



Commission Non-Paper

On the implementation of the policy to reduce unwanted bycatch and eliminate discards in European fisheries.

SUMMARY PAPER

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**This policy statement represents
WWF views at the time of writing and
may change to reflect updated
thinking over time given the dynamic
nature of this policy area and
European fisheries management.**

WWF welcomes the Commission's proposal and publication regarding the reduction of bycatch and associated discards. Discards and bycatch are two of the most serious challenges in trying to achieve sustainably managed fisheries globally.

Discards in the European fleet are essentially a symptom of a poor management system that has failed to address overcapacity, which does not demand the most selective fishing gear and is based on a system which sets limits on landings and not catch. Furthermore excessive levels of effort in many of Europe's fisheries, need to be addressed if the Commission is serious about effectively and permanently eradicating current discard practices. WWF strongly supports the long term intention to eliminate all discards and we hope that the new policy will deliver a systematic reduction of current discard levels, prioritising the worst performing fisheries. However, we feel that ten years is a long time to wait for such an outcome. Our view is that five years is both realistic and achievable in most cases, we therefore urge the Commission to review this element of the proposal.

We believe there is a role for a discard ban but only once other forms of mitigation such as effort reduction, effective control and enforcement, stock management according to scientific advice and mandatory use of bycatch reduction measures, have been addressed. The initial strategy needs to place greater emphasis on industry meeting targets for effective bycatch and discard reduction. However, it should be clear to industry that if discards are not reduced adequately then a discard ban will be implemented within a set time period. To achieve this, accurate records or reliable estimates of bycatch and discards are needed to gauge impacts and measure the success or failure of management measures, as highlighted by STECF 2006¹.

¹ STECF 2007. Discarding by EU Fleet 9-12 October, 2006 Evaluation of the STECF/SGMOS 07-04 working group on discards

Support piloting

WWF fully supports the proposal to pilot discard reduction initiatives in the selected fisheries. The omission of the Area IV (North Sea) Nephrops fishery in the original STECF terms of reference was unclear. STECF¹ clearly demonstrates that the level of discarding in the Area VII 70-99mm trawl fishery is significant and unacceptable for a range of species. We have similar concerns in the North Sea, particularly with regard to whitefish bycatch and subsequent discards². Additionally, we suggest there is merit in choosing a Nephrops fishery in both Area VII and the North Sea to compare the response of operators to the initiative. By piloting the process in the North Sea we would envisage it having the added advantage of reducing cod mortality caused by cod bycatch (much of which is subsequently discarded) and therefore potentially assist and complement the Cod Recovery Plans.

Equally, a complementary flatfish pilot scheme could be trialled in Area VII, in areas such as the English Channel or Irish Sea where discards of plaice are known to be similarly high³. While we would not support an outright discard ban at the moment, we would like to see a trial discard ban in one of the pilot fisheries to investigate the practical realities of the policy, particularly with regard to control and enforcement. It has been suggested that a ban could apply to the primary discard species within the fishery e.g. plaice, as a means of simplifying the measure to identify regulatory and practical issues which apply to the specific fishery.

Welcome shift of management emphasis

We see the proposals as a significant and much needed change of direction from the European Commission. Primarily this is a shift in emphasis from addressing the details of gears which an operator must use in a specific target fishery, to one which sets limits on the amount of target fish allowed to be discarded. In theory, this is an approach which starts to adopt an ecosystem approach to fisheries management, as Member States are committed to under Article 2.1 of the CFP⁴.

However, it is important to remember that the discard problem is one which has been created by the EU decision making and management system. Now the regulatory framework is changing the emphasis from one which prescribes what can be landed to one which sets limits on what can be caught. This will be accomplished by amending both input and output controls, by encouraging operators to use more selective gear and setting strict bycatch limits. Such a change of emphasis, will affect many areas of the fisheries operation, not least the type of gear which is used and the control and enforcement system in which it operates. In terms of the latter, the current system concentrates enforcement effort on landings, whereas the proposal would place a greater emphasis on monitoring and enforcement at sea, which can be improved through the use of warranted fishery officers from Member States or independent observers.

