NON-PAPER

REVIEW OF THE COD RECOVERY PLAN

Background:

Cod stocks have declined drastically throughout Community waters over the last few decades. In the North Sea, annual landings of cod declined from an average of around 250,000 tonnes between 1965 and 1985 to around 50,000 tonnes by 2000. The spawning stock biomass is thought to have declined over the same period from more than 250,000 tonnes to much less than 70,000 tonnes. Similarly in the Irish Sea, cod landings have decreased from peaks of around 15,000 tonnes to around 1,500 tonnes per year, with the spawning stock biomass now estimated to be only around 2000 tonnes. The decline in cod to the west of Scotland seems to have been even more dramatic, and the stock is in a worse state than that in the North Sea. Landings from this stock have declined from around 20,000 tonnes in the late 1980s to 500 tonnes in 2004. The current spawning stock biomass is unknown but likely to be at an extremely low level. In the Kattegat, the spawning stock biomass has declined from around 35,000 tonnes in the 1970s to what are now thought to be very low levels, perhaps of just one or two thousand tonnes. The economic loss to the sector brought about by the decline in stocks is very substantial.

Until the reform of the CFP in 2002, the response to the declining stocks was to fix more restrictive TACs, but this did not halt the decline of the stocks. This was because the lower TACs failed to prevent an increase in fishing mortality, possibly because of high levels of unreported landings and discards. From 2003 onwards the TAC and quota limitations were complemented by effort control in the form of days at sea limitations in the North Sea, Skagerrak and Kattegat, and to the west of Scotland. However, these effort reductions were far more modest than those considered necessary to bring about cod recovery in the short term. Scientists were advocating the complete closure of the fishery to rebuild the cod stocks. Such drastic measures would have had unacceptable social and economic consequences because other commercially important species are caught in the same fisheries.

The reform of the CFP also saw a greater emphasis on a long-term approach to fisheries management. In particular, Articles 5 and 6 of Regulation 2371/2002[1] set out respectively the requirements for multi-annual recovery plans, where the stocks are outside safe biological limits, and management plans where the stocks are within such limits. Instead of proposing drastic short term cuts in fishing effort the Commission therefore proposed a multi-annual strategy to bring about cod recovery over period of between 5 and 10 years. This cod recovery plan was adopted in 2004, covering four cod stocks: cod in the North Sea, Skagerrak and Eastern Channel, cod in the Kattegat, cod to the west of Scotland, and cod in the Irish Sea. The recovery plan was a commitment by the Council of Ministers that it would set TACs and effort limits according to predefined rules in response to the latest scientific advice.

These predefined rules are called harvest control rules. The harvest control rules under the cod recovery plan require that the TAC each year is fixed at a level that scientists estimate would result in a 30% increase in spawning biomass (SSB), until the precautionary level (B_{pa}) is achieved. This is the level of biomass that scientists consider to be a safe biological limit to avoid stock depletion. However, the resulting TAC is constrained to be within 15% of the previous year's TAC, provided that the stock biomass is above the level that gives a high risk

[1] O J L 358, 31.12.2002, p. 59

of stock collapse (B_{lim}). If the stock is below B_{lim}, more stringent TACs should be fixed, but it is not specified how these should be decided. Furthermore, the recovery plan requires that the effort of fishing vessels fishing for cod should be adjusted in line with the changes in fishing mortality.

Unfortunately, after three years of application there is little sign of stock recovery, although scientific advice based on 2005 data is not yet available. All four stocks covered by the recovery plan remain at or near their historic low levels.

Is the plan working?

There are a number of possible reasons for the failure of the recovery plan to bring about an increase in spawning biomass in its first three years.

One is that more time may be needed to detect an effect. Scientists can estimate biomass and fishing mortality only imprecisely, especially given the poor quality catch data that are available, so it may take several more years before the effects of the plan can be measured. On the other hand, the cod recovery plan was intended to rebuild the stock biomass at a rate of 30% per year, and even imprecise scientific estimates should have been able to detect such a rate of increase after three years. It therefore seems that either the cod recovery plan has had no effect, or it has had such a small effect that the objective of rebuilding the stock in 5- 10 years will not be achieved.

