry disproportionately hard, whilst the biologists doubt the efficacy of the closure that comes after the cod spawning-season, is not targeted at the main cod fishing grounds and in their view will merely lead to concentration of fishing efforts elsewhere in the North Sea. Earlier on, the fishers had proposed to voluntarily refrain from sailing for four weeks, but this proposal had been rejected. With the closure pending and the Deputy Minister for Fisheries, Geke Faber, refusing to compensate the fishers, they have ‘spontaneously’ decided to take the action that is subsequently backed by the national fishermen’s organisations. Later that day, the fishers dissolve the blockade. Under threat of being held accountable for the damages and having to pay recognisance, they capitulate and return to sea. They achieve something later that night, when negotiations between the leaders of the fishermen and the Deputy Minister lead to some concessions regarding compensations.¹⁶

¹⁶ See Quist (2001) on the blockade. What aggravated the fishers was the fact that on top of the closure, sole and plaice quotas had been reduced considerably, while fuel prices were extremely high. However, by the end of the year, economic returns proved less disastrous than the fishers had feared, although the crews of larger beamers faced a considerable drop in income (de Wilde 2003b).

Despite vehement contestations of EU measures they deem useless, unfair or unacceptable, Dutch fishers have become increasingly aware of ecological problems. In 2002, they voluntarily agreed to take turns to fish plaice during the first quarter of the year, while in the same year they held a symposium and discussed among themselves how to achieve more sustainable fisheries. But generally, fishers are not satisfied with stock management measures. The lengthy annual political ritual of setting TACs by the European Council of Fisheries Ministers – usually a payoff between biological and national fisheries interests – is often accompanied by anxiety on the part of the Dutch flatfish fishers. Substantial fluctuations make it extremely difficult to develop long-term investment plans and lead to a sceptical view about the future of the fisheries and the role of biologists in assessing fish stocks.¹⁷ The flatfish fishers are aggravated by the ‘guesstimates’ of biologists and the short notice on which quota measures for the new season are publicised (Smit 1996:39), while they are often disappointed in what the Dutch Fisheries Minister has achieved for them. From one year to another, the quotas for sole and plaice can vary hugely (see Figure 7.1).

The dramatic cuts of the plaice quotas for 1995 and 1996 caused much turmoil in the flatfish fishery sector. It brought the moment of truth for the resilience of the co-management system, for chances of non-compliance would be considerable. As Hanna hypothesises, “even against a background of ongoing industry participation, participatory management processes increase in difficulty as resource scarcity increases” (1995:42). However, the Dutch flatfish fishers adapted to the circumstance: “Evidently, fishermen are more willing to comply with rules laid down by their own management group than with those previously set by the administration”, fisheries economist, Wim Davidse, concludes (1998:64). Some of the pressure was alleviated because plaice prices were on average seventeen per cent higher due to the scarcity of supply.

¹⁷ Lower quotas are, however, partly compensated for by the usually higher market prices for sole and plaice due to scarcity.

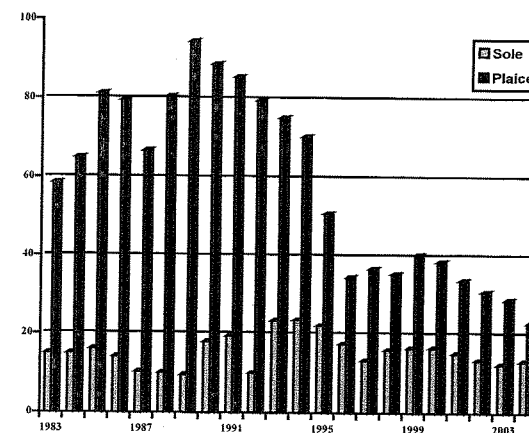


Fig. 7.1 Dutch Sole and Plaice Quotas (x 1000 tonnes), 1983-2004.¹⁸

Nonetheless, there is a communication problem between managers, scientists and the fishermen:

There is still a large gap between the managers' world of models, stock sizes and TAC recommendations and the daily reality of fishermen. Often, conclusions of fisheries biologists on the status of the fish stocks and the resulting management measures are in contradiction with the perceptions of fishermen on their own catches and the economic status of the fishery. This contradiction damages the confidence by fishermen in the managers and scientists, which may cause problems in the co-management process. (van Oostenbrugge and van Hoof 2003:2)