Need for observer programmes

For this change in management system to be successful, the regulation must be supported with sufficient enforcement and observer coverage. Failure to properly address the requirement for observers will make it easy to circumvent the bycatch limits leading to continuing discards, therefore defeating the intended objective. WWF is of the view that the deployment of independent on-board observers will be key to the success of this action, especially in the early stages of its development. In terms of funding of observer programmes, we feel that this could come from a number of sources including Community funding, Member States and the industry itself. The use of observers on a reference segment of the fleet is a fundamental requirement of an effective and forward thinking management system. We see a contribution from stakeholders to this cost as an investment in its future sustainability and profitability. We support the level of 15% observer coverage, as recommended in the proposal as a minimum requirement if this approach is to be successful.

² <http://www.ices.dk/products/icesadvice2006.asp> p.207

³ http://ec.europa.eu/fisheries/cfp/management_resources/conservation_measures/pdf/stecf_2006_discards_report.pdf

⁴ Council Regulation (EC) 2371/2002 on the conservation and sustainable exploitation of fisheries resources under the Common Fisheries Policy.

WWF would like to see on-board observers become a standard component of European fisheries management. Equally we believe there is a role to play in using video surveillance technologies, which could continue to monitor catches but for far less financial outlay. This technique could be seen as a way of increasing surveillance and baseline data, particularly if integrated with Vessel Monitoring Systems (VMS). Such an initiative should not be seen as mutually exclusive to the use of observers but a complementary programme designed to aid compliance and the overall effect in terms of sustainable management and stock recovery efficacy. In addition, the use of e-logbooks would complement an observer programme. This will enable managers to analyse information between reference and unobserved vessels. As highlighted in the Court Of Auditors⁵ assessment of the current policy advocating that the present control, inspection and sanction systems must be strengthened considerably if the desired objective is to be realised.

Support of selective gear development.

As well as looking at the capture of unwanted target species as bycatch, we feel that research and implementation must also look at gear technologies which result in increased target and non-target species survival. This is particularly true when, as can be expected, fishermen pioneer new and innovative methods of reducing bycatch. Without this caveat it is possible that unintended mortality will be moved from the fishing vessel to the sea bed, in an “out of sight out of mind” manner. It is vital that increasing non-target survival is incorporated more explicitly in the proposal than is currently the case.

Industry to date have been reluctant to wholly embrace bycatch reducing technology into their current fishing operations, although some change had been observed. Research into gears such as selectivity grids, eliminator trawls, square mesh and benthic release panels, circle hooks etc. has been conducted for decades with relatively little integration into day to day operations. This reluctance to adopt new ways of fishing to increase environmental performance must change. The use of the corresponding financial instrument of the European Fisheries Fund (EFF) can support this change⁶. We hope that this proposal will help address this problem.

EFF to fund gear development and trials.

WWF fully supports the Commission's call to the fishing sector to better use the financial aid provided by the European Fisheries Funds (EFF). There is approximately four billion Euros available for the period 2007 – 2013. As such the EFF has enormous potential to help fishing communities to work towards the regeneration of severely depleted fish stocks. WWF has produced a guide to show the large number of different stakeholders that are eligible to benefit from EFF funding and the broad range of projects funded by this instrument⁷. It is our view that promoting the development and use of environmentally friendly gear should be a top priority for EFF assistance.

It is important, however, that the Commission fully explores the use of both negative and positive financial incentives. It is clear that financial support should focus on the adoption of more selective and less environmentally damaging fishing gears. However, non-selective fishing has to become more costly. Standards for best available technology should be developed and implemented. These should be taken account of when considering financial support for gear changes, thereby encouraging uptake of newly developed gear. The Commission may take a step-wise approach with supporting any basic change to selectivity and a higher level of support to encourage the use of more successful, higher impact techniques.

⁵ European Court of Auditors. Special Report No 7/2007 (pursuant to Article 248(4) second paragraph, EC) on the control, inspection and sanction systems relating to the rules on conservation of Community fisheries resources. (2007/C317/01)

⁶ Council Regulation (EC) No 1198/2006 of 27 July 2006 on the European Fisheries Fund.

