

An extract of:

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Nordic experience of fisheries management seen in relation to the reform of the EU Common Fisheries Policy

**Nordic experience of rights-based management**

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*Denmark*

In 2003 ITQs were introduced in the Danish herring fishery on an experimental basis. The reason for the experiment was first and foremost the need for a modernization of the rather old Danish pelagic fishing fleet in order to meet the quality requirements of the fish processing industry. ITQs were allocated according to vessel track records for the previous 3 years. From 2007 the herring ITQ system was made permanent<sup>1</sup>, and mackerel and industrial species, such as sandeel, sprat, blue whiting and horse mackerel, were put under ITQ management as well.

In 2007 a quasi-ITQ system (VTQ) was implemented in the Danish demersal fisheries for cod, saithe, plaice, haddock, hake, sole, turbot, monkfish, Norway lobster, and prawns. The major driving force behind this was the need to improve the economy of the demersal fishing fleet and reduce the pressure on demersal fish stocks (in particular from discard and high grading) through a substantial capacity reduction.

The main difference between the ITQ and VTQ systems is that in the former the quota can be transferred independently of the fishing vessels. In the latter the fish quotas (allocated on a 3-year historic record) and the vessels to which they are allocated are inseparable and only transferable together. However, a (new) vessel owner can transfer the quota *utilisation* to another fishing vessel in his possession, and if there is more than one (new) owner the quota utilisation can be split among them and transferred proportionately to other vessels in their possession. Fishers holding VTQ's can form "quota pools" and through quota lease or swaps among pool members ensure efficient use of the pool's fleet capacity, and at the same time the discard related to individual quota limitations is reduced. Quota loans between fishing vessels outside quota pools are also permitted with some limitations.

Since 2009 the tying of the demersal fish quotas to vessels has been abolished, and the VTQ system has thus been turned into a proper ITQ system. In 2009 the Danish blue mussel fishery has also come under ITQ management, meaning that all Danish commercial marine fisheries are now managed through an ITQ system.

*2.3.1 RBM and fishing fleet capacity*

In Denmark the number of vessels holding ITQs has been substantially reduced since 2003 with the transfer of quotas. As an example 34 vessels took part in the North Sea herring fishery in 2008, compared to 84 in 2003. As intended, some of the Danish vessels holding ITQs are brand new and have replaced vessels that were more than 25 years old.

In the Danish demersal fleet holding VTQs, the number of *active* vessels (vessels with registered landings) was reduced by more than 30% over two years. This is primarily

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<sup>1</sup> Mogens Schou remark: Rights can be withdrawn with 8 years notice

a result of the opportunity of pooling vessel quotas. In a recent assessment of the capacity of the Danish fishing fleet it has been found that there is a good fit between the overall capacity of the active fishing vessels and the fish quotas presently available for Denmark. However, some structural changes within and between the fleet segments would be required to make the fit optimal.

### *2.3.2 RBM and fishing fleet economy*

The economic viability of the Danish fishing fleet has improved significantly with the introduction of ITQs and VTQs. For the commercial fleet in total the profitability in 2007 was 20% (up from a 9% average for the years 2004–2006). The increase was realized in spite of an overall 7% reduction in the Danish quotas for fish for human consumption from 2006 to 2007, and a 25% reduction in the quotas for fish for fish meal and oil. For all VTQ vessels the profitability has increased in 2007 when compared to the previous 3 years' average, and for some segments (e.g. demersal trawlers above 18 m) the increase is more than 50%. It should, however, be mentioned, that during the consolidation process the size of debts in the sector has increased considerably.

### *2.3.3 RBM and new entrants*

The Danish ITQ/VTQ management system introduced in 2007 includes special provisions to accommodate new entrants below the age of 40. Each year a small percentage of the national quotas are set aside in a "Fish Fund" from which new entrants can obtain quota loans for a period of up to eight years. By August 2009, 20 fishers have taken such quota loans.

### *2.3.4 RBM and coastal (small-scale) fisheries*

The Danish VTQ system includes a sub-programme aimed at maintaining small-scale coastal fisheries. The programme allows VTQ vessels up to a maximum length of 17 meters that meet some special criteria on their fishing activity to obtain additional annual rations of cod and sole that are set aside in the "fish fund". Out of 352 fishing vessels having joined the sub-programme in 2007, 340 were still included by April 2009. The share of (some) quotas belonging to vessels in the coastal programme has increased during this period, indicating that fishing rights have actually been traded into the coastal segment. To what extent this is sufficient to maintain all segments of the small-scale fisheries is still under discussion.

The experience is that it is possible to design a RBM system in such a way that it contributes to the maintenance of coastal small-scale fisheries. However, it should be observed that the overall development trend in the fishing industry is towards vessels that are comfortable, safe and efficient in fishing operation and catch handling, weather independent etc., and thus often bigger in size. This also applies to the coastal vessels, with a reduction in numbers as the logical outcome. Design of RBM systems would have to take this trend into consideration.