For example, I have often heard fishermen say that there were plenty of plaice and sole in the sea, and that biologists just used the wrong methods to assess these flatfish stocks. What also disturbs them is the fact that TACs are sometimes adjusted *ad interim*, making it hard to conform to their initial fishing plans. They would prefer multi-species, multi-annual and more stable TACs that would enable them to provide for long-term planning instead of being continually yo-yoed. To circumvent the problem of receiving the same percentage of the TAC for sole and plaice – a consequence of the EU CFP's principle of relative stability – Dutch flatfish fishers and their organisations would also like to see freely transferable quota rights across member states. This would give them the opportunity to buy or lease sole and plaice quota entitlements abroad.¹⁹ Lastly, they are in favour of having some role in fixing TAC levels.

¹⁸ Based on Davidse and de Wilde (2001) annex III; van Wijk (2000); Taal *et al* (2003).

¹⁹ However, this is still not legally allowed, although, in fact, the quota hopping and re-flagging practices amount to much the same.

Biologists, for their part, distrust the Dutch flatfish fisheries co-management system. They maintain that its efficacy is mainly due to the fact that fishers simply cannot fish up the national quotas for sole and plaice; the exhaustion percentage has been below a hundred per cent since the early 1990s. Some "cynically suggest that compliance and the political-administrative rest is bought off with far too lenient TACs" (Dubbink and van Vliet 1997:192). In their reports to the International Council for the Exploration of the Sea (ICES), biologists adhere to the objective of what they perceive as rational exploitation: maximum sustainable yields instead of a minimal biologically acceptable level of exploitation that is currently the state's point of departure. This would in their view require a drastic reduction of fishing effort. They feel frustrated by national states' attempts to obtain the maximum for fishers in negotiations over TAC and quota allocations, which lead to irresponsible exploitation levels (Corten 1996). Corten (1996:5) expressly mentions the Dutch co-management policy:

...in which the objective of rational exploitation was explicitly abandoned... The new policy would aim...merely at maintaining stocks above a minimum biologically acceptable level...Ministers and administrators increasingly consider quotas as amounts of "paper fish", which should be large enough to avoid any inconvenience to the national industry.

In addition, the ITQ system leads to the wasteful practice of high grading and discarding of low-value fish. In recent years, biologists and fishers have strongly contested each other's views in the weekly *Visserijnieuws* (Fishery News) and more and more fishermen have stopped cooperating with the Netherlands' Institute of Fisheries Investigation's biologists.

In addition to the uncertainties that go along with the present manner of determining TAC levels that continue to make it difficult for the fishers to understand and accept broader policy and management frameworks, they experience contradictions between this layer of the CFP and its other backbone, the five-year Multi-Annual Guidance Programme (MAGP). In the Netherlands, the preference has been for days-at-sea regulations and voluntary decommissioning schemes. The administration leaves it to the fishers whether they would like to fish with powerful vessels or not, as long as they stay within their quota restrictions. Fully implementing MAGP targets, for example by lowering the number of days fishers are allowed to be at sea, would jeopardise the take-up of individual fishing rights and national quotas and this may undermine the Biesheuvel system and enforcement of legal landings (Valatin 2000a:301). The centralised EU targets of reducing capacity become increasingly at odds with the decentralised quota management responsibilities (Davidse 2000). As chairman Dick Langstraat of the Fish Board relates, "the MAGP straitjacket threatens to undermine the fishermen's support for our co-management system" (Langstraat 1998:12). The fishing industry argues that it was agreed under the co-management arrangement that fishers should be allowed to take their share of entitlements, and that this right should prevail over the days-at-sea regulations. The fishermen feel that they are being punished for good behaviour. However, for the time being at least, the problem of mandatory decommissioning has been averted, since in 2003 it was agreed that the Dutch fishing fleet would be allowed to continue its days-at-sea arrangement to comply with MAGP targets.