It has been argued that the collapse of cod stocks is the result of climate change, not the fishery. Advocates of this argument believe that attempts to recover the cod stocks by lowering fishing mortality are futile and restrict fishing on other stocks unnecessarily. Environmental factors obviously do have an effect on cod spawning and recruitment, and account for the annual variability in year-class strengths. Indeed, the "gadoid outburst" (gadoids are the family of fish that includes cod, haddock and whiting) a few decades ago was probably because of unusually favourable conditions. Clearly, if short term fluctuations in environmental conditions can have such a large influence we should also expect there to be a long term impact of climate change. While it is important to continue to assess the possible impacts of climate change on fish stocks, scientists are nevertheless clear that fishing mortality is an important contributor to stock depletion and that it must be reduced from its historically high levels, whatever the influence of other factors such as climate change.

The current fishing mortality rate on cod is estimated to be around five times the mortality rate from all other causes combined. The fecundity and growth rate of cod is such that stocks can be expected to recover rapidly if fishing mortality is reduced sufficiently, as was the case with Arctic cod. In the North Sea, the fishing mortality rate on cod increased from around 0.5 in 1965 to around 1.2 in 2000. To put this into perspective, these estimates of fishing mortality indicate that around 35% of the stock was removed by the fishery in 1965, whereas in 2000 this percentage increased to more than 60%. At this rate, when natural mortality is also taken into account, only about 20% of cod would survive from one year to the next, so only about 1% of 1 year-old cod will survive until they are able to spawn for the first time at about 3 years-old. This may account for the poor levels of recruitment in recent years; not only is the spawning biomass now at a very low level, the individual spawners are predominantly small, young fish, which are known to produce fewer and smaller eggs over a shorter spawning period.

The weight of evidence is therefore that the fishery, not climate, is the principal cause of the decline in cod stocks. This suggests that the cod recovery plan has failed in its objectives because the reductions in catch and effort were smaller than those required for recovery.

The following tables show the way in which fishing effort in kW-days had developed up until the adoption of the recovery plan for the various gear types in each area, relative to the fishing effort exerted in 2000, when scientists were already calling for drastic reductions in effort. The percentages have been calculated using data from the report of the Scientific, Technical and Economic Committee for Fisheries' subgroup on review of stocks, Ispra 13-17 June and 19-21 September 2005, and will be updated when further information becomes available in June 2006.

North Sea and Skagerrak

	2000	**2001**	**2002**	**2003**	**2004**
Beam trawl > = 80mm	100%	96%	88%	77%	75%
Demersal trawl > = 100 mm	100%	92%	87%	66%	57%
Demersal trawl 19 - 31 mm	100%	110%	60%	69%	41%
Demersal trawl 70 - 99 mm	100%	107%	137%	157%	154%
Longline	100%	72%	85%	67%	31%
Other	100%	103%	94%	97%	92%
Static	100%	93%	84%	64%	66%
Total	**100%**	**97%**	**93%**	**84%**	**79%**

Eastern Channel

	2000	**2001**	**2002**	**2003**	**2004**
Beam trawl > = 80mm	100%	119%	128%	132%	106%
Demersal trawl > = 100 mm	100%	49%	97%	32%	9%
Demersal trawl 19 - 31 mm	100%	29%	27%	53%	36%
Demersal trawl 70 - 99 mm	100%	102%	117%	108%	114%
Longline	100%	602%	1703%	1968%	n/a
Other	100%	126%	151%	204%	76%
Static	100%	132%	176%	171%	299%
Total	**100%**	**109%**	**127%**	**124%**	**122%**

Kattegat

	2000	**2001**	**2002**	**2003**	**2004**
Demersal trawl > = 100 mm	100%	97%	60%	23%	21%
Demersal trawl 19 - 31 mm	100%	150%	139%	188%	132%
Demersal trawl 70 - 99 mm	100%	103%	85%	94%	78%
Other	100%	121%	108%	128%	108%
Static	100%	101%	107%	76%	52%
Total	**100%**	**105%**	**87%**	**89%**	**73%**

West of Scotland

	2000	2001	2002	2003	2004
Beam trawl > = 80mm	100%	166%	161%	105%	189%
Demersal trawl > = 100 mm	100%	107%	87%	75%	91%
Demersal trawl 19 - 31 mm	100%	9%	n/a	122%	36%
Demersal trawl 70 - 99 mm	100%	96%	91%	111%	104%
Longline	100%	154%	210%	150%	226%
Other	100%	93%	73%	86%	91%
Static	100%	108%	86%	150%	163%
Total	**100%**	**102%**	**86%**	**88%**	**97%**