⁷ Smart Investments, Promoting Sustainable Fishing Initiatives under the European Fisheries Fund (WWF, 2007).

Support concept of closed areas

A policy on bycatch and discard reduction should be complementary to, and not replace other key management measures, such as capacity reduction, technical measures and marine protected areas. Temporary closure of areas in which threshold conditions for real-time closure are related to discard rate and/or catch composition should be used more widely, as real-time vessel reporting monitoring systems are improved (e.g. through satellite communication). Flexible closed areas have a high degree of support from industry⁸ and while they can be a high cost option for the management there is clear merit in adopting them more widely.

Generally, such measures should be applied in areas where concentrations of juveniles are congregated ('bycatch hotspots'), spawning aggregations can be found or when fish are in post-spawning recovery. Such measures are welcomed as a positive step towards combating the wasteful capture of juveniles and very much needed to achieve a balanced equation between stock regeneration and economic opportunity. There is a strong case for real-time closures, as is being trialled by the Scottish fleet. The work that the Scottish government has taken forward with its industry demonstrates the ability for this to happen and has established the basic requirements of such a scheme in terms of trigger levels, areas of closure as well as monitoring and enforcement. When real-time spatial closures are adopted consideration should be given to applying the closure to all fisheries. To apply an efficient and workable closed area policy, mechanisms to enhance communication between authorities and fishing industry should be established. Such measures would act as a positive step towards combating the wasteful capture of juvenile or spawning fish (depending on trigger level) and are much needed to achieve a balanced equation between stock regeneration and economic opportunity.

Quota system

It is clear that the use of quotas as the focal regulative tool of EU fisheries management has many limitations and partly explains the high levels of discarding in EU fisheries. Furthermore, the quality of the TAC implementation depends on a recording and validation system and an effective system for monitoring catch data which are considered incomplete and unreliable according to the report of the Court of Auditors⁹.

Total Allowable Catches are, in most cases, Total Allowable Landings in which no account is taken of discards. Establishing a true Total Allowable Catch - against which discards would be counted - would be a prerequisite for the application of a discard ban. This will also entail supporting measures to discard elimination like the counting of all landed bycatch against quota allocations. To date fishery scientists are often forced to estimate real catches because some of the official figures are not considered reliable. For example the officially declared catch of Irish Sea cod was 2.700 tonnes in 2004 while the scientific estimation was 4.420 tonnes¹⁰. Recent ICES estimates of removals have been around three times the reported landings suggesting either under-reporting of landings or a substantial problem with continuing discards¹¹.

While a discard ban could provide an incentive to fish more selectively there is currently nothing to stop fishermen from continuing to catch numbers of critically low stock species such as cod. WWF is therefore advocating a bycatch quota system for species under recovery plan. These "Total Allowable Bycatch" (TAB) quotas would be considered a cut-off value, above which a fishery would be closed. This concept should be tested through pilot projects especially for critical stocks. TABs need to be scientifically determined and applied on a case by case basis. This TAB standard could then be gradually reduced to provide added incentive to improve the selectivity of the gear.

We foresee the most significant reason for potential failure of this policy is the reluctance of operators to lose bycatch or secondary target species in the process of aiding the release of undersized primary

⁸ Nautilus Consultants Ltd (2001). Economic Aspects of Discarding – Final report.

⁹ European Court of Auditors. Special report No 7/2007 (pursuant to Article 248(4) second paragraph, EC) On the control, inspection and sanction system relating to the rules on conservation of Community fisheries resources (2007/C317/01)

¹⁰ COM(2007) 167 final. On the monitoring of the member states' implementation of the Common Fisheries Policy 2003-2005.

¹¹ Report of the Working Group on the Assessment of Northern Shelf Demersal Stocks, 9–18 May 2006 (ICES CM 2006/ACFM:30).

target species. The loss of marketable sole in the plaice fishery is a good example of this. We think that this disincentive could be ameliorated if operators were proportionately penalised, in terms of secondary quota species, by the proportion of target species which are discarded. For instance, if the operator exceeds his bycatch target by 5% above the target level of plaice then the amount of sole he can land is reduced by the equivalent percentage. This would increase the importance operators attach to the discard and its cost to their business.