In the issues mentioned above, fishers feel that their voice is insufficiently taken into account. As a matter of fact, participatory management is extremely limited and is first and foremost directed at quota management. Moreover, both the ITQ system and the Biesheuvel regime have had considerable social consequences. The ITQ system has led to a gradual concentration of fishing rights in the hands of fewer fishermen who have been in a position to acquire additional quotas.²⁰ The owners of large beam trawlers of 1500 horsepower and over own some eighty per cent of the flatfish ITQs. Those who could not buy catching rights to match vessel capacity have been ousted from the business. From a neoclassical economic viewpoint, this would be explained as a desirable outcome; secure property rights are supposed to increase efficiency, while (self)-enforcement would also become easier and less expensive. Sociologists and anthropologists, however, point to equity problems and social dramas (McCay 1995). Marginalised fishermen maintain that those who have obtained a large share of the catching rights have done so through initial illegal fishing, and investing the perks of their practices in quotas. Those who bought or leased quotas say that they had the right kind of entrepreneurial and managerial spirit and that it was those who did not have sufficient catching rights who indulged in illegal fishing. In general, the system tends to be to the advantage of vested interests with subsequently little room for change due to the owners' "campaigning skills and ability to mount legal challenges" (Valatin 2000a:306).

Although related to the ITQ system, and not specifically to the Biesheuvel regime, the co-management groups tend to look after the interests of their **present** members who are likely to resist any change that would diminish the value of their property rights. They do not hesitate to go to court to seek compensation if new measures undermine the value of their assets (Valatin 2000b). The state automatically renews their ITQ for the new fishing year, and as long as the entitlements retain their value, the owners will remain content. To become a group member, a fisher must already have an ITQ, a fishing licence and a vessel. Starting a firm from scratch is impossible, since outsiders cannot obtain a licence and quota rights unless taking over another firm. The value of catch rights makes the costs prohibitively high. Therefore, aspiring newcomers are effectively barred from entry into the fishing industry, while the initial introduction of IQs has unintentionally created a 'millionaire's club'. Even continuing a family firm is extremely difficult because high prices for quota have to be paid (Dubbink *et al* 1994:33). Presently, the value of quota rights usually exceeds the value of the vessel. Because tax inspectors took into account the value of quota rights, succession-duties and other taxes rose phenomenally. Many owners have changed the juridical form of their firms into limited liability companies, among other things to better allow for succession of ownership (Davidse and de Wilde 2001:33). Although special tax arrangements have made succession from father to son easier, if tangible and intangible assets are passed on from an uncle to a nephew (when, for example, a vessel and ITQs are owned by brothers who fish together but one of whom has no successor) there is still a heavy tax burden. In several instances, it has forced agnates to continue fishing together much longer than used to be the case. Heirs who inherit quotas face the need of borrowing to buy out those heirs who do not fish. Thus, a new generation of skipper-owners has to produce at higher costs (Davidse 1997:107,217).

²⁰ The concentration trend slackened after 1994. There was less trade in ITQs since the number of right-holders remained fairly constant and prices continued to be rather high (Davidse 2000). The concentration trend was much weaker than in the Icelandic cod fishery (Pálsson and Helgason 1995).

The organisational character of the family firm has also changed to a considerable extent. Whereas management decisions used to be relatively simple and were made with short time horizons, with the introduction of fishing rights the fishermen increasingly need the knowledge and skills of external specialists who can advise them on juridical and fiscal matters related with quota rights. Several so-called 'couch' fishermen can live comfortably by leasing and thus cashing in on their quota entitlements without going to sea (young fishermen have to buy or lease quotas at disproportionate prices – sometimes pitting the younger against the older generation of fishers).²¹ Many fishers argue that holders of quota entitlements who are not actively fishing should hold on to these rights for a period of no more than five years. But there are other loopholes that enable the couch fishers to continue their practice. Non-propertied crewmembers also face the consequences of the new regime in that owners have altered the division between the vessel share and the crew share, lowering the percentages given to the former. Officially, the partnership contract gives joint responsibility of skipper-owners and crewmembers when it comes to fishing, but in practice, crewmembers have little influence in the running of the business; owners usually decide on issues such as where and how to fish, investments, and quota transactions. Owners argue that the net incomes of crewmembers will still be high since more harvesting rights imply greater revenues. All in all, the introduction of transferable fishing rights has been socially divisive.