Irish Sea

	2000	2001	2002	2003	2004
Beam trawl > = 80mm	100%	115%	131%	125%	85%
Demersal trawl > = 100 mm	100%	124%	131%	150%	81%
Demersal trawl 70 - 99 mm	100%	97%	73%	83%	81%
Other	100%	89%	83%	82%	86%
Static	100%	110%	178%	226%	196%
Total	**100%**	**103%**	**96%**	**102%**	**83%**

The tables show that despite warnings from the scientists, overall fishing effort was not greatly reduced. Although there were sometimes very significant reductions in effort for the gear traditionally targeting cod, namely demersal trawls > 100 mm mesh size, especially in the North Sea and the Kattegat, there was a rise in the fishing effort of other gears. The most notable example is that of demersal trawls using mesh sizes between 70-99 mm. These vessels largely target *Nephrops*, but there is often a substantial by-catch of whitefish species, including cod. In its report, the STECF estimated that this segment account for almost half of cod fishing mortality.

Given these modest reductions in overall fishing effort and continued high levels of fishing mortality, it is hardly surprising that the stocks continued to decline, and that scientific advice is still recommending the complete closure of the fisheries. The recovery plan was a response to this advice, aiming at a progressive approach instead of closure, but with reductions in effort large enough to allow stock recovery. Unfortunately it appears that the recovery plan has not reduced fishing effort to the extent required.

There are a number of reasons for this.

One is that for 2005 the Council did not accept the TAC and effort reductions implied by the harvest control rules, despite committing itself to do so under the cod recovery plan. For 2006, the scientific information available was too uncertain for ICES to provide a quantitative estimate of SSB or a catch forecast, so it was impossible to calculate the level of TAC that would result in a 30% increase in spawning stock biomass (SSB). The only rule from the cod recovery plan that could be implemented was the 15% constraint in inter-annual variations in the TAC; so, given the firm indications that the cod stock was below B_{lim} (the level of biomass at which scientists consider that there is a high probability that the stock will collapse), a 15% reduction in TAC was adopted. However, even this was not strictly in line with the recovery plan, which specifies that more stringent measures than the normal harvest control rules (including the +/- 15% TAC constraint) should be adopted when the stock is below B_{lim}.

There was also a problem with the enforcement of the measures that had been agreed. Evidence both from scientific estimates and from the examination of the inspection systems suggests that non-compliance with cod quotas and catch composition rules continued to be a problem within the cod recovery zone. The effort limitation regime under the recovery plan has not been very effective in preventing this. For example, a vessel with just a few days track record in fishing in an area with a particular gear has the right to fish for the full number of days allocated for that gear in that area. Because the number of days allocated is therefore often higher than the vessels have ever needed in the past, the result is that the effort available is excessive in comparison to the available quotas.

Another weakness of the effort limitation regime is that it restricts the number of days-at -sea per vessel but does not restrict the number of vessels in each fleet segment. This has created an incentive for fishermen to move from gears that traditionally targeted cod, which were subject to the biggest reductions in effort, towards smaller-mesh gears where cod is taken as a by-catch. The by-catches of cod in the small-mesh fisheries may be discarded, or may be landed if catch composition rules are not properly enforced. This movement towards the smaller-mesh fisheries was already apparent prior to the adoption of the cod recovery plan (see the tables above), but because the vessels concerned were considered to be targeting *Nephrops* they were not subject to large reductions in fishing effort. In fact, the STECF in 2005 identified the 70- 99 mm fleet as accounting for almost half of cod mortality. The result was a much smaller reduction in the fishing effort on cod than was intended.

Another factor that has reduced the effectiveness of the fishing effort regime is the number of derogations, in the form of a higher number of fishing days, accorded to fleet segments on the basis of their supposedly low impact on cod, and based on certain track records. A number of these derogations were established as part of a political decision, without solid data underpinning them. Such derogations necessarily weaken the benefits of reducing the basic number of days, especially given the poor enforcement of catch compositions. The by-catch limitations associated with the derogations can also create incentives to discard. In general, the derogations have made an already complex system even more so, making it unpredictable and difficult to enforce.

The relation between nominal effort and fishing mortality is liable to change over time, especially if the incentive structure of a fishery changes (a given reduction in days-out-of port will not necessarily generate the same reduction in mortality, as fishermen learn to increase the efficiency of their vessel). The fishing sector itself has claimed that restriction of a vessel's time at sea creates of itself an incentive to target cod because this is the fishery that provides one of the highest economic returns per unit of time spent fishing. However, the ability of the industry to generate these returns is restricted by very low TACs, assuming that they are respected.