Control and enforcement

Control, enforcement and an effective penalties system are central elements of all fisheries regulations. However, currently the European Community dedicates 46 million Euros to control and enforcement, whereas 837 million Euros are spent on structural assistance for fisheries¹². The inspection and control system to date neither prevents infringements nor does it ensure for their effective detection or adequate control. In certain areas like the Baltic Sea, this leads to large under-reporting of catches, preventing a major reduction in fishing mortality. There is evidence to suggest that due to a lack of a compliance strategy, several management initiatives such as effort limitations, bycatch rules or the cod recovery scheme have been poorly implemented¹³.

Infringing the rules of the CFP is a risk some individual fishermen may take, because the risk of getting convicted is very low and the sanctions do not act as a deterrent. Statistically across the Community the amounts paid in penalties in 2004 were roughly 0.2% of the value of fish landings in 2003 with a huge variation between Member States¹⁴.

In order to establish a workable inspection and control scheme for EU fisheries, it is important not to overload the demands for this scheme from the beginning. To reduce the maximum bycatch levels in each of the fisheries on a yearly basis will, however, pose a huge problem for the control system which will have to adapt accordingly. This needs to be understood and addressed by the Commission. From this perspective it is desirable to only set one final target for bycatch levels to be met in a specific fishery in a given time span and define a comprehensive sanction scheme that will enter into force when this final target is missed.

Management of fisheries includes research, administration and enforcement. The OECD has estimated the total costs of these for the EU as 592 million Euros with 38% spent on research, 19% on administration and 43% on enforcement. The amounts spent by Member States across these three areas, varied greatly, for example 1% of landed value in Spain, 8% in the United Kingdom, 32% in Sweden and 70% in Finland¹⁵. To be equitable across member states and fleets, it is vital that monitoring and enforcement measures are set and imposed consistently.

Minimum Landing or Markets Size?

Current discard practices that are the result of incompatible technical rules on minimum landing size (MLS) and mesh sizes should be looked at as a priority, as these could be relatively easy to rectify. The bycatch of undersized plaice in the sole fishery with 80 mm mesh size is a good example. In order to deliver a discard ban MLS would have to be withdrawn and the Commission's suggestion is to replace this with a minimum marketing size (MMS). WWF believes this makes good sense if enforced effectively as it will avoid new markets opening up for undersized fish. It is vital that the disincentive for the capture of small undersized fish is strong, particularly in terms of traceability and sanctions.

A large proportion of discards in the North Sea beam trawl fishery consists of undersized, juvenile plaice. Since 2006 there has been a long-term management plan working towards rebuilding of plaice

¹² European Court of Auditors. Special report No 7/2007 (pursuant to Article 248(4) second paragraph, EC) On the control, inspection and sanction system relating to the rules on conservation of Community fisheries resources (2007/C317/01)

¹³ COM(2007) 167 final. On the monitoring of the member states' implementation of the Common Fisheries Policy 2003-2005.

¹⁴ COM(2007) 167 final. On the monitoring of the member states' implementation of the Common Fisheries Policy 2003-2005.

¹⁵ OECD (2000). Fisheries Management Costs: Concepts and Studies.

and sole stocks¹⁶. But still the beam trawlers target the more valuable sole (MLS: 24 cm) with an 80 mm net and discard the by caught plaice, which has a minimum length of 27 cm. Today there is evidence to suggest that high fishing pressure is exerting evolutionary change in species like plaice, sole and cod¹⁷. Plaice begin to mature much earlier in life and are able to reproduce at smaller size. But smaller females produce less viable and fewer eggs at an increased reproductive investment. This is likely to result in a decreased maximum body size. A fundamental problem for the stock management of plaice, particularly when there is high recruitment, is the number of juvenile plaice which are discarded in the sole fishery, which never have the chance to reproduce. Instead of replenishing itself with healthy fish the plaice stock is further deteriorated.