### *2.3.5 RBM and fishing communities*

The Danish experience from introducing ITQ/VTQ shows no signs of development of a particular pattern in terms of geographical concentration of quotas. Esbjerg, once one of the biggest fishing communities in Denmark, has lost a significant amount of quota shares and vessels, while Thorupstrand, where they fish from the beach, is one of the fishing communities being most successful in acquiring quota shares.

Neither is there any evidence of geographical concentration within regions in Denmark. The 352 vessels that joined the Danish VTQ coastal sub programme in 2007

represented close to 100 fishing communities. Until May 2009 there have been no signs of geographical concentration in this segment.

### *2.3.6 The process of adopting RBM*

In Denmark during the last decade resistance against ITQ systems was fierce, especially among demersal fishermen: This resistance fostered a lengthy debate, particularly within the fishing industry, on the design of the much needed "New Regulation" of the Danish fisheries. Based on the positive experience, in terms of improved economic performance and fleet structural adjustments, from the testing of the ITQ system in the herring fishery from 2003, the resistance softened. The proposal of a VTQ system was reluctantly endorsed by the Danish Fishermen's Association and adopted by the Danish Parliament in 2006. From January 2009 the tying of quota shares to the vessels to which they were initially allocated was abolished, establishing a de facto ITQ system comprising 99% of Danish fisheries. Now most Danish fishermen are in full support of the RBM system. "Why wasn't this introduced much earlier?" is a frequently heard comment.

## *4.3 Reduction of discards in the Nordic countries*

### *4.3.4 Denmark – quota swap and full video monitoring and catch quotas as incentive*

Denmark manages discards in accordance with the EU regulations, meaning that fishers are obliged to discard catches for which they do not hold quotas.

In 2007 the introduction of transferable vessel quotas (VTQ) gave the fishers quotas on a yearly basis (instead of on a 2-weekly basis), and at the same time they got the possibility of buying, renting or swapping additional quota (described in chapter 2). This gave the fisher the opportunity to plan the fishery according to his own quotas, or to calculate with bought or rented quotas. The adjustment can take place even after the fish is caught.

The transferability of quotas is limited to some extent, but if the fisher joins a so-called quota pool the exchange is quite easy. Two thirds of the VTQ vessels have joined one of the quota pools, of which there is a handful in total. This indicates an interest in obtaining flexibility with regard to quota utilization and reduction of quota-related discard. However, some quota-related discard is left, as well as the incentive to high grade.

The Danish Ministry of Food has launched a project regarding full video monitoring. Six vessels accepted to have four video cameras and other electronic surveillance equipment installed so that catches and discards could be monitored very precisely – the project indicates that a good video monitoring is possible.

The vessels were obliged to register all catches and discards. All catches of quota fish were counted against the individual quota, and the fishers were only allowed to discard fish under the minimum size. In return for their participation the vessels got extra quotas. But why should the fishers accept such surveillance and incur losses in consequence of not being able to high grade and having to count all catches against their quotas?

The Danish proposal is radical: Give the fishers who accept the monitoring an incentive – the so-called catch quota.

The catch quotas include (a part of) the amount of fish, which in the ordinary TAC setting process is set aside for discard. The documenting fisher gets a higher quota since the counting of all catches against the individual/vessel quota is an important

incentive to avoid discard. As all catches are registered when they come on-board, the fisher will only discard fish that cannot be sold.

## Conclusion

From the above presentation of the RBM systems in the Nordic countries it is clearly demonstrated that:

- RBM systems with transferability of rights, and particularly ITQ/VTQ systems applying output control, have contributed to adjusting the fleet capacity to the fish resources available for exploitation (TACs).
- With the reduction of the fleet capacity to match the TACs and fish quotas, the economic performance has improved significantly. However, the debts in the sector have also increased. With the adoption of RBM systems, the fishing industry in the Nordic countries has turned into a profitable economic sector, generating a sizeable resource rent.
- The experience in the Nordic countries shows that, even if ITQ/VTQ systems are particularly suited to cater for capacity adaptation and economic efficiency, they can be designed to cater for social concerns related to small-scale fisheries and coastal communities. This can either be through a special "coastal fisheries" scheme involving special rights (and obligations) as implemented in Denmark, or through restrictions on the quota allocation and transfer of quotas between vessel segments and/or geographical areas as practiced in Norway and Iceland.
- Closely associated with the concern for the livelihood of coastal communities is the concern for new (particularly young) entrants to the fishery. This problem is in particular about meeting the increasing costs of investments, associated with most RBM systems, in both material assets (vessel and fishing gear) and immaterial assets, such as fish quotas, and it has been addressed in the design of the systems adopted in the Nordic countries.

In Denmark the solution involves a "quota fund" from which young entrants can obtain quota loans for a period of time. In Norway there are special quota allocations available to new entrants, whereas Iceland addresses the concern for new entrants via the community quotas.