Finally, there is another major reason why the effort regime has failed to significantly reduce fishing mortality, and that is that the allocated effort did not limit the fishery. In other words, the baseline levels of effort against which the reductions were defined, which were not based on a detailed technical examination of track records of effort, may have been too high. There is some evidence for this, with reported effort for many fleets remaining substantially below the ceilings allowed under the effort regime

What could be done to improve the plan?

Improved harvest control rules

The recovery plan's harvest control rules require good estimates of SSB and catch forecasts, which the scientists are unable to provide. While it is important to identify the reasons for the lack of quantitative advice and seek to address them, the qualitative advice is nevertheless clear. Cod stocks are in a very poor state, and below B_{lim}.

Improvements to the recovery plan should therefore focus on harvest control rules that do not require precise biomass estimates or catch forecasts. One possibility is to base them on fishing mortality levels rather than biomass, or if fishing mortality is unknown by using relative levels of fishing effort as a proxy. An example might be a rule whereby effort is progressively reduced until an improvement appears. It may also be possible to establish harvest control rules that are based on abundance indices derived from surveys rather than relying on assessments based on commercial catch data. Above all the harvest control rules should aim to strengthen the effectiveness of the plan.

Closure of directed cod fisheries

The cod recovery plan is intended to recover cod stocks without resorting to the complete closure of the fisheries. However, given its apparent lack of success, the option of closing directed cod fisheries should be re-examined. In some areas this may be neither realistic nor effective, especially where a high proportion of cod mortality is accounted for by the by-catch in fisheries that are not targeting cod, though once again the extent of the problem and the identification of the vessels concerned is hampered by poor catch statistics. One area where the closure of directed cod fisheries could be a realistic option is the west of Scotland, where there are fewer fisheries with significant by-catches of cod, and where the status of the cod stocks is particularly extreme.

Closed areas

The closure of certain fishing grounds has in the past been considered as a complement to, or even a substitute for, fishing effort limitations in the form of days at sea. The effectiveness of closed areas as a management tool is, however, uncertain. Whilst they can be beneficial for sessile stocks, available evidence suggests that for others unless closed areas or seasons are very extensive (and thereby produce a significant reduction in overall fishing mortality on the stock concerned) they are likely to be relatively ineffective in contributing to the recovery of depleted fish stocks and would offer no advantages over a simple limitation of the number of days per year a vessel can spend at sea.

The first problem relates to displacement of fishing effort. Fishing fleets that are barred from closed areas will seek to compensate for the reduced fishing possibilities by fishing elsewhere. In the case of a widely-distributed stock such as cod, the result may be a major change in the fishing pattern but a limited reduction in fishing mortality unless the major part of the stock is covered by the closed area.

A second problem with respect to closed areas is that of equitable treatment of fishermen, either using different gears or fishing with the same gear in different grounds. Past experience has shown that it is difficult to designate closed areas which will affect all fishermen concerned in the same way. A closed area, for example, may require small coastal vessels in the immediate vicinity to abandon a fishery entirely, while larger vessels or smaller vessels

operating in other areas may be unaffected. Similarly the closure of an area to all trawling will treat in the same way vessels with very different impacts on fishing mortality, such as those mainly targeting the species to be protected (mainly otter-trawls using 120mm mesh or more) and other gear which take that species as a by-catch. Although the Commission proposal of 2004 for closed areas in the North Sea attempted to spread the burden between different fleets in an equitable way, it was clear that Member States considered that a much more detailed impact analysis was necessary before they could accept such an approach. Even if such an analysis had been made, it is doubtful that a solution could have been found that would have been considered equitable by the majority of Member States.

The third difficulty with closed areas is often the lack of a solid scientific basis for identifying the most appropriate areas to close. Although the stocks are heavily depleted there are not always clearly-identifiable areas of concentration of either adults or juveniles whose closure to fishing would be sufficient to ensure the stock's recovery.

For all of these reasons, the STECF has advised that effort limitation is generally more effective than the use of closed areas. Moreover, when the Commission proposed closed areas in the North Sea as an alternative to days at sea limitations, all but one Member State was opposed to it. This does not exclude the use of closed areas in specific cases. In the Celtic Sea, for example, areas where aggregations of adult cod can be identified in space and time the 2-month closure currently in force may be effective in reducing fishing mortality.

Improved effort management

Perhaps the most needed improvement is to the effort management regime, which has become very complex and cumbersome, counter to the Commission's objective of simplification. Moreover, because fishermen adapt their activities in response to the limitations imposed for each of the various gears it is only possible to quantify the overall effect of the agreed reductions retrospectively. Many of the derogations from the effort limitations are based on low percentages of cod in the catches, which not only increases the complexity of the regime but also this leads to control and enforcement problems and reduces transparency.