Conclusion

Overall, WWF supports the Commission's proposal that will lead to a systemic change in two of the worst performing fisheries in terms of discards and promotes such an approach being rolled out across other fisheries and into other regions. As this paper outlines we believe there are some key issues that need to be addressed to deliver effective bycatch and discard reduction ranging from a shift towards total allowable catches rather than landings, EU wide adoption of real-time closures, to the regular use of on-board observers, improved selectivity, effective effort levels being established and improvements in control and enforcement. WWF is committed to eliminating the discard problem in Europe's fisheries and will support the relevant agencies and industry actors to deliver this outcome. We hope that our comments are considered and taken account of when the Regulation on discards is being drafted and look forward to seeing the final Regulation at the earliest opportunity.

¹⁶ COM(2005) 714 final. Council Regulation establishing a management plan for fisheries exploiting stocks of plaice and sole in the North Sea.

¹⁷ Mollet, F.M.; Kraak, S.B.M.; Rijnsdorp, A.D. (2007) Fisheries-induced evolutionary changes in maturation reaction norms in North Sea sole *Solea solea*. *Marine Ecology Progress Series* 351. p. 189 - 199.

WWF answers to the points for discussion:

1. Should the targets refer to all finfish and crustaceans in the (by-) catch occurring in the fishery or to commercial / quota species only?

Targets should be set depending on the specific issues with the particular fishery. However it may prove valuable from a data and scientific perspective to include target, non-target as well as non-commercial species in establishing targets. However, non-commercial or unmarketable species should not necessarily be included in any discard ban which may follow due to practical and/or adverse ecosystem impacts. By including all-component species in monitoring, it can provide useful information and data when looking to set ecosystem based reference points in the future.

WWF consider it prudent to include all species in the target, essentially because the character of mixed fisheries is that there are different species affected by the fishing practice. High levels of discards observed in EU fisheries contribute to over-exploitation of stocks and can lead to unreliable stock assessments. The discard of the beam trawl flatfish fishery - mostly dab, invertebrates and juvenile other fish - is a threat to the ecosystem itself, this should be reflected in an overall applied reduction target. Some exemptions will need to be made for certain species with high conservation value. For example, protected species (turtles, sharks, marine mammals) caught alive, which may survive should be released back into the sea (in most cases this is a legal requirement).

In terms of the nephrops fishery, due to the nature of the fishery, it would be advantageous to include both target and non-target fish and crustaceans in the regulation. Primarily because the fishery can be prone to high levels of discards from both groups. In terms of the plaice fishery, the fishery is accustomed to a high level of dover sole bycatch, and indeed the financial significance of which has limited the scope to increase mesh size to negate plaice discards. Therefore we suggest that for this fishery, a separate target should be explicit for the finfish component to ensure discards of plaice are reduced significantly.

2. Should the approach follow a gradual reduction of discards in a fishery or should discarding be made illegal (discard ban)?

WWF would support an approach which, in the first instance establishes a bycatch quota in the most appropriate fisheries. This would require a parallel initiation of a representative observer programme. Once the efficacy of the actions have been assessed, and shown that they are not achieving the desired outcome, then a discard ban should be implemented. Any discard ban is likely to require additional resourcing regarding inspections and compliance.

We would support a trial discard ban in one of the pilot fisheries to investigate the practical realities of the policy, particularly with regard to control and enforcement. It has been suggested that a ban could apply to the primary discard species within the fishery e.g. plaice, as a means of simplifying the measure to identify regulatory and practical issues which apply to the specific fishery.

3. Concerning the time frame there are 3 options to consider for achieving the final target per fishery: fast – medium - slow. Should the targets set out above be achieved faster or slower than proposed?

WWF believe that it is necessary to reduce the levels of discards in the two fisheries by a significant proportion. To achieve this it is necessary to make the time frame and reduction targets challenging to the industry. That said it may be worthwhile to make the targets flexible to allow for technical adaptations throughout the timeline. Ultimately, what is important is that a net result in a reduction of both bycatch and discards will have benefits for fisheries and the environment in the longer-term.

4. Concerning the final targets per fishery, should they be lower / higher?

As stated in answer 3, WWF like to see final targets for the reduction of bycatch and discards which are both challenging to industry and achievable with regards to the fishery specific technical solutions that are needed but still have to be developed. WWF regard the targets fixed for the first two fisheries as ambitious, though it remains a point for discussion whether a set of intermediate steps towards the target is the best approach. Intermediate reduction targets of 5 per cent may be statistically indistinguishable.