Of late, there are signs of reluctance to join fishing crews, and even owners are said to be encouraging their sons 'to learn a trade' instead of following in their footsteps. Pessimism about the fishing industry's future appears to be on the increase. Whereas for a long time it has not been a problem to recruit crewmembers for the family firms – either within or without the circle of kin – in recent years, fishery schools face declining numbers of enrolling students and several vessel owners have had difficulties finding successors and replacements.²² The amount of time spent away from home, the relatively poor remuneration given the long work hours, the bad public image of fishing as an occupation, and especially the uncertainties inherent in the annual delimitation of national and thus individual quotas with all the financial insecurities that entails, are some of the main reasons for poor recruitment, while the booming economy of the 1990s created lots of alternative job opportunities. The EU and Dutch state policies to reduce the number of fishermen finally appear to be 'successful'. Fishers find it difficult to cope with the precariousness that these institutions have created for the fishing industry's future. In 2002, due to low quotas and high fuel prices, the owners of eight big beamers applied for the decommissioning programme. This was the first time in all the years of fleet reductions that vessels of this size were decommissioned (de Wilde 2003a).

7.5 Conclusions

Modern-day owners of beam trawlers have to be entrepreneurs and managers who invest in quotas, draft fishing plans, and co-operate with colleagues in the Biesheuvel group.

²¹ ITQs could be held separately from ownership of a vessel for a maximum period of two years. However, many owners circumvented this rule by keeping their vessels without going to sea.

²² This happened despite the fact that the number of fishermen working on the fleet declined considerably in the 1990s. Some vessel owners even recruited Polish crewmembers to cope with a shortage of hands.

These new realities of the trade have affected some of the key values in the fishermen's occupational culture. For example, thoroughly enjoyed competition for recognition as a top skipper has made way for a less exciting managing and harvesting of quotas. To be a catch king today, you need to be a 'calculating quota-manager' (Davidse *et al* 1999:543) (although many a fisherman would add that 'you still have to catch the fish'). And to be a quota king means complying with the state's regulatory regime and with the rules of the group, whose social control is tight. Unlike two decades ago, today Dutch sole and plaice fishers generally seem to acquiesce to EU and national quota rules and regulations, which is in large measure due to co-management of ITQs.

However, the Biesheuvel regime is not a panacea.²³ The economic and political advantages sought with the co-management regime have largely been fulfilled, but not without considerable ecological and social costs. The quota-busting problem is largely solved through a mix of input measures, output measures and technical measures and devolved management tasks. This brought an end to political turmoil and fisher resistance to enforcement; quota holders can be relatively sure of catching what they are legally entitled to, while fishing plans have led to more continuity in landings and higher prices. National quotas for sole and plaice are even under-utilised. But there is still industry pressure to set TACs higher than maximum sustainable yield levels, while the rights-based beam trawl fishery leads to discarding and high grading. The public-private governance system is not about managing fish stocks, since this is done at the supranational level. Moreover, as an unforeseen and unintended consequence, fishing within the 12nm zone with Euro-cutters has increased considerably, leading to pressure on inshore sole and plaice stocks.

Despite these weaknesses, the co-management regime meant an important improvement in comparison with the tragedy of the commons, the prisoner's dilemmas and free riding that characterised the period before 1993, in that compliance with quota regulations has improved tremendously. However, it still remains to be seen whether the Biesheuvel system can withstand major shocks that may hit the flatfish fishing industry. As McCay maintains, "[r]esilience of management systems, including their flexibility and adaptability in the face of uncertain and changing social, economic and ecological conditions, is critical" (1995:18). So far, the conditions for the economic and political success of the Dutch co-governance regime have been extraordinarily favourable, in spite of occasional problems and setbacks. But this could change if persistent storms undermine its legitimacy among the fishers. These storms may come in the form of further quota reductions, days-at-sea limitations, area or seasonal closures, or mandatory decommissioning. Another Achilles' heel is unequal enforcement across member states. Yet the real problem is that fishers feel that their involvement in governance matters is extremely restricted. Despite all the rhetoric, the responsibilities devolved to fishers are actually few and limited, so that participatory management is a grand designation for what remains, in essence, a command-and-control type of regulatory regime.

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²³ Nor are other co-management regimes. For an interesting account of some of the problems, see Singleton (2000).

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