When the recovery plan was first proposed, the effort regime that was envisaged was one in which the total number of kW-days in each area was capped for each national fleet, depending on the historic contributions to cod mortality. This was rejected by the Council, on the grounds that it was too complicated. The way in which the allocations of relative effort between fleets based on the track records of cod catches were calculated was also contested. However, now that apparent simplicity of a days-at-sea system has proved to be far more complicated in practice, it may be appropriate to reconsider a kW-days or similar system. This would need to be a simpler system than the one previously proposed, for example by fixing effort ceilings for groups of vessels using similar fishing gears without reference to track-records of cod catches. This would have the advantage of keeping better control over the level of fishing effort deployed in each of the separate areas, whilst maintaining the flexibility to swap effort between vessels within a given area. In this respect, effort swaps could be regarded in the same way as quota swaps; just as fishermen could purchase quotas of Irish Sea cod, west of Scotland cod or Kattegat cod, they could not use these to fish for North Sea cod. Similarly, fishing effort allocated because of a track record in the Irish Sea, the west of Scotland or the Kattegat should not be usable for fishing for North Sea cod.

There would also be complications to such an approach. The way in which effort is best defined could be different for different gears, for example. For static gears, it may be more appropriate to use GT-days than kW-days. The difficulties of defining and controlling engine-power also need to be addressed, including the way in which the power of auxiliary engines is

dealt with. Moreover, whatever the definition of effort, for such a regime to be effective the effort ceilings would need to be genuinely restrictive. This means that good information on baseline levels of effort would be needed.

Technical measures

Technical measures that lead to a lower impact of the fishery on cod should be encouraged. Practices which will reliably catch fewer cod but better retain other species should be rewarded, for example by an increased effort allocation. An example is the use of devices such as separator grids in *Nephrops* trawls.

However, scope for providing incentives for better size-selection of fishing gear is more limited. Mesh sizes currently in use have been chosen after considering the need to retain a wide range of species (haddock, whiting, *Nephrops*, etc.) and are considerably smaller than the mesh size that would let a spawning cod escape. Consequently, the conservation benefits for cod of larger mesh sizes within the range 100 to 120mm may not be sufficiently large to justify the allocation of higher effort levels to these gear categories. A more significant increase in mesh size, perhaps to 140mm or even 160mm, might be enough to allow the allocation of extra fishing days if shown to be effective in normal fishing conditions. The ways in which the gears are used under normal fishing conditions may not give the degree of size-selectivity that experimental trials would suggest. For example, even after the progressive mesh-size increases in the cod, haddock and whiting fisheries in the North Sea over the last twenty years or so, there seems to be no significant improvement in the selection pattern (the relative fishing mortality on the different age groups) in any of the stocks.

The Commission is currently preparing a review of all technical measures with the aim of simplifying them and making them more effective. This will be the subject of a separate consultation with stakeholders.

Area-based approach

A single cod recovery plan covers cod stocks in the Kattegat, in the North Sea, in Skagerrak and the Eastern Channel, to the west of Scotland and in the Irish Sea. When the scheme was initially devised, these stocks were at similar low levels and required similar levels of fishing effort reduction with respect to historic values. However, this situation is changing and some stocks are now assessed as requiring more effort reductions than others. It is likely that some stocks will recover at different rates than others and require different changes in TACs and different levels of effort. For example, cod to the West of Scotland is at higher risk, and requires more effort reduction, than cod in the Irish Sea.

It has been argued that the cod recovery plan does not go far enough in differentiating between stocks. All are subject to the same harvest control rules and the same approach to effort management, and different measures should be considered according to the circumstances in each of those areas. It is true that most of the discussions of the cod recovery plan have focussed on the North Sea, and that greater recognition should be given to the different circumstances in other areas. The closure of the fishery west of Scotland, for example, may be a more realistic proposition than it is in the North Sea, and the Irish Sea may also require special provisions.

This is already happening to some extent. An example is the Commission's support for pilot project for an effort management regime in the Kattegat (though the Commission would seek safeguards to ensure that cod was not heavily targeted).

Even though simplification remains an important objective for the Commission, this does not mean that a uniform approach in all areas should be adopted when different measures, or even different objectives, for each area would be more effective. Any of the options that are discussed in this paper could have merits in one area but be unsuitable in another area. This diversity should be taken into account to improve the effectiveness of the cod recovery plan.