It is important that all relevant stakeholders are included in the dialogue regarding the setting and implementing of targets. Particularly with regard to how they are reviewed, ideally this should be done on an annual basis and at the end of the respective five and six year periods. At this stage we envisage new targets being established which take account of the progress made and the change which needs to happen moving forward.

5. What could be the criteria for setting a final target in a given fishery?

Whether faster or slower, higher or lower, the final targets should take account of discarding in terms of total mortality of the target species; this will ensure integrity of TACs. WWF is therefore advocating a bycatch quota system for species under recovery plan. These "Total Allowable Bycatch" (TAB) quotas would be considered a cut-off value, above which a fishery would be closed. This concept should be tested through pilot projects especially for critical stocks. TABs need to be scientifically determined and applied on a case by case basis. This TAB standard could then be gradually reduced to provide added incentive to improve the selectivity of the gear.

6. Should there be specific / additional reduction targets for sensitive species such as for example recovery species?

WWF believe that one of the supporting measures to a discard ban is the adoption of bycatch quotas for critical stocks such as cod and other species subject to recovery plans. While a discard ban will provide an incentive to fish more selectively there is nothing to stop fishermen from continuing to catch numbers of critically low stock species such as cod. If bycatch quotas were set for species under recovery plans these would act as cut-offs to close certain fisheries temporarily if the quotas were exceeded.

7. Should there be discard bans for sensitive species?

As stated in Question 1 we consider that for certain species a discard ban should not apply, particularly for those with high conservation value and those with a high probability of survival. All protected species (turtles, sharks, marine mammals) caught alive that may survive capture must be released.

8. How could such specific protection of recovery species and sensitive species best be implemented?

WWF believe that a network of marine protected areas is the most effective way of ensuring the protection and recovery of marine ecosystems and the species contained within them. Such a strategy requires the adoption of an ecosystem based approach which includes the integration of fisheries and marine environmental regulation.

9. Should the targets apply to individual vessels only?

Measures should apply to individual vessels so that they are responsible for their own activities and achieving the desired outcomes in term of bycatch reductions. Equally, the target should be assessed over the fishery as a whole and examined by looking at parameters such as fishing area, vessel size, engine power and gear type/design. Such analysis will assist with the assessment and evaluation of the regulation and the impact of the fishery and the wider environment, from biological, social and economic perspectives.

However we acknowledge that the practicalities regarding small-scale vessels needs to be considered, as some of the proposed measures can not always apply to them. Small-scale vessels generally have no space on-board for carrying observers and are not fitted with VMS. However, it is important that small-scale vessels are required to reduce unwanted bycatch, either by improving their selectivity or by shifting to less damaging techniques.

10. Should the technical adaptations to achieve the targets be spelt out at Community level or should this be left to the fishing sector

WWF perceive the regulation to be a change of emphasis from one which prescribes the type of gear and the minimum mesh size that can be used to target a species within an area, to one which sets limits on the amounts of permitted discards of the target species.

WWF supports a similar output based for non-target bycatches in the form of a bycatch quota. The similarities are that it puts the obligation on the industry to implement measures to reduce bycatch. We suggest that this should be the way forward. However, once gears have been modified and proven to reduce bycatches, technical regulations should then be amended to make these gears a legal minimum requirement.

11. How much, if any, of possible proceedings of such landings should be given to vessel owners?

The purpose of a no-discard regime is to avoid unnecessary biomass removal from the sea and not to present opportunities for new markets to utilise discards. WWF therefore do not support the principle of fishermen benefiting financially from landings of bycatches or defacto discards. However, if a discard ban were to be implemented, we would endorse the utilization of any such waste into channels other than landfill. In essence, the policy should aim to motivate fishers to implement bycatch-preventing technology and methods that incur high rates of bycatch, through incentives and sanctions. By allowing a financial benefit from bycatch it is likely that this imperative will be undermined.

We suggest that there is some merit in trialling a compensation scheme similar to those operated in Iceland: Under an applied discard ban each quota overrun or landed bycatch can either be paid through the purchase of additional quota or is sold through an auction, after which a percentage (~20%) is given to the vessel owner and the remainder is paid to the management system, the central maritime institute, responsible for stock assessment and quota allocation.

12. Should the cost for the observer schemes be paid by Member States only or should the fishing industry contribute to such expenses?

WWF believes that there is a strong case for an element of cost recovery from the fishing industry for observer's schemes. However, we suggest that it is right that Member States should fund the programme with a contribution from the industry with the understanding that this will reduce over time to a point where a level of at least parity is achieved. We fully support the use of observers and that it

is important that the cost of which should be considered relative to the cost of a poorly managed fishery, where continued infringements or management failures will lead to unsustainable fishing of the resource and low and declining economic returns. As such the cost of an observer programme should be viewed as an investment in the long term sustainable management of that fishery.

13. Should reference fleets be counted against the Member States' obligations in terms of observer coverage or should their contribution to monitoring efforts be additional?

For this change in management system to be successful, the regulation must be supported with sufficient enforcement and observer coverage. We support the level of 15% observer coverage, as recommended in the proposal as a minimum requirement if this approach is to be successful. If this level of coverage is provided, we are content that observers will have the desired effect in terms of improving data and additional information required to monitor the fisheries performance.

14. Which mechanisms for control are useful in the context of by-catches?

WWF supports the enhanced measures in terms of provisions for additional training for inspectors to implement the control measures with regard to the bycatch regulation. We believe that it would be valuable to establish a target for inspections of vessels throughout the prescribed fisheries. For example, each vessel in the fishery must be inspected at sea or on landing on a number of occasion's times per year We support the initiative to monitor inspections in such a way that catches and landings from observed and unobserved trips are compared, as are those of vessels who participate in a reference fleet and of those who do not.

15. How can new technologies best be used for monitoring and control in this context?

WWF takes the view that there is great potential in using technology in an integrated way to deliver surveillance for enforcement and observation purposes. However, we believe there will often be a role for people based observer programmes, particularly where the roles can be combined with scientific or demonstration activities.

16. Should the relevant provisions on the use of electronic logbooks, in particular those concerning the recording and reporting of fishing activities and on means of remote sensing, be anticipated from what is foreseen in the legislation?

We suggest that it is wholly appropriate that the Regulation be future-proofed to be integrated with e-logbooks, VMS and other forms of remote sensing, particularly as it would complement an observer programme. This will enable managers to analyse information between reference and unobserved vessels. As highlighted in the Court Of Auditors¹⁸ assessment of the current policy advocating that the present control, inspection and sanction systems must be strengthened considerably if the desired objective is to be realised.

17. Should these proposed deductions be proportionate to the by-catches?

Any proposed deductions in quota and effort should be proportionate to the by-catches, essentially to fully reflect the cost to the fishery of the practice but also to encourage better behaviour. It is also important to reduce effort and quota proportionately; otherwise this may further increase the potential for discards. However, if a fishery is catching sensitive or species under recovery plan as bycatch,

¹⁸ European Court of Auditors. Special Report No 7/2007 (pursuant to Article 248(4) second paragraph, EC) on the control, inspection and sanction systems relating to the rules on conservation of Community fisheries resources. (2007/C317/01)

there should be provision within the Regulation to reduce quota by a greater proportion than the overshoot, particularly if no remedial action is forthcoming from the industry.

In addition we foresee the most significant reason for potential failure of this policy is the reluctance of operators to lose bycatch or secondary target species in the process of aiding the release of undersized primary target species. The loss of marketable sole in the plaice fishery is a good example of this. We think that this disincentive could be ameliorated if operators were proportionately penalised, in terms of secondary quota species, by the proportion of target species which are discarded. For instance, if the operator exceeds his bycatch target by 5% above the target level of plaice then the amount of sole he can land is reduced by the equivalent percentage. This would increase the importance operators attach to the discard and its cost to their business.