Better enforcement

Improvement of enforcement of the rules is a key factor in the effectiveness of recovery plans. Enforcement provisions have been progressively tightened up since 2003, but reports from Commission inspection teams during 2005 suggest that enforcement of the current policy effort limitation system is still far from perfect. The first priority in this area should therefore be improving the implementation of existing measures rather than further modifications to the legislation.

Given that the inspection services of Member States are generally utilised to the full, with little or no room for additional inspection resources, new elements will have to be explored to improve enforcement. Simplification of the regulations would make the job of the inspection services easier. Even small changes could be beneficial, such as adopting a simply calculated margin of tolerance (for example 10%) for all stocks. However the inspection services cannot be expected to identify and solve all the problems of control and enforcement. The measures that are adopted to protect and rebuild fish stocks are intended to benefit everyone, and the best way to ensure compliance is peer-pressure within the industry that makes it unacceptable to break the rules for personal gain. If the industry could improve compliance to existing measures, additional ones may be unnecessary.

Mixed fisheries considerations

One of the criticisms of the cod recovery plan is that it gives too much priority to cod recovery at the expense of fishing activities on other species. This is especially objectionable to those who believe that the objectives of the plan are in any case unachievable because of climate change.

While it is true that the restrictions on other fisheries are imposed to achieve cod recovery, it would be wrong to conclude that this is not in the interests of those fisheries in the long term. It may be that putting too much emphasis on cod recovery has given the impression that a high level of fishing mortality can be maintained on the other species. The benefits of reducing fishing effort on all species have been given too little attention. Almost all stocks are currently fished well above levels that would maximise yields, so reducing fishing effort will have medium to long term benefits in terms of increased profitability, greater stability of catches and reduced discards. One option may therefore be to replace the cod recovery plan with a more general strategy to lower fishing effort across the board, which would be a very positive step towards the target of maximum sustainable yield (MSY) agreed at Johannesburg. The protection of cod would continue to be a priority, but would be achieved as a consequence of moving towards the MSY approach for all species.

Comments from the North Sea Regional Advisory Council

The North Sea Regional Advisory Council (NSRAC) has given its views on what the review of the cod recovery plan should consider. Many of these are similar to points already raised in this paper such as

- In view of the difficulties of using estimating SSB, the recovery plan should establish targets in terms of fishing mortality.

- The impact of gears other than trawlers with a mesh size of more than 100 mm needs to be addressed

- The effort regime is excessively complex.

- The recovery plan should be coherent with the political commitment to achieve maximum sustainable yields by 2015

- The ways in which effective cod recovery measures can be established without having adverse economic effects for non-cod fisheries should be addressed.

In addition the NSRAC believes that

- The precautionary reference points are based on historic data that includes the period of the gadoid outburst when recruitment was unusually high, and should therefore be reviewed. A biomass of 150,000 tonnes in the North Sea may not be achievable under present recruitment conditions

- The impact of increases in the grey seal population on natural mortality levels should be taken into account.

- Developments in scientific knowledge on the influence of environmental factors on cod recovery should be considered.

- Technical measures and decommissioning should be considered instead of or as complements to the limitation of fishing effort.

- A two-day symposium on the subject should be held early in 2007.

Timing

According to Article 8 of the cod recovery plan, the system of fishing effort limitation currently specified in Annex II of the fishing opportunities regulation can be revised by the Council at any time. This means that any improvements to the effort regime could be already applicable in 2007. More substantial changes, which would imply the amendment or replacement of the cod recovery plan itself, would take more time. The Commission welcomes the idea of holding a 2-day symposium to explore the issues involved. Following the consultations with stakeholders, the Commission's proposals could not be expected before the end of 2006 or early 2007. This means that they would be in force in 2008 at the earliest.

Conclusions

Cod recovery will occur only if fishing mortality on cod is reduced much more than the cod recovery plan has been able to achieve. The measures to protect cod cannot therefore be weakened, but instead the challenge is to find a simpler, integrated and more effective fisheries-based approach.

Whatever the technical merits of a revised plan, it can only be effective if it is properly implemented. For that to happen, the fishing industry and the Member States must be

convinced not only that cod recovery is achievable, but that the means to achieve it will benefit all sectors of the industry in the medium and longer term rather than be at the expense of other fishing activities.

The Commission is prepared to look for these alternatives. In the meantime, given the state of the cod stocks, there is no option but to continue applying the provisions of the cod recovery plan as it stands, except for possible modifications to the effort regime from 2007 onwards.