18. Should there be other forms of sanctions?

There may be merit in looking at other sanctions to further discourage inadequate behaviour or practices. In this case, it would be prudent to include some adaptive elements to the regulation to allow for unforeseen responses from operators. The issue of financial penalties for not reaching the required target or by blatantly avoiding the measures by attaching devices such as blinder to gears needs to be considered. The former could be achieved through a penalty of quota, which would incentivise good behaviour and penalise high levels of discards.

WWF would like to see novel ways of funding tested and implemented. The installation of an "Observer Fund" as an alternative means to collect money for sector internal processes such as inspections should be considered. Observer programmes are not eligible for funding under the EFF, but funding to make the implementation of the discard-regulation a success is badly needed. The Observer fund may be filled through sanctions, fines, the sell of overshoot quota/undersized fish, the re-opening of closed areas etc.

19. Should such sanctions rather apply at individual or at national level?

The sanction scheme should be applied at individual level. This may prevent individuals from automatically point their finger at others when it comes to the measure of bad behaviour. The application of individual sanctions would directly translate bad practices into sanctions, as opposed to blanket sanctions which may penalise operators disproportionately. Ultimately, it should be the responsibility of the State to ensure and facilitate good practice within its own fleet by taking appropriate measures.

20. Should specific technical measure be compulsory if the targets are not reached?

WWF has had a long-standing interest in bycatch reduction and has campaigned for measures over many years. It is our belief that that the technological solutions have existed to some of the major bycatch and discard issues, but what was lacking was the political will to redress the short term issues and attitudes within the industry.

As soon as a technical conservation measure has proven effective in terms of bycatch reduction it should become mandatory. In virtually every fishery there have been trials and developments of gears according to the demands of selectivity, catch efficiency or catch composition. WWF would like to see this knowledge and experience turn into obligatory practice.

To make a certain set of technical measures compulsory right from the start would avoid significant delays in approaching the reduction targets and give the fishery a good chance to further adapt or refine the applied technique as required.

21. Should the landings of unwanted by-catch be counted against the quotas?

Most definitely, WWF believes that a sustainable quota based approach to fisheries management has to be based on total removals from the fishery, not just the part of the catch which is landed (see Question 5). Not only is this methodology in keeping with EBFM but it also provides more accurate data upon which scientific advice is formulated.

22. Should a specific by-catch quota be set for species under catch limitations?

For species which are under recovery plans, such as Cod, it is necessary to set specific bycatch quotas or TABs. Primarily, with the aim of reducing overall removals, while at the same time maximising economic value to the industry.

23. What role could the industry play in determining areas for real time closures?

In most instances it will be industry that has the real-time information regarding the presence of high relative abundance of juveniles or spawning aggregations in a particular area. Such a system requires the full co-operation of the industry if it is to maximise its effectiveness in reducing discards or reducing mortality of spawners. From the management perspective, such a protocol requires good communication with operators and effective ground-truthing of data so that closures can be implemented successfully.

The effectiveness of such a system depends significantly on objective criteria for when sensitive areas are to be closed as well as adequate enforcement. These criteria should be developed with full integration of the industry to ensure better practical knowledge and compliance.

24. In what ways could stakeholder involvement in the implementation be ensured?

Experience in Scotland with real time closures of cod spawning areas has shown that industry recognises the long-term benefits of ensuring that the measures are successful. To achieve this targeted dialogue with key industry stakeholders, from the beginning of the process, is paramount. Equally the objectives of the closure must be clear and unambiguous and must be applied equally across all fleets. Engagement through the Regional Advisory Councils (RACs) is likely to be a good first step in ensuring that all member states are aware of forthcoming proposals and initiatives.

25. Should a permanent advisory structure on discard elimination be established for each fishery?

We would advocate that a monitoring or advisory group is established to review the status of discards within the relevant fisheries. It is likely that this could be created within existing bodies such as ICES, RACs or similar fisheries management bodies at the appropriate national or regional level. Such a group could be used to monitor progress, to disseminate best practice and to formulate strategies to further improve discard reductions.

26. How could the involvement at different levels (local/ regional/ Member States) be best organised?

Involvement should be discussed through the RACs to seek opinion from members from State and regional levels. Many of the RACs have working groups well suited for this kind of negotiation. At the local level it would be worth contacting the national industry representatives to discuss full engagement with the various sectors of the industry.